CHAPTER 22.102 - NACIMIENTO PLANNING AREA

Sections:

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22.102.010 - Purpose and Applicability

This Chapter provides standards for proposed development and new land uses that are specific to the Nacimiento planning area defined by the Land Use Element. These standards apply to proposed development and new land uses as provided by Section 22.90.020 (Applicability), and are organized according to the specific areas and/or land use categories within the planning area to which they apply.

22.102.020 - Areawide Standards

The following standards apply in the Nacimiento planning area, where applicable.

A. Finished floor elevations. Within the Lake Nacimiento watershed, the first floor of a building used for habitation shall not be constructed below the 825-foot elevation.

B. Water treatment. Where use of lake water is authorized by the County, the treatment of lake water shall include storage, coagulation, sedimentation, filtration, and chlorination. Intake systems shall be protected to prevent contamination either by means of a closed zone or other approved method. The systems shall be designed by a registered civil engineer and approved by the County Health Department.

C. Sewage disposal.

1. **Individual sewage disposal systems.** Individual sewage disposal systems are not permitted:

   a. On lots with an area less than 2½ acres per dwelling unit, except where a parcel is located within a cluster subdivision in compliance with Section 22.22.140 with a maximum density of 2½ acres or more per dwelling unit;

   b. Below an elevation of 825 feet MSL;

   c. In any case closer than 200 feet, horizontal projection, from the lake's high water elevation of 800 feet;

d. On slopes of 30 percent or greater; or

e. Where percolation rates are less than one inch in 30 minutes.

2. Substandard sewage disposal systems. Substandard sewage disposal systems that do not meet the requirements of the building code or the Regional Water Quality Control Board shall be replaced in conjunction with any new development.

D. Paso Robles Groundwater Basin. The following standards apply to lands where development uses or will use water from the Paso Robles Groundwater Basin in the areas shown in Figure 102-1.

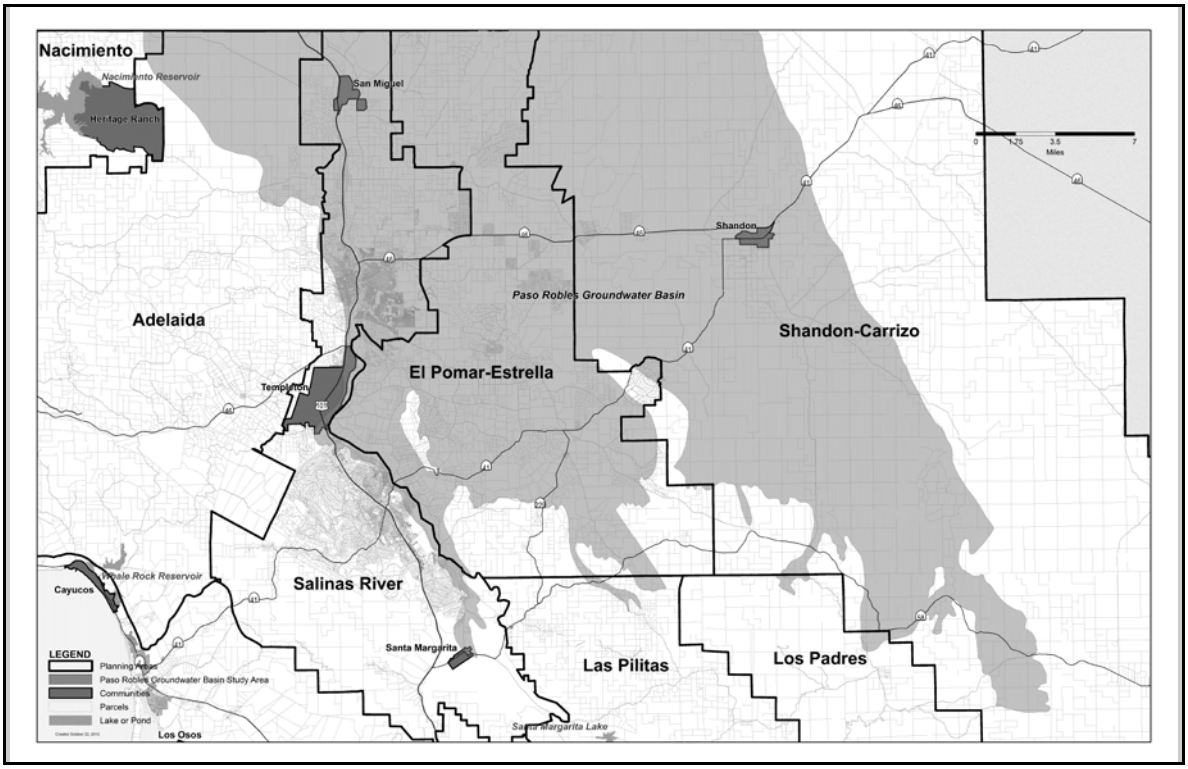

Figure 102-1 - Paso Robles Groundwater Basin

1. Definitions. The following definitions are for the purposes of this Subsection.

a. "Net increase" means the expected increase in water use due to proposed development requiring a discretionary permit, taking into account net existing demand.

b. "Net existing water demand" is the amount of water used for non-agricultural purposes on the site of proposed development requiring a discretionary permit minus the volume of water returned to the groundwater basin through wastewater return flows. The calculation of net existing water demand is the sole responsibility of the Planning Director using historical water records if available or other means if records are not available.

c. "Net new water demand" is the amount of water used for non-agricultural purposes by new development requiring a discretionary permit minus the volume of water returned to the groundwater basin through wastewater return flows. The calculation of net new water demand is the sole responsibility of the Planning Director using water demand factors for the proposed land uses.

d. "Water used for non-agricultural purposes" is water that has never been used, whether on or off the site, for an agricultural activity such as cultivation, growing, harvesting and production of any agricultural commodity and appurtenant practices incidental to the production of agricultural commodities.

2. General plan amendments. General Plan amendment applications that would result in a net increase in the amount of water used for non-agricultural purposes shall not be approved until a Level of Severity I is certified for the Basin by the Board of Supervisors after adoption of a Resource Capacity Study.

3. Land divisions. Divisions of land shall not be approved until a Level of Severity I is certified for the Basin by the Board of Supervisors after adoption of a Resource Capacity Study. Exceptions to this provision may be approved by the Review Authority only when the proposed land division is:

a. For a public use or facility (e.g. fire station), or

b. Required for conservation purposes and found to be consistent with the Conservation and Open Space Element of the General Plan.

4. Outdoor water use, discretionary permits. New development requiring discretionary land use permits is subject to the following requirements:

a. Residential uses shall have no more than 25 percent of the area of irrigated, ornamental landscaping planted with turf.

b. All landscaped areas shall be irrigated with automatic irrigation systems, including irrigation controllers and moisture sensors.

c. All landscape plantings shall be low-water using.

d. Non-irrigated, drought resistant landscaping is encouraged in lieu of irrigated landscaping. The portion of a parcel that is not used for structural development, landscaping or driveways is encouraged to be left in a native state.

e. Rainwater capture or other alternative water systems are encouraged in compliance with Titles 8 and 19 of the County Code, as applicable.

f. In cases where these standards conflict with other provisions of this Title that are more stringent, the more stringent provisions shall apply.

5. **Offset requirements for discretionary permits.** New development requiring discretionary land use permits shall offset the resulting net new water demand as follows:

   a. Land use permit applications shall include existing water use data, if it is available, that is sufficient to calculate net existing water demand on the proposed project site. The land use application shall include descriptions of all proposed uses on the site in a level of detail adequate to calculate the proposed project's net new water demand. In any case, determinations of net new water demand, net existing water demand and net increase shall be the responsibility of the Planning Director or designee.

   b. The net new water demand shall be offset at a ratio of 2:1 through participation in water conservation programs listed in subsection c below. Any net existing water demand shall be taken into account in the calculation of required offsets of net new water demand.

   c. Programs to offset water used for non-agricultural purposes may include but are not limited to the following, but in any case, shall conserve only water used or potentially used for non-agricultural purposes:

      (1) Retiring the development potential of lots in the Paso Robles Groundwater basin through an agreement with the County or qualified land trust.

      (2) Retrofitting plumbing fixtures in the Paso Robles Groundwater Basin.

      (3) Purchasing supplemental water for a water supplier that uses groundwater from the main Paso Robles Groundwater Basin.

      (4) Participating in an approved water conservation program in the Paso Robles Groundwater Basin that results in water savings.

      (5) Reducing water demand in the Paso Robles Groundwater Basin through other means approved by the Planning Director.

      (6) Water from the Nacimiento or State Water Projects shall not be used for development in the rural area.

   d. Any required offset of net new water demand shall be completed at the time of final inspection or issuance of a certificate of occupancy unless an alternative completion time (which may be more or less time) is approved by the review authority. In any case, the review authority must find the offsets to be verifiable, permanent and enforceable.

   e. Agricultural Processing uses (as defined in the Land Use Ordinance), including outdoor and other appurtenant water use, shall be exempt from the preceding offset requirements for discretionary permits. Instead, agricultural processing uses shall be subject to project-specific land use and/or water conservation mitigation measures required by the review authority based on environmental review.

6. **Resource Management System Biennial Summary Report.** Included with the biennial summary report shall be a review of this subsection, including whether amendment or repeal of this subsection is warranted based on the certified level of severity (LOS) for the Basin changing from a LOS III to a LOS I. Any amendment or repeal of this subsection shall be processed consistent with Section 22.70.040.

[Added 2012, Ord. 3231]

22.102.030 - Rural Area Standards

The following standards apply to all portions of the Nacimiento planning area located outside of urban or village reserve lines, in the land use categories or specific areas listed. Properties in the South Shore area of Lake Nacimiento are instead subject to Section 22.102.070.

A. Permits - Previous approvals. Any changes to previously-approved Conditional Use Permits require Conditional Use Permit approval.

B. Circulation - New land divisions and Conditional Use Permit Plan projects.

1. Proposals shall be integrated into areawide circulation and utility easements, providing for future extensions into adjacent undeveloped properties wherever feasible or where known areawide rights-of-way are planned.

2. Road alignments shall be designed and constructed to minimize terrain disturbance consistent with safety and construction cost. Altered slopes shall be replanted with indigenous plants where practical or protected by other appropriate erosion control measures.

3. New projects shall include an offer of dedication for interior and abutting roads where needed for public access and circulation. Until these roads are accepted for public use, maintenance shall remain the responsibility of the involved property owners.

4. New developments shall include, where possible, design provisions for combining driveways and private access roads serving proposed parcels wherever terrain and adequate sight distance on the public road allow.

5. New developments shall provide for safe and site-sensitive pedestrian and bike circulation facilities in the design of roads where feasible.

C. Density calculations - Usable area. In the Lake Nacimiento watershed only land above the 800-foot elevation shall be used when computing density or minimum building site area.

D. Easterly of the Santa Lucia Range. The following standards apply only to the area east of the Santa Lucia Range corresponding to the pre-1990 boundaries of the Nacimiento Planning Area as shown in Figure 102-2.

1. **Open space preservation.** Approval of an application for land division, Site Plan, Minor Use Permit, or Conditional Use Permit is contingent upon the applicant executing an agreement with the County to maintain portions of the site not intended for development in open space use. Guarantees of open space preservation may be in the form of agreements, easements, contracts or other appropriate instrument, provided that such guarantees are not to grant public access unless desired by the property owner.

2. **RV parks - Location criteria.** Proposed recreational vehicle parks should be located within one mile of a road improved to County standards.

3. **Public recreation.** Future public campgrounds or picnic areas shall be designed and located in compliance with the densities and location specified in Figure 3-1 and Table C (Chapter 3) of the Nacimiento Area Plan.

4. **Sloping Sites.** Conditional Use Permit proposals for sites with varied terrain shall include design provisions for concentrating developments on moderate slopes, retaining steeper slopes that are visible from public roads undeveloped where practical except that outside of the pre-1990 planning area boundaries as shown in Figure 102-1, steeper slopes that are visible from public roads shall be kept undeveloped.

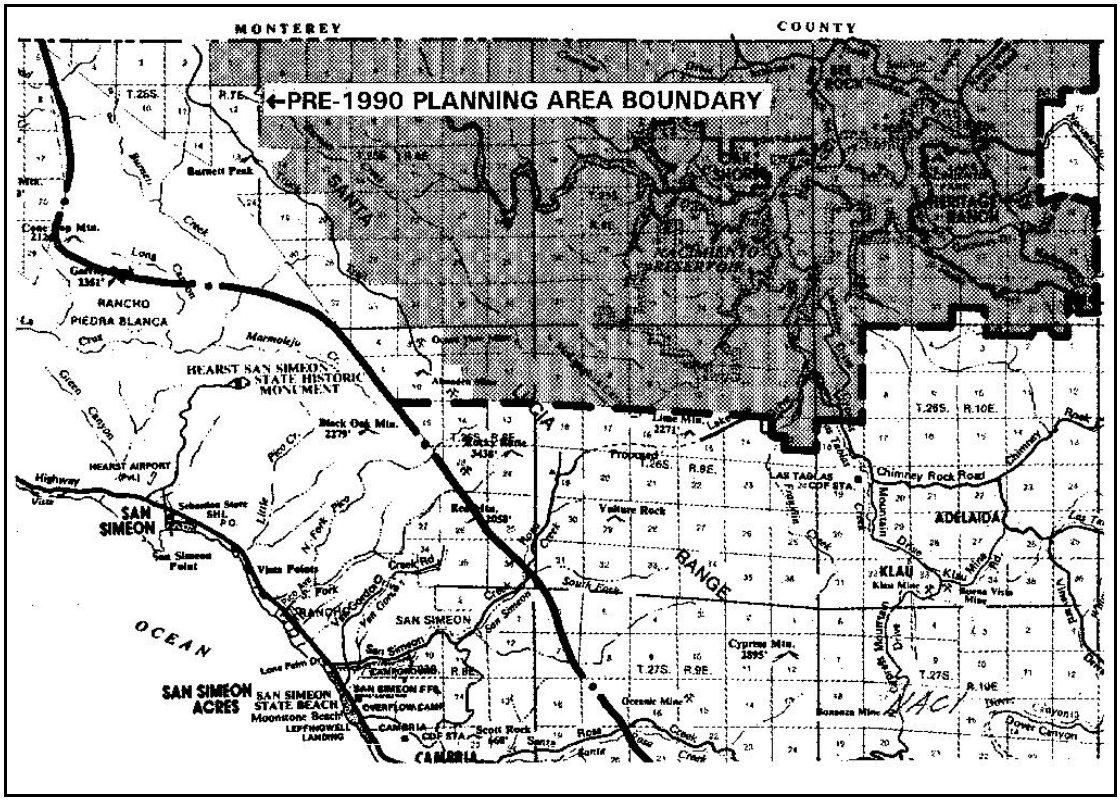

Figure 102-2 - Existing and Pre-1990 Nacimiento Planning Area Boundaries

E. Utility services - Undergrounding with Conditional Use Permit projects. All projects requiring Conditional Use Permit approval (including commercial and residential uses fronting the shoreline) shall provide for utilities being placed underground unless the Commission determines either that: the proposed development will be of low intensity or in an isolated location; or that supporting overhead utilities will not be visible from public roads; or that overriding operational, economic or site conditions of the project warrant waiver of this requirement.

F. Site selection criteria. New development shall be located to not be visible from Highway 1, as follows:

1. Sites shall be selected where hills and slopes would shield development, unless no alternative location exists or the new development provides visitor-serving facilities; and

2. New development shall be located so that no portion extends above the highest horizon line of ridgelines as seen from Highway 1.

G. Sensitive Resource Area (SRA). Projects requiring Conditional Use Permit approval within the SRA combining designation shall concentrate proposed uses in the least sensitive portions of properties. Native vegetation shall be retained as much as possible.

H. Commercial Retail (CR). The following standards apply within the Commercial Retail land use category.

1. Bee Rock - Area of use. Future development, expansion or alteration of the Bee Rock store shall not exceed one acre in total area.

a. Minor Use Permit approval is required for all allowable uses.

b. Access to the site shall be from Bee Rock Road.

c. Curbs and gutters are not required but ingress and egress shall be defined by landscaping or barricades.

2. North Entrance to Oak Shores. The following standards apply only to the approximately three-acre portion of Assessor's Parcel Number 80-021-42 located on the west side of Oak Shores Drive adjacent to its intersection with Lynch Canyon Drive at the north entrance to the Oak Shores community as shown in Figure 102-3.

a. Limitation on use. Land uses shall be limited to convenience and liquor stores, gas stations, general retail, grocery stores, and offices (real estate offices only), in compliance with the land use permit requirements of Section 22.06.030.

b. Permit requirement. Minor Use Permit approval is required for new development, unless Conditional Use Permit approval would otherwise be required by this Title for a particular use. The Review Authority shall adopt conditions of approval that provide for the preservation of trees to the maximum extent feasible.

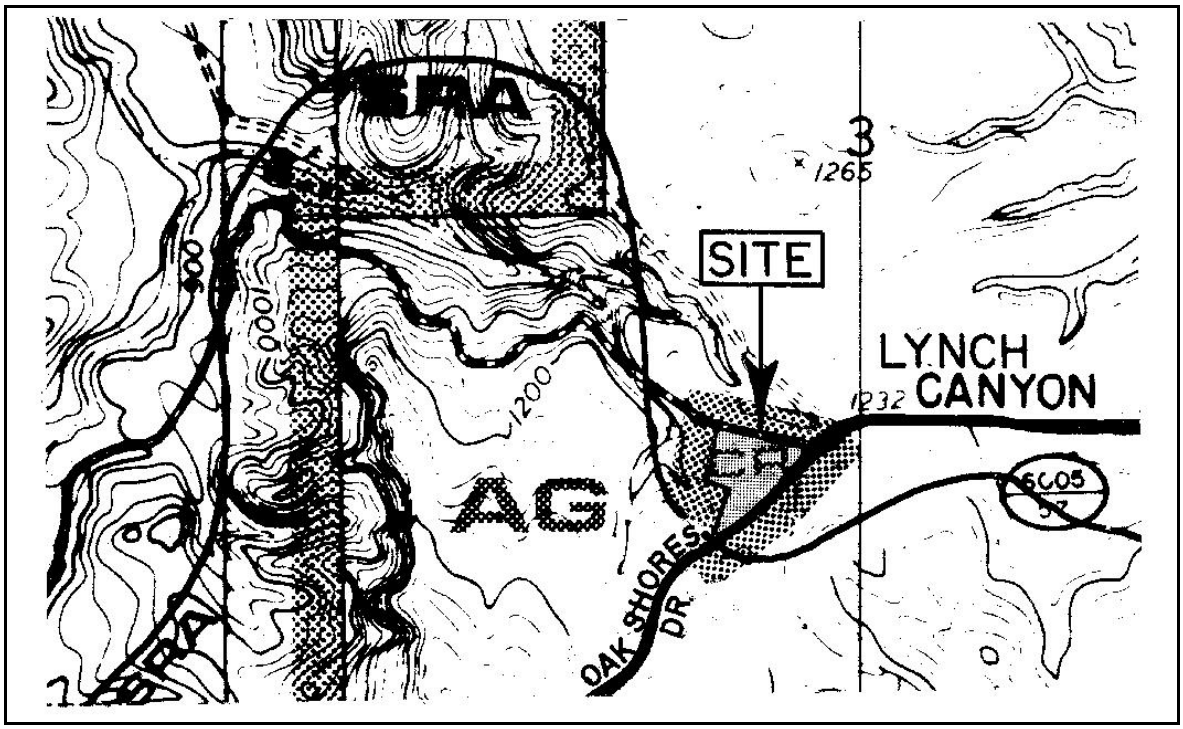

Figure 102-3 - CR Land Use Category at North Entrance to Oak Shores

I. Recreation (REC) - Limitation on use - Bee Rock. Within the Recreation land use category at Bee Rock (Sections 13, 23 and 24 in T25S, R9E, and Section 18 in T25S, R10E), all uses identified by Section 22.06.030 as allowable, permitted, or conditional within the RR land use category may be authorized subject to the land use permit requirements of that Section, except multi-family dwellings, all uses listed by Table 2-2, Section 22.06.030 in the Retail Trade use group, financial services, health care services, personal services, storage yards and sales lots, hotels and motels. [Amended 1982, Ord. 2112]

J. Residential Rural (RR) - Limitation on use. All land uses identified by Section 22.06.030 as allowable, permitted, or conditional uses within the RR land use category may be authorized in compliance with the land use permit requirements of that Section, except nursing and personal care.

K. Rural Lands (RL) - Limitation on use. All land uses identified by Section 22.06.030 as allowable, permitted, or conditional uses within the RL land use category may be authorized in compliance with the land use permit requirements of that Section, except correctional institutions.

22.102.040 - Heritage Ranch Village Area Standards

The following standards apply within the Heritage Ranch village reserve line, specifically to the Heritage Ranch project.

A. Communitywide standards. The following standards apply within the Heritage Ranch project, regardless of the applicable land use category.

1. Specific Plan. The Land Use Element, Nacimiento Area Plan and this Chapter serve as the Specific Plan for development of Heritage Ranch in compliance with Government Code Sections 66450 et seq. and 66474.5 et seq.

2. Limitation on residential units. Secondary dwellings are not permitted. The total number of residential units (including existing RV sites) allowed at Heritage Ranch shall be 2,900 in accordance with the following table:

Heritage Ranch Residential Units			
Land Use Category/Use	**Units/lots as of 2006**	**Additional Units/lots**	**Total Units/lots**
Residential Rural	30	-	30
Residential Single Family	900	338	1,238
Mobile home	488	-	488
Residential Multi-Family	90	215	305
Recreation / Recreational Vehicle Subdivisions	201	-	201
Recreation / 012-191-068 ptn formerly TR 1503	-	187	187
Residential Suburban	371	80	451
Total	**2,080**	**820**	**2,900**

3. Circulation standards. Applications for development, land divisions and new land uses within the Heritage Ranch village reserve line shall include provisions for the following.

a. Provide the County with irrevocable offers of dedication and construct all streets and roads to applicable County Standards. All streets and roads shall be owned and maintained by the Heritage Ranch homeowner's association or considered for maintenance under a zone of benefit within the applicable governmental jurisdiction.

b. Development, subdivision or construction which generates additional traffic shall contribute to a proportional share of the cost to fund road improvements necessary to mitigate traffic impacts to Lake Nacimiento Drive, either as part of discretionary approvals or upon adoption of an ordinance establishing road improvement fees.

4. **Water and wastewater disposal.** Prior to application acceptance, land use, land division, and building permit applications shall include a written verification of water and sewer service and or acceptable wastewater disposal is proposed from the Heritage Ranch Community Services District.

5. **Water consumption.** As each new phase of development is proposed, the applicable land use permit or land division application shall include a tabulation of existing water use within the total project and an estimate of the amount of water needed to supply the proposed new development. This data shall be reviewed and approved by the Heritage Ranch Community Services District prior to approval of the development application.

6. **Water resource monitoring.** The applicant shall submit figures showing the total amount of water being used in the project to the Heritage Ranch Community Services District.

7. **Wastewater Disposal.** All applicable land use permit or land division applications shall submit a wastewater disposal plan to include the amount of flow, disposal issues and options for alternative disposal for review and approval by the Heritage Ranch Community Services District .

8. **Site planning and development standards.** Proposed development shall be designed and constructed in compliance with the following standards.

   a. **Snake and Dip Creeks.** Retain Snake and Dip Creeks in their natural state, except for stock ponds, creek crossings, and low intensity recreational uses such as trails and picnic areas.

   b. **Vegetation Protection.** Site new development to avoid areas of dense brush and oak woodland vegetation to the maximum extent feasible.

   c. **Slopes.** Site new development to avoid areas with slopes exceeding 30 percent.

   d. **Use Limitation.** No mobile home, recreational vehicle, tent or other temporary living quarters shall be located on any lot not specifically authorized for such use.

   e. **Setback.** Provide a minimum open space setback of 500 feet from the centerline of Lake Nacimiento Drive for all structures.

   f. **Tree Protection.** Restrict removal and impacts to the root zones of oak or grey pine trees which measure more than eight inches in diameter at four feet above existing grade to proposed road right-of-ways, parking areas, and building pads, except where authorized by an approved Zoning Clearance, Minor Use Permit, Conditional Use Permit, or Tree Removal permit.

   g. **Tree Replacement.** Replacement trees shall be planted at a ratio of two trees for every one tree impacted and four trees planted for every one tree removed. Replacement trees shall be one gallon and shall be the same species as the tree removed or impacted.

h. **Parking.** Provide a minimum of two parking spaces, one of which shall be covered, for each new residential unit in a new development.

i. **Biological Resources.** At the time of construction, land use or land division permit application, whichever occurs first, the applicant shall provide a botanical and biological report, prepared by a qualified botanist and biologist, approved by the environmental coordinator.

j. **Botanical surveys.** Surveys shall be performed during the appropriate blooming period for the plant species. Any sensitive species/communities or trees found within project boundaries shall be shown on all applicable construction plans. New structures shall be placed in a manner that avoids removal of special status species, sensitive plant communities, and trees. If the property owner shows the County that the special status species, sensitive plant communities, or trees cannot be avoided, the project proponent shall obtain appropriate permits from other agencies with jurisdiction (e.g., USFWS or CDFG), to ensure that there is no violation of policy or legislation that protects the special status plant species, sensitive plant community, or trees. As appropriate, the project proponent shall also provide the County with a plan to relocate and/or replace special status plants and/or trees that are removed or impacted.

k. **Low Impact Development (LID).** All development that will result in an increase in impervious area shall incorporate LID design features into the project. The selected LID features shall address downstream flooding, higher peak flows, a reduction in groundwater recharge, and polluted runoff

9. **Subdivision standards.** The following standards apply to all new land divisions.

a. **Limitation on further subdivision.** Further division of existing parcels created by Tracts 424, 446, 447, 452, 466, 474 and 475 is prohibited.

b. **Deed restrictions for slopes.** New land divisions shall provide deed restrictions on building sites to limit building to areas with slopes less than 30 percent.

c. **Clustering requirement.** New land divisions in areas other than Residential Single Family, shall be designed in compliance with the cluster division provisions of Section 22.22.140.

d. **Fire hydrants.** Fire hydrants shall be provided by the developer at locations approved by the California Department of Forestry between development clusters.

e. **Common ownership lots.** All lots designated as common ownership lots within any subdivision shall be conveyed to the Heritage Ranch Property Owner's Association by grant deed. These lands and facilities shall be conveyed to the association, and shall be offered for dedication to the County for acceptance and administration in the event that the property owner's association does not fulfill the commitments set forth in its articles of incorporation and bylaws.

f. **Required open space.** New land divisions shall collectively maintain an open space area of 5,229.30 acres including contiguous areas of the ranch outside and adjacent to the village reserve line. Compliance with the required open space area and its configuration shall be reviewed with each land division application and shall be in compliance within each subdivision with the following table:

Heritage Ranch Open Space Inventory		
Approved Open Space - Within Village	**Individual Acres**	**Cumulative Acres**
May, 2006 Total through Tract 1990	3,039.52	3,039.52
Remainder Tract 1910 (Former Lot 153)	703.00	3,742.52
Required Open Space - Within Village		
Remainder Tract 1910	100.00	3,842.52
Remainder Tract 1990	373.00	4,215.52
Tract HRH Subdivision	89.00	4,304.52
Lot 6 of Tract 720: Former Tract 1503 Village Center Former Tract 1666	 105.00 26.65 4.79	 4,409.52 4,436.17 4,440.96
Approved Open Space - Outside Village		
Weyrich Certificate Parcels	393.00	4,833.96
Required Open Space - Outside Village		
Lot 6 of Tract 720 ptn outside Village	395.34	5,229.30
Total	**5,229.30**	**5,229.30**

10. **Height limitations.** For lots within Tract 452 and 474, two-story structures are allowed only on the following lots:

    a. **Tract 452:** Lots 21-38, 49-55, 58-66, 91-97, 115-118, 140-143, 150-154, 159-199, 207-230, 225-260, and 273.

    b. **Tract 474:** Lots 1-45.

[Amended 2011, Ord. 3216]

B. **Commercial Retail (CR).** The following standards apply within the CR land use category.

1. **Limitation on use.** All land uses identified by Section 22.06.030 as allowable, permitted, or conditional uses within the CR land use category may be authorized in compliance with the land use permit requirements of that Section, except: auto, mobile home and vehicle dealers (supplies sales allowed); outdoor sports and recreation; and multi-family dwellings.

2. **Sign standards.** One monument sign with a maximum of 60 square feet, is allowed for each 300 linear feet of site frontage or portion thereof. All other signs shall be located on building facades at consistent locations rather than on roofs, and shall be integrated into the architecture of the building.

[Amended 1983, Ord. 2133; 1989, Ord. 2399; 2011, Ord. 3216.]

C. Open Space (OS). The following standards apply within the OS land use category.

1. **Limitation on use.** Land uses shall be limited to: a single shooting range, equestrian facilities and incidental camping, hiking and riding trails, picnic areas; grazing and other agricultural uses; public utility facilities; communication facilities; and pipelines and transmission lines, in compliance with the land use permit requirements of Section 22.06.030.

2. **Limitation on use - Open space lots**. Use of the open space lots in Tracts 424, 446, 447, 452, 466, 474, and 475 shall be limited to hiking and riding trails, and approved facilities for recreational, drainage, and utility purposes. These lots shall be retained in permanent open space. Open space lots in future subdivisions shall be subject to this Limitation on use.

[Amended 1982, Ord. 2112; 1983, Ord. 2133; 1989, Ord. 2399]

D. Recreation (REC). The following standards apply within the REC land use category.

1. Limitation on use. Land uses shall be limited to the following in the areas shown, in compliance with the land use permit requirements of Section 22.06.030.

   a. Within the recreational vehicle subdivisions, recreational vehicles and appurtenant uses subject to Subsection D.2.

   b. Within the marina/launch ramp area, marinas, boat access areas, vehicle storage and outdoor sports and recreation.

   c. A guest ranch with a public restaurant, organizational camps, outdoor sports and recreation, rural recreation and camping.

   d. Within the recreational vehicle storage complex, vehicle storage.

   e. Within the recreational centers, public assembly and outdoor sports and recreation.

   f. The equestrian center, wilderness, family, and ball parks - outdoor sports and recreation.

g. The REC zoned portion of APN 012-191-068 (Portion of Lot 6, Tract 720, formerly Tr 1503) is limited to residential development and recreational vehicle storage. Residential subdivisions are limited to Residential Single-Family cluster divisions or Residential Multi-Family developments with the density as listed in the table provided in Section 22.102.040.A.2. Required open space shall be in accordance with Section 22.102.040A.9.F

[Amended 1983, Ord. 2122; 1986, Ord. 2270; 1989, Ord. 2399; 2011, Ord. 3216.]

2. Site development standards - New RV lots. New applications for recreational vehicle subdivisions are subject to the following standards.

a. A comprehensive grading, drainage and landscaping plan shall be submitted with the application, providing a minimum of 1,250 square feet of reasonably flat area per lot.

b. The tentative tract map shall include CC&Rs that require use of a consistent design and appropriate maintenance on all on-site storage structures.

c. Each new RV lot shall have a minimum area of 2,500 square feet.

[Amended 1986, Ord. 2270; Deleted subsection 3. 2011, Ord. 3216.]

E. Residential Multi-Family (RMF) - Limitation on use. Land uses shall be limited to attached multi-family dwellings, small lot detached multi-family developments, residential accessory uses, and home occupations, in compliance with the land use permit requirements of Section 22.06.030.

[Amended 2011, Ord. 3216.]

F. Residential Rural (RR). The following standards apply within the RR land use category.

1. Limitation on use. Land uses shall be limited to single-family dwellings, residential accessory uses, home occupations, animal keeping and agricultural uses, in compliance with the land use permit requirements of Section 22.06.030.

2. Limitation on land division. Lots existing on the effective date of the Land Use Element shall be maintained at their present size without further land divisions.

3. Minimum parcel size. The minimum parcel size for new land divisions is 20 acres.

4. Sales complex. Use of the sales complex shall be terminated Uses of the structure are limited to residential single family or residential accessory uses with building permit approval. If the complex shall be converted to residential use, it will be included in the maximum allowable 2,900 units.

[Amended 2011, Ord. 3216.]

G. Residential Single-Family (RSF). The following standards apply within the RSF land use category.

1. **Limitation on use - Single-family dwellings.** Land uses in Tracts 424, 446, 452 and 474 shall be limited to single-family dwellings, residential accessory uses, and home occupations, in compliance with the land use permit requirements of Section 22.06.030.

2. **Limitation on use - Mobile homes.** Land uses in Tract 475 shall be limited to mobile homes, residential accessory uses, and home occupations in compliance with the land use permit requirements of Section 22.06.030.

3. **Subdivision design.**

   a. Appropriate open space shall be established through the land division process consistent with the Heritage Ranch Open Space Inventory Table.

   b. An open space buffer of no less than 200 feet between existing and proposed residences shall be maintained between any new land division and the Ibis Lane residential area.

   c. All proposed cluster subdivisions shall provide open space areas, with uses limited to agricultural uses, hiking and riding trails and facilities for drainage, parking, and utilities.

4. **Subdivisions adjacent to Public Facility (PF) category.** Any proposed subdivisions adjacent to the Community Services District wastewater treatment ponds shall record a notice to future property owners of the existence of the wastewater ponds and the possibility of odor. The applicant shall consult with the Heritage Ranch Community Service District to address potential issues with odors and the adjacent residential uses.

[Amended 1989, Ord. 2399; 2011, Ord. 3216.]

H. Residential Suburban (RS). The following standards apply within the RS land use category.

1. **Subdivision fencing.** New applications shall include a plan and specifications for lot perimeter fencing. The responsibility for the construction of the fencing shall be incorporated into the CC&Rs. This fencing shall be maintained under responsibility of the owner associations through CC&Rs.

2. **Limitation on use - Open space lots.** Use of the open space lots in new land divisions shall be limited to agricultural uses, biking and riding trails, and approved facilities for recreation, drainage and utility purposes. These lots shall be retained in permanent open space use.

3. **Soils reports.** New land division and Conditional Use Permit applications shall include a soils report on the feasibility of on-site sewage systems, if these systems are proposed.

[Amended 1986, Ord. 2270; 2011, Ord. 3216.]

22.102.050 - Lake Nacimiento Resort

The following standards apply within the Heritage village reserve line, to all land use categories within the Lake Nacimiento Resort project.

A. Specific Plan included by reference. The 1976 Lake Nacimiento Resort Specific Plan is hereby incorporated into this Title as though it were fully set forth here. All development within the Lake Nacimiento Resort shall be in conformity with the adopted Specific Plan. In the event of any conflict between the provisions of this Chapter and the Specific Plan, this Chapter shall control. Any deviation of existing or proposed development from the provisions of the Specific Plan shall occur only after appropriate amendment of the Specific Plan.

B. Limitation on use. All land uses identified by Section 22.06.030 as allowable, permitted, or conditional uses within the applicable land use categories may be authorized in compliance with the land use permit requirements of that Section, except sports assembly, and public assembly and entertainment.

C. Permit requirement. Any changes to previously approved Conditional Use Permits or Development Plans require Conditional Use Permit approval. Conditional Use Permit approval is required prior to any new construction. Subsequent projects consistent with the approved Conditional Use Permit are subject to the permit requirements of Section 22.06.030.

D. Resort entrance. Resort entrance facilities shall be expanded to eliminate traffic congestion on the entry road and at the entry on Lake Nacimiento Drive prior to approval of any additional Conditional Use Permits.

E. Sewage treatment. The previously approved sewage treatment plant shall be constructed in accordance with the Specific Plan prior to approval of any additional Conditional Use Permits.

F. Circulation. All roads within Lake Nacimiento Resort shall be improved and maintained by the developer.

22.102.060 - Oak Shores Village Area Standards

The following standards apply within the Oak Shores village reserve line, to the land use categories and specific areas listed.

A. Communitywide standards. The following standards apply within Oak Shores, in all land use categories, as applicable.

1. Specific plan. The Land Use Element, Nacimiento area plan, and this Chapter serve as the Specific Plan for the development of Oak Shores in compliance with Government Code Sections 66450 et seq. and 66474.5 et seq.

2. Limitation on residential units. The maximum allowable number of dwelling units within the Oak Shores village reserve line shall be 1,786, including RV sites and all tracts existing and recorded as of the effective date of the Land Use Element. See Figure 102-4 for the allocation of units. The number of allowed units is further allocated to individual properties by the adopted Oak Shores Phasing Plan.

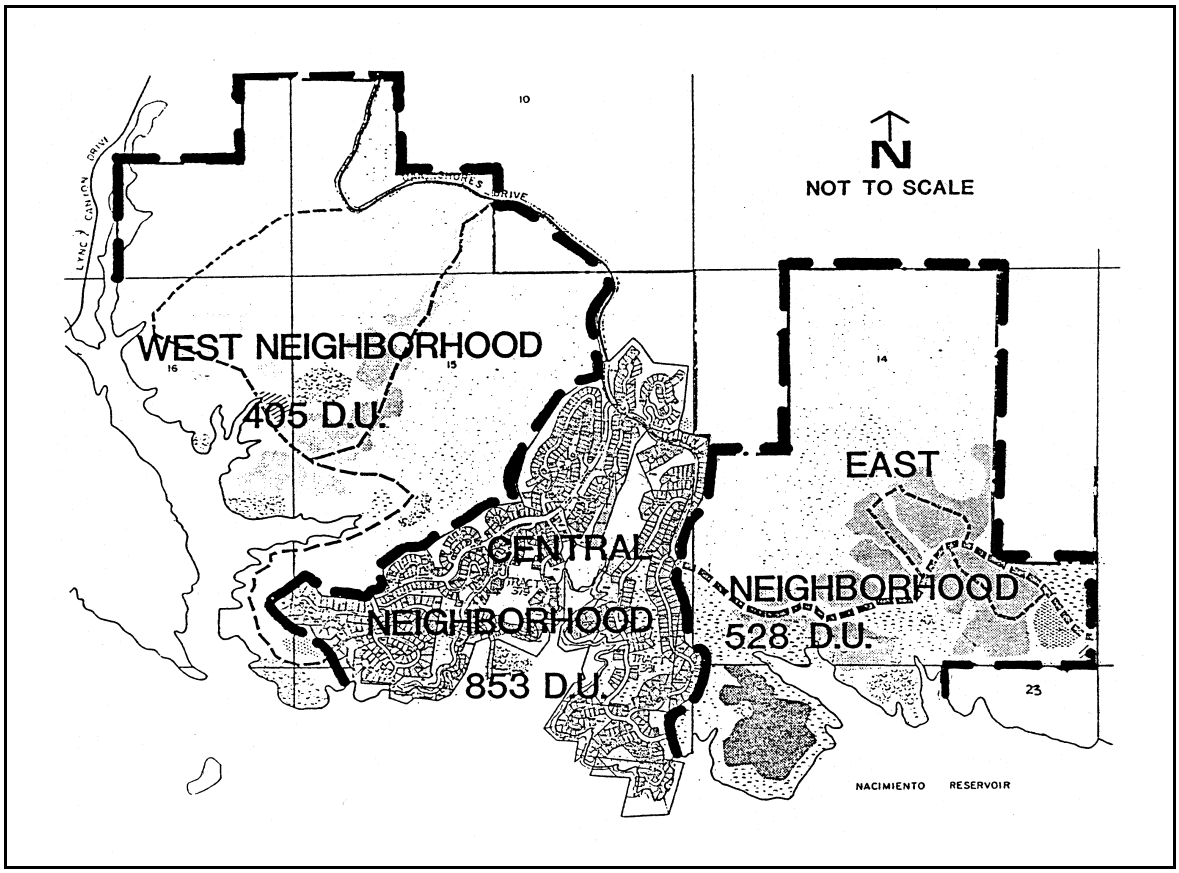

Figure 102-4 - Dwelling Unit Allocations for Oak Shores Neighborhoods

3. **Permit requirement - Previous approvals.** Any changes to previously approved Conditional Use Permits shall require Conditional Use Permit approval.

4. **Consistency with phasing plan.** Subdivision and land use permit applications for projects within the village area shall not be approved unless they are consistent with the Oak Shores Phasing Plan, as approved or amended in compliance with the Conditional Use Permit process (Section 22.62.060).

5. **Residential development prior to approval of phasing plan.** In land use categories allowing the construction of residences, no more than four residences shall be constructed on any building site prior to approval of the village phasing plan required by Subsection A.4 above, subject to Zoning Clearance.

6. **Circulation standards.** All streets shall be built to County standards and offered for dedication. Ownership and maintenance of collector streets shall remain the responsibility of area residents until the County accepts the offer of dedication and assumes maintenance responsibility. If local streets are to be potentially maintained, funding of maintenance shall be considered under a zone of benefit within the applicable governmental jurisdiction.

7. **Water resources.** Water for development shall be supplied through negotiated contracts with the San Luis Obispo County Flood Control and Water Conservation District for purchase of Lake Nacimiento water.

8. **Water consumption.** As each new phase of development is proposed the applications to be included in a tabulation of existing water use within the total project and an estimate of the amount of water needed to supply the proposed new development. This data shall be reviewed and approved by the County Public Works and Planning and BuildingDepartments prior to approval of the development application.

9. **Water resource monitoring.** The applicant shall submit figures showing the total amount of water being used in the project to the County Public Works and Planning and Building Departments for evaluation as part of the annual review of the General Plan.

10. **Site development standards.** The following site design criteria apply to all development.

    a. **Tree and vegetation removal.** Only trees and other vegetation that are located in proposed road rights-of-way, parking areas, and building sites may be removed. No other trees or vegetation shall be removed unless required by Section 4105 of the California Public Resources Code for fire protection, or the enhancement of the natural environment by means of pruning and thinning native vegetation. All free standing trees and the outline of all groves of trees and clumps of shrubs shall be clearly indicated on proposed Conditional Use Permits. Aerial photos may be used as the basis for defining these areas on plans.

b. **Landscape plans.** Landscape plans are required of all developments. Such plans and proposed plant species shall be reviewed for their enhancement of the area and their compatibility with the environment and native vegetation. Plant species shall also be reviewed for potential fire hazard. Plans for fences, walls, and other minor structures, including signs, indicating the location, area, height, elevations, and material shall be submitted with the landscape plans for review and approval.

c. **Architecture.** The architectural character of all structures shall be rustic western ranch styling reflecting a rustic or wood-like character. All styles will reflect a design appropriate to resort area living. A rustic western ranch theme is required of all public recreation and commercial uses.

11. **Architectural and design controls.** The following standards apply to all lots in the existing subdivisions, Tracts 378, 379, 380 and 381:

a. Construction of any building or structure must be fully completed within 18 months once the foundation is erected. No residence shall be occupied until the exterior is completely enclosed. No structure, permanent or mobile, on a lot shall be lived in during construction of a residence without prior approval of the Tract Committee and the County.

b. Only one residence of 800 square feet minimum shall be constructed on each residential lot. Any structure on posts must have a minimum of 60 percent solid area surface covered to grade. No fencing wall or hedging will exceed 7 feet in height, nor will any landscaping be placed to obstruct or diminish views. No white or shiny roofing materials will be used; fire resistant materials are encouraged.

[Amended 1982, Ord. 2112; 1983, Ord. 2133; 1985, Ord. 2226.]

B. **Commercial Retail (CR) - Limitation on use.** Land uses shall be limited to the following, in compliance with the land use permit requirements of Section 22.06.030 (Allowable Land Uses and Permit Requirements).

1. **West (tennis) neighborhood** - Convenience and liquor stores, gas stations, general retail, grocery stores, and personal services.

2. **East (equestrian) neighborhood** - Convenience and liquor stores, gas stations, and grocery stores.

C. **Open Space (OS).** The following standards apply within the OS land use category.

1. **Limitation on use.** Land uses within areas designated for open space shall be limited to riding and hiking trails, and utilities, in compliance with the land use permit requirements of Section 22.06.030.

2. **Open space administration.** All areas shown as open space within the village reserve line (excluding lands owned by the Bureau of Land Management, Monterey County Flood Control and Water Conservation District, or other comparable agency) shall be retained as open space.

D. Public Facilities (PF) - Permit requirement. Minor Use Permit approval shall be required for all uses proposed on the area of Lot 3, Tract 1293 near Lakeview Drive within the PF land use category, unless Conditional Use Permit approval is otherwise required by this Title.

E. Recreation (REC). The following standards apply within the REC land use category.

1. **Limitation on use.** All allowable uses may be permitted in compliance with the land use permit requirements of Section 22.06.030 except for the following, which are not permitted in the areas noted:

   a. **Equestrian center.** RV parks, airfields, vehicle storage and service stations.

   b. **The marinas.** Off-road vehicle courses, hotels, motels and vehicle storage.

   c. **Recreation centers and parks.** Convenience and liquor stores, general retail, grocery stores, personal services, off-road vehicle courses, hotels and motels, RV parks, or any transportation use.

   d. **Campground and storage yard.** Allowable uses are limited to recreational vehicle campground; RV, boat and vehicle storage yard with accessory storage structures; caretaker residence; and fuel sales. Access to these uses shall be limited to the existing road. [Amended 1984, Ord. 2190.]

2. **Cal Shasta property (APN 80-062-04).** The development potential for this property shall be transferred into the residential clusters. The property shall then be retained in open space, with its preservation being guaranteed by agreement, easement, contract or other appropriate instrument. [Amended 1985, Ord. 2226.]

3. **Design, development and maintenance.** Recreational facilities shall reflect ranch-type design characteristics and be of a rustic, wood-like nature. Facilities shall be built by the developer and operated and maintained by the Oak Shores Homeowner's Association (or other comparable entity).

F. Residential Single-Family (RSF). The following standards apply within the RSF land use category.

1. **Limitation on use.** Land uses shall be limited to single-family dwellings, residential accessory uses, home occupations, and religious facilities, in compliance with the land use permit requirements of Section 22.06.030.

2. **Subdivision design.** The following standards apply to new subdivisions proposed in the east and west neighborhoods outside Tracts 378 through 381.]

   a. **Slope limitations.** Site new land divisions and development in areas with a slope of less than 30 percent, unless parcels having an average slope steeper than 30 percent would have unobtrusive visual impact as seen from public streets, the lake and surrounding development and minimal site disruption for access and impact on adjacent properties.

b. **View orientation.** New residential lots shall be sited so primary views from the parcels are oriented to existing or proposed undeveloped areas (including Lake Nacimiento).

c. **Street layout.** On slopes greater than 20 percent, street systems shall be designed to avoid multiple rows of streets tiered on the hillside.

d. **Protection of native vegetation.** New parcels and development shall be sited where possible to avoid areas of dense brush and oak woodland vegetation, and locate building sites along ridges or hilltops where development would not be silhouetted against the sky, as seen from existing and proposed collector and arterial streets.

e. **Fire hydrants.** Fire hydrants shall be provided by the developer at locations between development clusters as approved by the California Department of Forestry.

f. **Open space areas.** Provide open space areas within and adjacent to subdivisions, with uses limited to hiking and riding trails, agricultural uses and facilities for drainage, access parking and utility purposes.

g. **Setback requirements.** Maintain a setback of at least 100 feet from the right-of-way of Oak Shores Drive, from the northerly village reserve line to where the road enters the existing central neighborhood.

h. **Access corridors.** New subdivisions shall provide access corridors to open space areas through or at the edge of clustered lots. Improved trail systems shall also be provided to and through open space areas that provide visual amenities and link residential and public areas. Maintenance shall be the responsibility of the Owners' Association.

i. **Design review.** On lots where a proposed structure may be visible uphill from other structures or from the lakefront, the tract architectural review committee shall review the proposed building to ensure that building design and landscape buffering adequately screen and minimize its appearance as seen from below.

[Amended 1985, Ord. 2226; 1986, Ord. 2289.]

3. **Density.** Residential development shall not exceed a net density of six units per acre.

4. **Development standards - Specific tracts.** The following standards apply only to Tracts 378, 379, 380 and 381.

a. All residences shall have a minimum floor area of 800 square feet of enclosed living area, excluding sun porches, patios, garages or carports. Yard setbacks shall be as prescribed on the recorded subdivision maps.

b. The siting and construction of proposed building foundations shall be reviewed and approved by the Building Official on the following lots:

Tract 378
Lots 14, 15, 18-22, 26, 28, 29, 40, 41-45, 61-63, 66-70, 76, 126-128.

Tract 379
Lots 1-3, 5, 6, 11-16, 34, 35, 38-40, 70-77, 97-105, 111-116, 123, 124, 130, 133-164, 172, 175-181, 183-185, 187-210.

Tract 380
Lots 1-10, 12-37, 49, 51, 60, 63, 64, 71-79, 89, 90, 94, 95, 108-119, 129-113, 137, 138, 141-143, 169-172, 175-179, 181-184, 186-192, 195, 200-206.

Tract 381
Lots 1, 2, 11, 12, 20-31, 33, 37-47, 51-60, 63, 64, 72, 76-89, 91-110, 112, 113, 121, 126-136, 152-166, 170-176, 178-187, 190, 192-210, 225, 227-232, 244, 252-261, 267-287, 291-294.

5. **Building Permits - Tracts 378, 379, 380 and 381.** No grading or Building Permit shall be issued until the applicant has filed with the Department certification that the Tract Committee for the Oak Shores Subdivision as it then exists and functions, has:

   a. Reviewed pertinent plans and specifications and any applicable Zoning Clearance, Minor Use Permit or Conditional Use Permit; and

   b. Approved or disapproved such plans and specifications.

   If the Tract Committee has disapproved the plans and specifications, the certification shall set forth the reasons for disapproval. The Review Authority shall review the reasons for disapproval of the plans and specifications by the committee. The Review Authority is not bound by any decision of the committee, and may grant permits and approvals under these provisions.

6. **Road impact mitigation payment.** Prior to the issuance of Building Permits for lots in Tracts 1291, 1293 and 1294, the remaining 1/3 payment for G-14 road impact mitigation shall be paid to the County Public Works Department.

7. **Site Plan requirement.** No grading or construction permit shall be issued for building sites on Lot 2 of Tract 1293 until the following conditions are met.

   a. For the eastern-most building site, a Minor Use Permit shall be required for the primary residence and any accessory structures. The Minor Use Permit shall propose locating the residence and any accessory structures such that oak tree removal and visual impacts from the development are minimized. A secondary dwelling constructed concurrently with, or after, construction of the primary dwelling and meeting the standards set forth in Section 22.30.470 is not subject to the Minor Use Permit requirement.

   b. For the western-most building site, a report by a registered Engineering Geologist and a Registered Professional Engineer with expertise in soils engineering shall be reviewed and approved by the Public Works Department, certifying that the site is, or can be made to be geologically stable

[Amended 1987, Ord. 2331; 1989, Ord. 2411; 2006, Ord 3097]

22.102.070 - South Shore

The following standards apply within the South Shore area of Lake Nacimiento as shown in Figure 102-5, to the land use categories and specific areas listed.

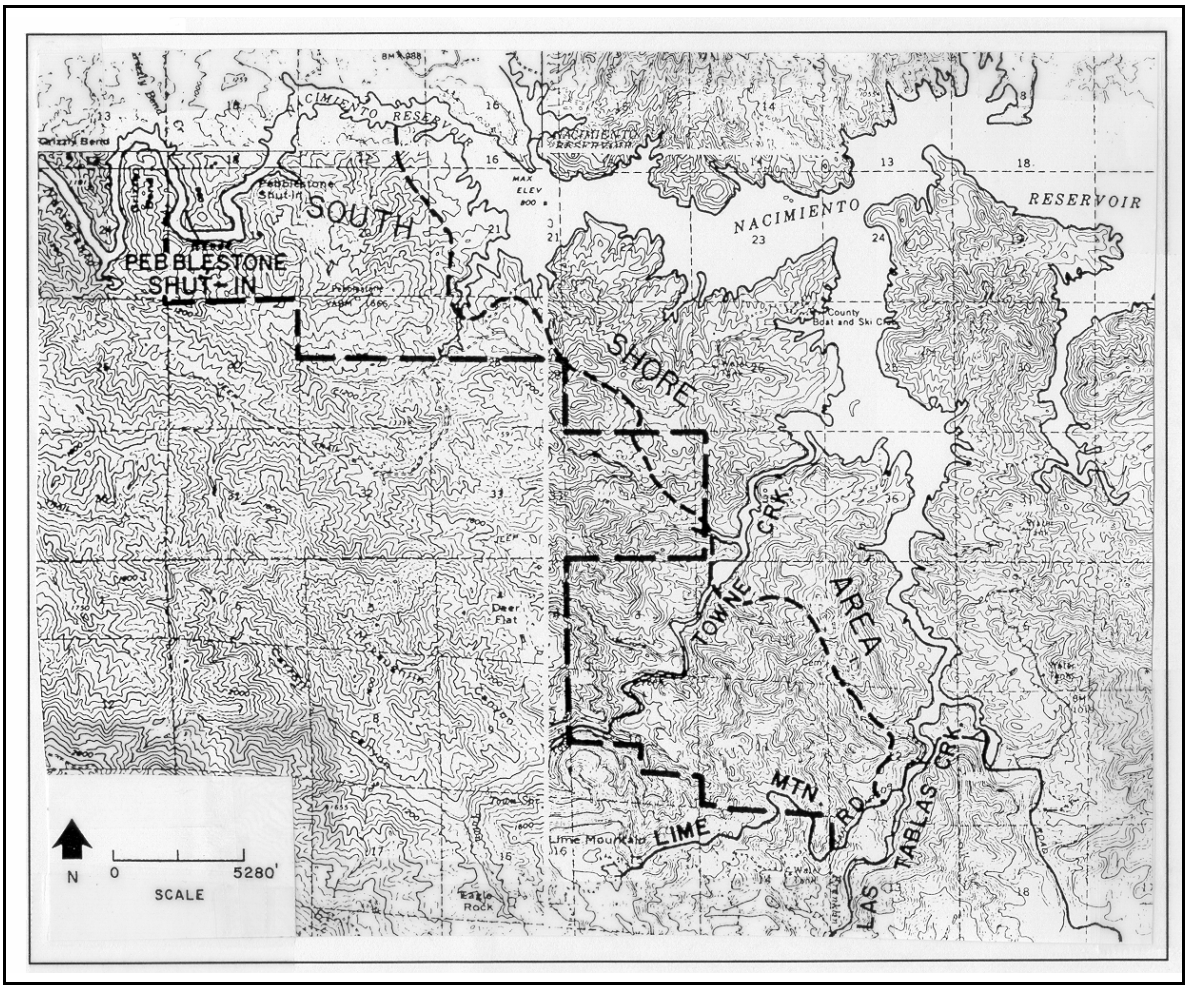

Figure 102-5 - South Shore

A. Areawide standards.

1. **Applicability.** The standards of this Subsection apply to all lands within the South Shore area as applicable, regardless of the land use category applicable to any particular site.

2. **Road access for new subdivisions.** Land divisions proposing parcels of less than 80 acres or densities exceeding 80 acres per unit shall not be approved unless the access road between the property and the nearest County-maintained road satisfies—at minimum—the access standards of the Uniform Fire Code as adopted by the County, or will be improved as a condition of the land division to satisfy those standards.

[Amended 1990, Ord. 2488.]

B. Open Space (OS). The following standards apply within the OS land use category.

1. **Limitation on use and permit requirement.** Land uses shall be limited to crop production and grazing, fisheries, hunting, riding and hiking trails, in compliance with the land use permit requirements of Section 22.06.030. Primitive trail-side camps, walk-in picnic areas, and picnic areas accessible by boat may be allowed subject to Conditional Use Permit approval. Clearing and grading shall be minimal.

2. **Public lands.** Public lands shall be retained in public ownership with a minimum parcel size of 640 acres.

C. Recreation (REC). The following standards apply within the REC land use category.

1. **Limitation on use.** Land uses shall be limited to crop production and grazing, marinas, rural recreation and camping, recycling collection stations, animal keeping, single-family dwellings, mobile homes, and fisheries and game preserves, in compliance with the land use permit requirements of Section 22.06.030.

2. **Application content - Development Plans.** Where Conditional Use Permits are required for residential projects and all uses under the definitions of hotels and motels, RV parks, religious facilities, and rural recreation and camping, the Conditional Use Permit application shall include documentation of the adequacy of water, sewerage, drainage, fire and police services.

3. **Campground standards.** Public campgrounds and picnic areas shall comply with the following requirements.

   a. **Permit requirement.** Campgrounds shall require Conditional Use Permit approval.

   b. **Site design standards.** Proposed campgrounds and alterations to existing campgrounds shall be designed in compliance with the following standards.

      (1) Proposed facilities shall be planned for average rather than peak use, for more efficient year-round utilization.

      (2) Trailer sites shall be concentrated in small clusters at a density of 10 units per acre, with intervening open space.

      (3) Tent sites shall be developed at a maximum density of four units per acre.

      (4) Picnic sites shall be developed at a maximum density of eight units per acre.

      (5) Campsites shall be designed for maximum privacy; clearing of vegetation and grading shall be minimal.

4. **Residential density and minimum lot size.** Residential projects may be approved with minimum lot sizes of 6000 square feet only when an overall density of one unit per 2½ acres is maintained.

5. **Parking facilities.** New parking areas shall be dispersed into small clusters separated by landscaped areas.

[Amended 1989, Ord. 2399.]

D. Residential Rural (RR). The following standards apply within the RR land use category.

1. **Limitation on use.** All land uses listed by Section 22.06.030 as allowable, permitted, or conditional within the RR land use category may be authorized in compliance with the land use permit requirements of that Section, except animal facilities, farm equipment and supplies, nursery specialties, grocery stores, and restaurants.

2. **Land division standards - North of Towne Creek.** New land divisions shall comply with the following standards.

   a. New land divisions shall be designed in compliance with the cluster division provisions of Chapter 22.22.

   b. Building sites shall be located on soils best suited for septic system use.

   c. Provide coordinated interior streets.

   d. Provide lake access for the involved property owners through roads, easements, or common open space areas.

   e. Serve clustered lots by a common water source rather than individual wells.

   f. Common areas shall be owned and maintained by property owners groups.

   g. Locate new building sites on slopes less than 20 percent.

[Amended 1989, Ord. 2399.]

E. Rural Lands (RL). The following standards apply within the RL land use category.

1. **Limitation on use.** All land uses listed by Section 22.06.030 as allowable, permitted, or conditional within the RL land use category may be authorized in compliance with the land use permit requirements of that Section, except residential care, manufacturing and processing activities, correctional institutions, ag processing, and farm equipment and supplies, which are not allowed.

2. **Minimum parcel size.** The minimum size for new parcels portions of Sections 2, 11 & 12 of T26S, R9E, MD&M, identified as Assessor's Parcel Number 80-054-01, is 80 acres instead of the minimum otherwise required by this Title.

[Amended 1983, Ord. 2122; 1989, Ord. 2399.]

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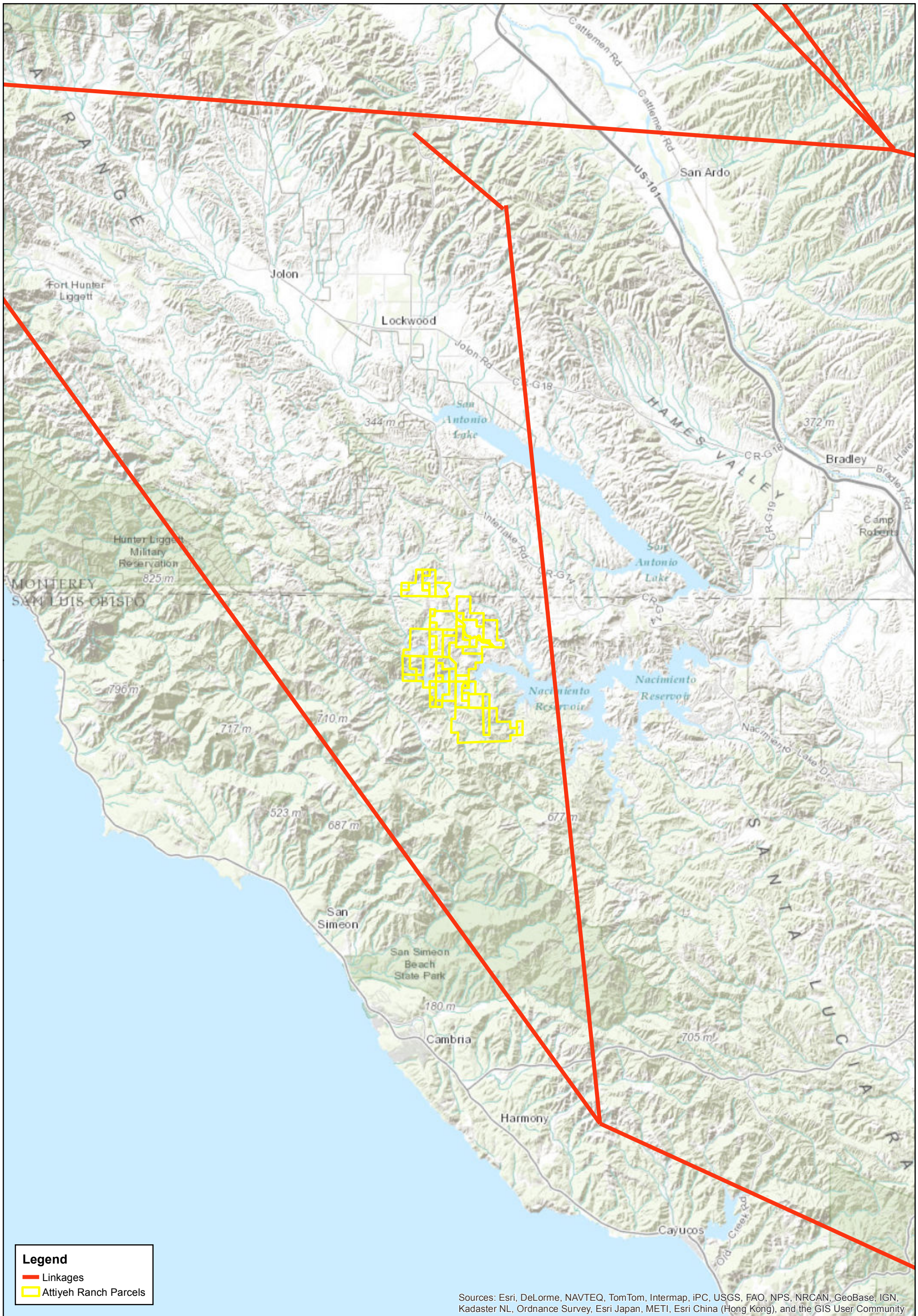


The Land Conservancy of San Luis Obispo County

Attiyeh Ranch Parcel Map

Parcels labeled

Scale

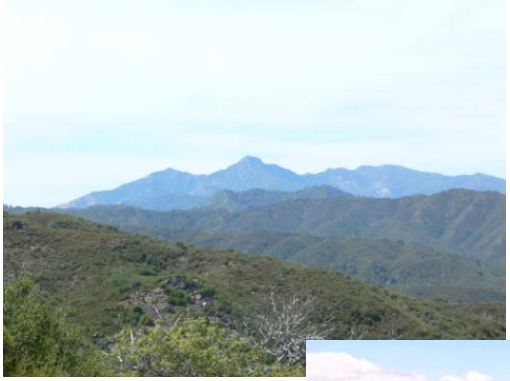
0 1.75 3.5 7 Miles

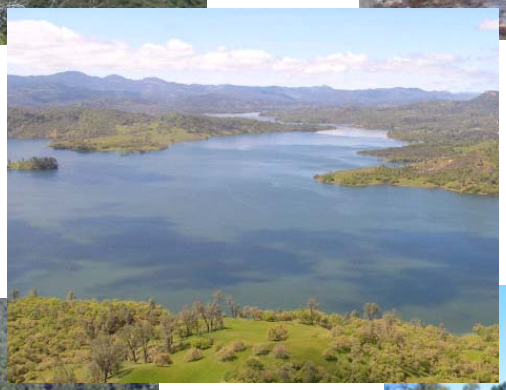
1:250,000

N

Prepared by Stacey Smith, Conservation Project Manager, 1/17/2013

San Antonio and Nacimiento Rivers Watershed Management Plan





October 2008

Prepared by
the Nacitone Watersheds Steering Committee and
Central Coast Salmon Enhancement, Inc.

Prepared for
the Monterey County Water Resources Agency and
the State Water Resources Control Board

Funding for this project has been provided in full or in part through an agreement with the State Water Resources Control Board. The contents of this document do not necessarily reflect the views and policies of the State Water Resources Control Board, nor does mention of trade names or commercial products constitute endorsement or recommendations for use.

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Mary Ann Martinus, *Lockwood resident*

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Dennis Palm, *Ventana Wilderness Alliance*

Lester Patterson, *Lockwood resident*

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Duane Wolgamott

Phil Humfrey

Executive Summary

There are two aspects to the development of any watershed plan. Dedicated people spent countless hours discussing concerns, issues and potential solutions to problems. This dedication leads to the production of documents that hope to articulate the outcome of the dialog in a way that is useful for the community. The executive summary identifies the Nacitone Watersheds Management process and products, and attempts to capture the major core findings arising out of both efforts.

The Vision

The Nacimiento/San Antonio River Watersheds Management Plan should protect water quality and watershed uses for all stakeholders.

The Purpose

The purpose of the Nacitone Watersheds Management Plan is to identify the existing conditions of and stresses in these watersheds as they relate to water quality, and recommend methods for reducing or eliminating those stressors such as alternative land use practices.

The Process

The Nacitone Watersheds Management planning process is a stakeholder driven process that represents the interests of residents, agencies and businesses that work and live in the watersheds. The stakeholder process used to produce these products presents an investment of 8800 volunteer hours of time in meetings, field trips, community outreach and planning. The magnitude of the effort includes far more than this if one includes the hundreds of contacts made through flyers, press releases and web-site visits. Each of the products was placed on the web-site for public review. Public comment periods were held for the Goals and Strategies document and the Watershed Management Plan. There were Steering and Technical Advisory Committees as well as a staff team guiding the process and development of the products. The members of each are listed in the acknowledgement section of the plan and referenced in Part 1 "How the Plan was Prepared."

The Products

The Nacitone Watersheds Plan was initiated by the Monterey County Water Resources Agency (MCWRA) and funded by a grant from the Regional Water Quality Control Board. As part of the grant, several products were produced to assist the watershed stakeholders in gathering and analyzing existing information about the watersheds to discern critical issues facing the watersheds and potential remedies. These products include:

Watershed Resources Inventory (WRI)—Existing watershed information was identified including reports, studies, maps, Geographic Information System (GIS) files, and technical data covering land use, water supply, water quality, ecology, hydrology, habitat and vegetation, agricultural and grazing practices, and planning efforts. The inventory is comprised of a spreadsheet file containing over 300 entries as well as an annotated bibliography of a select number of the entries.

Analysis of the WRI (Analysis)— Existing information was compiled in order to establish a baseline describing existing watershed conditions including land use, major water features, water quality, water supply, designated beneficial uses, point and nonpoint sources of water pollution, population, infrastructure, vegetation and habitat, and agricultural and grazing practices. Trends were identified for those items that had sufficient historical data. The Analysis did not include a technical review of compiled information.

Grazing Land Management Plan—the Upper Salinas/Las Tablas Resource Conservation District conducted an assessment of the 24,000 acres of grazing land owned and managed by the MCWRA at the Nacimiento and San Antonio Reservoirs to determine impacts on water quality, maintenance of ecological communities, and management of sustainable and restorative grazing.

Watershed Goals and Strategies—The WRI and Analysis were utilized by the stakeholder group to articulate goals and planning strategies for future watershed activities that focus on water quality improvements. These include non-regulatory approaches to watershed protection, integration of watershed planning with existing government planning activities, land use planning strategies for watershed protection and potential partnership scenarios which could serve to protect the health of the watershed. In addition, the stakeholders identified research and monitoring opportunities to fill data gaps to address issues of concern, identified many roles and associated responsibilities of stakeholders in implementation of the proposed actions and strategies as well as draft time frames for implementation.

Watersheds Management Plan—The Plan is an integration of the above products and includes the geographic boundaries of the watershed, a description of the natural resource conditions within the watershed, a series of goals, objectives and implementation measures for achieving and sustaining water quality improvements, and description of how to monitor, update and maintain the Plan as a living document. The plan is divided into four sections.

- Part 1 includes purpose and need for the plan and plan preparation.
- Part 2 is the Existing Conditions section which identifies physical and current conditions of the watersheds.
- Part 3 is the Watershed Strategy which identifies roles, responsibilities and potential implementation measures for protecting watershed health.
- Part 4 includes the jurisdictional and regulatory framework.

Appendices to the Plan include complete auxiliary supporting documents (The Grazing Lands Management Plan and the Nacitone Watershed Resources Inventory Final Technical Memorandum—Water Resources, Water Quality and Sediment Supply prepared by Swanson Hydrology and Geomorphology), WRI Spreadsheet and Annotated Bibliography, public and Technical Advisory Committee (TAC) comments, Low Impact Development (LID) primer, Resources for Residents and Landowners, Community Services Area (CSA) 7 Interceptor Bypass Study Executive Summary, Watershed Strategy Priorities Chart and maps.

The Core Findings

There is an abundance of information about the watersheds and while there is great concern about present and future water quality, the Klau/Buena Vista Mines Mercury situation appears to be the only documented water quality issue in either watershed. Stakeholders have become aware that while there may be additional water quality problems, there is no coordinated monitoring approach to determine level of concern.

The complexity of landownership and cross-jurisdictional authority of both San Luis Obispo and Monterey Counties present unique challenges for resolving present and future water quality concerns. The addition of state and federal regulations for source water supply and water quality can add further complexity to local efforts in that finding solutions to water quality issues can lead residents and landowners to conflicting regulations.

The interests of stakeholders living and working in the watersheds and the interests of the MCWRA and other agencies have not always been well aligned. This plan attempts to, in part, rectify this situation as the MCWRA and the stakeholders begin to share responsibility in finding ways to effectively manage watershed resources.

The Watershed Strategy (Part 3) is structured toward partnership approaches to water quality protection.

Legacy landowners (those who have been stewards of the land for generations and may date back to original land grants) play a central role in establishing desired outcomes in terms of defining future trends within a watershed.

The Steering Committee considered the following list to be the top priorities for action in the Nacitone Watersheds over the short and long term. (See table on following page.)

Prioritization of Plan implementations (recommended actions)

Top priorities that emerged from the stakeholder process :	
Short term (1-2 years)	**Long term (5-10 years)**
Continue the Nacitone Watersheds Steering Committee by seeking funding and contracting with a watershed coordinator/grant writer.	
Support the development and maintenance of Round Tables with an Inter-county Task Force on land use and water resources planning as the top priority Round Table (Issue 7)	
Monterey County, San Luis Obispo County and resident associations should work together to develop and implement programs to control invasive species. (Issue 11, Implementations 1C)	
Water quality monitoring, interpretation, and coordination across multiple entities. Continue existing water quality monitoring. In addition, establish a comprehensive water quality monitoring program with uniform collection, analysis and reporting protocols across pertinent jurisdictions for technical and public sector use. As part of this information gathering, encourage EPA to conduct a lake bottom sediment study of Nacimiento reservoir to better understand mercury contamination.	Support for SLO County to eliminate the risk to water quality of the Oak Shores Interceptor line at Nacimiento reservoir.
Support the work of existing Local Fire Safe Councils (Issue 5, Implementation 1B)	
Conduct road system survey to prioritize needs for erosion control. Include a focused survey on the Tank Road in coordination with military, etc. (Issue 9, Implementations 1B and 2B)	Implement proposed upgrades to the Tank Road and others within these watersheds in coordination with others. (Issue 9, Implementation 2B)
Collaborate on the design and implementation of educational stewardship campaigns targeting watershed residents and visitors with customized messages such as “Be A Watershed Citizen.”	

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PART 1
Introduction

A. Purpose and Need for the Plan

The purpose of the Nacitone Watersheds Management Plan is to identify the existing conditions of and stresses in these watersheds as they relate to water quality, and recommend methods for reducing or eliminating those stressors such as alternative land use practices.

The Monterey County Water Resources Agency (MCWRA) has an interest in creating a plan for the following reasons:

- The reservoirs and their respective watersheds are the source for water recharging the Salinas Valley groundwater basin.
- There is a direct correlation between the health of these watersheds and the supply and quality of water for the Salinas Valley.
- The Salinas Valley's population and economy are dependent on a long-term supply of high quality water from those watersheds, and on protection from floods.
- The reservoirs also provide ancillary benefits of recreation and habitat enhancement.

The communities around the reservoirs have an interest in insuring that the watersheds remain healthy. The land around San Antonio Reservoir, also known as Lake San Antonio, is located in Monterey County and is mostly owned by Monterey County. While Nacimiento Reservoir, also known as Lake Nacimiento, is located in San Luis Obispo County, it is managed by the Monterey County Water Resources Agency. About half of the land around Nacimiento Reservoir is owned by approximately 5,000 private owners who want to make sure the watersheds and reservoir remain healthy to protect property values and business interests that depend on the reservoir. Another reason to keep the watersheds healthy is that San Luis Obispo County will soon annually draw up to 17,500 acre feet of water from Nacimiento Reservoir as "raw" water to be treated and used as drinking water.

Source water supply and water quality are increasingly regulated by the State of California and the United States government. The MCWRA expects that trend to continue, while believing that locally based initiatives are preferable to regulatory actions imposed by higher levels of government. The MCWRA believes it should lead efforts to involve local landowners and other stakeholders in the watersheds to identify methods by which high quality water supplies can be maintained over the long-term, rather than merely react to studies and organizational efforts conducted by others.

B. How the Plan was Prepared

Following submittal of a watershed management plan grant request by MCWRA to the Regional Water Quality Control Board, MCWRA staff was invited to several community meetings in Lockwood. At these meetings, community members had the opportunity to ask about the purpose of a plan, what it might mean for property owners, and what the role of the MCWRA

and other government agencies already engaged would be in regards to plan development. A Steering Committee (SC) of stakeholders was formed who negotiated an agreement with MCWRA that the Steering Committee would have the final decision on how the plan was developed and that, if need be, local residents would have greater influence over decisions for the plan than other Steering Committee members and other stakeholder interests.

The Steering Committee then selected a facilitator for the process and a plan writer. MCWRA provided the necessary contracts for the facilitator and plan writer. The Steering Committee, Facilitator, and Plan Writer developed a Technical Advisory Committee (TAC). The SC and TAC were then facilitated to generate guidance for the staff team for the production of each of the work products described in the Executive Summary. The staff team generated agendas, meeting notes and draft documents for SC and TAC review. The staff team was comprised of the SC Co-chairs, Facilitator, Plan Writer and MCWRA Grant Administrator. Over the course of two years an extended dialog within the SC and TAC, as well as outside these committees through public review, led to the formulation of the Plan. A portion of the watershed area included in this Plan was previously covered by the Upper Salinas River Watershed Action Plan (2004).

NOTE TO READER: Quoted material from authors and sources compiled in the Watershed Resources Inventory and presented in the Nacitone Watersheds Management Plan is credited to the source, italicized and indented.

C. Vision Statement and Guiding Principles of the Nacitone Steering Committee

The Vision Statement developed by the Steering Committee acknowledges the importance of all uses of these watersheds.

The Nacimiento/San Antonio River Watersheds Management Plan should protect water quality and watershed uses for all stakeholders.

The following are guiding principles important for effective protection of water quality and watershed uses for all stakeholders.

- Manage human watershed uses and natural watershed resources and functions to co-exist over the long-term.
- Foster trust and a stewardship ethic among all watershed users.
- Encourage and facilitate voluntary and incentive-based efforts rather than additional regulation to protect water quality and watershed uses and functions.
- Protect the quality and quantity of surface water and ground water
- Seek to balance the use of watershed resources in order to protect those uses including homes and communities, infrastructure, farming, ranching, recreation, military, and others.
- Facilitate greater understanding within our communities of how watersheds function and how individuals, entities, and groups with jurisdiction can protect both watershed uses and watershed health.

D. Balancing Watershed Uses Through Thoughtful Communications

The Watersheds Management Plan recognizes the potential for competition among diverse demands on the natural resources and functions of these watersheds. It is important to understand and acknowledge the challenge of finding an equitable and effective way to balance the uses of watershed resources while protecting the critical natural functions of these watersheds that make the resources available. Water, soil, forests, other plant life and animal communities should be respected for their intrinsic worth as well as carefully used and managed for a variety of human uses such as the creation of homes, communities with infrastructure, recreational enjoyment of the resources, farming and ranching, support of military needs, etc.

The Plan attempts to summarize what is known about these watersheds, their uses and resources. The plan also lays the groundwork for improved communication and coordination across these uses and among watershed residents, government agencies, pertinent jurisdictions, and other watershed users.

There are several recommendations in this Plan to form water quality and watershed use-based, problem-solving roundtables. These roundtables would provide an opportunity for agencies responsible for managing watershed resources or uses to communicate with watershed users including landowners and others to clarify and understand varying mandates, voice concerns, assess available time, talents, and funding. A critical function of these roundtables would be to facilitate cooperative agreements for coordinated management of these watershed uses and the dissemination of information to the public.

Specific recommendations from the Steering Committee and others engaged in this planning process may include the establishment or continuation of roundtables such as the following:

- **Fire Safe Councils**
- **Livestock Grazing Coordinating Committee**
- **Lake Recreation and Public Safety roundtable**
- **Cross-county Land Use Planning Task Force**
- **Water Quality Information Sharing roundtable**
- **Community Road Associations**

Descriptions of these roundtables and the tasks envisioned for them are in the following chapters.

E. Water Quality and Watershed Health by Identifying and Preventing Impacts

Unfortunately, water quality and watershed uses can be threatened when watershed uses are not well managed or when naturally occurring conditions exist that negatively impact water quality or watershed health. Examples of naturally occurring conditions include total dissolved solids (TDS) and selenium in the San Antonio River. Increase in population (watershed usage) and new watershed uses requires the ability to improve protection measures, including the creation of innovative management measures. The Steering Committee has assessed and compiled existing information on current water quality and explored potential negative impacts arising from current uses in the watersheds.

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PART 2
Existing Conditions

The existing conditions section is a depiction of relevant descriptive data on the physical, natural and cultural resources of the Nacimiento and San Antonio River watersheds. This information is important to understand the context for water quality changes over time. To a large extent, the authors have relied on data and descriptions of resource conditions contained in prior reports. This information has been reviewed and incorporated into this section of the plan. The prior reports were not subjected to technical or peer review in preparing this plan.

In addition, the Steering Committee elected to have an independent analysis of water quality, water supply, erosion and sediment supply, and historic conditions of the channel and riparian corridor performed by an outside consultant, Swanson Hydrology and Geomorphology (SH+G). The product, Nacitone Watershed Resources Inventory Final Technical Memorandum—Water Resources, Water Quality and Sediment Supply, will be included with this report in Appendix D. Contents of the technical memorandum have been excerpted and integrated into the hydrology, water quality and reservoir features and management sections of Part 2.

It is anticipated that this information about existing conditions will serve as a baseline for future investigations in the watershed.

I. PHYSICAL FEATURES OF THE WATERSHED

A. Location, Overview and Topography

The Nacitone watersheds include the two adjacent watersheds trending southeast from the Santa Lucia Range to the Salinas River in San Luis Obispo and Monterey Counties (Figure 1). Comprised of the Nacimiento and San Antonio River watersheds, the term Nacitone originates from the Dust Bowl days when the US Soil Conservation Service formed the Nacitone Soil Conservation District.

Portions of the Nacimiento River and San Antonio River watersheds are located in San Luis Obispo and Monterey counties. Approximately 53% of the Nacimiento River watershed lies in San Luis Obispo County and almost 97% of the San Antonio River watershed lies in Monterey County. The headwaters of both the Nacimiento and San Antonio Rivers are located in the Los Padres National Forest. The San Antonio River watershed originates at an elevation of 3,060 feet above sea level and is characterized by a 'V-shaped' valley. The San Antonio River Valley consists of a series of northwest-southeast trending drainages with scattered brush, oak trees and relatively steep sides. In the eastern part of the watershed, Jolon Valley merges with Lockwood Valley and forms an area characterized by a large, relatively flat, southeasterly sloping surface (Geotechnical Consultants, Inc, 1984). The Nacimiento River watershed originates at an elevation of approximately 3,350 feet above sea level and its valley is also characterized by a 'V-shaped' valley.

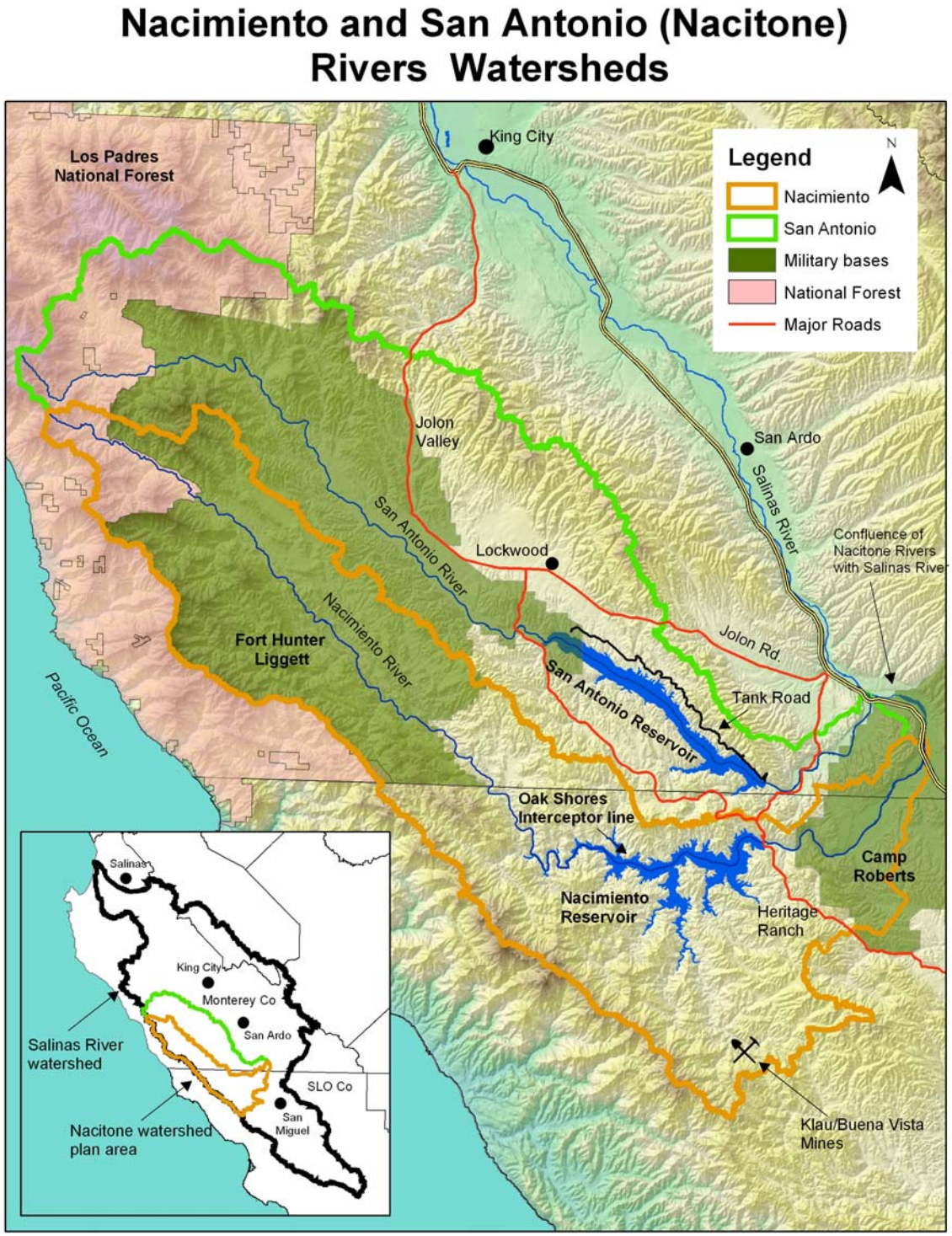


Figure 1. Nacimiento and San Antonio River Watersheds

Watersheds Description

The Nacimiento and San Antonio River watersheds cover 705.3 square miles from the ridges within the Santa Lucia Range to each river's confluences with the Salinas River. The Monterey County Water Resources Agency has estimated the San Antonio River watershed to contain

343.8 square miles or 220,003 acres and the Nacimiento River watershed is 361.5 square miles or 231,373 acres (Ken Ekelund, 2007). Both watersheds are impounded creating reservoirs. The San Antonio River is impounded at river mile 5 and the Nacimiento River is impounded at river mile 10. The reservoirs are operated by the Monterey County Water Resources Agency and both are managed as a unit for the control of seawater intrusion, groundwater recharge and groundwater quality enhancement for the Salinas Valley, recreational opportunities for the adjoining and regional communities, flood control, drought protection, and preservation of aquifer storage (RMC, 2003). Nacimiento Reservoir began operating in 1957 and San Antonio Reservoir in 1965 (Montgomery Watson, 1997). The drainage area controlled by the two dams is approximately 650 square miles .

Although adjacent watersheds, Nacimiento and San Antonio are very different geologically and metereologically, which affects how each functions hydrologically. These differences have led to the framework upon which the reservoirs are managed. Management, in turn greatly influences existing watershed conditions. The Nacimiento River watershed, although only slightly larger, receives much higher rainfall than the San Antonio River watershed, and experiences more runoff due to its higher rainfall and geologic features. Because of these features, Nacimiento Reservoir fills more quickly. The San Antonio watershed generates less runoff due to both lower rainfall and the storage of rainwater as groundwater in an alluvial basin situated upstream of the San Antonio Reservoir. A steering committee discussion occurred regarding safe yield of the watersheds above their respective dams. Safe yield is a term used to express the amount of water an aquifer or well can yield for consumption without producing unacceptable negative effects. Safe yield information is not available for these watersheds.

Watershed Features

San Antonio River Watershed

The San Antonio River has its headwaters in the Santa Lucia Mountains between Cone and Junipero Serra peaks, in the Ventana Wilderness of Los Padres National Forest. The stream flows in a southeasterly and easterly direction through the Los Padres National Forest and Fort Hunter Liggett Military Base (FHL) to its confluence with the Salinas River. The river is 58.2 miles in length, of which the first 8.6 miles of the south fork and 6.7 miles of the north fork are located within the Los Padres National Forest. With the exception of the upper section including the headwaters, the drainages are normally dry during late summer and fall months, with the exception of Mission Creek, which historically has exhibited surface flow year-round. Spring-fed water flows through the upper portion of the San Antonio River throughout the year, while lower reaches have intermittent flow. San Antonio waterways include Carrizo Creek, Santa Lucia Creek, lower Rattlesnake Creek, Mission Creek, and Sulphur Spring (Las Tablas Creek and Lake Nacimiento TMDL, 2003)(Figure 2).

Nacimiento River Watershed

The Nacimiento River, located about five miles southwest of the San Antonio River, originates in the Santa Lucia Mountains south of Cone Peak, also within the Ventana Wilderness of Los Padres National Forest. The stream also flows southeasterly through the Los Padres National Forest, FHL and Camp Roberts and a few private parcels as well as the Nacimiento reservoir before it reaches its confluence with the Salinas River. The river is 54.2 miles in length of which 9.5 miles are located within the Los Padres National Forest. With the exception of the upper section including the headwaters, much of the Nacimiento River surface remains dry during

the summer. However, year round water can be found in various pools along portions of the river (FHL Special Resource Study, 2006).

Nacimiento River drainages can be divided into two groups: the lower basins that drain directly to the reservoir, and the upper basins that drain to the Nacimiento River, which then flows into the reservoir. The lower basins include Las Tablas, Franklin, Town, Dip, Snake, and Kavanaugh creeks. The upper basins include Little Burnett, Tabacco, Salmon, Las Berros, San Miguel, Stony, El Piojo, Waller, and Sapaque Creeks. The crest of the Santa Lucia Range forms the southwestern boundary of the Nacimiento River watershed, and the San Antonio River watershed divide bounds it on the northeast (Clean Lakes Assistance Program for Lake Nacimiento, 1994). Additional main stem creeks include: Carrals Spring, Slickrock Creek, Stony Creek, San Miguel Creek, Upper Los Berros Creek, N. Fork Los Burros Creek, San Miguelitos Ranch, Gabilan Creek, Los Bueyes Creek, Lower Los Burros Creek, Oak Flat, Waller Creek, Mesa Coyote, Pozo Honda Creek, Turtle Creek and Gulch House Creek (Las Tablas Creek and Lake Nacimiento TMDL, 2003)(Figure 2).

Figure 2. Nacimiento and San Antonio River Subwatersheds

B. Geology

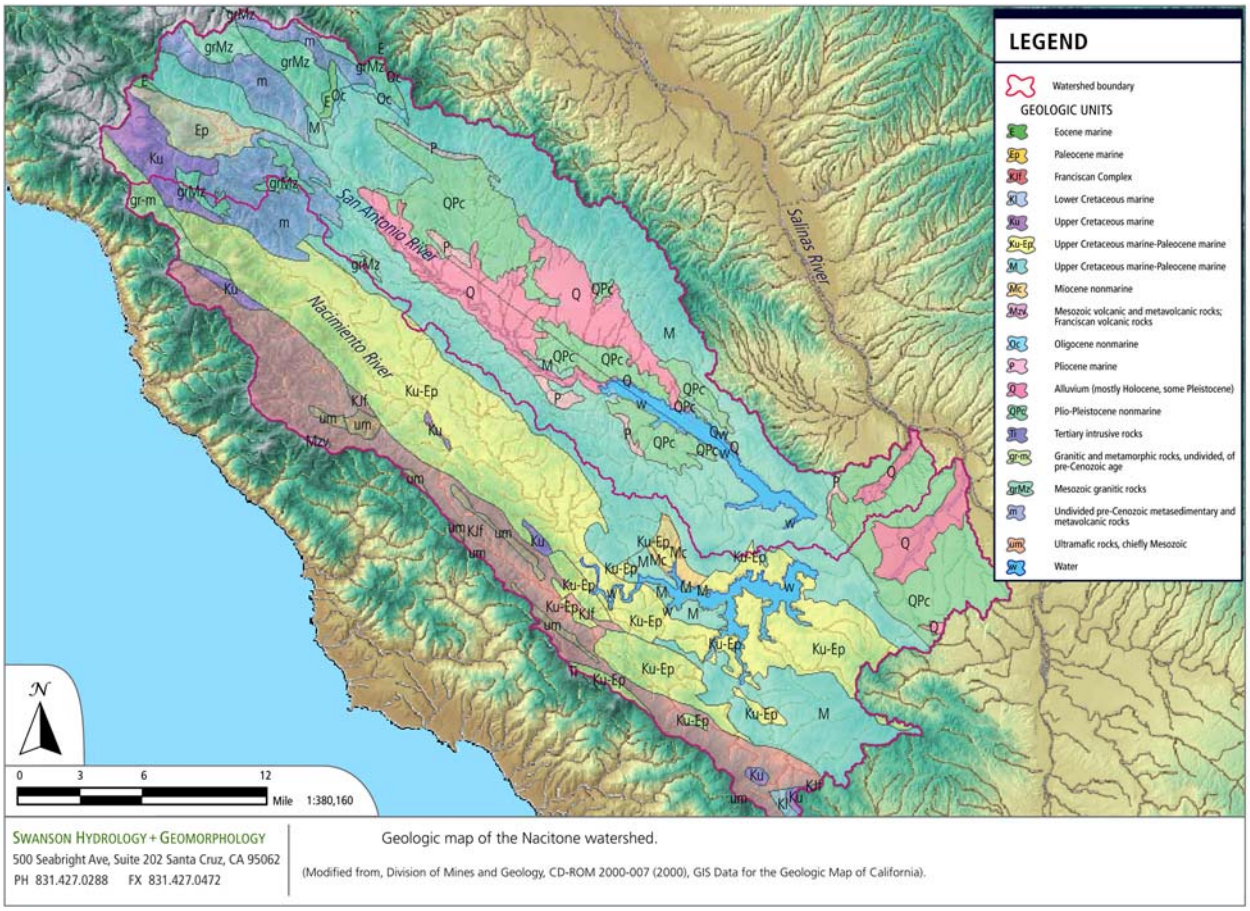
The significance of geology to an understanding of watershed health relates to the physical changes that occur based on the underlying rock structures, their constituent elements and their juxtaposition within the watershed. Geologic information was derived from previously published sources collected for the WRI. Figure 3 was produced by SH+G for this project.

San Antonio River Watershed

The San Antonio River Watershed lies within Salinian Block of the Pacific plate. The Lockwood basin occupies a valley in southwestern Monterey County between the Santa Lucia range to the west and the Lockwood-San Ardo hills to the east. The Los Ojitos Hills form the southern boundary.

Marine sediments of Miocene age are assigned to the Vaqueros, Monterey and Santa Margarita formations. Overlying a granitic basement, they are as thick as 825 feet in the west and thin to the east. The Monterey Formation progressively truncates the Vaqueros in an easterly direction.

The youngest sandstone of the Miocene sequence is referred to as the Santa Margarita Formation. Of these units, only the Monterey Formation crops out in the Lockwood area. It forms the bulk of the Lockwood-San Ardo hills and is extensively exposed in the hills southwest of the San Antonio River (Logan, 1987).



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Geologic map of the Nacitone watershed.

(Modified from, Division of Mines and Geology, CD-ROM 2000-007 (2000), GIS Data for the Geologic Map of California).

Figure 3. Geologic map of Nacitone watersheds

Nacimiento River Watershed

The Nacimiento River watershed lies within Salinian Block of the Pacific plate. The Salinian Block, which is bounded on the east by the San Andreas Fault Zone and is underlain at depth by a basement of extensively folded and faulted Franciscan rocks of Jurassic age. Sedimentary rocks of Cretaceous to Late Tertiary age are commonly exposed at the surface in this province and are extensively folded and faulted. Pleistocene and recent sediments are offset along the San Andreas Fault (NWP EIR, 2003).

Paso Robles Formation – The nonmarine, Plio-Pleistocene-age Paso Robles Formation consists of massive to locally cross-bedded, poorly exposed, weakly consolidated mixtures of gravel, sand, silt, and clay.

Santa Margarita Formation – The Miocene-age, Santa Margarita Formation predominantly consists of poorly stratified, sandy, marine sediments that conformably overlie the Monterey Formation and are locally unconformably overlain by the Paso Robles Formation. The arkosic sandstone of this formation is typically massive to coarsely crossbedded and locally contains abundant shell beds and reefs. The thickness of the Santa Margarita Formation ranges from approximately 200 feet west of Atascadero to a maximum of 2,000 feet northeast of Santa Margarita.

Monterey Formation – The Miocene-age Monterey Formation consists of well-bedded, marine, siliceous and calcareous shale. That shale includes interbeds of chert along with diatomaceous, porcelaneous, tuffaceous, and dolomitic units. Local interbeds of sandstone are also present within an upper member of that formation, where distinguishable. The shale ranges in thickness from approximately 200 feet to more than 2,000 feet.

Tierra Redonda Formation – The Miocene-age Tierra Redonda Formation consists of nonfossiliferous, thickly bedded to massive sandstone located southwest of the Jolon fault. That formation locally is composed of granitic boulder conglomerate with clasts ranging in size from 1 to 8 feet in greatest dimension. The Tierra Redonda Formation conformably overlies the Vaqueros Formation and intertongues with the Sandhodt Member of the Monterey Formation. The Tierra Redonda Formation has a thickness of approximately 1,650 feet in the type area.

Unnamed Tertiary/Cretaceous Unit – This unit is located west of Paso Robles, specifically southwest of the Jolon fault, and consists predominantly of sandstone and conglomerate with locally abundant mudstone. The thickness of this unit is unknown because the base of the unit is obscured; however, the unit is at least 2,500 feet thick.

Franciscan Formation – The Franciscan Formation consists of a mélange of sandstone, mudstone, and greenstone, with lesser amounts of chert, serpentinite, diabase gabbro, and blueschist facies metamorphic rocks. Those materials are thinly bedded to massive, locally highly fractured and discontinuous, and poorly to well indurated. Serpentinite-rich zones withinmthe Franciscan Formation may locally contain a magnesium-silicate mineral called chrysotile. Chrysotile typically occurs in veins of silky fibers and is an important source of commercial asbestos (NWP EIR, 2006).

Information on soil and vegetation types is briefly discussed in Appendix C (Agency Grazing Land Management Plan). Appendix C includes soil and vegetation information for Agency Grazing leases around both reservoir. More detailed information for other location in these watersheds can be obtained from the Natural Resources Conservation Service in either Monterey or San Luis Obispo counties.

II. DESCRIPTION OF CURRENT CONDITIONS OF THE WATERSHED

The current conditions section is a depiction of relevant descriptive data on the natural and cultural resources of the Nacimiento and San Antonio River watersheds. Status and reference information from the Watershed Strategy section of the plan may be in part repeated here and expanded in more detail.

A. HYDROLOGY

Hydrology is defined as the study of water and its properties, including its distribution and movement in and through the land areas of the earth. Understanding the hydrology of these watersheds is important to understanding water quality and quantity changes over time.

Surface Water

The Nacimiento and San Antonio Rivers together contribute more than 75 percent of the flow of the Salinas River at Monterey Bay (Clean Lakes Assistance Report, 1994), specified in acre-feet that is approximately 200,000 acre-feet per year (AFY) and 70,000 AFY to the Salinas River, respectively. In order to maintain minimum flow requirements in the river channels below the Nacimiento and San Antonio dams, a 25 cubic feet per second and 3 cubic feet per second flow requirement at the site of the dams, respectively, is required (SVWP EIR, April 2002).

The average annual inflow to Nacimiento Reservoir is about three times that of San Antonio Reservoir, on average. The MCWRA has operated the reservoirs so that releases from the two reservoirs also maintain an approximate 3:1 ratio in stored water between the reservoirs. Pursuant to the Nacimiento Dam Operation Policy (MCWRA, 2000), whenever possible, a release schedule is to be adopted that results in an empty space being created in the Nacimiento Water Conservation Pool that is three times that of the San Antonio Water Conservation Pool empty space on November 1st of each year.

SH+G prepared a water budget to analyze the available surface water supply. A water budget reflects the relationship between input and output of water through a region The water budget for the Nacitone watersheds takes into account all aspects of the hydrologic cycle as well as the operational aspects of the Nacimiento and San Antonio Reservoirs (discussed below in Reservoir Features and Management). Graphic representation of the water budgets is provided in (Figures 4, 5 & 6). This information can be used by stakeholders as they work together to protect beneficial uses of the watershed as well as in meeting the MCWRA interests of groundwater recharge targets for the Salinas Valley.

Lake Nacimiento Watershed

	Before Reservoir [volumes in af]		→	Reservoir [volumes in af]					
Water Year	Precipitation	ET + Groundwater Recharge	Runoff[1] → Reservoir	Oct. 1 Reservoir Capacity	Direct Precipitation	Evaporation	Dam Relase	Direct Use + Percolation[2]	Net Change in Storage
1959	267,134	152,903	114,231	250470	4,400	16,623	231,874	30,170	-160,035
1960	302,935	212,466	95,400	90435	5,071	8,730	155,232	16,089	-79,580
1961	289,241	242,437	51,513	10855	4,842	4,777	35,764	10,713	5,100
1962	575,476	244,329	340,515	15955	9,633	13,492	159,981	80,739	95,935
1963	578,816	276,048	312,190	111890	9,689	16,368	135,769	54,992	114,750
1964	338,673	271,974	72,212	226640	5,669	13,846	214,326	11,498	-161,790
1965	419,500	193,353	232,976	64850	7,022	13,717	144,220	39,736	42,325
1966	398,792	223,821	181,463	107175	6,675	14,526	171,493	-17,426	19,545
1967	819,962	290,323	542,987	126720	13,725	17,168	280,600	155,120	103,825
1968	265,527	229,075	40,775	230545	4,445	14,376	189,614	13,834	-172,605
1969	1,052,089	324,223	744,993	57940	17,611	11,722	622,366	131,055	-2,540
1970	299,595	87,526	216,946	55400	5,015	10,907	134,225	58,048	18,780
1971	364,056	186,964	183,019	74180	6,094	12,428	149,911	43,014	-16,240
1972	255,507	189,622	70,044	57940	4,277	7,280	83,187	8,719	-24,865
1973	762,514	272,049	502,878	33075	12,764	16,853	168,934	128,251	201,603
1974	575,142	223,833	360,671	234678	9,627	19,886	255,201	82,364	12,847
1975	375,412	18,875	362,648	247525	6,284	19,849	238,149	117,414	-6,480
1976	309,281	302,143	12,173	241045	5,177	15,795	179,080	-629	-176,895
1977	252,167	248,166	8,106	64150	4,221	6,492	44,055	2,620	-40,840
1978	850,021	93,231	770,628	23310	14,228	18,135	306,803	231,838	228,080
1979	470,601	295,526	182,736	251390	7,877	20,666	184,665	-20,966	6,248
1980	658,975	220,205	449,498	257638	11,030	18,096	360,145	96,211	-13,923
1981	372,072	276,734	101,395	243715	6,228	19,245	167,667	11,061	-90,350
1982	528,049	198,709	337,935	153365	8,839	18,379	138,881	51,420	138,095
1983	876,073	10,545	879,790	291460	14,664	17,653	733,710	200,526	-57,435
1984	285,233	156,425	133,451	234025	4,774	17,342	215,895	6,194	-101,205
1985	310,283	209,138	106,196	132820	5,194	12,964	165,620	17,286	-84,480
1986	571,134	165,391	415,040	48340	9,560	17,596	142,360	62,285	202,360
1987	246,155	201,725	48,438	250700	4,120	17,861	133,575	-1,542	-97,335
1988	461,249	417,072	51,686	153365	7,721	12,808	161,173	1,231	-115,805
1989	311,953	270,994	46,037	37560	5,222	4,639	68,267	4,563	-26,210
1990	241,146	224,030	21,042	11350	4,036	4,479	5,538	1,161	13,900
1991	464,255	324,522	147,291	25250	7,771	9,929	87,886	31,559	25,688
1992	479,285	346,858	140,230	50938	8,023	10,054	116,420	14,222	7,557
1993	837,663	372,993	478,306	58495	14,021	16,761	267,227	104,270	104,069
1994	382,426	324,115	64,537	162564	6,401	11,812	158,767	17,108	-116,749
1995	997,314	527,899	485,650	45815	16,694	18,209	190,776	51,919	241,440
1996	459,579	217,104	249,956	287255	7,693	20,950	321,352	-2,484	-82,169
1997	586,164	216,394	379,312	205086	9,812	17,693	462,615	-35,348	-55,836
1998	894,109	271,346	637,318	149250	14,966	18,218	379,448	101,215	153,403
1999	312,955	197,166	120,883	302653	5,238	19,361	151,339	26,441	-71,020
2000	441,209	187,985	260,406	231633	7,385	18,976	206,291	56,257	-13,733
2001	515,357	358,521	165,225	217900	8,626	19,047	142,558	26,625	-14,378
2002	277,885	196,407	86,002	203522	4,651	15,881	155,732	15,387	-96,347
2003	459,579	263,424	203,637	107175	7,693	15,659	127,785	31,025	36,860
2004	317,631	224,796	98,005	144035	5,317	14,510	112,076	16,196	-39,460
2005	938,530	456,155	497,653	104575	15,710	19,677	229,170	94,751	169,765
2006	519,365	205,700	322,119	274340	8,694	23,731	214,143	88,107	4,830

[1]Runoff was estimated using daily USGS gage data which may underestimate large flows.

[2]Direct use, percolation and other losses were back-calculated using runoff data and other known parameters, which may explain the occurence of negative values.

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Water budget for the Lake Nacimiento watershed and reservoirs.

Figure 4. Water Budget Table for Lake Nacimiento Watershed (post dam construction)

San Antonio Watershed

	Before Reservoir [volumes in af]		→	Reservoir [volumes in af]					
Water Year	Precipitation	ET + Groundwater Recharge	Runoff[1] → Reservoir	Oct. 1 Reservoir Capacity	Direct Precipitation	Evaporation	Dam Relase	Direct Use + Percolation[2]	Net Change in Storage
1967	807,493	617,941	189,552	20475	11,352	10,711	2,102	69,136	110,495
1968	261,490	245,541	15,949	130970	3,676	13,834	7,176	-2,346	-1,425
1969	1,036,091	737,808	298,282	129545	14,566	20,891	31,698	77,091	177,580
1970	295,039	216,589	78,450	307125	4,148	23,026	76,467	47,437	-64,645
1971	358,520	311,321	47,199	242480	5,040	19,300	15,523	19,303	-2,625
1972	251,622	240,523	11,099	239855	3,538	16,972	142,217	-1,875	-144,025
1973	750,919	579,579	171,340	95830	10,557	14,457	10,580	56,670	94,995
1974	566,396	412,406	153,990	190825	7,963	19,254	4,104	75,168	61,625
1975	369,704	246,102	123,602	252450	5,198	21,140	23,478	49,323	35,205
1976	304,578	300,203	4,375	287655	4,282	19,721	45,717	-3,778	-54,217
1977	248,333	248,327	5	233438	3,491	13,250	188,733	-16,655	-183,288
1978	837,096	508,963	328,132	50150	11,769	15,626	34,360	107,057	176,780
1979	463,445	383,594	79,851	226930	6,516	19,162	18,902	31,220	16,430
1980	648,955	442,916	206,039	243360	9,124	20,474	73,043	75,445	45,558
1981	366,414	322,017	44,398	288918	5,151	21,059	38,696	9,606	-20,498
1982	520,019	384,132	135,887	268420	7,311	19,252	65,300	49,471	8,160
1983	862,751	372,546	490,205	276580	12,129	18,969	116,340	361,369	7,105
1984	280,896	213,653	67,243	283685	3,949	20,383	85,769	24,389	-60,855
1985	305,565	276,254	29,311	222830	4,296	17,054	20,319	18,479	-23,480
1986	562,449	272,896	289,554	199350	7,907	18,435	62,418	148,328	67,410
1987	242,412	215,257	27,156	266760	3,408	18,216	74,245	-4,206	-57,695
1988	454,235	433,222	21,013	209065	6,386	15,954	49,716	10,374	-51,002
1989	307,209	292,661	14,548	158063	4,319	10,255	145,269	-992	-138,243
1990	237,479	232,791	4,688	19820	3,339	3,227	2,154	1,270	-1,397
1991	457,196	410,212	46,984	18423	6,428	4,403	21,731	16,205	5,527
1992	471,997	425,336	46,661	23950	6,636	4,997	16,794	13,654	12,457
1993	824,926	620,611	204,315	36407	11,598	11,247	15,677	75,934	105,043
1994	376,611	361,309	15,302	141450	5,295	10,704	83,468	2,109	-78,130
1995	982,148	725,354	256,794	63320	13,808	11,959	25,859	84,472	139,250
1996	452,591	325,433	127,158	202570	6,363	17,499	35,887	52,780	26,020
1997	577,251	357,418	219,832	228590	8,116	16,780	71,207	159,046	-22,030
1998	880,513	571,885	308,627	206560	12,379	16,914	25,020	193,130	83,115
1999	308,196	267,247	40,949	289675	4,333	18,651	29,802	17,214	-21,015
2000	434,500	327,494	107,007	268660	6,109	20,612	29,276	46,975	15,025
2001	507,520	444,049	63,471	283685	7,135	19,377	24,016	24,153	2,228
2002	273,660	231,202	42,458	285913	3,847	18,309	89,155	24,933	-86,563
2003	452,591	381,253	71,338	199350	6,363	15,641	28,427	13,351	18,600
2004	312,801	273,468	39,333	217950	4,398	13,713	NO DATA	111,278	-82,782
2005	924,259	701,625	222,634	135168	12,994	17,056	NO DATA	93,936	118,182
2006	511,467	349,826	161,641	253350	7,191	24,574	17,296	69,602	56,950

[1]Runoff was estimated using daily USGS gage data which may underestimate large flows.

[2]Direct use, percolation and other losses were back-calculated using runoff data and other known parameters, which may explain the negative values.

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Water budget for the Lake San Antonio watershed and reservoirs.

Figure 5. Water Budget Table for Lake San Antonio Watershed (post dam construction)

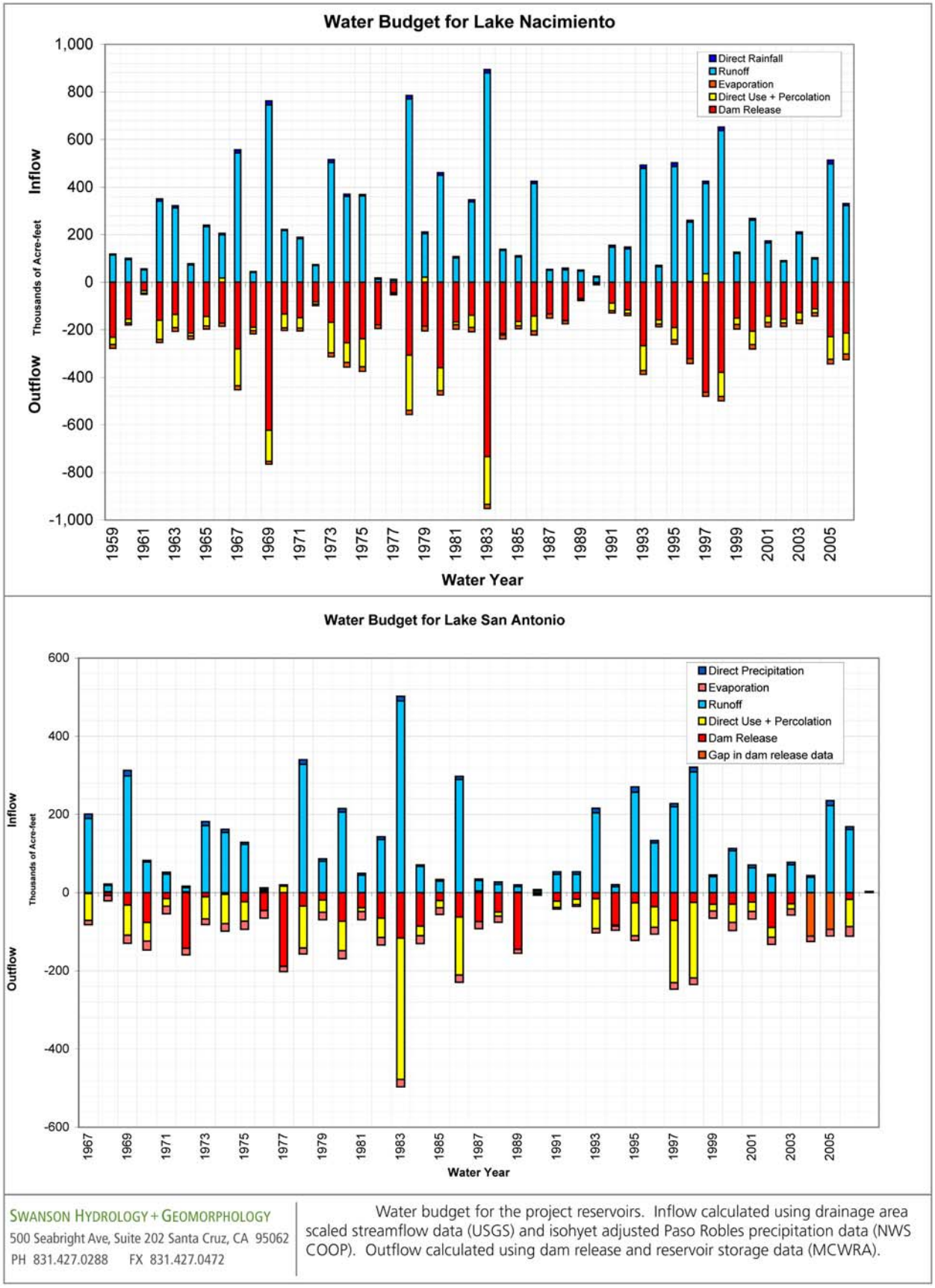


Figure 6. Graphic Water Budget for Lakes Nacimiento and San Antonio

Groundwater

The groundwater basins underlying the Nacitone watersheds include parts of the Paso Robles and Lockwood Groundwater Basins (Figure 7). The groundwater basins do not neatly underlie the watersheds' surface waters but instead conform to geologic features of the landscape. Examining these groundwater basins permits an understanding of the Nacitone water budget of the watersheds for consideration of overall water availability over time.

While it is the main groundwater basin within the Nacitone area, the Lockwood Valley Groundwater Basin is the least studied of the two primary groundwater basins that occur within the Nacitone Watersheds study area. The other two are parts of the Paso Robles Groundwater Basin and the Salinas Groundwater Basin. The Paso Robles Basin has been studied extensively by Fugro as part of a two-phase analysis of the basin (Fugro West, 2002; Fugro West et al, 2005). Similarly, extensive analysis of the Salinas Groundwater Basin, which historically experienced overdraft conditions and seawater intrusion, resulted in development of Nacimiento and San Antonio Reservoirs to provide winter storage of rains that are released during the dry season to recharge Salinas basin aquifers and limit seawater intrusion into the lower Salinas Valley near Salinas.

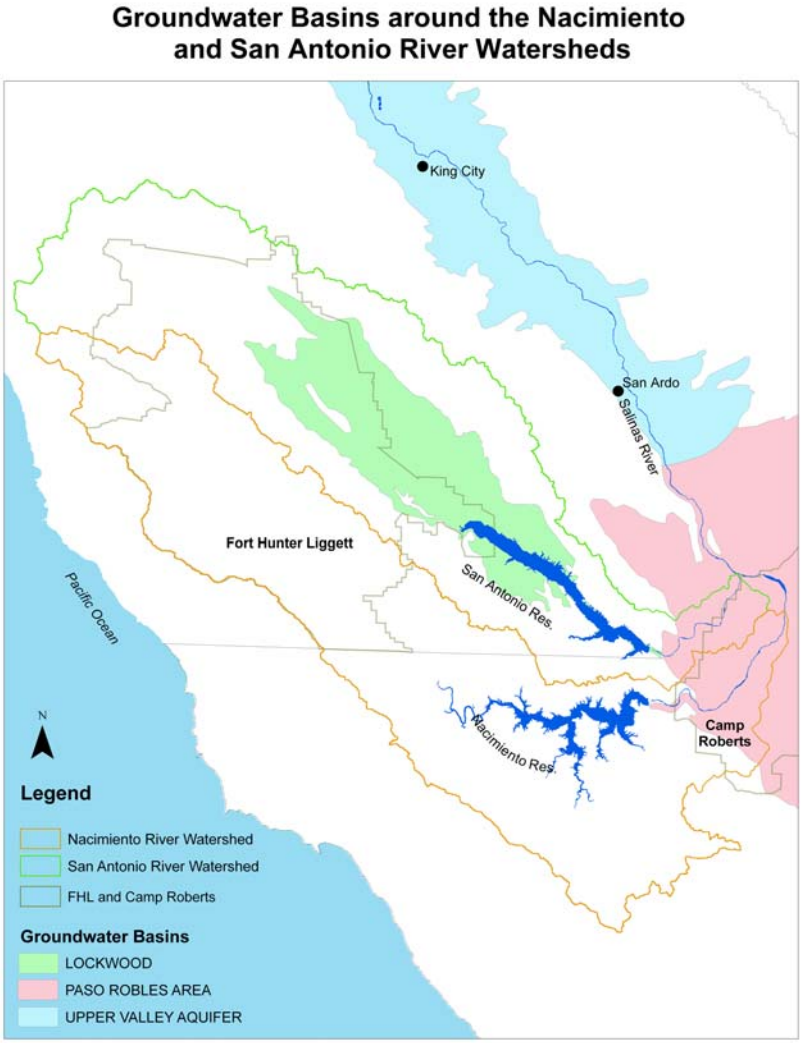
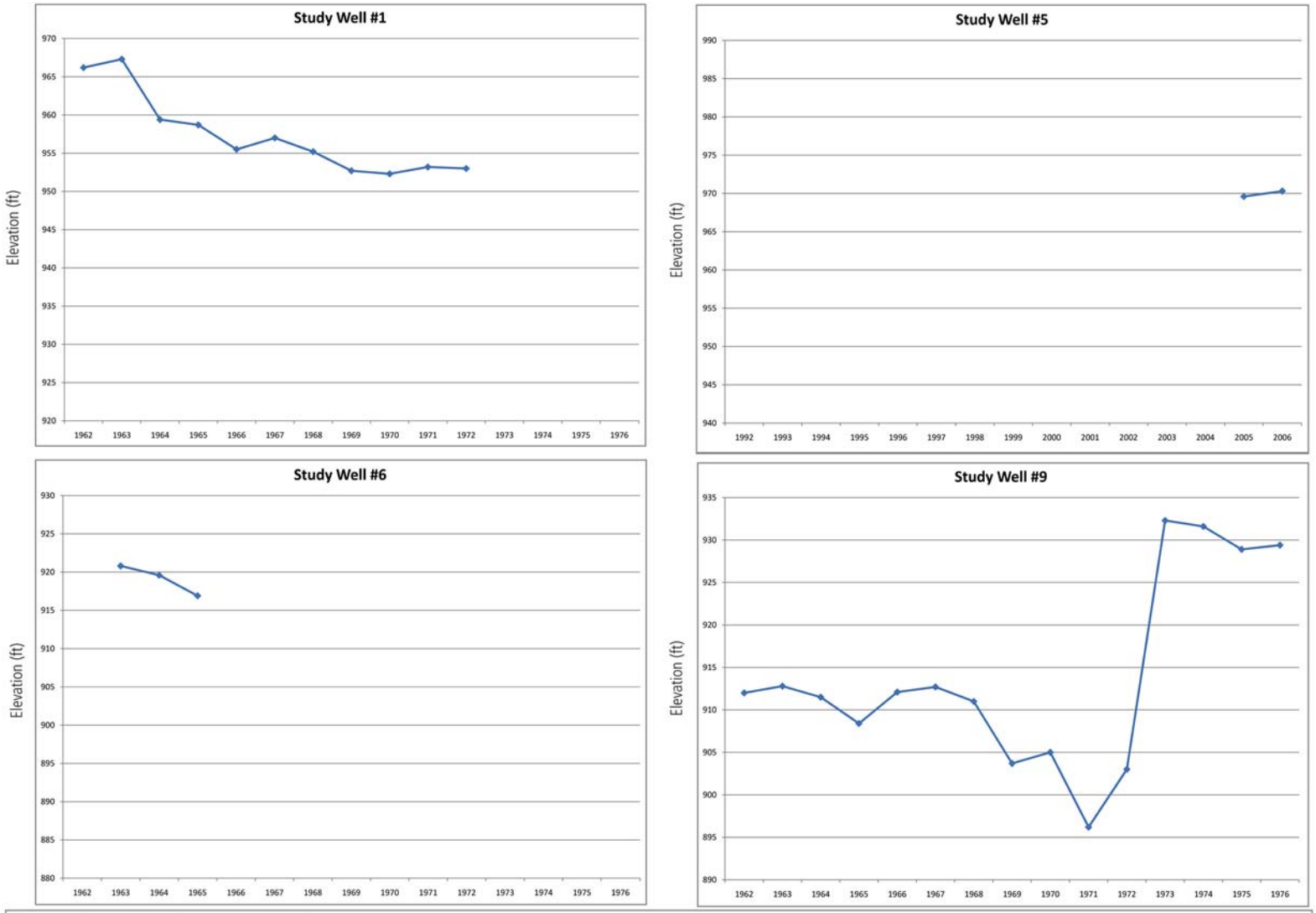


Figure 7. Groundwater Basin Map
Source: DWR GIS layer B118vNAD27UTM10



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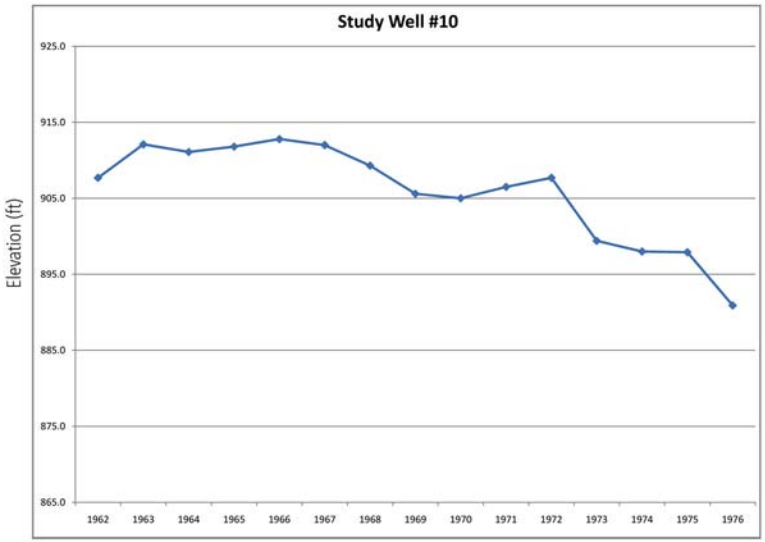
Study wells formerly monitored by Monterey County Water Resources Agency within the Lockwood Groundwater Basin. Most of these wells span a period from the early 1960's to the late 1970's, representing a general period of aquifer overdraft within the basin.

Figure 8a. Study Wells in the Lockwood Groundwater Basin, 1960-1979



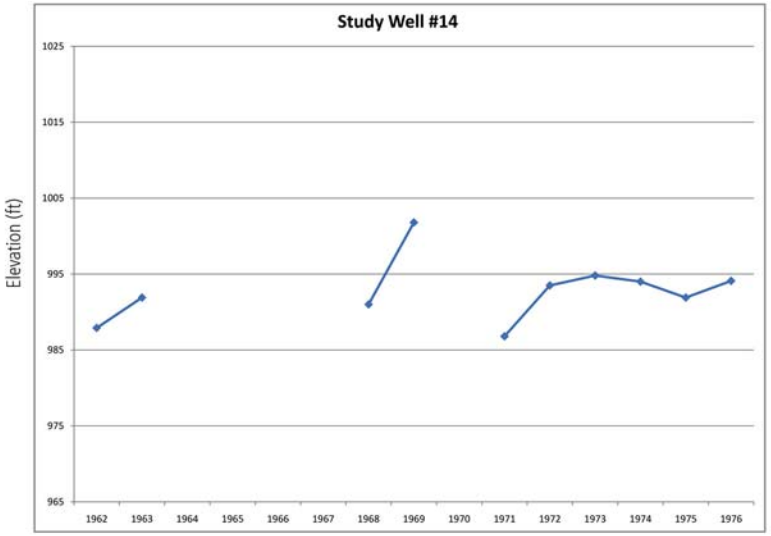


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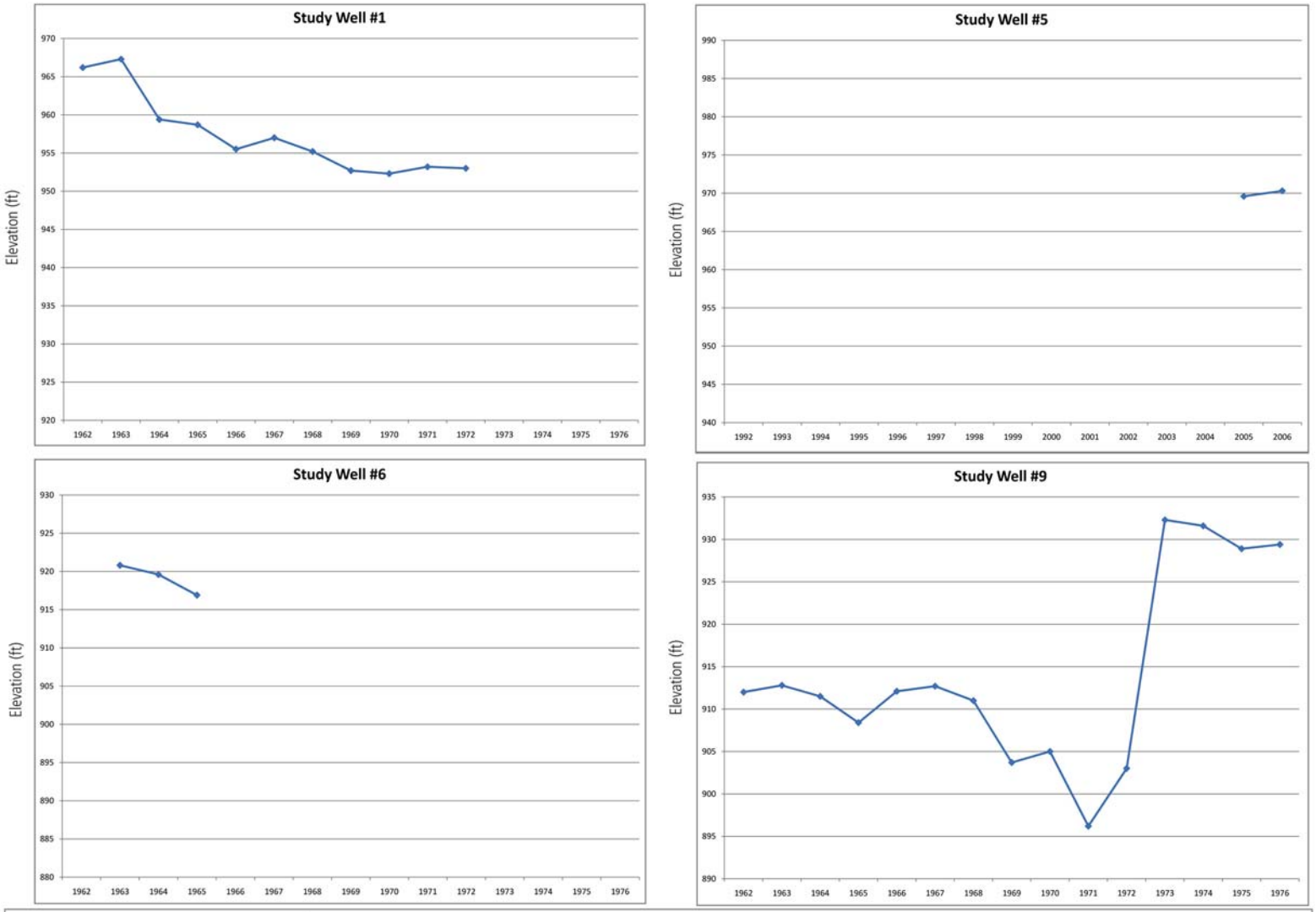
Figure 8b. Study Wells in the Lockwood Groundwater Basin, 1960-1979



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Study wells formerly monitored by Monterey County Water Resources Agency within the Lockwood Groundwater Basin. Most of these wells span a period from the early 1960's to the late 1970's, representing a general period of aquifer overdraft within the basin.

Figure 9a. Study Wells in Lockwood Groundwater Basin, 1960-present

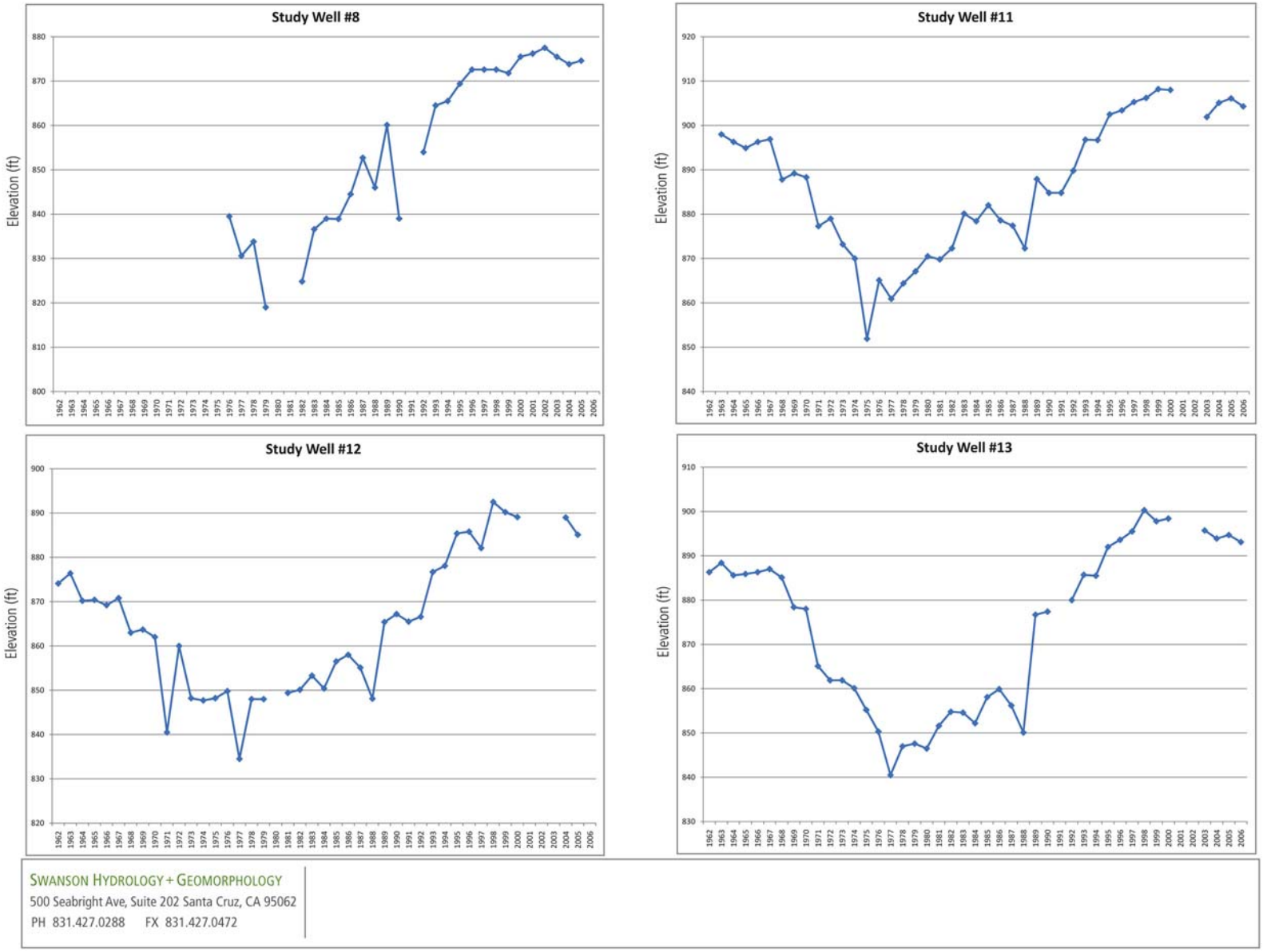


Figure 9b. Study Wells in Lockwood Groundwater Basin, 1960-present

B. Vegetation and Habitat

Descriptions of the Nacitone watersheds' habitats and vegetation are provided as gleaned from WRI information (For more detailed information, please refer to WRI Analysis posted at www.nacitonewater.org.) As the basis for much of watershed function, vegetation and habitats includes special status species and habitats within the watersheds that possess characteristics considered special by various jurisdictions.

Headwaters

Los Padres National Forest and the Ventana and Silver Peak Wilderness

The upper watersheds of the Nacimiento and San Antonio Rivers consist of remote undeveloped wildland with deep canyons and mountain peaks approaching 6000 ft which are part of the geologically complex Santa Lucia Mountains. Marked vegetation changes partition the watersheds into well-defined ecosystems. Much is chaparral with grass meadows, oak woodlands, pine forests and stunning rock formations creating a mosaic across the rugged landscape.

The Cone Peak Gradient Research Natural Area is located near the source of the Nacimiento River and is an area unusual for its ecological diversity and presence of the rare Santa Lucia Fir. The Valley Oak Research Natural Area is located on the North Fork of the San Antonio River and has one of the few remaining examples of valley oak woodland on public lands in California. Other vegetation types within the area include blue oak woodlands, California annual grasslands, chamise chaparral, coastal sage scrub, and riparian vegetation along the San Antonio River (USDA-Land Management Plan Part 2 Los Padres National Forest Strategy, Sept. 2005).

A review of the WRI documents revealed that the ecologically diverse landscape of the watersheds supports a variety of threatened and endangered species including the Arroyo Toad, Western Pond Turtle, Red-legged frog and the California Condor. The area also supports populations of mountain lion, bobcat, fox and deer.

Figure 10. River Upstream of Nacimiento Reservoir (Source: USLT RCD)

Redonda Mountain Sensitive Resource Area

Tierra Redonda Mountain is a major landmark in the planning area, and this broad table-top mountain encompasses approximately 1,300 acres with 320 acres under Bureau of Land Management (BLM) ownership. The mountain is of outstanding ecological importance and has been given a high priority for preservation by the State Department of Parks and Recreation. Most of the public lands are generally designated for open space use only. The San Luis Obispo County Land Use Ordinance indicates that emphasis should be placed on maintenance of the entire mountain as an undisturbed ecosystem rather than several small isolated preserve areas. Uses should be carefully regulated because of fire hazard problems and potential damage to fragile ecosystems (Oak Shores EIR, 2007).

Fort Hunter Liggett

The number of rare and sensitive plant species on FHL is among the highest for similar sized areas in California. This diversity of species can be attributed to the well-preserved landscape and unique geologic resources that underlie FHL. FHL encompasses extensive oak woodland and savanna communities, including valley oak, blue oak, coast live oak and native grassland under story vegetation. It offers the widest diversity of oak taxa of any area of its size in California. Oak woodlands and savanna on FHL include the largest known contiguous valley bottom stands of valley oak. The native oak savanna provides important habitat for many rare, threatened, and endangered species, including purple amole, Tule elk and San Joaquin kit fox. FHL has the highest concentration of oak savanna-specializing birds of any location in the nation.

Chaparral, vernal pools and riparian areas are additional rare habitat types on FHL that support nationally significant species. (FHL Special Resource Study, NPS, 2006).

Valley oak woodlands, valley needlegrass grasslands, and sycamore alluvial woodlands occur on FHL and are considered special status communities by CDFG. Special status communities are defined as biological communities that are rare or restricted in occurrence, provide important habitat for wildlife and unusual plant assemblages, or are jurisdictional waters or wetlands of the United States. Additional valuable communities on FHL include wetlands, riparian communities, oak woodlands and savannas, native bunch grass (especially valley needlegrass) grasslands, and rock outcrops. Section 7.6 through 7.12 of the FHL Integrated Natural Resources Management Plan (INRMP) includes Plant communities, threatened, endangered and other sensitive species, game species, fisheries, non-game species, migratory birds and exotic/invasive plants and wildlife.

Plant Community	San Antonio Watershed			Nacimiento Watershed		
	ha	ac	% of watershed	ha	ac	% of watershed
Grasslands	4299	10623	13	2508	6196	8
Oak woodlands and savannas						
Valley oak woodland	636	1571	2	727	1796	2
Valley oak savanna	2596	6415	8	2986	7378	9
Blue oak woodland	10690	26415	32	7835	19362	24
Blue oak savanna	1714	4235	5	1073	2652	3
Coast live oak woodland	577	1427	2	146	360	0.5
Coast live oak forest	547	1351	2	804	1987	2
Chaparral						
Mixed chaparral	3868	9559	12	10905	26947	33
Chamise chaparral	6274	15503	19	4928	12177	15
Riparian						
Mixed riparian	1263	3121	4	276	681	1
Willow riparian	3	7	0.01	2	4	0.01
Cottonwood riparian	0	0	0	62	153	0.2
Valley oak riparian	12	28	0.03	16	40	0.05
Sycamore riparian	2	6	0.01	273	674	1
Seasonal and perennial wetlands						
Vernal pool	11	26	0.03	0	0	0
Vernal swale	135	334	0.4	0	0	0
Wet meadow	59	146	0.2	63	155	0.2
Pond	37	91	0.1	43	106	0.1
Developed areas	150	371	0.5	0	0	0
Unclassified	78	194	0.2	65	161	0.2
Total	**32950**	**81421**	**100**	**32711**	**80830**	**100**

Adapted from JSA (1994). Total acres differ from deeded acres due to minor boundary inaccuracies in database. (Source: FHL, INRMP, 2004)

Figure 11. Fort Hunter Ligget Communities in Each Major Watershed

Reservoir Environment

Habitats in the vicinity of the reservoirs include annual grassland, blue oak woodland and chaparral. Open areas on the hillsides surrounding the Nacimiento and San Antonio Reservoirs are dominated by annual grassland used for livestock grazing. Grasslands adjacent to the Nacimiento spillway are disturbed (i.e., ruderal) from previous dam construction activity. A large percentage of the plant species that occur in this habitat are non-native.

Non-native grasses and other herbaceous annuals that are common in this habitat include wild oat (*Avena fatua*), soft chess (*Bromus hordeaceus*), foxtail chess (*Bromus madritensis*), black mustard (*Brassica nigra*), sky lupine (*Lupinus nanus*), and Italian ryegrass (*Lolium multiflorum*). Immediately below the spillway, coyote brush (*Baccharis pilularis*) and Fremont cottonwoods (*Populus fremontii*) are scattered along the banks of the Nacimiento River; however, no mature riparian habitat is present directly below the spillway.

The area provides habitat for many of the animals that are common in the grasslands of southern Monterey and northern San Luis Obispo County. Wildlife species observed in this habitat during field surveys conducted for the Salinas Valley Integrated Regional Water Management

Functionally Equivalent Plan Update (2006) include California ground squirrel (*Spermophilus beecheyi*), mourning dove (*Zenaida macroura*), lark sparrow (*Chondestes grammacus*), and savannah sparrow (*Passerculus sandwichensis*).

Blue oak woodland, dominated by open stands of mature blue oaks (*Quercus douglassii*) and foothill pines (*Pinus sabiana*) is the predominant plant community in the vicinity of the reservoirs. Shrubs scattered in the understory include poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*), and California buckeye (*Aesculus californicus*). Blue oak woodland provides important habitat for many of the wildlife species that occur in the foothills surrounding the Salinas Valley. Common species observed during field surveys include western scrub-jay (*Aphelocoma californica*), western bluebird (*Sialia larkia*), and western fence lizard (*Sceloporus occidentalis*).

Dense patches of chaparral occur on some of the steeper south- or east-facing slopes in the area. Chaparral is usually dominated by chamise (*Adenostoma fasciculatum*).

Shoreline and open water habitat on Nacimiento Reservoir and San Antonio Reservoir provides suitable habitat for a number of terrestrial and semi-aquatic wildlife species such as great blue heron (*Ardea larkia*) ruddy duck (*Oxyura jamaicensis*), western grebe (*Aechmophorus occidentalis*), and Clark's grebe (*Aechmophorus larkia*) (Salinas Valley Integrated Regional Water Management Functionally Equivalent Plan Update, 2006).

Downstream of Reservoirs

Habitat in the lower Nacimiento River is controlled largely by water releases from the reservoir above. The lower Nacimiento River is characterized by a low gradient and long, wide sections with sparse riparian vegetation. Typical substrate consists of gravel with lesser amounts of sand and cobble. Water temperatures in the River are highly variable; depending on reservoir releases, air temperature and reservoir storage. Prior to construction of the San Antonio Dam, the San Antonio River normally did not reach the Salinas River in late summer (Monterey County Flood and Water Conservation District, 1989). Conditions in the lower San Antonio River are dependent on releases from San Antonio Dam. The lower San Antonio River was characterized as a small permanent stream with a large quantity of submerged aquatic vegetation and some emergent aquatic vegetation. The aquatic habitat consists primarily of shallow-run habitat, and lesser amounts of pool and riffle habitat. The channel substrate is primarily composed of equal parts of sand and gravel with lesser amounts of cobble and silt (SVWP EIR, April 2002).

Figure 12. River Downstream of Nacimiento Dam

In general, water released through the Nacimiento Reservoir outlet is at a relatively constant temperature of 52 to 54° F (11.1° Celsius I to 12.2 ° C). The water warms rapidly as it moves downstream, generally in relation to fluctuation in daily air temperature. At minimum release levels (25 to 30 cfs), water temperature can increase to as much as 73°F (22.8° C) within 5 miles of the dam, and 75°F (23.9° C) within 10 miles of the dam. During the summer conservation release period (with flows of 300 cfs or more), water temperature is generally maintained at less than 64°F (17.8° C) within 5 miles of the dam, and 68°F (20° C) or less within 10 miles of the dam (SVWP EIR, April 2002).

Steelhead Habitat

NMFS has noted the paucity of data on steelhead in the Salina River System in its 2007 Biological Opinion.

> *Givern that there are very few data available on steelhead in the Salinas River, NOAA's Natinal Marine Fisheries Service has utilitzed data from nearby watersheds which tend to be similar to the Salinas River.* (NMFS, SVWP Flow Proposal for the Biological Needs of Steelhead in the Salinas River, April 2005)

The following information is excerpted from the Salinas Valley Water Project Biological Opinion, 2007.

> *Much of the habitat in the lower Nacimiento River is potentially usable for steelhead. Several potential spawning areas have been documented in the lower river and there are many deep pools. At times, there may be unfavorably warm water temperatures in the lower Nacimiento River, but deep pools may provide thermal refuge for steelhead. One area of the river continues to contain aquatic habitat in relatively good condition for steelhead. Reconnaissance level habitat surveys conducted immediately downstream of the Dam in spring 2000 documented the presence of steelhead spawning and rearing habitat with good cover, relatively cool water temperatures and dense riparian vegetation, and less fine sediments than found downstream. Even with these relatively better habitat conditions, habitat value for steelhead in this area is heavily influenced by flow levels and quality of water released from the reservoir .*

Figure 13. Steelhead Trout

> *Areas above the present sites of the Nacimiento and San Antonio dams comprised some of the best historical spawning and rearing habitats in the watershed. The Salinas Dam, which forms the Santa Margarita Reservoir in San Luis Obispo County, and the Nacimiento and San Antonio dams were constructed without fish passage*

facilities, and, therefore, the historic habitats above these dams are no longer available to steelhead. As a result, 286 miles of spawning and rearing habitat for steelhead have been lost; an estimated 149 miles of spawning and rearing habitat remain in the watershed (NMFS 2005c). Critical habitat for steelhead in the watersheds has been designated below both of the dams to the confluence to the Salinas River.

The current steelhead population in the Nacimiento River is likely at very low abundance. A redd survey conducted on February 26, 2003, between river mile 0 and approximately river mile 7 resulted in zero redds observed. The three miles of river closest to the dam were not surveyed. This un-surveyed area is thought to have the best spawning and rearing habitat based on sightings in 1998 and an unconfirmed sighting in 2001, steelhead are believed present within the Nacimiento River during years with high winter flow events in the Salinas River.

Steelhead Spawning and Rearing Habitat

The San Antonio River was one of the three most important spawning and rearing tributaries for Salinas River steelhead. The confluence of the Salinas and San Antonio Rivers is approximately 107 miles upstream from the mouth of the Salinas River. Following construction of the San Antonio Dam, the pattern of flow releases from the dam was not predicted to provide perennial flow conditions in the lowermost San Antonio River, and CDFG decided against developing a fishery downstream from the dam. Although the availability of steelhead spawning and rearing habitat was limited in the lower San Antonio River even before dam construction, CDFG still identified steelhead as inhabitants of the San Antonio River below the reservoir as of 1981. Presumably, it was assumed that steelhead still entered the lower river from the Salinas River when runoff was sufficient to provide a continuous migration corridor. However, lack of access to historic spawning and rearing habitats in the perennial headwaters greatly limits steelhead use of the San Antonio River. Currently, hydrologic conditions downstream of San Antonio Dam and other habitat conditions do not favor steelhead. NMFS staff walked the lower San Antonio River in August 2004, and noted riparian vegetation, gravels, and shading that could likely provide suitable spawning and rearing habitat. Nonetheless, surveys of the lower San Antonio River completed after the placement of San Antonio Dam show steelhead use is low.

Oak Shores Area

Two sensitive habitats were identified during a California Natural Diversity Database (CNDDB) search as occurring within the search area: sycamore alluvial woodland and valley oak woodland. Valley oak woodland occurs within the study area. The CDFG considers valley oak woodland to be a sensitive habitat (CNDDB, 2007) and of high inventory priority (CDFG, 2003) (Oaks Shores EIR, 2007).

Camp Roberts

At Camp Roberts, the Grassland Ecosystem, which includes the nutrients, soils, vegetation, plants and animals, and all the processes that have an influence on them, such as erosion, grazing, drought, flood, predation, as well as effects from humans covers roughly 20,634 acres (48 percent) of the training site. The Oak Woodland Ecosystem covers roughly 17,622 acres (41 percent) of the training site. The Riparian Ecosystem covers roughly 2,266 acres (5 percent) of the training site. The Chaparral/Scrub Ecosystem covers roughly 539 acres (1 percent) of the training site (Camp Roberts Integrated Natural Resource Management Plan, 2000). Natural Vegetation Communities and Ecosystems on Camp Roberts are provided in Figure 13.

Ecosystem/ Community or Habitat	Vegetation*	Wildlife*
Ecosystem		
Mixed Chaparral	Bigberry manzanita, buck brush, toyon, chamise, California sagebrush, black sage, hollyleaf cherry, poison oak, bedstraw, California peony, fiesta flower, deer weed, and grasses	Orange-crowned warbler, wrentit, California thrasher, brush rabbit, California mouse, western fence lizard, southern alligator lizard, western spotted skunk, and gray fox
Coastal scrub	Sticky monkeyflower, California sagebrush, black sage, California buck-wheat, and various grasses and forbs	Similar to those listed for grassland and chaparral
Closed-cone pine/cypress	Shrubby understory, □anzanita, poison oak, and some forbs	Similar to those listed for coastal scrub
Grassland Ecosystem		
Annual Grassland	Slender wild oats, brome grasses, pacific fescue, purple needlegrass, clover species, lupine species, goldfields, fiddleneck, popcorn flower, blue dicks, common plantain, filaree, tocalote, soft chess, and tarweed	California vole, California ground squirrel, western meadowlark, California horned lark, savannah sparrow, western kingbird, coyote, American badger, San Joaquin kit fox, and red-tailed hawk
Blue oak savanna	Blue oak, soft brome, ripgut brome, holly-leaf redberry, toyon, valley oak	Wild turkey, mule deer, acorn woodpecker, band-tailed pigeon, western bluebird, American kestrel, bushtit, gray fox, and bobcat
Oak Woodland Ecosystem		
Blue Oak woodland	Blue oak, coast live oak, annual grassland species	Wild turkey, mule deer, acorn woodpecker, band-tailed pigeon, western bluebird, American kestrel, bushtit, gray fox, and bobcat, dusky footed woodrat, California ground squirrel
Valley Oak Woodland	Valley oak, poison oak, toyon, coffeeberry, grasses, and forbs	
Coastal Oak woodland	Coast live oak, poison oak, crimson sage, miner's lettuce, California buttercup, and annual grasses	
Riparian Woodland Ecosystem		
Mixed riparian woodland	Fremont cottonwood, western sycamore, valley oak, box elder, elderberry, willow, mule fat, coyote brush, and mugwort	Wood duck, wild turkey, California quail, red-shouldered hawk, Nuttall's and downy woodpeckers, Bewick's wren, rufous-sided towhee, raccoon, Virginia opossum, long-tailed weasel, Pacific chorus frog, southwestern pond turtle, bald and golden eagles, and tule elk
Riparian scrub	Sandbar willow, coyote brush, and mule fat	
Valley foothill riparian[l] (includes sycamore alluvial woodland)	Valley oak, poison oak, toyon, coffeeberry, grasses, and forbs, sycamore	

Figure 14. Natural Vegetation Communities and Ecosystems on Camp Roberts

Ecosystem/ Community or Habitat	Vegetation*	Wildlife*
Wetland/Aquatic Ecosystem		
Seasonal wetlands (including vernal pools and artificial seasonal wetlands)[2]	Water pygmy-stonecrop, Vasey's coyote thistle, Mediterranean barley, small stipitate popcorn flower, popcorn flower, annual hairgrass, woolly marbles, crassula, spikerush, water starwort, filaree, vinegar weed, tarweed, Mediterranean barley, rabbitsfoot grass, curly dock, and toad rush	Vernal pool fairy shrimp, western spadefoot toad, western toad, Pacific chorus frog, mallard, cinnamon teal, killdeer, great blue heron, black phoebe, barn swallow, bullfrog, gopher snake, common garter snake, striped skunk, raccoon, and bats
Clay flats[2]	Annual hairgrass, Mediterranean barley, popcornflower, adobe navarretia, dwarf flax, and turkey mullein	Similar to that described for annual grassland habitat
Perennial Streams[2]	Generally unvegetated, but some support blue wildrye, Mediterranean barley, spreading rush, rabbitsfoot grass, curly dock, and popcorn flower	Similar to those described for annual grassland habitat
Intermittent Stream Drainages[2]	Slender wild oats, brome grasses, pacific fescue, purple needlegrass, clover species, lupine species, goldfields, fiddleneck, popcorn flower, blue dicks, common plantain, filaree, tocalote, soft chess, and tarweed	Same as annual grasslands.
Rivers[2]	None.	Pacific lamprey, Sacramento sucker, hitch, Sacramento squawfish, speckled dace, unarmored threespine stickleback, coastal rainbow trout, and prickly sculpin
Ponds and Reservoirs[2]	Cattails, bulrush, rush, willow, smartweed, lesser duckweed, streamside monkeyflower, white sweetclover, rabbitsfoot grass, and curly dock	Mallard, ring-necked duck, ruddy duck, cinnamon teal, and other waterfowl, great blue heron, great egret, greater yellowlegs, killdeer, red-winged blackbird, raccoon, coyote, gray fox
Freshwater marsh[2] (includes springs)	Cattails, bulrush species, rush species, willow species, smartweed, lesser duckweed, streamside monkeyflower, white sweetclover, rabbitsfoot grass, curly dock	Mallard, ring-necked duck, ruddy duck, cinnamon teal, and other waterfowl, great blue heron, great egret, greater yellowlegs, and killdeer.

*Scientific names are cataloged in Appendix B and C
[1]Sensitive natural communities (NDDB, 1999)
[2]A habitat type; not a natural community type.

Figure 14 (continued). Natural Vegetation Communities and Ecosystems on Camp Roberts

Water habitats

Three rivers, the Nacimiento, the Salinas, and the San Antonio traverse Camp Roberts covering a total of about 264 acres. The species listed in Figure 14 are those commonly associated with the rivers on Camp Roberts; however, the rivers also supply a drinking water source for many other animals on the training site.

Camp Roberts has 13 ponds and reservoirs (65 acres), which are either natural or artificially-created for use as livestock ponds and for flood control. These areas are now fenced to exclude livestock. Some medium and larger ponds support emergent wetland vegetation and riparian species along the receding water line or low water edge. These areas typically are inundated for a long duration and are considered jurisdictional wetland by the U. S. Army Corps of Engineers. Unvegetated portions of ponds are typically considered other waters of the United States because they lack hydrophytic vegetation. The low water zone, which is also dominated by hydrophytic species, would be considered jurisdictional wetland; however, unvegetated and vegetated components were not delineated separately in a Jones and Stokes Associates 1996 survey (CR INRMP, 2000).

A total of 120 aquatic species representing 64 families of organisms were recorded from rivers, ponds, and reservoirs on Camp Roberts. Three stations on the Nacimiento River (Twin Bridges, High Water Bridge, and Low Water Bridge) had the highest diversity of aquatic organisms. The greatest diversity of aquatic insects (28 species, representing 21 families) was recorded at a relatively undisturbed site on the Salinas River in the northeast region of the camp. Two families of mayflies (Ephemerellidae and Siphlonuridae), one family of aquatic bugs (Naucoridae, creeping water bugs), and one family of stoneflies (Isoperlidae) were uniquely surveyed at this downstream Salinas River station on Camp Roberts. An additional sensitive wildlife species occurring in the Nacimiento River is the southwestern pond turtle (CR INRMP, 2000).

Eight species of fish, comprising approximately 44 percent of the species native to the Salinas River drainage have been recorded at Camp Roberts from the Nacimiento River: Pacific lamprey, Sacramento sucker, hitch, Sacramento squawfish, speckled dace, unarmored three-spine stickleback, coastal rainbow trout, and prickly sculpin (CR INRMP, 2000).

Introduced species (either to North America and/or California) found were: goldfish, common carp, western mosquito fish, green sunfish, bluegill, largemouth bass, black crappie, and black bullhead. White bass and catfish have also been caught during the sport fishing program in the Nacimiento River (CAEV-CR database). Only one of the 10 ponds surveyed (Pond #8—Twin Ponds West) was inhabited by fish (introduced bluegill and black bullheads).

Plants of Camp Roberts

The Oklahoma Biological Survey (1997) undertook a post-wide floristic inventory in 1993 and 1994. Several specimens of each plant were collected, vouchered in a local herbarium, and laminated for a reference collection at Camp Roberts. Since that time, Land Condition Trend Analysis crews have collected and vouchered undocumented plants for inclusion in the reference collection each year during annual surveys.

As of September 2000, more than 613 plant species have been identified at Camp Roberts. The CR INRMP included the following on introduced species of plants.

> *Using the known species in 1998, Bern (1999) calculated that approximately 23 percent of known plant species at Camp Roberts (378 species) were introduced (i.e., non-native, exotic, or alien). Most of the introduced species were grasses (96 percent) (Bern, 1999). All floristic data collected in these surveys are included in the Camp Roberts Environmental Office database and are currently being update* (CR INRMP, 2000).

C. Water Quality

The existing water quality conditions of the Nacitone watersheds are summarized here by inspection of documents that describe past water quality assessment as well as the Nacitone Watershed Resources Inventory Final Technical Memorandum—Water Resources, Water Quality and Sediment Supply. No new data was generated for this study. State designated beneficial uses and point and nonpoint sources of pollution are also addressed in this section as established by Cal EPA and SWRCB regulatory authority.

General Regulatory Setting for Water Quality

The 1970 Porter-Cologne Water Quality Control Act gives the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB) authority to perform water quality regulatory oversight regardless of the source. Water quality control is defined by the Act as "the regulation of any activity or factor which may affect the quality of the waters of the state and includes prevention and correction of water quality or nuisance." Federal Clean Water Act Section 208 funds have been used to assess water quality conditions in California's 16 hydrologic basins and create water quality management plans, familiarly known as "Basin Plans" (Range Water Quality Management Plan, 1995).

The water quality objectives listed in the Basin Plan for the Central Coast region are intended to protect the beneficial uses of the reservoir, which include the following elements:

- Municipal and domestic water supply,
- Agricultural water supply,
- Groundwater recharge,
- Water contact recreation,
- Non-contact water recreation,
- Wildlife habitat,
- Cold fresh water habitat,
- Warm fresh water habitat,
- Fish spawning,
- Rare, threatened, or endangered species,
- Freshwater replenishment,
- Navigation, and
- Commercial and sport fishing

Waterbody Name	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	RARE	FRESH	NAV	POW	COMM	BIOL	EST	AQUA	SAL	SHELL
San Antonio R. downstream from Res.	X	X		X	X	X	X	X		X	X	X	X				X					
San Antonio Reservoir	X	X			X	X	X	X	X	X		X	X	X	X	X	X					
San Antonio R. upstream from Res.	X	X		X	X	X	X	X	X	X	X	X	X	X			X					
Salinas R. Nacimiento R.- S. Margarita Res.	X	X	X		X	X	X	X	X	X	X	X	X				X					
Nacimiento R. upstream of Res.	X	X			X	X	X	X	X	X		X	X	X			X					
Salmon Creek	X					X	X	X	X		X	X	X				X					
Nacimiento Reservoir	X	X			X	X	X	X	X	X		X	X	X	X		X					
Nacimiento R. downstream of Res.	X	X		X	X	X	X	X	X	X	X	X	X				X					
Las Tablas Creek	X	X			X	X	X	X	X	X		X	X				X					
Las Tablas Creek, north fork	X	X			X	X	X	X	X			X	X				X					
Las Tablas Creek, south fork	X	X			X	X	X	X	X			X	X				X					
Franklin Creek	X	X			X	X	X	X									X					

The following is a list of codes associated with beneficial uses:
MUN = municipal and domestic supply,
AGR = agricultural supply,
PROC = industrial process supply,
IND = industrial service supply,
GWR = groundwater recharge,
REC1 = water contact recreation,
REC2 = non-contact recreation,
WILD = wildlife habitat,
COLD = cold fresh water habitat,
WARM = warm fresh water habitat,
MIGR = migration of aquatic organisms,
SPWN = spawning, reproduction and/or early development,
RARE = rare threatened or endangered species,
FRESH = freshwater replenishment,
NAV = navigation,
POW = hydropower generation,
COMM = commercial and sport fishing

Figure 17. Identified Uses of Inland Surface Waters per the Central Coast RWCQB Basin Plan

Further, under Section 303(d) of the 1972 Federal Clean Water Act, states are required to develop a list of water quality-limited stream segments that do not meet water quality standards, commonly referred to as the 303d list. The law requires that the states establish priority rankings for water on the lists and develop action plans, called Total Maximum Daily Loads (TMDL), to improve water quality. The RWQCBs are primarily responsible for developing the list, which is approved by both the SWRCB and the U.S. Environmental Protection Agency (Central Coast Water Quality Data Synthesis, Assessment, and Management [SAM] Project, Central Coast Water Quality Data Assessment Report, 2008.)

Total Maximum Daily Loads (TMDLs) in the Watersheds

Las Tablas Creek and Nacimiento Reservoir are listed as impaired for Metals on the 2006 Clean Water Act 303(d) list. In a RWQCB 1996 Water Quality Assessment Report, the RWQCB reports the Nacimiento Reservoir as impaired for metals (mercury) in fish tissue, and mainstem Las Tablas Creek and the north and south forks impaired for metals (mercury) associated with sedimentation as well as being high in total dissolved solids, electrical conductivity, sulfate, and nickel. The RWQCB's 2002 Watershed Management Initiative Report also indicates, "It is likely that nitrates in groundwater will increase in the future unless preventive measures are taken" (RWQCB WMI, 2002). As a result of the Clean Water Act 303(d) listing for Metals, the RWQCB adopted a TMDL for Las Tablas Creek and Nacimiento Reservoir in 2003; however, it was not approved by the SWRCB and is pending the results of the Record of Decision for the Klau Buena Vista Superfund Site.

Mercury TMDL and EPA Superfund Status

In many parts of the Nacimiento River watershed, the natural mercury levels in soil tend to be relatively high, since the area has numerous naturally occurring cinnabar (mercuric sulfide) deposits and mine sites. Estimates from the Regional Board Lake Nacimiento Loading Model indicate that approximately 77 to 93 percent of the total mercury loading into the reservoir enters from the Las Tablas Creek drainage area. (Las Tablas Creek and Lake Nacimiento, TMDL, 2002).

The Buena Vista and Klau mines in the Nacimiento River watershed have been identified as the primary point and nonpoint sources of mercury contamination in the watershed. Studies leading up to the total maximum daily load (TMDL) described the movement of mercury from the mines to Nacimiento Reservoir.

> *Below Buena Vista and Klau mines, mercury contaminated materials are primarily found in Las Tablas Creek sediments. It is presumed that coarser materials containing mercury are to be found throughout the sediment between the mines and Lake Nacimiento, and thus will continue to flow to the lake even if the mine facilities and surrounding hills cease to be a source of mercury pollution. Annual mercury loadings will depend on the proportion of this sediment stockpile that reaches the lake in any given year. It is possible that a high-level flood event (100-year storm or larger) could scour a very significant portion of this sediment from the Las Tablas Creek floodplain, although much sediment would be re-deposited in the floodplain channel as waters recede. Fine sediments would move more efficiently, so a very large percentage of the mercury-contaminated fines (silts and clays) will likely reach Lake Nacimiento. The level of Lake Nacimiento is seldom allowed to reach maximum stage, causing Harcourt Reservoir, a small impoundment located on Las Tablas Creek, adjacent to the reservoir and Nacimiento Reservoir waters to merge.*

Sediment-rich waters from Las Tablas Creek will deposit their fine suspended sediment load in the still waters of the lake. When the lake is at a low level, but receives high level floodwaters via the Las Tablas Creek Arm, previously exposed old lake floor sediments will be re-transported further north into the Las Tablas Arm and eventually into the main lake channel (Clean Lakes Assistance Program, 1994).

The TMDL identified control measures that were to be implemented at Buena Vista and Klau mines. Since the TMDL, the Buena Vista and Klau mines have been listed on the National Priority List (also known as the Superfund site list), which supersedes the TMDL. Remediation of the sites is under authority of the Environmental Protection Agency. A May 2007 EPA Newsletter for Klau and Buena Vista mines indicated that in June of 2006, EPA initiated a removal action. In 2007, the EPA installed several monitoring probes in streams to measure the effects of acid mine drainage on pH levels. An assessment will begin in spring 2008 to identify any endangered, threatened or sensitive plants or animals that may be affected by site contamination. EPA anticipates that a sampling plan for collecting soil samples and surface water samples will be completed by summer 2008.

Point Sources

The following are point sources, Leaking Underground Tank Clean up Sites, and permitted dischargers in the Watersheds.

Discharge	Point Source	Reference
Mercury	Buena Vista and. Klau Mines	Las Tablas Creek and Lake Nacimiento TMDL 2003
Potential Contaminants of Concern	**Leaking Underground Tank Clean Up Site (LUST)**	
Gasoline	Lake Nacimiento Resort boat launch	Geotracker RWQCB Case 3652
Gasoline	Lake San Antonio Resort Store and Fuel Station	Geotracker RWQCB Case 2905
	Dischargers with NPDES Permits	Reference permit #
	San Antonio River Watershed	
Sanitary wastewater	San Antonio Recreation Area South Shore Wastewater Facilities	RWQCB Order No. 01-131
Solid waste	Lake San Antonio North Shore Closed Class III Landfill	RWQCB Order No. R-32002-0056
Winery process wastewater	Winery	Waiver granted by RWQCB 9/17/03
Sanitary wastewater	San Antonio Recreation Area North Shore WWTP	RWQCB Order No. R3-2004-54
	Nacimiento River Watershed	
Solid Waste	Fort Hunter Liggett Class III Landfill Waste Disposal Site	RWQCB Order No. 87-149
	North shore Ski and Boat Club	RWQCB Order No. 89-74
Domestic wastewater	Heritage Ranch CSD WWTP	RWQCB Order No. R3-2006-0012
Domestic sanitary wastewater	Oak Shores Development Wastewater Treatment Plant – San Luis Obispo County Service Area No. 7	RWQCB Order No. 01-130
Domestic wastewater	Lake Nacimiento Resort	RWQCB Order No. 96-26

Figure 15. Point source Clean up Orders and Permitted Dischargers in the Watersheds

Heritage Ranch Community Service District (NRCSD) Discharge Permits

The CSD holds a Waste Discharge permit and an NPDES (National Pollution Discharge Elimination System) permit from the California Regional Water Quality Control Board, Central Coast Region for discharge of treated effluent. According to Heritage Ranch CSD Nacimiento Watershed Sanitary Survey (2005) the waste discharge permit is for discharge of Heritage Ranch treated effluent. The discharge point is an unnamed ephemeral creek. The discharge location is is on the district's 220 acre along G-14 (also known as Lake Nacimiento Drive), about 1.5 miles south of the entrance to Heritage Ranch and approximately 4 miles from the confluence with the Nacimiento River. Treated effluent entering the unnamed tributary flows approximately one mile downstream then percolates into the soil. The NPDES is required because during very heavy rain periods, discharge to the ephemeral creek could reach the Nacimiento River. The basic effluent limitations set by the RWQCB are that the discharge must be treated to a degree that protects groundwater, streams and riparian habitat. The current five-year permit held by Heritage Ranch Community Service District expires in 2011. Daily, monthly and annual testing is required of wastewater effluent. The State Water Resources Control Board must license district employees operating the wastewater treatment plant as Wastewater Treatment Plant Operators. The District has four employees currently certified as Operators (Heritage Ranch Sanitary Survey, 2005).

The quality of the Heritage Ranch Community Service District's wastewater influent is very good. This is characteristic of an influent that comes from almost all residential homes. There are few businesses in Heritage Ranch. The effluent is also correspondingly of high quality. The District has a history of compliance with all RWQCB limitation requirements. Summarized below are key effluent monthly limitations in the Discharge Order.

Parameter	Units	Limitation	Average
BOD	mg/L	30	20.09
TSS	mg/L	30	21.18
Settleable Solids [a]	ml/L	.1	0.01
Oil and Grease	mg/L	10	2.3
pH	--	6.5 – 8.3	7.15
Nitrate [a]	mg/L (as N)	8.0	non detect
Chlorine	mg/L	non detect	non detect
Copper [b]	µg/L	25.0	9.2
Mercury [b]	µg/L	0.07	.006

[a] Settleable solids and nitrates are daily maximum limitations.
[b] Copper and mercury limitations are interim until 4/1/10.
Reported data includes 2006 results.

Figure 16. Key effluent monthly limitation for the Heritage Ranch Wastewater Discharge

Nonpoint Sources

San Antonio River watershed

Analysis of the WRI documents did not reveal specific information on nonpoint sources within the San Antonio River watershed.

Nacimiento River watershed

The Heritage Ranch CSD's Nacimiento Watershed Sanitary Survey (2005) identified two primary potential nonpoint sources of contamination: (1) people who recreate on and around Nacimiento Reservoir and (2) cattle that have unrestricted access to almost the entire shoreline. Both of these conditions have existed either before or since the reservoir was created over 50 years ago.

A secondary source of potential contamination was identified in the form of wild-land fires, with the resulting erosion and debris affecting the reservoir. The resulting water runoff and sedimentation caused by fire burning of natural vegetation causes the contamination. The California Department of Forestry is responsible for fire suppression within the watershed. An accidental fire or a controlled burn that becomes out of control is of concern in this area (HR Sanitary Survey, 2005).

Mercury, while it has a definable point source, also behaves as a nonpoint source as it is carried from the point source, the mines, in sediment as it runs off in rain events. It has thus contaminated the food chain of Nacimiento Reservoir. Fish throughout Nacimiento Reservoir, including the Narrows, were found to have high levels of mercury. Mercury is a metal that can be harmful to the human nervous system when it is present in a form called "methylmercury." Methylmercury can affect human development. When mercury is in the sediment of a reservoir, small organisms transform it into methylmercury in their bodies. When small fish eat these small organisms they consume the methylmercury in the organisms. Predatory fish such as white and spotted bass that eat smaller fish consume all the methylmercury in their prey; therefore predatory fish have the highest levels of methylmercury (Oak Shores EIR, 2007). This has led to a San Luis Obispo County Environmental Health Division fish advisory for Nacimiento Reservoir that advised limited consumption of bass from the reservoir.

According to the Heritage Ranch CSD Sanitary Survey, studies and samples of reservoir sediment deposits revealed that mercury contamination exists in the water and bottom sediments of the reservoir and were highest in the Las Tables Creek arm of the reservoir. The water samples contained lower mercury concentrations than the bottom sediment samples. Of the 10 surface samples and 13 bottom samples measured, all were below the MCL (maximum contaminant level) for mercury of 2 micrograms/liter. The County of San Luis Obispo has sampled near the dam for mercury concentration. There have been 60 samples taken near the dam and all results have been <1 μg/L. The HRCSD sampling at its water intake facility at the Nacimiento River has also not detected mercury concentrations.

According to the Heritage Ranch CSD Sanitary Survey (2005) samples taken in 1995 in the following locations contained both *Giardia* and *Cryptosporidium*: at the dam, near a cattle grazing area, in the Nacimiento River upstream of the Heritage Ranch CSD well and downstream of the Heritage Ranch CSD final effluent entry site. Cattle were present only near the cattle grazing area. Both Giardia and Cryptosporidium were present at all of these locations and are generally expected in any surface water. However, it should be noted that reservoir water samples collected near the dam in 2002 by San Luis Obispo County Water Quality Lab did not contain *Giardia* or *Cryptosporidium* cysts (HR Sanitary Survey, 2005).

Humans carry both of these microorganisms and can contribute to their presence in water. *Giardia* and *Cryptosporidium* concentrations have the potential to be greatly increased by certain activities in a watershed. Fecal contamination from mammals greatly increases *Giardia* and *Cryptosporidium* loading to a water body compared to background levels as well as coliforms, *E. coli*, and other contaminants. Livestock in particular are significant sources of these microorganisms, especially *Cryptosporidium*. Beavers are especially known to carry *Giardia*.

Consumption of water with these microorganisms present can cause severe, long lasting (sometimes for a lifetime) gastrointestinal illness, sometimes with lethal consequences. It is important to note that consumption can be intentional (water users) or unintentional (swimming, water skiing) (summarized by L. Wallender, personal communication 2007).

While a comprehensive sediment budget was not found in documentation for the WRI, sediment yield in the watersheds was studied relative to mercury in the Las Tablas tributary to the Nacimiento Reservoir by the Coastal Resources Institute for the RWQCB and published in the Clean Lakes Assistance Program for Lake Nacimiento (1994). The value of 1,000 tons/square mile/year (about 1.56 tons/acre) was chosen as a relatively conservative sediment yield value for the entire Nacimiento River watershed basin. The figure was applied to the entire watershed, for although slope steepness was greater on the west side of the river, rocks are generally softer and more erodable on the east side of the river. With a watershed area of about 82 square miles (about 52,480 acres), sediment yield data from nearby watersheds would suggest a typical year's production of about 1,000 tons/square mile (Clean Lake Assistance, 1994). Sediment yield information is relevant in determining a rate at which mercury could be entering into Nacimiento Reservoir from Las Tablas Creek specifically and from the larger watershed generally. Sedimentation rate information would also provide an understanding of the expected life-spans of the reservoirs. SH+G has conducted a preliminary sediment budget for both watersheds which is discussed below in the Reservoir Features and Management section of Part 2.

Illegal drug production is also a threat to watershed health. As described by journalist Kera Abraham:

> *On the Los Padres site alone I discover three different brands of fertilizer, a hand-pump pesticide product and gopher killer pellets made with highly toxic zinc phosphide. Once introduced to the environment, these kinds of pesticides can ripple up the food chain, poisoning cougars, coyotes and condors that eat the tainted varmint. Totally unregulated in the hands of illegal growers, ag chemicals can do serious damage to the air, soil, water and wildlife.* (Wasted Wilderness from Monterey County Weekly, 2007).

The article also reported trash heaps associated with areas that had been used to grow marijuana. The Ventana Wilderness Alliance in coordination with the Forest Service is pursuing clean-up efforts.

San Antonio Reservoir Water Quality

Temperature and Dissolved Oxygen

Thermal stratification may occur in San Antonio Reservoir during spring, summer and fall. During the stratification period, surface water temperatures may range between 68 degrees F and 81 degrees F, while at depths greater than about nine meters water temperature is typically between 55 and 63 degrees F. Temperature profiles show a pronounced thermocline between approximately 13-30 feet in depth. These temperatures would be suitable for trout and other cold-water species, except trout also need relatively high dissolved oxygen (DO) concentrations. During summer months, the DO falls to very low levels below the thermocline, negating the possibility of trout habitat (SVWP EIR, April 2002).

Constituents

The Monterey County Parks Department utilizes San Antonio Reservoir water for public use. One measure of overall water quality that has been collected (October 13, 1997, MCWRA) is electrical conductivity (EC). The measured levels of EC of San Antonio Reservoir water ranged from 100 to 400 µmhos/cm, with an average value of approximately 300 µmhos. According to the SVWP EIR, this translates into an approximate total dissolved solids (TDS) level of 210 mg/l. The TDS secondary drinking water quality standard upper limit is 1,000 mg/l. Manganese levels, reported at 210 to 470 micrograms/liter, exceeded the Secondary Drinking Water Standard, as established by U.S. EPA, which is 50 micrograms/liter. The highest nitrate reported by the MCWRA is 4 mg/L as NO3, which is below the drinking water MCL of 45 mg/L as NO3 (SVWP EIR, April 2002).

Nacimiento Reservoir Water Quality

The Nacitone Steering Committee elected to contract with Swanson Hydrology and Geomorphology to review information compiled in the WRI Analysis and water quality data collected by the San Luis Obispo County Public Works Water Quality Lab between October 1995 and 2007 at the log boom in Nacimiento Reservoir. The remainder of the Nacimiento Reservoir Water Quality section is excerpted from a technical memorandum produced by SH+G.

> *Analysis of the Water Quality Lab data is useful as a cursory screening of water quality trends in the reservoir and watershed. Because these data were only collected at the log boom, their applications to understanding water quality issues that affect human health are limited. A much more comprehensive and long-term sampling effort within the reservoir, especially within the various arms and inlets of the reservoir where recreational use is high, would be necessary to develop a more complete picture of water quality and its potential impact to beneficial uses and human health.*
>
> *In the summer months, Lake Nacimiento is thermally stratified. Thermal stratification results in two distinct zones within the reservoir that have implications on water quality, reservoir circulation, and biological productivity. The upper layer, referred to as the epilimnion is well mixed and interacts with the surface water. The lower layer, referred to as the hypolimnion tends to be cooler, is not well mixed, and tends to have lower dissolved oxygen due to lack of replenishment from the upper layer. The thermocline, a transitional layer between the epilimnion and hypolimnion, varies seasonally and with changes in wind and temperature patterns, but typically occurs at depths ranging from 20- 30 feet. Samples were collected by SLO County in both the epilimnion and hypolimnion of the reservoir. The SLO County data includes sampling and analysis for the following constituents:*
>
> • *Physical parameters including temperature, pH dissolved oxygen (DO) and turbidity;*
> • *Inorganics including various metals;*
> • *General mineral content including chloride, sulfate and sodium.*
> • *Nutrients including various forms of nitrogen and phosphorus*
> • *Organics including volatile organic compounds (VOCs), synthetic organic chemicals (SOCs) and Methyl tert-butyl ether (MTBE); and*
> • *Micro-organisms including total coliform and E. coli*

Selected constituents in the SLO County data, collected at the "log boom", were evaluated for trends throughout the period of record and individual measurements that exceed the water quality objectives listed in the Basin Plan for the Central Coast region (RWQCB, 1999). In general, the analysis of the existing water quality data focuses on the key beneficial uses that are of concern to the NWSC, although discussion is provide for other beneficial uses if the observed impact on water quality in notable. A general discussion of water quality as it relates to water supply is also provided.

Physical Parameters

Physical water quality parameters influence numerous beneficial uses including, but not limited to, wildlife habitat, cold and warm fresh water habitat, and fish spawning. Figure 18 shows the trend in physical water quality parameters for the period of record. Seasonal temperature fluctuations in the epilimnion are significant, varying approximately 15ºC annually; temperature flux in the in hypolimnion is less pronounced, though the data show it can be significant. The Regional Water Quality Control Board (RWQCB) has not established a temperature threshold for the "cold fresh water habitat" beneficial use, but 20ºC is often considered the maximum limit for salmon and trout habitat. Epilimnion temperatures in the late summer and early fall exceed this threshold, but the hypolimnion generally remains below 20ºC. In the hypolimnion, dissolved oxygen (DO) concentrations are a limiting factor for salmon and trout habitat; the stated water quality objective is e"7.0 mg/L, which is often not met (Figure 18). Dissolved oxygen is a measure of the amount of oxygen dissolved in water. This oxygen is absorbed by fish and other aquatic species through their gills.

The data show turbidity in the reservoir often spikes with the influx of sediment during large winter storms (Figure 18). The sediment settles out in the summer and turbidity is not thought to be a limiting factor for aquatic wildlife-related beneficial uses. Water pH was generally recorded in the range of the water quality objectives.

Inorganics

Inorganic constituents, which include heavy metals, can be toxic to aquatic organisms and wildlife. High concentrations of metals can degrade or limit wildlife-oriented and domestic beneficial uses. Heavy metals are of particular concern for wildlife species that are consumed by humans because they accumulate in the tissue of organisms higher in the food chain. Figure 19 shows the trend for selected inorganic water quality parameters for the period of record. There are no major exceedances of the established water quality objectives, nor are there any obvious trends that would suggest beneficial uses will be adversely impacted by inorganic constituents.

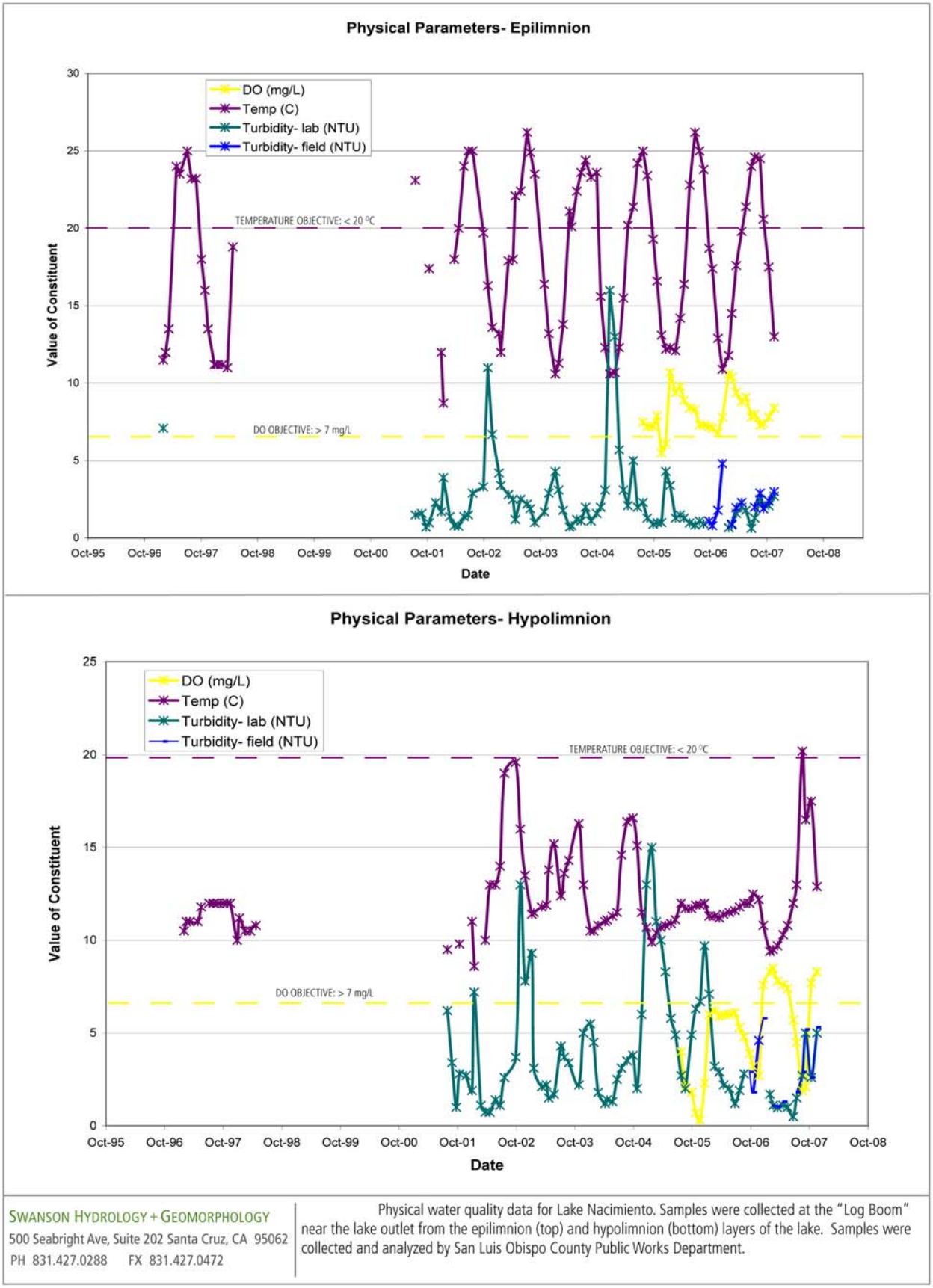


Figure 18. Physical Water Quality of Lake Nacimiento

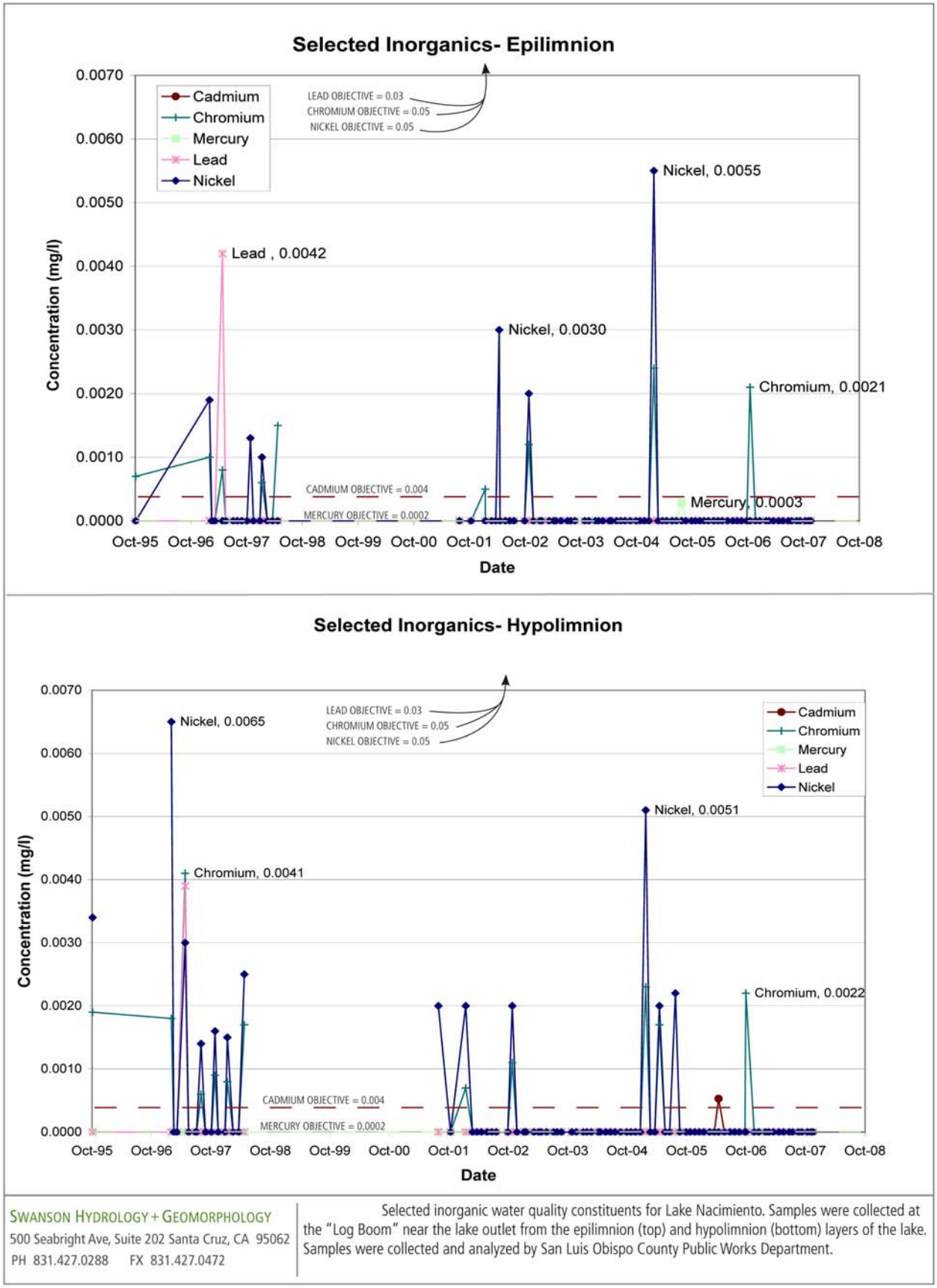


Figure 19. Selected Inorganic Water Quality Constituents from Lake Nacimiento

Mercury is a known contaminant of concern in the watershed. A sample collected from the epilimnion in August 2005 show mercury concentrations that exceed the established water quality objectives by 0.0001 mg/l (the water quality sample that recorded mercury levels above the detection limit represents 1 out of 118 samples collected at the log boom). Although mercury is toxic at low concentrations, this level of exceedance probably does not constitute a water quality concern. A more thorough analysis of mercury is being conducted by the Environmental Protection Agency (EPA) due to the presence of abandoned mercury mines in the Las Tablas watershed, a tributary of the Nacimiento River that directly enters Nacimiento Reservoir. EPA is preparing a wide variety of analyses as part of a Superfund Site (Remedial Investigation/Feasibility Study) *to evaluate the delivery and fate of the mercury from the mines. Because mercury binds to sediment and is transported downstream via erosion and sediment transport processes, it is difficult to trace the ultimate fate and amount of mercury that is directly reaching the reservoir.*

General Minerals

Minerals or salts dissolved in water contribute to the total dissolve solid (TDS) load. TDS is typically considered an important measure of water quality from a domestic or agricultural use standpoint. Specific water quality objectives have been established for the waters of the Nacimiento River for various mineral concentrations and TDS. Figure 20 presents the data for these parameters for the period of record, as measured at the "log boom". Overall, the individual constituents that contribute significantly to TDS are within the established water quality objectives. However, there appears to be a slight trend of increasing TDS concentration in Nacimiento Reservoir, especially in the epilimnion. Although it is difficult to determine the causes of an increase in TDS within the reservoir, one possibility to consider is the high evaporation rate off of the lake which may be increasing its long-term salinity as salts and other minerals accumulate in the reservoir. Prior to the reservoir being constructed, these minerals would be transported downstream and either discharge to the ocean or be deposited in floodplain areas. Following dam construction, the reservoir acts as a sink for these minerals and salts, which accumulate in the bottom sediments. A longer period of measurement is needed to determine if there truly is a trend of increasing TDS and what the potential causes may be. The possible trend observed in the existing data may be the result of year-to-year variations in reservoir inflow and seasonal variability.

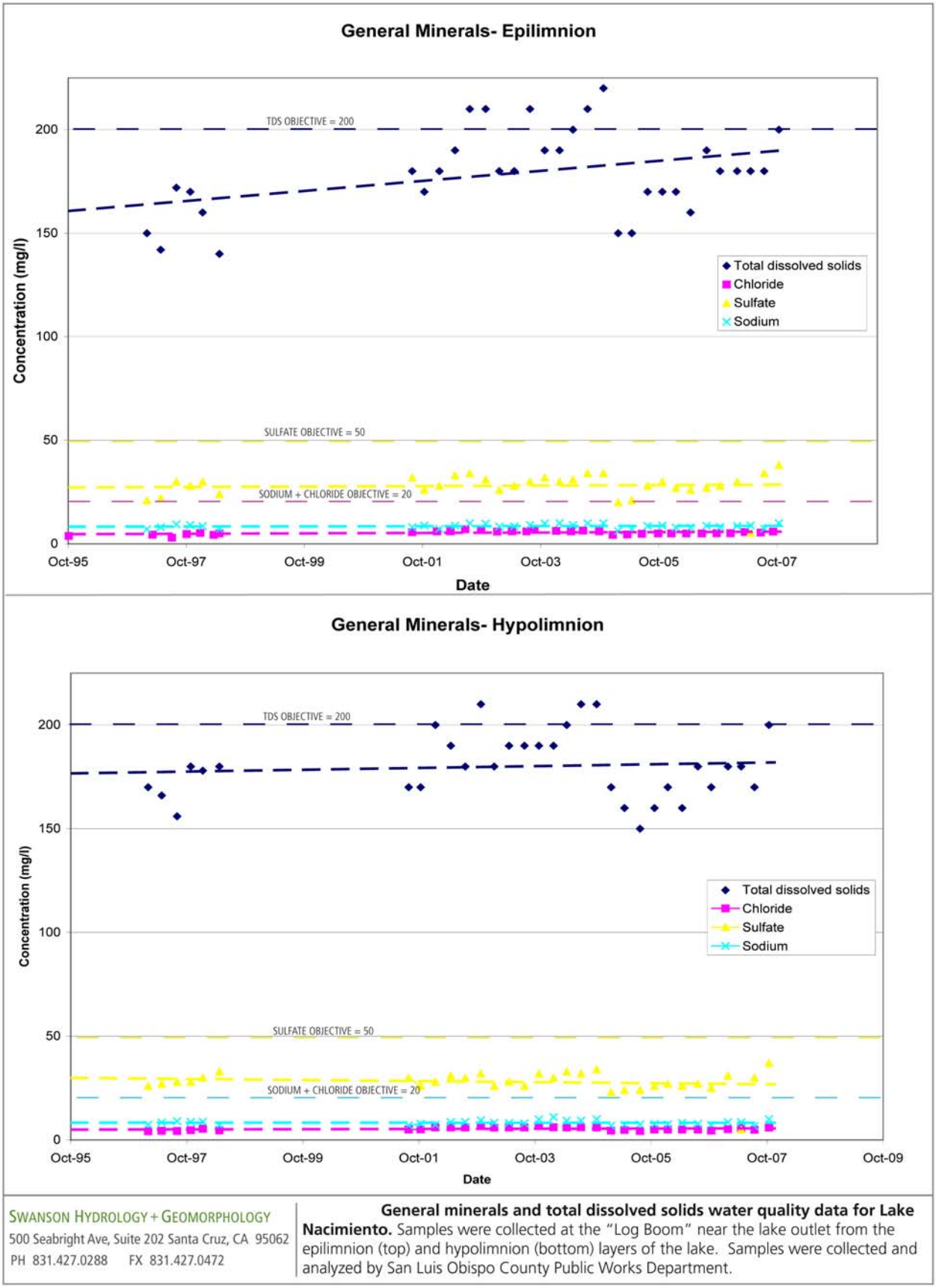


Figure 20. General Minerals and Total Dissolved Oxygen for Lake Nacimiento

Nutrients

High nutrient concentrations in water can degrade or limit nearly all beneficial uses, including aquatic and wildlife-oriented, domestic and agricultural beneficial uses. Figure 21 shows the nutrient data for these parameters for the period of record. There are no established water quality objectives in the Basin Plan for nutrients, but the levels detected in samples taken at the log boom are not likely to adversely impact the beneficial uses listed for the lake.

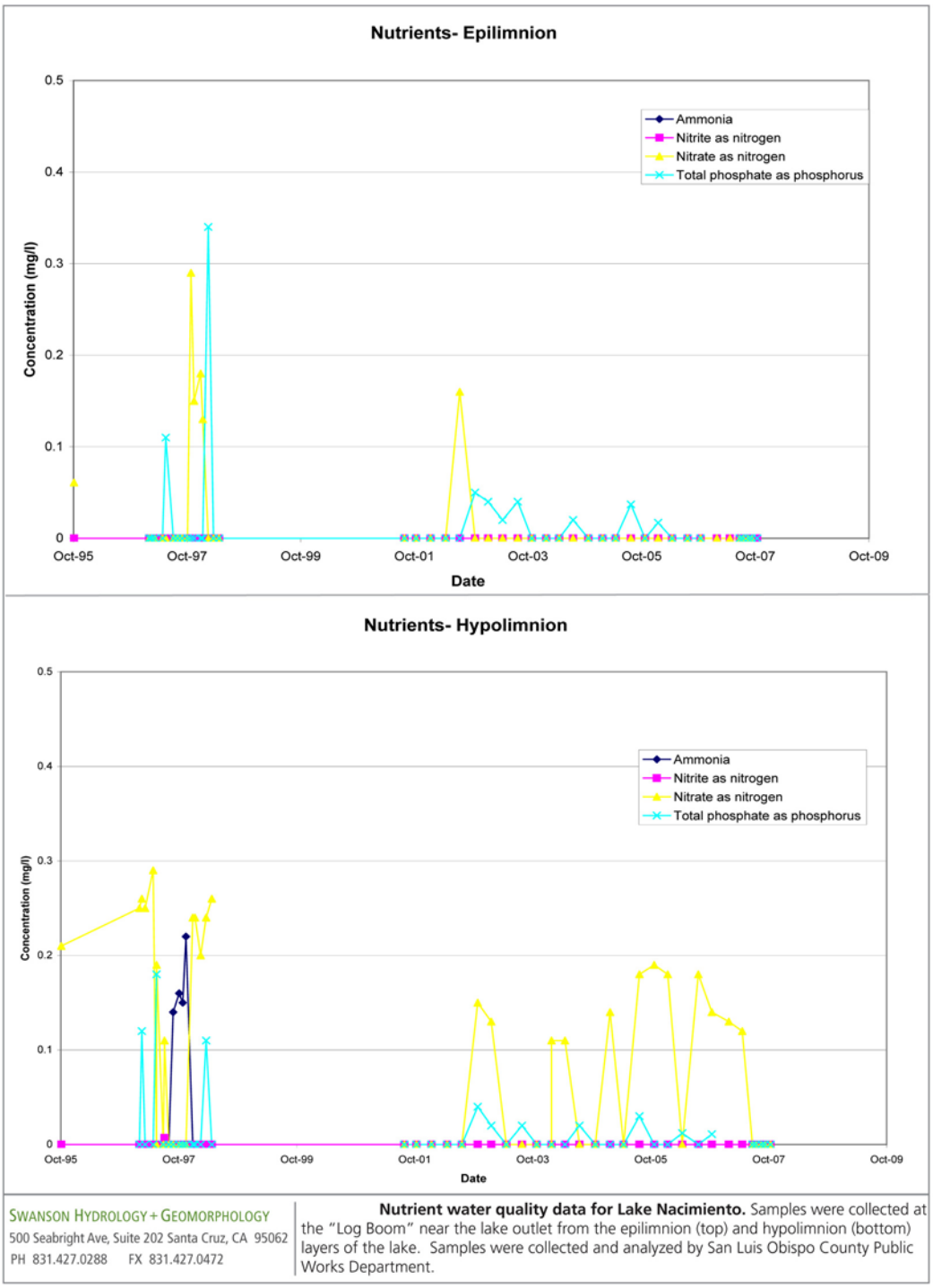


Figure 21. Nutrients for Lake Nacimiento

Anthropogenic Organics

The San Luis Obispo County sampling program tested samples, taken from the epilimnion, for atrazine (an herbicide), simazine (an algicide), MTBE, SOC's (e.g., pesticides, PCBs) and VOC's (volatile organic compounds). MTBE was detected during two sampling events in 2001, but has not been detected since. Bis(2-ethylhexyl)phthalate (DEHP) was detected during two sampling events in 2004, but has not been detected since. The MTBE was detected at relatively low concentrations (5.5 to 14 parts per billion- ppb); [DEHP was detected at 3.2 ug/L and 4/6 ug/L in late 2004. The Maximum Contaminant Level (MCL) for DEHP in finished drinking water is 6 ug/L; this is the highest level of a contaminant that is allowed in drinking water. Both values were below this MCL (Lisa Wallender, personal communication, 2008).] *The data suggest that there is no chronic MTBE or DEHP contamination at this sampling station.*

Microorganisms

The SLO County sampling program tests samples taken from the epilimnion and hypolimnion at the log Boom for microbial contamination including total coliform and E. coli concentrations. High coliform and E. coli counts in recreational water bodies can cause human health problems. Figure 22 shows the data for microbial contamination for the period of record. The data show that there are some spikes in total coliform count, but E. coli counts are relatively low.

SH+G indicated that a more robust data set is needed to evaluate the potential impact of microorganisms on the recreational use of Nacimiento Reservoir. They also indicated that sampling locations should be added to test high use swimming areas, especially in the summer months and within lake inlets where poor water circulation is likely.

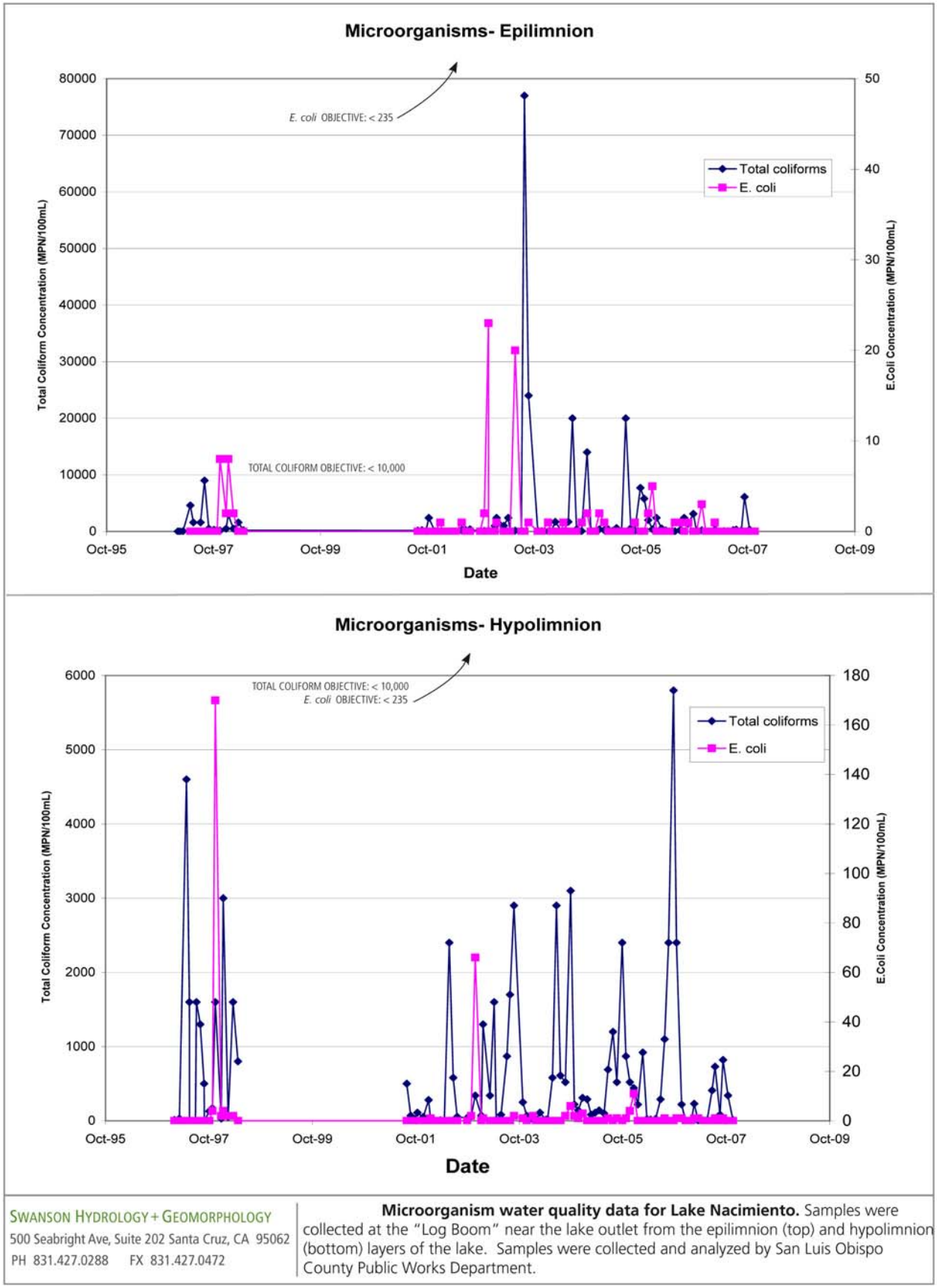


Figure 22. Microorganism Water Quality for Lake Nacimiento

Summary

The log boom data set provides a limited picture of water quality conditions within Lake Nacimiento. Given these limitations, the data suggests that the reservoir supports most of the designated beneficial uses. Temperature and DO concentrations limit the "cold fresh water habitat" beneficial use, but this is due to the physical structure of the lake and remediating this condition would be difficult, if not impossible. The data set collected at the log boom should be extended to other areas of the reservoir to provide a more comprehensive view of water quality conditions in Nacimiento that is both spatial and temporally relevant.

It is important to note that the data analyzed by Swanson Hydrology and Geomorphology was from samples taken at the log boom. Values for many constituents could be different for samples collected at other reservoir locations. An absence of problems in samples collected at the log boom does not necessarily mean there is an absence of problems in other areas of the reservoir.

Surface Water Monitoring Programs

The following is a synopsis of water quality monitoring programs that are either currently occurring or have occurred in the past.

San Antonio River watershed

The Monterey County Water Resources Agency (MCWRA) twice annually monitors reservoir surface water at the dam for dissolved oxygen (DO), temperature, nutrients and general minerals. Tributary surface water is also monitored for general mineral, nutrient, DO and metals (Conrad, 2001). Sampling for bacteria does not currently occur for San Antonio Reservoir.

Nacimiento River watershed

The MCWRA twice annually monitors reservoir surface water at the dam for dissolved oxygen (DO), temperature, nutrients and general minerals. Tributary surface water is also monitored for general mineral, nutrient, DO and metals (Conrad, 2001).

Heritage Ranch Community Services District

Testing for the presence of Methyl Tertiary-Butyl Ether (MTBE) at the Nacimiento River intake downstream of the dam has been part of the Heritage Ranch Community Service District's test protocol since 1996 for organic chemicals.

San Luis Obispo County Flood Control and Water Conservation District

The SLO County Flood Control and Water Conservation District (SLO District) through the Public Works Department Water Quality Lab monitors for physical parameters, general minerals, inorganics, volatile organic compounds (VOC),semi-volatile organic compounds (SOC), and other parameters at the log boom (about 1000 feet out from the dam).

Other Monitoring

Central Coast Regional Water Quality Control Board

The Central Coast Ambient Monitoring Program (CCAMP) is the Central Coast Regional Water Quality Control Board's (CCRWQCB) regionally scaled water quality monitoring and assessment program. Water quality data for the watersheds from CCAMP is available on the CCAMP web site (http://www.ccamp.org/ca300/3/3.htm). In addition, CCAMP staff is developing a multi metric "Health Index" that can be used to describe riparian and overall watershed health. Finally, the RWQCB groundwater clean-up program is ledged on Geotracker, which is a statewide environmental data information management system that tracks Leaking Underground Storage Tanks (LUST) sites.

Citizen Monitoring Programs

The Upper Salinas Watershed Coalition, the Coastal Watershed Council and the Ventana Wilderness Alliance are monitoring in surrounding subwatersheds according to the 2001 Salinas River Watershed: Status of Citizen Monitoring by the Coastal Watershed Council. (http://www.coastal-watershed.org/).

Central Coast Water Quality Data Synthesis Assessment and Management Project

The Monterey Bay National Marine Sanctuary is currently engaged in developing the Central Coast Water Quality Data Synthesis Assessment and Management Project (SAM). Implementation of the SAM project began on June 1, 2006, in order to facilitate region-wide water quality monitoring coordination, data dissemination, data management, and data analysis on the Central Coast of California. A 14-member Technical Advisory Committee (TAC) of water quality experts from around the state was formed to direct the activities of the SAM project. Water quality data was collected from 13 monitoring programs on the Central Coast and collated into a water quality relational water quality database with spatial fields that are coupled to a Geographic Information System (GIS). The database facilitates data dissemination and data analysis; including mapping and comparison with other spatially referenced data sets (Central Coast Water Quality Assessment, Conley, 2008). This program is listed here to alert those conducting water quality monitoring in the Nacitone watersheds so that they can consider collaborating with SAM to enter existing and future water quality data sets for the Nacimiento and San Antonio River watersheds.

Fort Hunter Liggett Water Quality Monitoring

Much of the Fort Hunter Liggett (FHL) installation boundary on the western side follows the coast ridge, so that virtually all rainfall to the installation is within the Nacimiento River or San Antonio River watersheds. Under the State Water Resources Control Board (SWRCB), Water Quality Order No. 97-03-DWQ, National Pollutant Discharge Elimination System (NPDES), General Stormwater Permit No. CAS000001, FHL monitors storm runoff for pH, specific conductivity (SC or EC), total organic carbon (TOC), total suspended solids (TSS), plus volatile and semi-volatile organic compounds, and heavy metals. This monitoring is in accordance with the Storm Water Monitoring Plan, U.S. Army, Fort Hunter Liggett, February 8, 1995 (FHL INRMP, 2004). Runoff is monitored at five points within the Cantonment area for petroleum, pH, volatile organic compounds, and total suspended solids. Points that are monitored for stormwater events are located on the San Antonio River at Nacimiento Road and at Sam Jones Road. Monitoring of total suspended solids, in particular, is important because it reflects erosion.

Surface water and groundwater quality has been measured to some extent since at least 1984 when the current hydrogeological study was completed (FHL INRMP, 2004). Water quality data prior to 1984 are intermittent and are not suitable for comparisons. Water samples obtained during the 1984 study, for several areas of the installation, may be used as a baseline. In order to infer whether water quality has changed since that study, we must focus on analytical parameters that were monitored during and subsequent to that baseline event.

Camp Roberts Water Quality Monitoring

As of a 2000 Camp Robert's Integrated Natural Resource Management Plan, eight monitoring sites at Camp Roberts were being monitored for pH, total suspended solids, specific conductance, oil and grease; one site was monitored for Total Kjeldahl nitrogen; one site was monitored for iron; and five sites were monitored for total and soluble lead. The annual report to the RWQCB was to be prepared and submitted by July 1 of each year. The report was to document the program results for the previous water year (July 1 through June 30). In addition, a water quality monitoring study is to be completed by Camp Roberts during their five-year planning period in concert with Stormwater monitoring program and aquatic habitat surveys.

Water quality was monitored by the USGS on the Salinas River (USGS 11150500 Salinas River near Bradley, California), 7.6 miles downstream of Bradley. Bradley is located near the northwestern corner of Camp Roberts at the confluence of the Salinas and San Antonio Rivers, both of which run through the training site. In general, water quality is acceptable for most uses. Nitrate levels range up to 5 mg/l as N. Calcium and sodium are the predominant cations. Levels of total dissolved solids and selenium are relatively high and approach the maximum acceptable levels determined by the Regional Water Quality Control Board and EPA. However, these constituents occur naturally in the Salinas and San Antonio Rivers. Intensive surveys of both rivers are needed (Camp Roberts Integrated Natural Resource Management Plan, 2000).

Groundwater Monitoring Programs

<u>San Antonio River watershed</u>

Monterey County Water Resources Agency, formerly known as the Monterey County Flood Control and Water Conservation District (MCFCWCD) collected data on a monthly basis for 10 wells in the Lockwood Valley area. General mineral water quality analyses were performed on two to three of these wells annually (Geotechnical Consultants, Inc., 1984).

The primary water type in the Lockwood groundwater basin is bicarbonate type with calcium and magnesium cations (DWR Bulletin 118, 2004 Update). The Monterey County General Plan (1982) describes the water in the area as being both good and plentiful, although the water is highly mineralized. The water is not contaminated by nitrates or tainted by sulfur.

<u>Nacimiento River watershed</u>

The 2003 San Luis Obispo General Plan Land Use Element/Circulation annual resource summary report indicated that the Paso Robles Basin groundwater quality is exhibiting increasing total dissolved solids (TDS) along the urbanized Salinas corridor, near San Miguel, and near the confluence of the Salinas River and Nacimiento Rivers. Increasing chlorides are also noted near the Salinas/Nacimiento River confluence. An understanding of whether upstream land uses are contributing to increasing chlorides would be useful.

Fort Hunter Liggett

According to the FHL INRMP, groundwater monitoring was reported for the period of 1997-2002 with a baseline established in 1984. Many chemical and physical parameters were analyzed for samples taken from shallow well 236 and provided in Table 9 of the INRMP.

> *For these general chemical and physical parameters, there has been no significant change in the shallow groundwater quality. Those compounds that have established Maximum Contaminant Levels (MCLs) for drinking water are present in concentrations far below those MCLs. Data for organic and metal compounds are not presented, due to the lack of baseline data. However, there are no known occurrences of organic compounds in the groundwater from Well 236 and only minor detections of normally occurring metals. This would indicate that military activities are not currently affecting groundwater quality.*

<u>The INRMP section on groundwater quality concludes that:</u>

> *Although military activities within the Cantonment and in field training areas have the potential to impact both surface and groundwater, data available to date suggest that water quality on FHL has not been impaired. Further data may be needed to define sediment and the nutrient loads in the headwaters (outside of FHL influence) of both the San Antonio and the Nacimiento rivers in order to assess effects of military activities for those parameters. Normal ongoing review and implementation of the Stormwater Monitoring Program will continue to identify and reduce possible contaminant sources of storm-water.*

Camp Roberts

Groundwater quality is generally considered to be acceptable for its designated uses (see designated beneficial uses for Camp Roberts below). No bacteria have been detected in water pumped from the wells at Camp Roberts; however, well water that is used for domestic purposes is treated with chlorine as a precaution. No other treatment has been necessary.

Calcium and sodium are the predominant cations found in the Camp Roberts training site's groundwater. Groundwater is also high in total dissolved solids (boron, calcium, sodium, magnesium, and iron).

Thirty groundwater monitoring wells are located at potential sources of contamination, such as the landfill and the Wastewater Treatment Plant. A number of these test wells are associated with remediation sites, such as a fuel facility, Building No. 936, where underground storage tanks have been removed. Most are monitored quarterly. Under regulations by the Regional Water Quality Control Board, wells to the north and south of the Wastewater Treatment Plant are tested monthly (CR INRMP, 2000).

Fish Tissue Monitoring

The California Department of Fish and Game sampled Nacimento Reservoir as part of the Statewide Lakes Study during the summer of 2008. The sampling consisted of one composite sample of carp tested for organochlorine pesticides, PCBs and PPDEs. Also collected were composite samples of small mouth bass and carp for mercury analysis. Final data will be available by the end of 2008 (Mary Adams (RWQCB), personal communications, 2008.)

D. Watershed Uses

General land use descriptions

In 1994, land use in the Nacimiento River watershed was cited as about 50% grazing, 47% open space, 1% housing, 1% camping and 1% inactive mines (Clean Lakes Assistance Program for Lake Nacimiento, 1994).

Agriculture is the primary land use in the watersheds with grazing and dry land farming as the primary agricultural land use. Vineyards and wineries are becoming increasingly economically vital. Residential suburban development is primarily located around Nacimiento Reservoir within the communities of Heritage Ranch and Oak Shores. Residential suburban development varies in density from low to high density with some areas of Heritage Ranch and Oak Shores having residential suburban zoning lots sizes as small as 10,000 or less square feet.

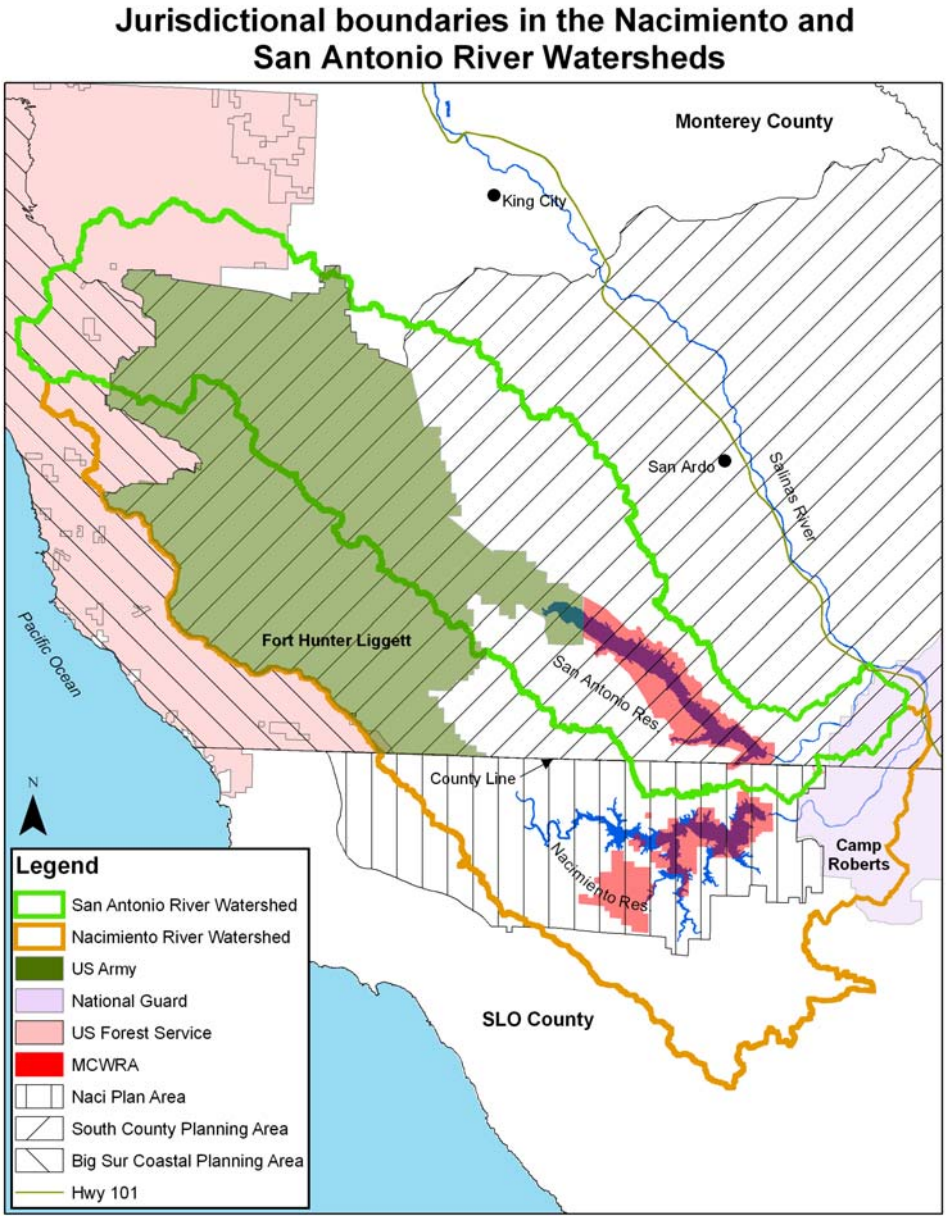


Figure 23. Planning areas in the Nacimiento and San Antonio River Watersheds

Despite the rugged terrain of most of the Nacimiento Planning Area and the concentration of recreational activities at the reservoir, the economy of the region surrounding Nacimiento Reservoir remains based upon agriculture. Grazing is the primary agricultural pursuit, though some dry farming occurs in limited areas as does raising horses and commercial hunting on private property (French, personal communication, 2008). Commercial activities around the reservoir are mostly visitor-serving, and oriented toward peak-use periods. While the role of recreational and visitor-serving commercial activities will experience gradually increasing importance in the planning area economy as development around the reservoir intensifies, the planning area is unlikely to develop a discrete employment base within the term of this plan (Nacimiento Area Plan, 2003).

Farming and Ranching

The San Antonio Valley and the Adelaide portion of the Nacimiento watershed are the primary cultivated agriculture areas of these watersheds. Rangeland used for animal grazing and in some areas hunting and fishing, covers approximately 50% of the land in these watersheds including military and MCWRA lands. This section describes the existing conditions of cultivated agriculture and rangeland management as they relate to water quality and watershed health. It is important to understand how this vital part of the local economy and environment operates in order to identify implementations or recommendations that might be effective to meet the goal of protecting water quality in these watersheds.

AGRICULTURAL CROP PRODUCTION

Agriculture in these watersheds continues to change just as it does statewide. However, rangeland comprises the majority of agricultural acres with grain crops, wine-grapes, and tree crops making up the bulk of the acres. Other crops are also grown with acreage varying depending on the year. These other crops can include: spring salad mix, spinach, tomatoes, cantaloupe, herbs, lettuce, strawberries, almonds, apples, apricots, artichokes, olives, pumpkins, and outdoor plants. Vineyard production in these watersheds has changed over the past 10 years. The San Antonio Valley wine appellation was established in 2007 with approximately 15 vintners (wine makers) and growers. Between the San Antonio reservoir dam and the Salinas River lies the Hames Valley with vineyards and several hundred acres of vegetable crops.

	Acres recorded by Monterey County Agricultural Commissioner	**Grains**	**Grapes**	**Rangeland**	**Tree crops**	**Acreage represented by these crops**
2006	**58,317**	1,556	1,283	45,957	79.5	
		2.67%	2.2%	78.8%	0.14%	**99.08%**

Source: Monterey County Agriculture Commissioner's office

Figure 24a. Acres of Top Agricultural Commodities in the San Antonio Valley, Monterey County

	Total Crop Acres	Grains	Wine grapes	Rangeland	Tree crops	Uncultivated/ non crop acres	Rotational	Pastureland
2006	8,926.92	1,686	1,010	3,507	954	650	820	210
2007	8,186.92	none recorded	1,040	none recorded	1,003	3,987*	1,906	210

* 3,147 of these acres are categorized as "undeclared"
Source: Crop report data provided by San Luis Obispo County Agricultural Commissioner's office

Figure 24b. Acres of Top Agricultural Commodities in the Nacimiento Watershed, San Luis Obispo County

Water quality regulation in place throughout the Central Coast applies to all commercially sold, irrigated agricultural crops. As of July 2004, operators of these croplands were responsible for enrolling into a Conditional Agriculture Waiver program and complying with conditions to prevent the cause, or contribution to, the degradation of water quality. Between 2001 and 2005, in both Monterey and San Luis Obispo counties approximately 90% of irrigated agricultural operators completed 15 hours of continuing education specifically focused on water quality protection practices across the following four management areas:

- Irrigation (management, efficiency)
- Fertilization (management, handling)
- Sediment (erosion control, soil health)
- Pesticides (integrated pest management, handling)

Under the Conditional Waiver Program, each irrigated agricultural operator is required to have a Farm Water Quality Plan and provide updated information to the Regional Water Quality Control Board on an annual or bi-annual basis. The Regional Board began conducting field visits to randomly selected program enrollees in 2007 and will subsequently focus on non-enrolled operators. Participants in the Conditional Agricultural Waiver also pay annually for monthly water quality data collection and interpretation conducted by a third party entity and submitted to the Regional Board. None of the current monitoring locations under this program are in the Nacitone watersheds since none of their waterways or water bodies are listed as impaired for agriculturally related pollutants. There is some irrigated agricultural land immediately adjacent to the San Antonio River below the dam. Farmers in the San Antonio Valley and Adelaide area have completed their Conditional Agricultural Waiver requirements and are actively engaged with their local Farm Bureau and Farm Centers to receive any additional information as it becomes available.

Williamson Act Agricultural Lands

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Nearly 16.9 million of the state's 29 million acres of farm and ranch land are currently protected under the Williamson Act. Land in Williamson Act protection for the Nacitone watersheds for which information was available is provided in Figure 25a.

Monterey County	Land Use	Acres
	Grazing	24,693
	Vineyards/Orchards	796
	Row Crops	1,032
	TOTAL	26,521
San Luis Obispo County	Conservation Acreage,	81.75
	Transfer of Development Credit (TDC) Program—	5,600
	Grizzly Bend to Monterey Co. line	8,000
	TOTAL	13,682

Sources: SLO County Land Conservancy, Ventana Wilderness Society

Figure 25a. Williamson Act Lands for the Nacitone Watersheds

GRAZING

Cattle, sheep and horse grazing began in the San Antonio Valley when Mission San Antonio de Padua was founded by Fray Junipero Serra in 1771; growing crops began at the same time. The cattle were raised for their hides and tallow which were shipped to Spain. The missions were secularized by the government of Mexico in 1831, and the mission lands were taken from the Franciscan friars and given to the church. Between 1834 and 1846 soldiers and friends of the Mexican government were given land grants. Three had the San Antonio River flowing through them: Milpitas (a milpa is a planted field, milpitas means little fields or gardens), Los Ojitos (little eyes or springs), was granted to Mariano Soberanes, and El Plieto (litigation or dispute). El Piojo (louse) and San Miguelito de Trinidad were near the Nacimiento River. These lands encompassed 115,000 acres of land, used for grazing. The "Californios" lived a colorful life, with vast herds of cattle roaming the rich grasslands. When the Americans took over California in 1848, the grants were open to litigation and some went to heirs of the Californios, some were bought up by rich outsiders. Some ranchos were bought piece by piece by William Pinkerton, James Bolton, William Earl, Faxon Atherton and others. A drought in the mid-1860's killed many cattle. Homesteaders arrived in the late 1870's and more land was devoted to crops. Descendants of homesteaders Ethelbert Sanders Harris, Jan Henry Martinus, Willlian Augustus Weferling, George Christian Heinsen, B. F. Patterson, Edward Gillett, Gottlieb Roth, John Park Hamilton Smith and others farm and ranch in the area today (Raycraft and Beckett, 2006 and Fisher, 1945).

Grazing now occurs on both private and public lands. The acreage of land use dedicated to grazing is approximately 50% of the Nacimiento and San Antonio watersheds including military and MCWRA ground (Coastal Resources Institute, 1994). Currently available data on cattle numbers, location and grazing and land management practices on private lands in these watersheds are spotty. More and better information is needed to maximize improved resource management benefits.

Grazing as a Management Tool

Grazing can be a beneficial tool for the management of invasive and native plant species, for fire management and for improving habitat for threatened and endangered species, all of which contributes to a healthy watershed.

According to a University of California Cooperative Extension (UCCE) article entitled "UC Cooperative Extension Helps Bring Cattle Grazing Back to Bay Area Grassland" (February 2007), farm advisor Sheila Barry, who has researched the modern evolution of California grasslands and low impact rangeland management techniques, discusses the benefits of grazing.

> *…a major benefit of grazing open grassland is fire fuel management, Barry said. However, she believes an even more important driver is improving the habitat for threatened and endangered species, such as the red-legged frog, the California tiger salamander, the Western burrowing owl and the golden eagle.*
>
> *Even insects profit from grazing. Barry considers the Bay Checkerspot Butterfly to be the "poster child of grazing benefits."*
>
> *"It's a classic story," she said. "The only remaining populations of this butterfly are on grazed lands. In areas that were specifically set up for conservation and where cattle grazing was eliminated, the butterfly populations have disappeared."*
>
> *Grazing is managed by controlling season of use and intensity, especially in sensitive areas. Livestock water, supplemental feed and salt are used to control grazing distribution. Barry has been collaborating on a USDA-funded research project with other advisors and UC range specialist Mel George to further understand the effectiveness of livestock distribution in working towards resource management objectives. The project, known as "Cows in Space," uses global positioning collars to monitor the location of livestock on rangeland pastures at the Sierra Foothill Research and Extension Center in Browns Valley, Yuba County.*
>
> *Barry credits ranchers' efforts over the years to implement conservation-minded management practices for illustrating the benefits of grazing to control vegetation and preserve wildlife habitat on public land. "These land management agencies are conscientious about the total ecosystem impact from grazing," Barry said, "just as ranchers have been for decades."*

According to nativehabitat.org, cattle stimulate plant growth and increase annual forage yield by grazing. Through their urine and feces, cattle recycle nitrogen, phosphorus, potassium and other plant nutrients and return them to the soil. By trampling plants that have grown too coarse and brittle to eat, cattle increase the amount of litter on the ground. (This reduces soil and water erosion and helps increase the amount of water that enters the ground and aquifers.) When properly managed cattle convert solar energy captured by native grasses into a sustainable source of meat, leather and other valuable products for human consumption.

According to an article entitled "Good Grazing? Advocates say free-range Cattle Can Have Environmental Benefits," in E: The Environmental Magazine (Nov-Dec 2002), and attributed to Steve Rich, a consultant with Higher Ground Associates in Salt Lake City, Utah which works to build bridges between ranchers and environmentalists,

> *"A hoof print is a hole and holes are wonderful things in nature. They collect water, seeds and nutrients. They are shadier and less windy and a heck of good place for seedlings to start. I have done thousands and thousands of samples and hoof prints make up more than 90% of seedling germination sites."*
>
> *This claim is backed by such evidence as a 1998 Colorado State University study that found biodiversity to be highest in moderately grazed lands and lower under heavy grazing, but lowest of all on ungrazed lands* (Proctor, 2002).

In addition to providing traditional products as meat, leather, tallow and more, well managed range lands and private ranch lands support healthy watersheds, recreational opportunities and wildlife habitat.

According to an article depicting a speech by R.L. Dahrymple at the Missouri Forage and Grassland Council 2000 Annual Meeting entitled "Fringe Benefits of Rotational Grazing",

> *Rotational grazing, with adequate recovery periods, increases forage production. Runoff water and water contained in streams and impoundments is clearer and presumably of higher quality for stock and human use.* (Dahrymple, 2000)

Local cattle ranchers in the Nacimiento and San Antonio who practice healthy rotational grazing would like to see more public entities implement and or expand rotational grazing programs, i.e. FHL, Camp Roberts, Monterey County and the U.S. Forestry.

Given the above information and in light of current conditions such as increased urbanization and a threatened food supply, ranchers and environmentalists will need to find a balanced perspective in order to sustain a healthy environment and safe and abundant food supply. The Nacitone watersheds provide an opportunity to develop positive collaborative resource management efforts among ranchers, environmental groups and public agencies.

Grazing in the Nacitone

The grazing areas for which information was reviewed for this Plan include the MCWRA leases around Nacimiento and San Antonio Reservoirs, FHL and Camp Roberts military installations, Los Padres National Forest and private land.

The table below was constructed to further understand the acreages involved with agriculture. For their "rangeland" category, the county Agricultural Commissioners include a mix of private and public ground and may not include all properties actively being grazed. From a total of approximately 451,386 acres in the two watersheds combined, 50% is entrusted to the listed public entities.

Grazed Acres in Both Watersheds					
	Total grazed and non-grazed acres (including acres not in these watersheds)	**Total grazed and non-grazed acres in watersheds**	**GRAZED acres in watersheds**	**GRAZED acres in Nacimiento river watershed**	**GRAZED acres in San Antonio river watershed**
Camp Roberts	42,615	22,975	22,975		
Los Padres	315,510	28,965	2,150	0	2,150
Fort Hunter Liggett	162,355	162,065	0	0	0
Monterey County Water Resources Agency (MCWRA)	23,617	23,617	16,692	8,865	7,827
SubTotal PUBLIC	**543,807**	**237,912**	**41,817**	**8,865**	**9,327**
PRIVATE LAND	NA	213,464 *	?	?	
Totals	NA	451,386			

Figure 25b. Grazed Acres in Both Watersheds

Sources: Geographic Information Systems calculations; information provided by Los Padres National Forest Monterey District (leaseholder).
An alternative source states that Camp Roberts has a total of 26,100 grazed acres which may include land outside of these watersheds.
* This number is the difference between the public acres in this table and total acres of both watersheds combined.

Monterey County Water Resources Agency

The MCWRA owns approximately 24,000 acres (38 square miles) or approximately 5 percent of the land in the Nacitone watersheds. 16,000 of these acres are located around the reservoirs and make up eight separate parcels leased out for cattle grazing since the land was purchased in the 1950's and 1960's. The remainder of the 24,000 acres is in recreational camping areas, grassland and oak forest (USLT RCD, 2008). In 2007, when the MCWRA renewed its grazing leases, they required all lessees to attend a *Ranch Water Quality Short Course* developed and administered by UC Cooperative Extension. The Short Course was conducted in November 2007 by UC Cooperative Extension and contributing partner entities such as the USLT RCD, the Natural Resources Conservation Service (NRCS), UC Davis researchers, the Ag Watershed Coalition of Northern SLO and Southern Santa Barbara counties, and the Nacitone Steering Committee. Current leases on MCWRA land will expire in 2010. The MCWRA Board of Directors may decide to incorporate new requirements into future lease agreements as recommended in a ***Grazing Lands Management Plan*** prepared by the *Upper Salinas Las Tablas Resource Conservation District* (USLT RCD) which is further described later in this section.

Currently, MCWRA grazing lease contracts contain the following Conservation Goals and Objectives:

1. Protect the water quality and quantity of reservoirs. A goal of the MCWRA is to eliminate access by cattle to reservoir waters as soon as possible.

2. Minimization of fire hazards through vegetative fuel management and responsible livestock management.

3. Preservation of open space for recreation, scenic beauty and education, and preservation of native plants and animals, and biotic communities. All or portions of the MCWRA land, including the Premises, may be made open to the public subject to reasonable restrictions determined by Landlord.

4. Maintenance of rich and productive grassland and oak woodland communities with healthy populations of rare, threatened or endangered vertebrates, significant native grasses, and for components and minimal exotic pest plants.

5. Restoration of degraded vegetation and wildlife habitat.

6. Maintenance of livestock distribution over the premises, to achieve uniform range utilization, reduce overall fire hazard, minimize sacrifice forage areas and meet conservation objectives.

7. A key requirement for any lease will be the completion of a ranch plan within one year of execution of a contract, which will lay out specific measures that will be used on each lease to protect the water quality and quantity of the reservoirs.

At both reservoirs, MCWRA owns four parcels, leased for grazing, located along the shores of the Nacimiento reservoir. There are also other privately held lands with a variety of uses around that reservoir. In contrast, the land around the San Antonio reservoir is owned by MCWRA except for a portion held by FHL, and is divided into another four separate parcels of leased land. Some existing fencing is located below the high water mark. During certain times of the year this means that range livestock and wildlife currently have access to shorelines of

both reservoirs and their tributary streams. Rugged terrain and arid climate make centralized feedlot areas infeasible (Nacimiento Water Supply Report on Recreational Use at Lake Nacimiento, 2002). Seasonal and release-related water level changes result in significant fluctuations in the amount of land available for grazing on these properties.

A ***Grazing Lands Management Plan*** was prepared for lands owned by the MCWRA by the Upper Salinas Las Tablas Resource Conservation District (USLTRCD), 2008 and is included in its entirety in Appendix C. The Plan was funded through the same grant that funded the Nacitone Watersheds Management Plan and is expected to help the MCWRA establish land management measures for rangeland health and water quality protection on their 16,000 acres of grazed lands located around both reservoirs.
The Grazing Lands Management Plan assesses current grazing and rangeland management practices on those lands and recommends a mix of existing and alternative practices. The Nacitone *Watershed Strategy* contains some of these recommendations that owners of private grazing lands may also find useful as they consider how best to protect downstream water quality and other watershed resources.

The ***Grazing Lands Management Plan*** recommends livestock grazing as the primary management tool for MCWRA land.

> *The Plan finds that cattle grazing, if conducted properly, can have the following benefits:*
>
> - *Reduces fuel load for potential fires,*
> - *Improves grass regeneration,*
> - *Improves habitat for many animal and plant species,*
> - *Reduces encroachment of noxious weedy species, and undesirable types of plants, and improved maintenance of grasslands and oak woodland diversity.*
>
> (Grazing Lands Management Plan, USLT RCD, page 2)

Fort Hunter Liggett

Grazing has been a significant land use for more than 200 years, since settlement during the Mission Era. Grazing continued on the Hunter Liggett Military Reservation beginning in 1942 with the issuance of leases that did not specify management or conservation practices. The first land management plan was developed in 1948 and periodically revised from 1948 to 1972. Grazing was discontinued in 1991 after a prolonged drought and over-use that resulted in significant resource damage to herbaceous vegetation (Stechman, 1995). In October 1993, land management responsibility for FHL was transferred from Fort Ord to Fort Lewis, Washington. Early in 1994, FHL and Fort Lewis contracted with The Nature Conservancy to produce a comprehensive grazing assessment with recommendations for grazing management consistent with an overall natural resources management plan (Stechman, 1995 and FHL INRMP, 2004). In 2003, a plan for livestock grazing was developed for FHL (Bartolome et al. 2002, 2003). This document was not reviewed by the Nacitone Steering Committee.

The ***Integrated Natural Resources Management Plan*** prepared for FHL in 2004 and amended in April 2007 describes current challenges with re-establishing grazing on FHL.

> *Livestock grazing was discontinued on FHL in 1991 due to resource degradation from over stocking and utilization combined with six years of extreme drought conditions from 1984 through 1990. Livestock grazing has*

not been allowed since that time because a clear livestock grazing strategy had not been developed that would prevent resource degradation from re-occurring.

Additional complicating issues have emerged which pose significant resource management conflicts, especially with endangered species management and associated critical habitat designations and proposals. Cultural resource protection issues are also present. Additions and rebuilding of existing fence is likely to cause conflicts with the military training mission. Additional staff will be required to adequately plan, conduct, and monitor a grazing program. Funding of a livestock grazing program through lease agreements may be problematic because out-lease revenues are deposited in a Department of Army account and are not dedicated to the installation where the revenue is generated. ***(INRMP, 2007, page 136).***

Fort Hunter Liggett (FHL) is a military installation with a primary mission to train military personnel to fight war. Training is conducted in an individual and collective environment. The Installation mission has significantly changed and grown since commercial livestock grazing was last allowed in the early 1990's. Training activity has increased from an average of 150,000 training days in the early 1990's to approximately 700,000 training days in training year 2008 (October 2007- September 2008). Training levels have spread out throughout the entire year to all parts of the installation and are projected to exceed 1.2 million training days in FY10 and beyond (an 800% increase since 1992).

"The Army's environmental mission is to sustain the environment to enable and support the Army mission and secure the future." Environmental stewardship is conducted through the Integrated Natural Resource Management Plan (INRMP) conservation programs which are coordinated with the Director of Plans Training, Mobilization and Security (DPTMS) to determine optimal mission landscape requirements for supporting mission purposes (AR 200-1). Conservation reimbursable agricultural/grazing out-lease programs are to be compatible with mission requirements and provide a direct benefit to mission and environmental goals.

As the FHL mission continues to expand it is expected that commercial livestock grazing or similar activities would pose unacceptable conflicts with training activities for the foreseeable future. Based on the FHL senior staff's evaluation of the 2004 INRMP goals and objectives and the current/forecasted FHL training mission, commercial livestock grazing is incompatible with that mission. The FHL Command will not pursue further evaluation of a commercial livestock grazing program on FHL during the next INRMP cycle 2009-2013.

Camp Roberts

Livestock grazing has been an important component of the multiple land uses on Camp Roberts for many years. Cattle and sheep have grazed much of the acreage since the military's resumption of livestock grazing in 1942. Livestock grazing has been known to occur on the property for at least 200 years prior to the military's acquisition.

Agricultural lands just east of Camp Roberts are in Conservation Reserve Program contracts with the USDA. These contracts are used to control erosion on highly erodible lands.

Approximately 20,500 acres on the Main Garrison, with a carrying capacity of 5,400 AUM's* each lease year, will be available for sheep grazing for a six-month period between January 1

and June 30. Approximately 5,600 acres on the East Garrison, with a carrying capacity of 2,000 AUM's each lease year, will be available for cattle grazing for a five-month period between January 1 and May 31.

Recent changes to the grazing program have removed 1,500 acres of riparian areas and the river terrace between East Bradley Road and the Salinas River, which contains sensitive cultural sites within the East Garrison, and 6,320 acres of land from the high country along the southwest border of the Main Garrison from grazing. An additional 4,700 acres (Training Area O, north of the Nacimiento River, portions of TA's P and L between the rivers and the impact area, and portions of the cantonment area were formally incorporated into the Main Garrison sheep lease) were added to the lease.

Grazing Restrictions on Camp Roberts

In many areas, banks along the Nacimiento River are steep and unstable. The Nacimiento River riparian ecosystem also contains numerous cultural resource sites. To preserve and protect the integrity of cultural resource sites and riverbanks from degradation, maintain water quality, and preserve native species biodiversity, sheep grazing will not be permitted in the Nacimiento River or in adjacent riparian habitat. Sheep will cross the Nacimiento River only by using the Low Water Bridge. Soils in these locations are steep, rocky and erosive, lack adequate forage, and are not suitable as sheep bedding sites. The majority of known sensitive plant locations on Camp Roberts are located in this region.

Rotational grazing will continue to be practiced on the Main Garrison by limiting sheep pens and shepherd trailers to a 3-day maximum stay in any one location. Rotational grazing distributes grazing more evenly throughout the Main Garrison and prevents overgrazing or overuse of specific areas.

Revenue generated through the grazing leases is reinvested on the installation, usually through maintenance of firebreaks, repair/replacement of fencing, cattle guards, water appurtenances, etc. Supplemental agreements for projects or work to be done are drafted up and made part of the grazing lease, and work is accomplished by the lessee in partial lieu of rent. Grazing revenue collected covers administrative costs of the program, and the program will adhere to appropriate Army Regulations (CR INRNP, 2000)

Camp Roberts Grazing BMPs

- Implement rest-rotation grazing strategies on both garrisons.
- Change livestock entry date to January 1 of each lease year.
- Limit number of animal unit months (AUM's) available.
- Define an AUM equivalent as follows: 1 ovine ewe, ram or weaned lamb = 0.2 AU (un-weaned lambs are not counted); 1 weaned calf to yearling = 0.65 AU; 1 yearling steer or heifer (1-2 years old) = 1.0 AU; 1 cow with (or without) un-weaned calf, heifer > 2years old = 1.0 AU; 1 bull > 2 years old = 1.5 AU.
- Use herding techniques (herders, range riders) to improve animal distribution and use of forage.
- Place salt blocks and feed supplements less than ¼ mile from watering sources and surfaced roads.
- Remove and dispose of dead livestock near watering sources immediately.
- Exclude or intensively manage grazing in sensitive areas (riparian zones, reservoirs, and fairy shrimp plots) and steep and highly erodible areas.

- Maintain intact boundary fences and remove trespassing livestock immediately upon discovery.
- Prohibit cattle and sheep access to Camp Roberts rivers and riparian areas except at designated crossing sites. Provide/develop watering sites away from these areas.
- Maintain adequate plant and ground cover at all times (maintain 75% cover and a minimum of 1000-1200 lbs. Per acre of residual dry matter).

Camp Roberts Rangeland Improvements

Rangeland improvements on the Main Garrison include cool prescribed burn areas for thistle in the southwesterly and Nacimiento River drainage areas. "Cool" burns are preferred for rangeland improvement. Using fire as a tool at Camp Roberts on rangeland should neither take acreage out of forage production nor defer the grazing season and the Camp Roberts Fire Department supports it.

"Cool fire" burns are executed on cooler days with higher levels of humidity and the area burned is done so without a contiguous effect, thereby creating a patchwork appearance between burned and non-burned areas. In a cool burn, the effects of the fire allow for faster recovery of plant populations, less damage is done to seed banks, and the same desired affect of biomass and species composition control can be achieved. Rebuilding of soil mulching and plant cover is improved and takes fewer seasons than with conventional control fires or accidental burns.

Los Padres National Forest

Grazing is also permitted in the Los Padres National Forest including in the Ventana Wilderness in the upper San Antonio River watershed. According to the Assistant Resource Officer for the Monterey District of the United States Forest Service (USFS) and documented in USFS Grazing Permits Parts 1 and 2 on file with the District, there is one active permitted grazing allotment in the San Antonio River watershed and some vacant allotments on the books. The active allotment is referred to as the Upper Milpitas Allotment., It contains two pastures, the Milpitas Pasture and the Wagon Caves Pasture. This allotment includes approximately 2,150 acres. The maximum head as of September 7, 2007 was 90 cows, 90 calves and 6 bulls, with stock on the land seasonally, typically from February to May. The permit for the allotment is effective until September 2017.

There is an Allotment Management Plan that is 40 or more years old. The District utilizes Forest Plan Standards for residual dry matter (RDM) to monitor range conditions and generates allotment-monitoring reports. There is also approximately 10 head of livestock on the Merle Ranch, which is operated by the Forest Service.

Mining

Mining in the watersheds has a long history. The Clean Lake Assistance Report (Coastal Resources Institute, 1994) includes detail of historical districts for mining. The MCWRA has produced a map using a Geographic Information System (GIS) showing mine locations in both watersheds and is included in electronic format in Appendix J (maps). Currently operating mines are limited to the Lime Mountain Quarry. This is an open pit mine located at the top of Lime Mountain in the Nacimiento River watershed. The mine produces high quality limestone and is permitted to mine up to 200,000 tones per year. Williams Hill Mine produces sandstone and shale for decorative rock and is located in the San Antonio River watershed. As mentioned above in the Water Quality section, the Buena Vista and Klau mercury mines are no longer in operation and will require lengthy remediation by the U.S. EPA.

Recreation

Both Nacimiento and San Antonio reservoirs are used for recreational purposes, including fishing, motorized and sail boating, camping, hiking and water skiing/wakeboarding, swimming, wading, and day use (picnics). The Lake Nacimiento Resort, which is owned by Monterey County Water Resources Agency, is zoned recreational.

Nacimiento Reservoir has 165 miles of shoreline that provide a variety of opportunities for day and overnight recreational activities. Although the peak recreational season at the reservoir is between Memorial Day and Labor Day, year-round activities include picnicking, camping, fishing, hiking, swimming, boating, sailing, water-skiing, jet-skiing, and sunbathing. There are several developed recreational areas, both private and public, along the shoreline. The Monterey County Parks Department provides law enforcement and regulation of boating activities. The Parks Department also manages in-lake facilities such as buoys, shallow markers, and floating restrooms. The largest public recreational facility at Nacimiento is the Lake Nacimiento Resort (SVWP EIR, April 2002).

Current facilities managed by the Monterey Parks Department and a private management company at Nacimiento Lake Resort include: a full-service marina, 21 lake shore lodges, 360 improved campsites, a playground, swimming pool, restaurant, hiking trails, hot tubs, country store, picnic area, and boat moorage facilities with approximately 120 marina slips.

There are also privately managed facilities along Nacimiento Reservoir's shoreline. The two largest are the Heritage Ranch and Oak Shores developments, each providing 50 campsites and marinas with approximately 100 boat slips. The facilities are available only to property owners and their guests. In addition to these two developments, a total of approximately 300 additional private docks are provided by the following: Running Deer Ranch, Tri-Counties Boat and Ski Club, Cal-Shasta Boat and Ski Club, South Shore Village, North Shore Boat and Ski Club, and several private individual lakeshore property owners (SVWP EIR, April 2002).

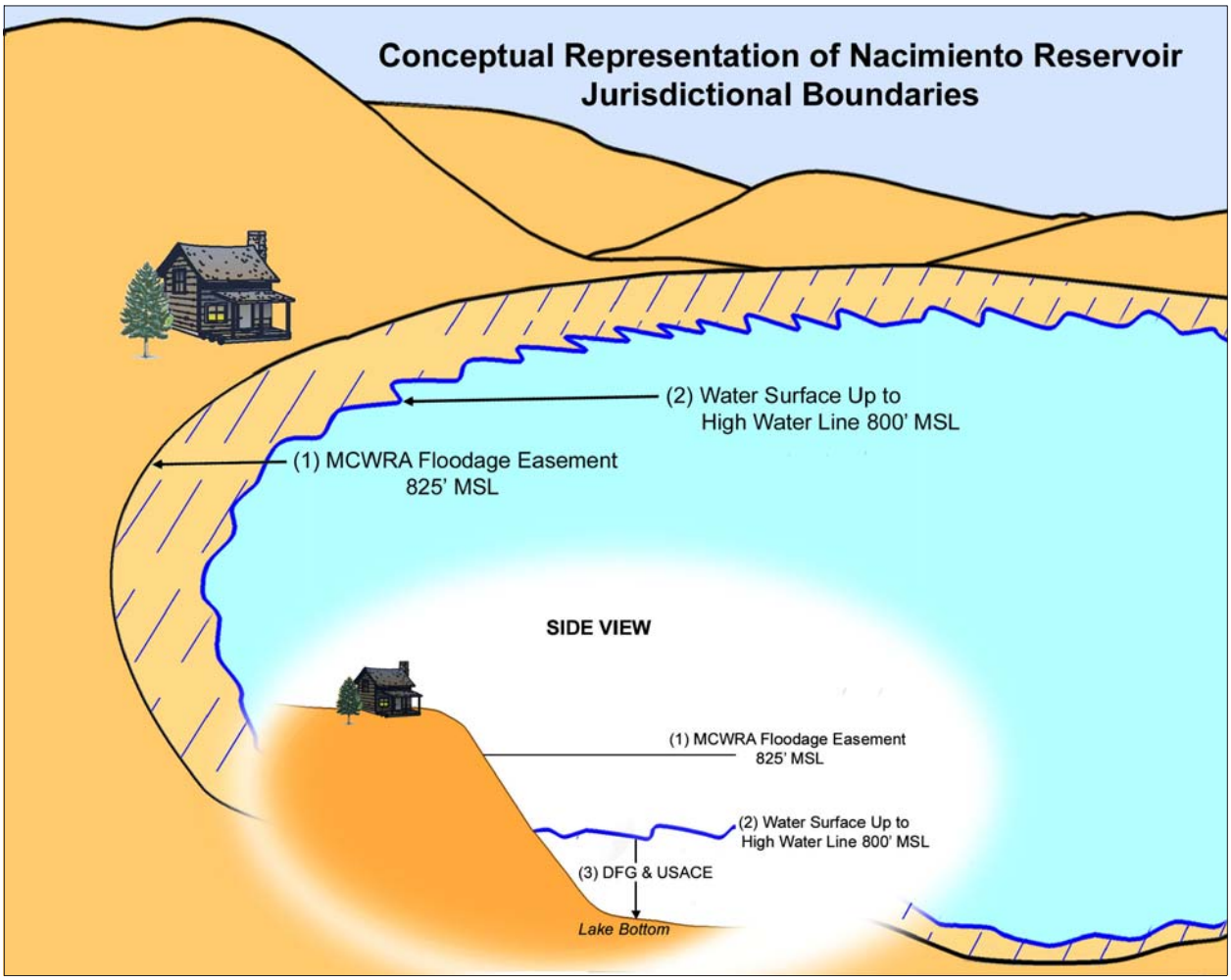


Figure 26. Nacimiento Reservoir Jurisdictional Boundaries

(1) MCWRA owns easement to flood all properties up to 825'Mean Sea Level (MSL) around Nacimiento Reservoir.
(2) Water Surface and on MCWRA land – Monterey Co Parks has law enforcement powers.
(3) State Dept of Fish and Game and U.S. Army Corps of Engineers have permit authority for all work below 800' MSL.

SLO Sheriff Dept has law enforcement powers at all elevations.
SLO Planning Dept has permit authority at all elevations.

Note: Throughout the state the State Water Resources Control Board is charged with preventing water pollution including silt originating at any elevation.

Disclaimer- this diagram is a simplified representation of overlapping jurisdictions which apply to private property located around the Nacimiento Reservoir and is not intended to present a definitive legal opinion.

Private property owners immediately adjacent to Nacimiento Reservoir are subject to a confusing set of multiple jurisdictional boundaries, additional responsibilities, regulations, and reduced property rights. MCWRA owns a floodage easement up to and including the 825′ MSL elevation on all lands around the Nacimiento reservoir. Because the property is located in San Luis Obispo County, law enforcement, health, building and planning regulation falls under that County's jurisdiction. Because the reservoir is designated as "waters of the United Sates", lands around them are subject to California Department of Fish and Game and U.S. Army Corps of Engineers regulation. Disturbance of reservoir bottom or construction below the high-water mark (800′ elevation) requires a consultation with California Department of Fish and Game and might require a permit. Structures, which could impinge on flows of water, may require a U.S. Army Corps of Engineer's permit. It is important to remember that all properties in these watersheds, as well as all lands in the state, are subject to state regulation through the State Water Resources Control Board and the Regional Water Quality Control Board in regards to the protection of water quality. Federal Clean Water Act and various state regulations prohibit the discharge of any pollutant (including silt) into any body of water designated to be "waters of the United States".

Although the landowner does own their entire parcel, some of their property rights were purchased in the 1950's by the Monterey County Water Conservation and Flood Control District (now MCWRA), so that the reservoir could be constructed. The property right held by MCWRA precludes the construction of any development in the easement which would prevent that land from being inundated by reservoir waters. Property owners must allow MCWRA staff entry to the floodage easement located on their property so that they can conduct reservoir maintenance.

San Antonio Reservoir and its 65 miles of shoreline offer year-round recreational activities for the public. Activities at the reservoir include: picnicking, camping, nature study, games at open playfields, fishing, and baseball, horse shoes, hiking, swimming, rafting, boating, sailing, waterskiing, jet-skiing, and sunbathing. Monterey County Parks Department also conducts special events such as the Wildflower Festival and Triathalons, and eagle watch boat tours (January through February).

Recreational facilities at San Antonio's south shore include 3 campground complexes that provide over 500 campsites. A museum, visitor center, park administration office, the Oak Room Group Building and Barbecue area, and over 26 miles of hiking and mountain bike trails can also be found in the south shore area. The South Shore Marina has boats, boat motors, jet skis, and houseboat rentals, as well as bait, tackle and ski accessories. A full service resort at the reservoir has cabin rentals, a store, restaurant, gas station, and marina with boat launch ramps, fish cleaning facilities, and docks. San Antonio's north shore provides opportunities associated with shoreline camping (over 4 miles), the McCandless activity area and outdoor amphitheater, and equestrian activities. The Monterey County Parks Department manages the boating and camping facilities along the lakefront, and a private management company manages the South Shore resort cabins, marina, boat rental, and snack bar facilities.

Los Padres National Forest lands are suitable for a variety of uses. General outdoor recreation activities available in the Nacitone watersheds component of Los Padres Unit includes: hunting, fishing, hiking and camping. Campgrounds with the Nacimiento River watershed include Nacimiento Camp, Ponderosa Camp, ABC and Redwood Spring. San Antonio River watershed campgrounds include Fresno and Carrizo Springs. These campgrounds have primitive facilities including vault toilets, picnic tables, fire rings and barbeque grills. The trail system within the Monterey District of the National Forest is extensive. Portions of the Forest within the Monterey District are designated Wilderness (Ventana Wilderness Area). Motorized vehicles and mountain

biking are not permitted in Wilderness. Additional uses within National Forest lands within the watersheds include watershed function, livestock grazing, and conservation education and stewardship (Part 1 Draft Land Management Plan, USFS, 2004).

During the 1990s, the Army delineated areas within FHL that were excess and deemed surplus. The National Park Service undertook a study to determine the suitability of those lands for inclusion in the National Park System. Though the Army rescinded the order delineating the excess land and subsequent action was not taken for determining National Park status, recent legislation gives the Department of Agriculture (US Forest Service) the right of first refusal on any properties that are determined to be excess to the Army's needs at any time in the future. Thus management for public use and recreation could occur in the future if FHL land is not needed for military use (FHL Special Resource Study, 2006).

The Nacimiento Fergusson Road makes the Nacimiento River one of the few streams in the mountain range easily accessible for recreation, including scenic driving, hiking, swimming, angling and camping. Two roadside Forest Service campgrounds provide good opportunities to explore the river.

Natural and Cultural Attributes

Because their upper watersheds are largely undisturbed, the Nacimiento and San Antonio Rivers are an important source of clean water for Monterey and San Luis Obispo residents, farmers and industries. Their highly productive ecology includes rich riparian habitat, the state's southernmost redwood forests, and the rare Santa Lucia fir (Cone Peak Research Natural Area). Much of the Santa Lucia Range is protected as wilderness which prohibits roads, mechanical/ motorized use and resource extraction. It also requires federal managers to actively preserve the free-flowing nature of the rivers and their unique qualities. There has been a call for additional protection provided by the National Wild and Scenic Rivers System (Ventana Wilderness Alliance, 2007).

The importance of preserving watershed function as source of clean water is further identified in *The Role of Headwater Streams in Downstream Water Quality.*

> *"The results reported here are consistent with the notion that pollutant sources and hydrological and biogeochemical processes in headwaters are physically and bio-chemically connected to the water-quality conditions in downstream waters of widely varying sizes, including navigable waters and their tributaries".*
>
> Alexander, et. al., 2007

Mission San Antonio de Padua, which was founded in 1771 by Father Junipero Serra, is one of the most significant cultural resources in the watersheds. (http://missiontour.org/sanantonio/index.htm) W. R. Hearst's ranch headquarters, the Milpitas Hacienda, situated on a 21-acre site known as "Hacienda Hill" is another significant cultural resource in the area. The architect was Julia Morgan, who designed Hearst Castle. It is located within FHL within walking distance of the Mission San Antonio (FHL Special Resource Study, 2006).

According to the Ventana Wilderness Alliance (VWA) and Friends of the River (FOR), approximately 8.6 miles of the San Antonio River and 9.0 miles of the Nacimiento River are considered suitable for designation as a Wild, Scenic or Recreational River as described in their 2007 pamphlet prepared for the Nacitone Watershed Committee based on heritage and cultural

resource values listed by the US Forest Service (Part 2 USFS, 2004). The VWA and the FOR are actively campaigning for their Ventana Wild and Scenic Rivers Proposal to be introduced into Congress. The Nacimiento and San Antonio Rivers are included in the proposal. Values considered on the Nacimiento River include recreation, wildlife and botanical. Cultural resources, scenery, wildlife, geology and ecology are identified values on the San Antonio. The Forest Service has analyzed these rivers for Wild and Scenic status. They were not recommended as they did not qualify for Wild and Scenic status based on USFS evaluation criteria (FEIS Los Padres National Forest Land and Resource Management Plan, 2005).

The Los Padres Forest Plan established the Milpitas Special Interest Area (SIA), which encompasses 9,948 acres of the upper San Antonio River watershed including both the main stem and North Fork and several tributaries. The area was designated due to its pre-historic and historic cultural resources and ethno-graphic landscape.

The Valley Oak Research Natural Area (108 acres) was also proposed and is within the boundaries of the SIA. It is one of the last remaining stands of Valley Oak savannah on public lands in California. The U.S. Forest Service and the Ventana Wilderness Alliance are collaborating in the development of management plans for these areas.

FHL Land Use

FHL is evenly split between the two watersheds with each comprising approximately 50% of the installation area. Approximately 36% of the watersheds, as measured from headwaters to the confluence of the Salinas River, lie on Fort Hunter Liggett (Ken Ekelund, personal communication, 2007).

Fort Hunter Liggett is an Army Reserve installation and has approximately 150,000 acres of maneuver area suited for vehicle and non-vehicular military training. Fort Hunter Liggett hosts training by all types of Army units as well as units from the Navy, Marines and Air Force and has been designated as a Combat Support Training Center (CSTC). Fort Hunter Liggett has a wide variety of training land available, and includes shrub lands, grasslands, and forests in plains and mountainous settings (DP EIS, 2007).

FHL is currently under federal ownership, managed as part of the Western Training Center for the US Army Reserve. Military bases are included in the Public/Quasi-public land use category in the Monterey County General Plan (Monterey County 1995 and 2004). As federal land, FHL is not subject to local zoning (FHL Special Resource Study, 2006).

The installation provides large expanses of land required for military training. Some other land uses may be allowed if they do not conflict with the designated and primary land use of military training and are compatible with responsible natural resource stewardship. The many vegetation communities and water resources on FHL are managed to sustain current and future military training through responsible land stewardship and environmental compliance with federal laws such as the Sikes Act, Endangered Species Act, Bald and Golden Eagle Protection Act, Migratory Bird Protection Act and the National Environmental Policy Act. Army Regulation 200-1 guides the implementation of land stewardship and environmental compliance with all mission related activities on the installation. Fort Hunter Liggett Regulation 200-3 requires environmental review of all activities that may affect natural and cultural resources (2007 Annual Report, February 2008).

Military training on FHL that relates to natural resources includes live-fire exercises, field maneuvers, fixed-range firing, aviation, weapons testing, and use of the tank trail that runs

between FHL and Camp Roberts. Operations and maintenance activities that relate to natural resources include road maintenance, fire protection and prescribed burning, pest control, and new construction and ranges (2007 Annual Report, February 2008).

Developed areas of FHL include about 152 ha (H" 376 acres; 0.23%) of the FHL land area. Historic disturbances from training, FHL activities, and pre-military activities are evident in some areas and include the following:

- Presence of roads, facilities, and water developments and impoundments;
- Remnants of historic established bivouac sites and associated use;
- Erosion primarily associated with roads;
- Historically cultivated areas that may alter plant composition;
- Intentional reduction in oak stands in isolated areas during the 1950s;
- Unintentional loss of oak trees in isolated areas, primarily from fires;
- Wetlands created by excavations conducted for concealment (*i.e.* tank hull-down positions);
- Evidence of compacted soils at the Multi-Purpose Range Complex as well as in training areas 2, 3, 12, 15, and 20;
- Evidence of military maneuvers in the Nacimiento River Valley;
- Presence and spread of the noxious weed yellow star-thistle; and
- Conversion of chaparral to grassland and scrub in isolated areas from repeated burning. (FHL INRMP, 2004)

In August 2007, the Army released the Draft Programmatic Environmental Impact Statement (DP EIS) for Army Growth and Force Structure Realignment. A growth scenario for FHL, which may have also affected Camp Roberts, was analyzed for impacts to the environment. Pertinent concerns to this planning effort included water quality, water supply, point and nonpoint sources of pollution, population, and vegetation and habitat. At this writing in September 2008, the Army has elected not to move forward with large-scale FHL expansion but may instead expand on a smaller scale.

There are several non-military in-holdings within the installation: property within the old town of Jolon and the Mission San Antonio de Padua. In-holdings at Jolon include the Tidball Store structure, Saint Luke's Episcopal Church, and Saint Luke's Cemetery. The Tidball Store structure is owned by Monterey County Parks Department, but approximately 1 acre of land under and adjacent to the store is presently owned by the Army and was part of the former excess BRAC property. Mission San Antonio de Padua is on the north side of the cantonment area (which supports urban and administrative functions). The site occupies approximately 85 acres and includes the Mission, residences for clergy, a cemetery, and outbuildings. The Monterey Diocese of the Catholic Church owns the Mission (FHL Special Resource Study, 2006).

Non-military uses on military land include hunting and fishing, non-military housing rentals, and visitation to the non-military in-holdings. FHL is rich in cultural resources including recorded archeological sites, which is on the National Register, and the historic trails of the early Spanish explorers, Portola, Serra and De Anza.

E. Reservoir Features and Management

The MCWRA has licenses, permits and orders from the State Water Resources Control Board to store and/or divert water from the Nacimiento, San Antonio and Salinas Rivers. Those

rights recognize dam storage capacities of 377,900 and 350,000 acre-feet respectively in Nacimiento and San Antonio Reservoirs. Those rights also recognize the agreement between MCWRA and the San Luis Obispo District giving the latter the right to use 17,500 acre-feet annually from Nacimiento Reservoir, less than five percent of that reservoir's storage capacity. A total of 1,750 acre-feet annually is allocated by San Luis Obispo County for use around the reservoir. Additionally, MCWRA has an agreement with the Nacimiento Water Company to allow the Company to use up to 600 acre-feet annually. The Nacimiento Water Project will utilize the balance of the County's allocation in the near future.

San Antonio Reservoir

The San Antonio Reservoir, located in southern Monterey County on the San Antonio River, began operations in 1967. San Antonio Dam is five miles west of Bradley and three miles north of Nacimiento Dam. At full pool, the reservoir has a volume of 335,000 acre-feet, surface elevation of 780 feet, and a maximum depth of 180 feet. There is 65 miles of shoreline. San Antonio Reservoir yields on average about 13% of the total water in the Salinas River System. Average annual release is about 63,000 acre-feet but has been as high as 310,000 acre-feet (SVWP EIR, April 2002).

San Antonio Dam

This earth-fill dam has a height of 201 feet above the streambed and a crest length of 1,433 feet. The crest of the dam is 802 feet above mean sea level (msl) with a spillway crest elevation of 780 feet; the spillway has the capacity to pass a maximum flow of 35,400 cfs. The dam has an outlet works consisting of an 84-inch diameter, 1,085 foot- long steel conduit located near the center of the Dam. The conduit leads through the dam embankment from a small intake structure to an outlet structure, which contains a Howell-Bunger type valve enclosed in a concrete house. The outlet has a maximum capacity of 2,200 cfs when the reservoir elevation is 780 feet. The log boom on the San Antonio Reservoir is intended to prevent boats and debris from becoming trapped in the dam spillway; it is approximately 250 feet in length.

San Antonio Release Information

The MCWRA reports that variable releases from San Antonio Reservoir are made to augment releases made from Nacimiento Reservoir. Together, those releases provide river flow to the Agency's Target Area for end of flow, at approximately River Mile 17 to River Mile 13. Since its construction, the water level in San Antonio Reservoir has only reached the spillway once, in 2006.

Nacimiento Reservoir

Nacimiento Reservoir is located on the Nacimiento River about 18 miles northwest of Paso Robles in San Luis Obispo County. It was created by the construction of the Nacimiento Dam, completed in 1957. The reservoir's irregular shoreline when full comprises about 165 miles. At maximum pool, the reservoir's storage capacity is 377,900 acre-feet with a surface elevation of 800 feet and a surface area of 5,400 acres. The maximum depth of the reservoir is 175 feet, with annual water surface elevations usually ranging from 30 to 70 feet. Nacimiento Reservoir yields on average about 62% of the total water in the Salinas River System.

The key elevations of Nacimiento Reservoir, depicted in the chart below, were compiled by the Monterey County Water Resources Agency and provided to attendees of the Public Advisory Meeting on September 19, 2007. The information provides specific operational components of the reservoir and dam that can occur at various water elevations. There is no corresponding key elevation chart for San Antonio Reservoir.

ELEVATION (feet)	STORAGE (acre-feet)	DESCRIPTION
670.0	10,300	Minimum elevation water can be released from the Low Level Outlet Works, physical minimum pool; lowest possible reservoir elevation water can flow from by gravity.
687.8	22,300	Minimum pool, lowest reservoir elevation at which water is available to the MCWRA for release. The balance remaining up to a maximum of 17,500 acre-feet is reserved for use by the San Luis Obispo County Flood Control and Water Conservation District pursuant to its agreement with MCWRA.
730.0	92,150	Elevation above which most boat ramps around the reservoir are operational
748.0	144,200	Elevation defined in Memorandum of Agreement (MOA) with Fish & Game, below which drought conditions are defined to exist, and the minimum release can be reduced from 25 cfs to 10 cfs
755.0	168,350	Minimum elevation at which water can be released from the High Level Gates
766.5	212,700	Both launch ramps at Nacimiento Reservoir are operational in a range of two to three feet above this elevation
777.3	260,000	Top of the Water Conservation Pool, bottom of the MCWRA Flood Pool
782.5	285,050	Bottom of the Federal Energy Regulatory Commission (FERC) Flood Pool, minimum water surface elevation during January and February without maximum releases being made for post spill way modification construction 2008/2009.
800.0	377,900	Elevation at which Nacimiento Reservoir is considered full, top of spillway, maximum physical permanent water elevation

Figure 27. Key Elevations of Nacimiento Reservoir

Reservoir Infrastructure

(Sources include NACIMIENTO DAM OPERATION POLICY and SAN ANTONIO DAM OPERATION POLICY and "Survey of the San Antonio and Nacimiento Dams and Reservoirs" Prepared by Thomas L. Perry, May 10, 2001 for the Monterey County Water Resources Agency Board of Directors)

Nacimiento Dam

Completed in 1957, this earth-fill dam has a height of 215 feet above the streambed and a crest length of 1,650 feet. The crest length is defined as the length along the top of a dam. The crest elevation is 825′ above mean sea level (msl) with a spillway elevation of 800′. The spillway has the capacity to pass flows up to 70,000 cfs. The High Level Outlet Works (HLOW) is composed of twin 8′ x 8′ square steel slide gates and cast concrete tunnels located under the center of the spillway at an elevation of 755′ (NGVD 1929 datum for all elevations based on this datum).

The HLOW has a maximum capacity of 5,500 cfs when the reservoir elevation is 800′. The Low Level Outlet Works (LLOW) is a 53" diameter pipe located near the southern side of the Dam. The inlet to the LLOW consists of three 42" butterfly valves set in a concrete structure at an elevation of 670′. Releases from the LLOW can be made from either a manifold of six 24" manually operated valves or the Hydroelectric Power Plant. The LLOW has a maximum capacity of 460 cfs when the reservoir elevation is 800′.

An existing 1,900-foot Log Boom on the Nacimiento Reservoir is intended to prevent boats and debris from becoming trapped in the intakes or the spillway. A new log boom, 2413 feet in length, will be installed in 2008 to accommodate a slightly larger exclusion area that will also include the Nacimiento Water Project intake structure.

Floodage Easement

MCWRA holds a "Floodage Easement" on those portions of all private land around the Nacimiento Reservoir, therefore MCWRA has an easement to flood up to 825′ mean sea level and provide MCWRA staff access to private property to perform routine reservoir maintenance.

Nacimiento Release Information

Releases at present range between 120,000-acre-feet and 180,000-acre-feet per year. Releases are utilized for groundwater recharge, reduction of seawater intrusion, and steelhead habitat enhancement. The actual amount released varies with weather conditions groundwater elevations, pumping, system hydrology, and other factors.. Whenever the reservoir level rises above 782.5, the high level gates located on the spillway have been used to release water.

The low level outlet is the primary outlet for releases. The capacity of the outlet is approximately 400 cubic feet per second (cfs), when releases flow through the hydroelectric power plant. At water surface elevation 800 feet, maximum capacity is about 460 cfs and at elevation 700 feet, maximum capacity is about 390 cfs.

When the need for releases exceeds the 400 cfs capacity of the low level outlet, releases are made from the high level gates. When the elevation is below 755 feet, releases are not possible from the high level gates and releases are then made from San Antonio Reservoir, if possible and necessary.

Combined Reservoir Features

Nacimiento and San Antonio Reservoirs have water conservation pools that are relatively similar in size: Nacimiento – 245,000 acre-feet (AF) and San Antonio – 282,000 AF. While they are similar in storage capacity, the rate at which they fill is very different. The fill rate, or inflow into the respective reservoir depends on a number of variables, including but not limited to orientation of watershed, amount of rainfall, geology, and weather. Nacimiento Reservoir receives a greater amount of inflow than San Antonio, therefore in an average year; more water is released from Nacimiento than San Antonio. This way, there is room in Nacimiento for the next year's storms. In addition, because there is a power plant below Nacimiento Dam, there are federal limits on how much water can be stored behind the dam (this maximum elevation changes throughout the year, depending on the month). This maximum elevation, or Rule Curve, is in place for the protection of the dam itself, as well as the power plant below, and through application, minimizes the occurrences of reservoir spill, thus saving the captured

water for other beneficial uses. The minimum storage levels or minimum pools of the reservoirs are 22,300 AF for Nacimiento and 23,000 AF for San Antonio. The difference between full capacity and the conservation and minimum pools on each reservoir is called the flood pool, which is 110,600 AF for Nacimiento and 30,000 AF for San Antonio (Rob Johnson, 2008).

Reservoir Management

The Reservoir Release Schedule is a guide to assist the MCWRA in making water conservation releases from both Nacimiento and San Antonio Dams. Prior to cessation of natural flow in the Salinas River each year, MCWRA staff drafts a Preliminary Reservoir Release Schedule which considers various factors contained in the Dams' Operations Policies. The schedule considers the following priorities: 1) provide maximum groundwater recharge for the entire Salinas Valley, 2) operate the reservoirs to provide recreation benefits, 3) provide for the needs of fish and wildlife, and 4) waste as little water as possible to evaporation or to the ocean. Each spring, usually at its annual April meeting, the Reservoir Operations Committee reviews the Preliminary Release Schedule and recommends a Proposed Release Schedule to the Board of Directors for adoption. The Reservoir Operations Committee reviews the adopted Release Schedule monthly and makes recommendations or changes as needed.

Sediment Supply and Transport

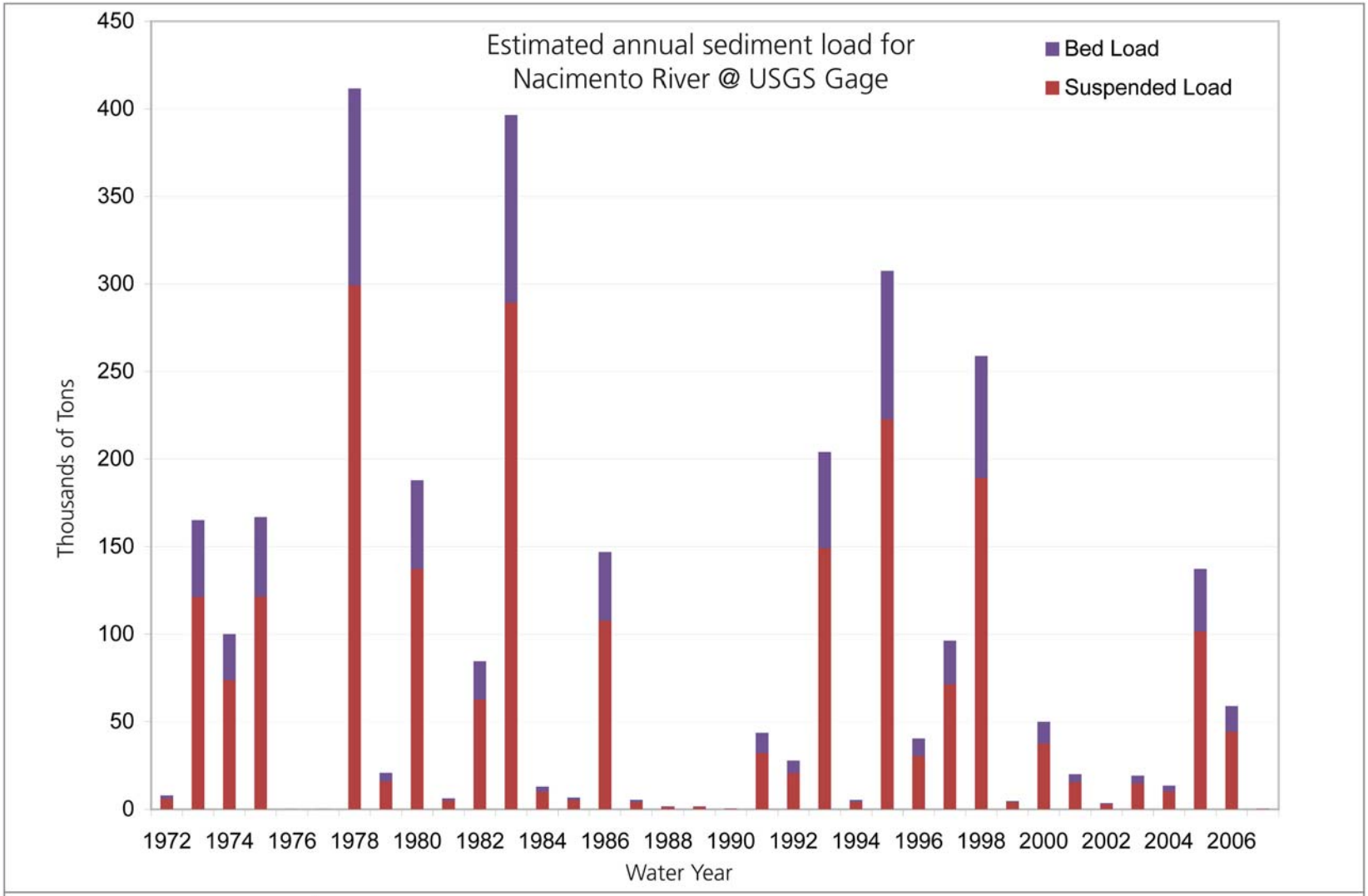
SH+G conducted a preliminary sediment budget for the watersheds to provide insight into the mechanisms and rates for sediment delivery to the reservoirs. This can, in turn, provide watershed stakeholders with information to assist future management scenarios regarding sediment delivery and runoff and for the MCWRA to consider the life spans of the reservoirs. The technical content of the sediment budget is contained in the SH+G technical memorandum (Appendix D). The following are the observations SH+G made regarding the sediment budget.

> *The difference in rates of sediment transport between the two watersheds is striking. San Antonio was estimated to have twice the rate, per unit area, of sediment transport than Nacimiento. Although a complete assessment of sources of sediment in the watershed and a complete accounting of sediment delivery through the use of a sediment budget is out of the scope of this project, some preliminary observation were made using aerial photos and a general understanding of the geology and geomorphology of the watersheds.*
>
> *Landscape Morphology: The morphology of the two watersheds are completely different. The Nacimiento watershed abuts the divide between the Big Sur Coast and the Salinas Valley, reaches higher elevations in the upper watershed, and generally has higher precipitation. Consequently, the Nacimiento watershed has a more dense vegetation canopy dominated by oak. The lowland valleys are generally narrow and more confined. Conversely, the San Antonio Creek watershed is dryer, and has less vegetation. The lowland areas are dominated by a large alluvial plain known as Lockwood Valley and the San Antonio River valley is less confined.*
>
> *Sediment Supply: The quantity of sediment passing a particular point in the watershed is dependent upon the supply of sediment from the adjacent landscape to the channel. In the case of San Antonio, the readily available supply of sediment on the adjacent landscape far exceeds the quantity of sediment that is available in Nacimiento. Most of the sediment available for erosion in Nacimiento consists of recently weather colluvial*

material and a narrow band of alluvial material within the river valleys. In San Antonio, Lockwood Valley provides a huge source of highly erodible material that consists of unconsolidated alluvial fan deposits emanating from the mountains from the north and east. In addition, there are extensive, recent alluvial deposits within the San Antonio River floodplain that are easily reactivated during a high flow event or as a result of bank erosion.

Land Use: Land uses in the San Antonio watershed tend to be higher intensity and more prone to create conditions that increase sediment supply to channels. Agriculture, grazing, and residential development within Lockwood Valley all provide a mechanism for sediment delivery that isn't as prevalent in the Nacimiento watershed.

Under natural conditions, assuming anthropogenic inputs were not a factor; the San Antonio River would have a higher sediment load than the Nacimiento River. The geologic differences, morphology of the basin, and a good supply of highly erodible material make the watershed more productive for sediment. The most significant sources of sediment within both watersheds appear to be reactivation of previously deposited alluvial materials and fire-dependent influxes of sediment from the upper watershed. San Antonio also has a significant land use component that adds additional sediment to the channels, although calculating the exact contribution from these sources would require a thorough evaluation.



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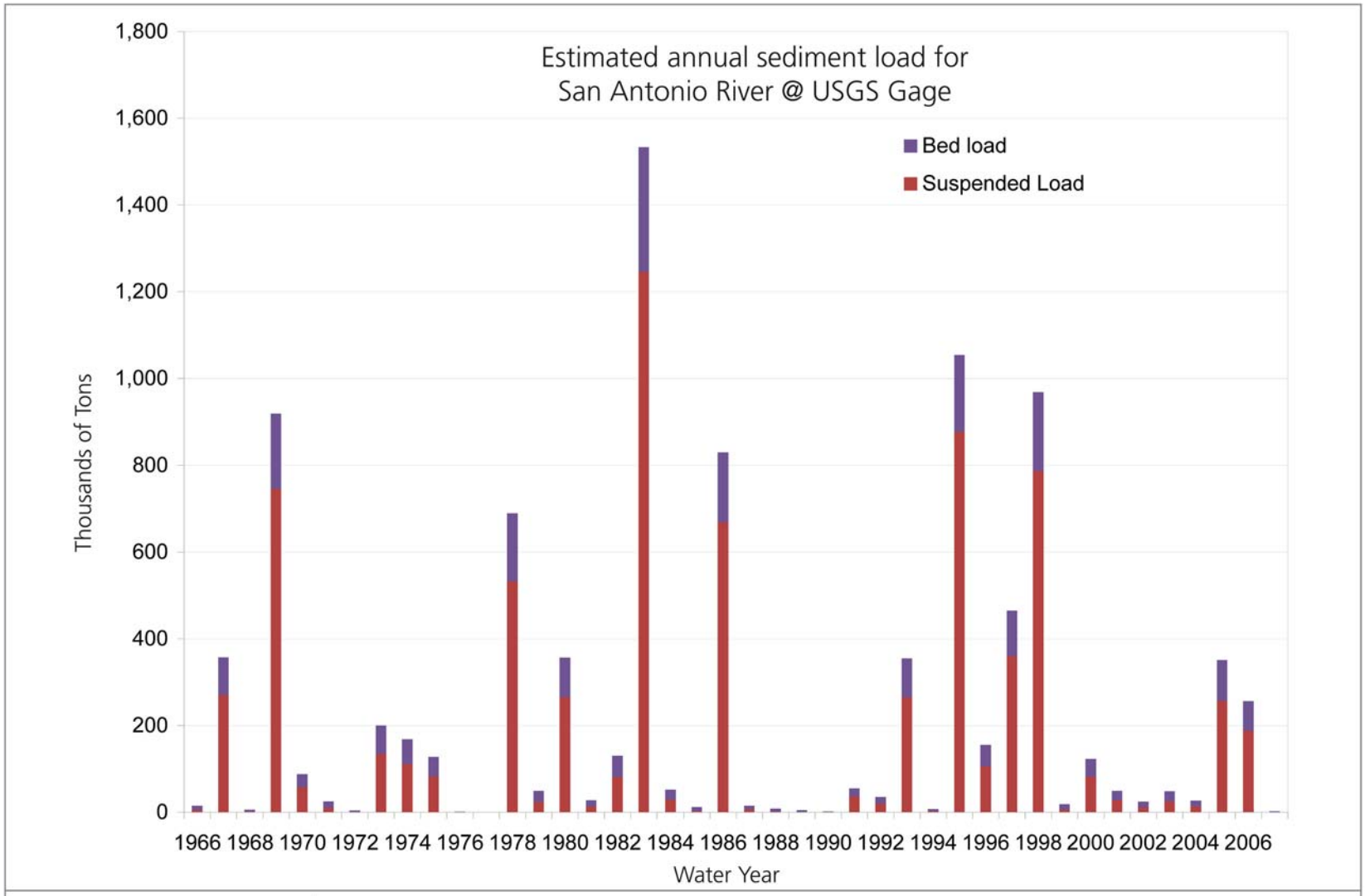
Estimated annual suspended sediment and bed load for the Nacimiento River. Annual sediment loads were determined by applying the suspended and bed load rating curves to the mean daily flow data for gage 11148900. Consequently, these results may underestimate total sediment load since they do not account for peak discharges.

Figure 28. Estimated Annual Sediment Load for Nacimiento and San Antonio Rivers



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Estimated annual suspended sediment and bed load for the San Antonio River. Annual sediment loads were determined by applying the suspended and bed load rating curves to the mean daily flow data for gage 11149900. Consequently, these results may underestimate total sediment load since they do not account for peak discharges.

Figure 28. Estimated Annual Sediment Load for Nacimiento and San Antonio Rivers

F. Demographics

The primary population centers in the watersheds are Heritage Ranch and Oak Shores, Lockwood and the military installations. Prior to the creation of Nacimiento Reservoir, the population of the planning area was widely dispersed, with most residing and employed on farms and ranches. However, a special census in 1976 indicated that less than 1% of household heads in the Nacimiento Planning Area were employed in agriculture. The permanent population of the planning area was 271 in 1976, while housing units totaled 632 (based on pre-1990 planning area boundaries). Though future residential development is anticipated to continue to be oriented primarily toward second homes, a modest continuing increase is expected in permanent residents; primarily the retired. Use of homes in the area for leisure activity is reflected in the 80% residential vacancy rate during the winter months (Nacimiento Area Plan, 2003). However, this demographic is likely outdated given that it was originally cited in the 1973 version of the Nacimiento Area Plan. The Steering Committee has elected to collect updated information via the Heritage Ranch and Oak Shores Homeowner's Association as well as CSD water delivery records.

San Antonio River Watershed

The population of South County has increased significantly since 1960, when the population was only 1,702. The population had grown to 2,989 by 1970, an increase of 75.6%. In 1980 the number of South County residents was 3,597, an increase of 20.3% in ten years. The Planning Area's 20% increase in population ranks seventh among Monterey County's eight planning areas (South County Area Plan of the Monterey County General Plan, 1987 with updates). The Nacitone Watersheds comprise 33% of the South County Planning Area. This planning area includes the communities of Lockwood, Bradley, Parkfield and San Ardo; although only Lockwood is located inside the Nacitone area.

Population Change, 1960 – 1980

Location	1960 Population	1970 Population	% Change 1960-1970	1980 Population	% Change 1970-1980
South County Planning Area	1,702	2,989	75.6	3,597	20.3
Monterey County	198,351	247,450	24.8	290,444	17.4

Sources: 1960, 1970 and 1980 U.S. Census of Population

Figure 28a. 20-Year Population Changes

South County is the largest planning area in Monterey County and has the lowest population density – 2.8 persons per square mile in 1980, compared with 87 persons per square mile countywide. It should be noted that 68% of the South County Planning Area is devoted to agriculture and 28% of the Planning Area is under public land ownership. Thus, the density throughout South County is not uniform. South County's ethnic composition is very close to that countywide. South County has a slightly higher proportion of Caucasians and persons of Spanish origin and a lower proportion of Asians. South County has a higher percentage of teens and young adults between 15 and 24 years of age and a lower percentage of children, adults, and elderly. The age structure reflects the presence of Fort Hunter Liggett, where 60% of the population is between the ages of 18 and 24. Without Fort Hunter Liggett, South County's age composition is very close to that of the County. The South County Planning area encompasses almost 40% of the area of the entire county.

TABLE A POPULATION PROJECTIONS NACIMIENTO PLANNING AREA		
Year	Population of Planning Area	Percentage of Total County Population
1989	1,918	.90
1990	2,076	.93
1995	2,618	1.00
2000	3,186	1.07

Source: Nacimiento Area Plan (2003)

Figure 29. Population Projections for the Nacimiento Planning Area 1989-2000

Figure 29 (Table A) contains population projections for the Nacimiento Planning Area. Due to the small number of people and the seasonal nature of the population, individual population projections were not included in the 2003 update of the Nacimiento Area Plan for either the Oak Shores or Heritage Village areas. For comparison, Figure 30 Table B contains the projected population absorption capacity which is the potential planning area population resulting from unconstrained growth and fully-occupied development to the maximum permitted in each land use category.

It is not possible to accurately project future population growth for the Nacimiento Planning Area because of its small population and the seasonal or recreational nature of the population. Future growth in the area is based primarily on migration, which bears little relationship to current local economic conditions. Figure 33 contains population projections based on 4%, 8% and 10% annual growth rates. The 4% projection is a simple extrapolation of the 1970-1979 average growth rates. This is nearly double the total growth projection of 2% for the entire county between 1980 and 1985. The 10% growth rate is a high figure based on sustained growth patterns similar to the late 1979's. The absorption capacity figures in Table B are estimates based on permanent occupancy of the residential units in the planning area. However, since the planning area is also a major recreational attraction, the absorption capacity could be increased by as many as 30,000 under peak weekend conditions (estimate from previous Lake Nacimiento-San Antonio General Plan). This could result in as many as 55,000 to 60,000 people being in the planning area under maximum peak conditions.

TABLE B ABSORBTION CAPACITY NACIMIENTO PLANNING AREA				
Land Use Categories	Rural Area	Heritage Village	Oak Shores	Total
Agriculture	1,036	-	-	1,036
Rural Lands	900		-	900
Residential Rural	1,087	705	-	1,792
Residential Suburban	-	-	-	
Residential Single Family	-	16,477	5,810	22,287
Residential Multi Family	-	11,213	576	11,798
ABSORPTION CAPACITY	3,023	28,395	6,386	37,813
Existing Population 1989	*	*	*	1,918
POTENTIAL ADDED POPULATION	-	-	-	35,895

Source: Nacimiento Area Plan, (2003)

Figure 30. Absorption Capacity of the Nacimiento Planning Area

	1990	2005	New Units	% increase	Average Annual % increase
Heritage Ranch	1047	1425	378	36.10	2.08
Rural Nacimiento	761	861	100	13.14	0.83

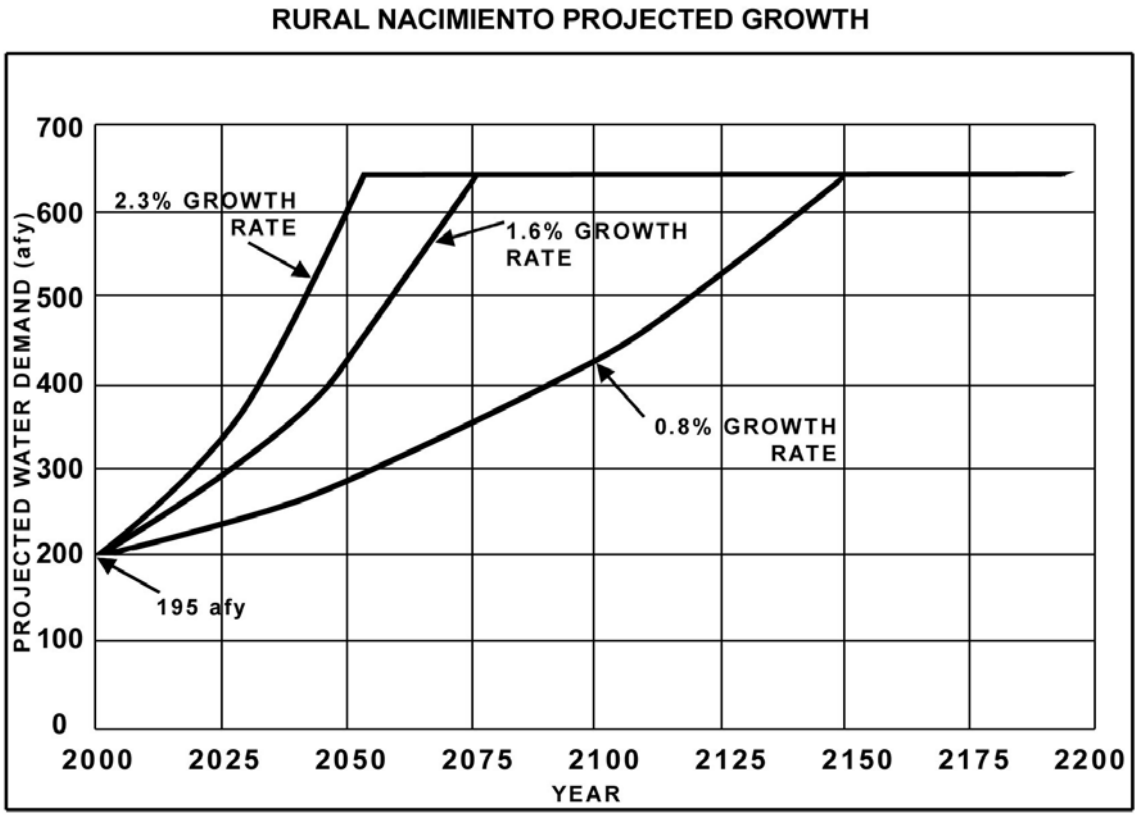
Source: Annual Resource Summary Report, SLO County, 2006

Figure 31. Dwelling units in Nacimiento Planning Area

Population in households							
Year	2000	2005	2010	2015	2020	2025	2030
Nacimiento Planning area	2778	3147	3357	3563	3782	4015	4261

Source: 2005 Urban Water Management Plan Central Coast Water Authority

Figure 32. Projection of population in households within Nacimiento Planning Area



Source: Nacimiento Lake Lakeside User Set Aside, 2004

Figure 33. Projected Growth for Rural Nacimiento 2000-2200

Oak Shores Population

The current County Service Area 7A (CSA-7) includes the community of Oak Shores which is located on the north shore of Nacimiento Reservoir within the Nacimiento Planning Area. The County Land Use Element, the Nacimiento Area Plan, and the standards in Chapter 22.102 serve as the specific plan for the development of Oak Shores. The 1974 Oak Shores Specific Plan originally provided for 4,000 units for the entire community. Since then, the Land Use Element has significantly reduced anticipated land uses. The reductions in development potential are primarily adjustments in the village boundary to exclude northern portions of the Lynch

Flat area. The resultant maximum allowable number of dwelling units within the Oak Shores village reserve line is 1,786, including RV sites. The village is 1,576 acres in area. Just to the north of the village reserve line is the Tierra Redonda Mountain sensitive resource area (SRA) which encompasses approximately 1,300 acres with 320 acres under Bureau of Land Management ownership. Oak Shores has been envisioned as a resort community of vacation and retirement homes with various recreational uses (Oak Shores EIR, 2007).

Development Entity	Number of Units	Cumulative Units
Existing CSA-7A Dwellings*	583	583
Future CSA-7A Dwellings	269	852
Davis/King Tract 2162 Phase 1	60	912
Davis/King Tract 2162 Phase 2-6	285	**1197**
Bean/Lynch Canyon Properties (Hughes) Tract 2520	307	1504
Munari	134	1638
Vaughn/Taylor/Crawford	25	1663
Lynch Canyon Properties (Hughes)	50	**1713**

* *taken from Garing Taylor & Assoc. as of 2005*

Source: Oak Shores EIR, 2007

Figure 34. Proposed Oak Shores Development

Both Watersheds

The following visitor numbers do not reflect people entering the reservoirs through private communities.

Visitor Numbers for San Antonio Reservoir

Based on County attendance data for San Antonio Reservoir, the following counties account for nearly 70% of the visitation to the reservoir: Monterey, San Luis Obispo, San Benito, and Santa Barbara Counties. The population of the market area as of 2006 was 1.1 million people. Total annual visitation is estimated to be about 380,000 persons (visitor days) (RFI #11047 Concessionaire Lake San Antonio and Lake Nacimiento, 2007).

Visitor Numbers for North Shore San Antonio

Peak visitor months on the reservoir are June, July and August with visitor numbers for 2006/2007 ranging from a high on July 4th of around 100,000 to a low of 35,000 at the beginning and end of the summer season. Peak visitor days are July 4th, Labor Day and Memorial Day with July 4th and Memorial Day often having 100,000 to 140,000 visitors. Over the course of the last three years visitor attendance has increased with the year 2006/2007 seeing a total of approximately 2,708,000 visitors.

Visitor Numbers for Nacimiento Reservoir

Based on records of the most recent lessee, Lake Nacimiento Resorts, annual attendance at Nacimiento Reservoir was estimated at approximately 180,000 persons. The market area for the reservoir that accounts for about 70% of visitation includes the trade area for San Antonio Reservoir and the counties of Fresno, Kings, Tulare, Kern, Los Angeles (may account for approximately 30%) and Ventura.

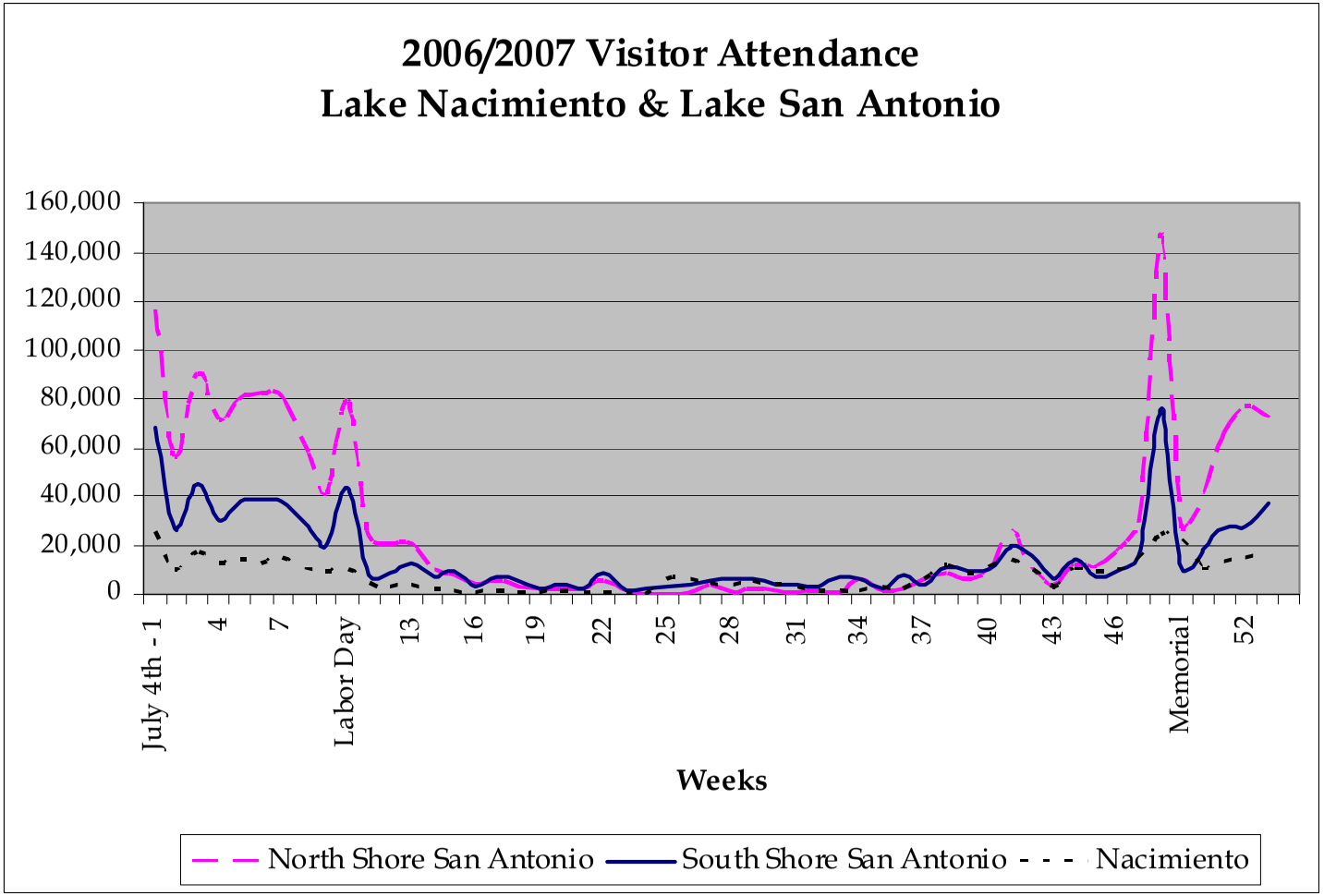


Figure 35. 2006/2007 Visitor Attendance to Nacimiento and San Antonio Reservoirs

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PART 3
Watershed Strategy

A. From Issues to Recommendations:

The issue statements developed by the Steering Committee emerged over a series of discussions and activities progressing from one-word statements of a concern to complex, underlying issues and ultimately into reasoned statements of the core issues as they relate to these watersheds. These issue statements in turn enabled the Steering Committee to set goals, objectives and implementation measures that reflect upon the issues. The issues are not presented in priority order.

ISSUE 1 – Recreation
ISSUE 2 – Gaps in Knowledge: Monitoring and Information Needs
ISSUE 3 – Preventing Pollution from Point and Nonpoint Sources
ISSUE 4 – The Role of Agriculture
ISSUE 5 – Fire in the Watersheds
ISSUE 6 – Taking Enforcement Action
ISSUE 7 – Communication & Coordination
ISSUE 8 – Watershed Health: Plants & Animals
ISSUE 9 – Roads and Culverts
ISSUE 10 – Education and Outreach Needs
ISSUE 11 – Invasive Species

As Steering Committee members learned more about their watersheds and read through the inventory of source documents compiled into the Watershed Resources Inventory (WRI) they began to realize that there are few documented water quality problems in these watersheds. Some Steering Committee members think that recommendations need to be based upon data documenting existing problems in these watersheds. Others think that problems may exist that have not been documented and that potential problems should be addressed in the recommendations of this Plan.

This discussion led to an agreement that baseline information is needed to improve our ability to understand current water quality and prevent problems.

Recommendations (implementations) you will find in this part of the Nacitone Watersheds Management Plan are designed to protect water quality and watershed uses by:

A. Sharing and coordinating the use of existing information

B. Engaging watershed residents, project proponents, private contractors, environmental groups, appropriate agencies, and others to learn about and protect watershed uses on a voluntary basis and in light of existing laws.

C. Gathering, sharing, and coordinating additional information and set water quality baselines to track change over time where possible.

An over-arching recommendation of the Plan is to seek funding for and contract with a watershed coordinator/grant writer who would develop grant proposals to conduct some of the implementations in the Plan and act as staff for the Nacitone Steering Commmittee.

IMPORTANT NOTE:

The remainder of this Chapter is broken into ISSUES each starting with a statement. The issue statements are not all science-based but were identified and described by stakeholders and refined by the Steering Committee. The issue statements reflect the opinions of watershed users and are a result of multiple community meetings, Steering Committee discussions, and learning about the watersheds.

The basis of all issue statements is the use of sound reasoning to promote voluntary protection of water quality and watershed uses in accordance with the Vision Statement adopted by the Steering Committee.

For each ISSUE, background information is provided under STATUS AND REFERENCES where there are references to the *Watershed Resources Inventory* and the *Analysis and Appendices.* These documents can be found at www.Nacitonewater.org website or upon request. *Goals, Objectives, and Implementations* are then described for each ISSUE.

Many of the recommendations (implementations) in this chapter are meant to provide support for future potential funding should a group or entity desire to carry out the recommendation. There is no intention to create additional costs for watershed residents or others. Potential partners for implementations are suggestions only and intended to supply ideas for future groups to consider in carrying out recommendations.

The implementation recommendations will need to be tracked and updated, beyond the timeframe of developing the Final Plan (October 2008), as new information is made available. There may be success stories to tell and lessons learned from attempting some of these implementation measures. There may also be new measures recommended or reasons for a shift in the order of priorities. A table of the recommendation and indicators of progress toward fulfilling the recommendations is included in Appendix I.

B. Prioritizing Recommendations

The ranking criteria below were used by the Steering Committee and Technical Advisory Committee to prioritize recommended implementation actions.

Ranking criteria are designed to address recommendations that are not science-based but reflect a community observation or concern. The word "project" used below is for simplicity although many of our recommendations are not actual, on-the-ground projects. This list is not in any specific order.

1. Cost / Benefit Analysis: projects that are the least costly way to provide benefits are preferred under this criterion.

2. Types of Benefits: projects that provide these benefits are preferred under this criterion.

- Direct water quality benefit: (directly reduces the amount of a pollutant entering waterways)
- Community economic benefit: (protects property values, protects livelihood within the watershed,
- Social capital benefit: (Builds trust, Develops partnerships, Improves communication/coordination, Engages and educates watershed users)
- Environmental / Watershed function benefit: (erosion control, fire prevention/ management, flood control, water quality protection / improvement)

3. Long-lasting Benefits: projects with the ability to protect and ensure benefits over a long term are preferred under this criterion.

4. Likelihood of Success: projects that have less risk or uncertainty (i.e.: political, technical) are preferred under this criterion.
This criterion considers factors affecting the likely success of a project.
Among the criteria to consider is the ability to monitor and evaluate any proposed project's success as well as the ability to correct problems that arise during implementation and the qualifications of companies or individuals expected to implement the project. Also under this criterion could be readiness timing, landowner willingness, access and engineering.

5. Technical or Scientific basis: projects based on solid, scientific evidence are preferred under this criterion. This criterion assesses the type of information upon which the project proposal is based. **(NOTE: scientific evidence can include 1) studies conducted in other places which provide lessons learned, mistakes, successes, and 2) measures or "indicators" other than water quality data.)**

6. Addressing Watershed Issues: projects that address an identified watershed issue are preferred under this criterion.
As the critical issues have not been ranked in terms of priority in the plan, this criterion must consider the extent to which an implementation measure or project resolves or addresses the issue.

7. Strengthens existing efforts: projects linked to existing efforts in a positive way, giving them strength and potentially a higher likelihood of success is preferred under this criterion.

8. Knowledge gap: projects that will fill an identified gap in knowledge for these watersheds are preferred under this criterion.

9. Opportunities for cost sharing: projects for which there are good opportunities for partnerships across entities that could leverage the resources needed and/or to solicit funds (grant writing etc.) to conduct the project.

Prioritization of Plan implementations (recommended actions)

Top priorities that emerged from the stakeholder process :	
Short term (1-2 years)	**Long term (5-10 years)**
Continue the Nacitone Watersheds Steering Committee by seeking funding and contracting with a watershed coordinator/grant writer.	
Support the development and maintenance of Round Tables with an Inter-county Task Force on land use and water resources planning as the top priority Round Table (Issue 7)	
Monterey County, San Luis Obispo County and resident associations should work together to develop and implement programs to control invasive species. (Issue 11, Implementations 1C)	
Water quality monitoring, interpretation, and coordination across multiple entities. Continue existing water quality monitoring. In addition, establish a comprehensive water quality monitoring program with uniform collection, analysis and reporting protocols across pertinent jurisdictions for technical and public sector use. As part of this information gathering, encourage EPA to conduct a lake bottom sediment study of Nacimiento reservoir to better understand mercury contamination.	Support for SLO County to eliminate the risk to water quality of the Oak Shores Interceptor line at Nacimiento reservoir.
Support the work of existing Local Fire Safe Councils (Issue 5, Implementation 1B)	
Conduct road system survey to prioritize needs for erosion control. Include a focused survey on the Tank Road in coordination with military, etc. (Issue 9, Implementations 1B and 2B)	Implement proposed upgrades to the Tank Road and others within these watersheds in coordination with others. (Issue 9, Implementation 2B)
Collaborate on the design and implementation of educational stewardship campaigns targeting watershed residents and visitors with customized messages such as “Be A Watershed Citizen.”	

C. Watershed Issues, Goals and recommendations

ISSUE 1 – Recreation

ISSUE:

As a land use, recreation has, for many years, been an important factor in the watersheds. Recreation contributes to property values, community economics, and allows residents, as well as thousands of visitors each year, to enjoy the varied beauty of the watersheds. Nacimiento and San Antonio Reservoirs offer a variety of water activities including boating, swimming, fishing, waterskiing, and wakeboarding. In addition, the Los Padres National Forest and Fort Hunter Liggett within the watershed provide camping, hiking, swimming, hunting, fishing, equestrian, and wilderness experiences. These areas of the watersheds also provide for interpretation and study of archeological and historic sites, nature study and enjoyment, and artistic and esthetic appreciation of a natural landscape. Unfortunately, recreation also presents the opportunity for harm to the watershed due to trash, vandalism, point and nonpoint pollution, damage to public and private property, crime and other inhibitors to water quality. The continuation of recreational opportunities and the community economic benefits they provide is a high priority for these watersheds while preventing any negative impacts from those activities.

STATUS and REFERENCES:

Much of the recreation in these watersheds occurs in the mid-watershed area in and around the two reservoirs. Many people have purchased property around the reservoirs because of the recreational uses available and rely on those uses to maintain their property values. The following is excerpted from the Salinas Valley Water Project EIR to provide insight into the economic benefit derived thereof.

> *The Monterey County Department of Parks quantifies and tracks use of the reservoir through "units." A unit constitutes any of the following: 1 camping fee, 1 day use fee for a vehicle or boat, yearly boat permits, or a set dollar amount of concession intakes. Units are different than visitor-days, but it can be assumed that an increase in units is equivalent to an increase in visitation, and vice versa. Although there appears to be a general relationship between lake levels and the number of units bought, historical data shows that there is not always a direct correlation. For example, Table 5.9-2 shows that in 1987 the average surface elevation at Nacimiento was 754 feet with 28,137 units bought. In 1992 the average elevation was substantially lower (696 feet) and more units were purchased (30,538). Still, there is a general trend that suggests visitation increases as lake levels increase.*
>
> *An average of 23,452 units per year is sold at Nacimiento, based on years 1985 through 1994. The range in annual units sold for this period was between 9,885 in 1989 and 32,896 in 1993. At San Antonio Reservoir during the same period of time, 99,660 units were sold on average per year, with very large fluctuations. The annual high and low sales points during this period were 25,983 units in 1990 and 185,751 units in 1987 (the north shore of San Antonio Reservoir was closed 6 months in 1990, all of 1991, and for 6 months in 1992, which likely affected units purchased). Table 5.9-4 shows combined number of units sold for the two reservoirs. As described above and shown in Tables 5.9-2 and 5.9-3* [tables are within SVWP EIR], *although there appears to be some correlation between unit sales and lake levels, this relationship is not linear and only reflects a general relationship. There may be many factors influencing recreational use, including among other things, facilities availability, weather conditions, and trends in rainfall over a several year period, etc.*

An increase in year-round and visitor populations around both reservoirs and the surrounding areas may have increased recreational pressures in the watersheds. The infrastructure of the watersheds, specifically during the periods of heavy recreational use, may not have kept up with the increase in population. Additionally, increased usage and development may impact the rural character of the watershed. Prevention of negative impacts from recreational uses is a high priority for these watersheds. The large numbers of people during the height of summer can, and often does, result in an increase of illegal activity including pollution of reservoirs, trespass on private property, vandalism and theft.

Specific concerns for water quality related to recreational use include: a wide variety of trash and debris in the reservoir and inlets, increased use of toilet facilities, vandalizing of toilet facilities, improper disposal of camper waste, unsafe boat speeds exacerbating erosion along the shoreline, petroleum leaks from boat engines, overcrowding of Nacimiento Resort parking areas at the 'Point' and launch ramp marina, and vandalizing of boat docks. While there is little data available, there are concerns that aging or inadequate onsite wastewater systems could contribute negatively to water quality. Nutrient loading which can lead to algal blooms and pathogen loading has serious impacts on water quality. There is significant documentation of these impacts from other watersheds. While there is insufficient water quality data for these watersheds, it will be important to assess and document the extent to which there are existing water quality problems or potential problems that can be prevented, These types of pollutants can make water unsuitable for recreational and other watershed uses. All of these concerns and others as well, are greatly exacerbated when recreational use is heavy.

Hiking, camping, hunting, fishing, equestrian, and other wilderness experiences within the Los Padres National Forest, Fort Hunter Liggett and the Ventana Wilderness Area can be impacted due to problems such as trash, trespassing, vandalism, improper disposal of camper waste, erosion from unclassified/unauthorized (non-system) roads utilized for camping/hiking, intentional and un-intentional damage to archaeological resources, etc.

GOAL: Ensure the continuation of the economic benefits and attractive and enjoyable recreational experiences available to residents and visitors with a focus on water quality and watershed protection.

OBJECTIVE 1: Focus recreational uses in existing public areas where there is supportive infrastructure. Reduce/eliminate trespass on private property within the watersheds.

Implementation 1A: Support the use of passive and active deterrents to trespass on private property as well as public property not designed for public use. Passive deterrents should include but not be limited to: signs, education and outreach. Active deterrents should include but not be limited to: fencing and log booms where these would effectively protect the public resource.

Implementation 1B: Support the efforts of Monterey County Parks Dept., the Monterey County Water Resources Agency, and the Sheriff's Departments in both counties in efforts to deter and punish illegal activities that affect watershed health.

OBJECTIVE 2: Minimize soil disturbance and threats of erosion (campgrounds, parking lots, boat ramp areas, non-system roads etc.) in public areas and on public lands.

Implementation 2A: Provide informational signs and support efforts of recreational clubs to inform the public of erosion problems, their related impacts and erosion prevention measures.

Implementation 2B: During the summer season (May through September), minimize soil disturbance from vehicles in unpaved areas by posting signs, patrolling, and providing information to visitors about erosion and water quality.

Implementation 2C: During the off-season (October through April) restrict vehicle access in unpaved areas by posting signs and patrolling the area. (Possible Sign Examples: "Access to marina only", "No overnight camping")

Implementation 2D: Ensure that future, or expanded, recreational areas are carefully planned to protect watershed resources (water quality, habitat, etc.)

OBJECTIVE 3: Promote protection of water quality and respect for the watersheds by visitors and residents in recreational areas. Examples include but are not limited to: reducing incidents of parking in un-marked areas, littering, camping in non-camping areas, and improperly disposing of waste.

Implementation 3A: Work with multiple community groups and agencies to promote campaigns that are customized to the target audience such as: "Be a Watershed Citizen", "Welcome to our Watershed", "Party On: Keep Your Lake Clean", "Keep Nacimiento/San Antonio Blue" and others.

Implementation 3B: Encourage enforcement of existing ordinances prohibiting overnight camping on land not designated for overnight camping by the appropriate county's Sheriff's Department or Monterey County Parks Rangers.

Implementation 3C: Encourage SLO and Monterey counties to review existing ordinances and to adopt severe fines for littering, dumping, or polluting in the watersheds. These ordinances would need to be enforced by the appropriate entity for either land or water activities.

Implementation 3D: Encourage Monterey County Water Resources Agency and Monterey County Parks Department to provide an increased number of parking, restroom, and trash facilities at strategic public recreation sites. Homeowners associations should be encouraged to provide additional facilities for their own, private users. New or improved parking areas should be designed as permeable surfaces to minimize runoff potential.

Implementation 3E: Promote a campaign to report vandalism of restroom facilities, boat docks, and other private or public facilities.

Implementation 3F: Consider raising funds to support the development of a comprehensive recreational guidebook and map of both watersheds that includes a foldout map with details of recreational activities and facilities that exist within the reservoir area and that exist outside of the reservoir areas, and lists rules and regulations in place to protect the natural resources for current and future use. Utilize existing guidebooks to ensure this product is unique and valuable.
Implementation 3G: Work with County Parks on the possibility of posting "Lake Watch" signs at boat docks and floating toilets in a "Neighborhood Watch" attempt to deter negative behavior.

Implementation 3H: Encourage the US Forest Service to promote dispersed car camping in already impacted areas rather than creating new camp-sites in pristine areas of the Los Padres National Forest.

Figure 36. Recreation at the San Antonio Reservoir
(Source: Monterey County Parks, 2007)

ISSUE 2 – Gaps In Knowledge: Monitoring & Information Needs

ISSUE:

Protecting the water quality of these streams and reservoirs is a high priority for all watershed uses. However, there are few documented water quality problems in these watersheds. This may mean there are not water quality problem or that we are currently not aware of existing problems or potential problems. Establishing a baseline of water quality from which to track change over time is a priority for these watersheds.

STATUS and REFERENCES:

Water quality concerns of the Regional Water Quality Control Board for these watersheds are:

Nacimiento reservoir – Mercury in fish tissue;
Las Tablas Creek – Excessive mercury, sedimentation, total dissolved solids (TDS), electrical conductivity (EC), sulfate, and nickel.

A Total Maximum Daily Load (TMDL) clean up plan was developed by the Regional Water Quality Control Board for mercury from mine runoff in Las Tablas Creek (which drains into the Nacimiento Reservoir). In addition, the U.S. Environmental Protection Agency (USEPA) has listed the mines on the National Priority List of Superfund Sites which triggered Federal clean up measures superseding the TMDL. The Klau/Buena Vista mines are non-operational and are considered to be significant sources of mercury entering downstream waterways.

Below is a brief summary of water quality findings that are more thoroughly described in the **Existing Conditions** section of this Plan. Most of the statements below are based on very little data and do not signify water quality problems. Rather, they are areas to consider in the establishment of baseline monitoring data. Establishing baseline conditions of local water quality may be important to maintaining good water quality over time.

Information Source	San Antonio River Watershed :
Camp Roberts INRMP, 2000	Camp Roberts found total dissolved solids (TDS) and selenium **at levels that occur naturally in the river**.
LOW	Monterey County Water Resources Agency found nitrate levels in the reservoir that are **below the maximum allowable for drinking water**.
Jenks and Adamson, 1970	Monterey County Parks has had reservoir samples with **high levels** of manganese.
Camp Roberts INRMP, 2000	Camp Roberts' monitoring found a **potential problem** with cadmium in the San Antonio river.
Logan, 1987	Monterey County Flood Control and Water Conservation District found **high level** of nitrates in a Lockwood well
	Nacimiento River Watershed:
Heritage Ranch Sanitary Survey Update, 2005	The source water for the Heritage Ranch CSD wells is the Nacimiento River. The water quality in these wells, located in the Nacimiento River one mile downstream of the dam, **meets primary drinking water standards** and except for occasional detection of high iron and manganese levels also **meets secondary drinking water standards**.
Appendix E **of WRI Analysis**: Report by SLO County Public Works, Water Quality lab report summarizing history and results of the Nacimiento Water Project (NWP) water quality monitoring program	San Luis Obispo County Public Works Department has collected some data at the intake location for the Nacimiento Water Project. Results vary, and can be a function of different factors. Most notable are **high values** found for total coliforms, algae, turbidity, aluminum, iron, and manganese. The monitoring program was initially designed to provide information for water treatment plant design, and will be revised to meet ongoing operational needs. Concerns for ongoing operations include invasive species, runoff, pathogen loading, nutrient loading, carbon loading, suspended solids and metals deriving from various watershed uses, to name a few.
Regional Water Quality Control Board, WMI, 2002	Nacimiento Reservoir is **listed as impaired** for mercury in fish tissue
	Las Tablas Creek: (in the mid 1990's)
Salinas Valley Water Project, EIR, 1998	Low nitrate levels
Salinas Valley Water Project, EIR, 1998	High aluminum and iron levels

These sources are found in the WRI and WRI Analysis, Nacitone 2008.

Figure 37. Possible Water Quality Concerns

It will be important to determine the best way to assess and document the extent to which these are existing water quality problems or potential problems that can be prevented. For example, one water quality concern voiced often by several Steering Committee members is that of trash in streams, creeks, and reservoirs. Although there is anecdotal information from watershed residents, there are no data available to consider this issue. It may be possible to detect such a problem by establishing an indicator or monitoring for toxins created by degrading plastic, metals, or volatile organic compounds that might be residuals from trash and debris.

GOAL: Maintain and protect the quality of surface water and groundwater found in these watersheds.

OBJECTIVE 1: Establish baseline water quality data of relevant constituents for water bodies in these watersheds to ensure water quality is protected, that early detection to prevent problems is possible, and to track changes in water quality over time.

Implementation 1A: Continue to compile a list of other entities conducting water quality and invasive species monitoring in these watersheds and determine: constituents monitored, frequency, locations, and purpose of the monitoring.

Implementation 1B: Support the coordination of water quality monitoring and interpretation in these watersheds through use of mechanisms such as compatible Quality Assurance Project Plans (QAPP), database formats, and facilitation of roundtable discussions to understand the data.

Implementation 1C: Encourage responsible agencies to work together to provide funding for establishing a comprehensive monitoring program that will provide data to all agencies, and eliminate redundancies. This data could then be used to identify problems and recommend corrective actions.

Implementation 1D: Partner with the water purveyors, Resource Conservation Districts, Natural Resources Conservation Service, Cal Poly, and others to monitor the effectiveness of voluntary management practices for protecting water quality; ensure that data is kept confidential and summaries of the information do not identify any landowner.

Implementation 1E: Support the initiation of a volunteer water quality monitoring program including monitoring at the confluences of creek to main stem and creeks to reservoirs.

Implementation 1F: Encourage EPA to conduct a reservoir bottom sediment study of Nacimiento Reservoir to better understand mercury contamination.

OBJECTIVE 2: Identify potential contaminant sources, magnitude of threat to water quality, possible preventive or mitigation measures, and gaps in knowledge**.**

Implementation 2A: Develop a thorough, comprehensive, quantitative as well as qualitative, description of all current and projected watershed uses that can harm water quality. Evaluate these uses for potential to degrade water quality. Identify remaining gaps in knowledge and develop mechanisms to address these.

Implementation 2B: Working with watershed users, identify possible preventive or mitigation measures for problems or potential problems identified in the study described above.

Implementation 2C: Collaborate with entities required to conduct sanitary surveys including SLO County Public Works Department Water Quality Lab, and Heritage Ranch Community Service District.

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ISSUE 3 – Preventing Pollution from Point and Nonpoint Sources

ISSUE:

Making all watershed users aware of point and nonpoint sources of pollution and how to recognize and prevent them is a high priority for these watersheds.

STATUS and REFERENCES:

Point and nonpoint source pollution negatively affect water quality measured by the ability of the water body to support state designated beneficial uses. See a detailed discussion of beneficial uses in the **Existing Conditions** section of this Plan.

Point source pollution results when water conveys pollutants into a waterway from a discrete, potentially identifiable source. Point sources such as domestic wastewater and commercial / industrial waste discharges can be identified and controlled and are regulated with discharge permits. Existing point sources in these watersheds are allowed to discharge regulated amounts of: wastewater, solid waste, and processed water. There is a complete list of point sources permitted to discharge in these watersheds in the **Existing Conditions** section of this Plan.

Nonpoint sources of pollution are difficult to see, measure, or regulate. They result when water (including stormwater and non-stormwater) moves across the landscape and picks up pollutants such as nutrients, sediment, chemicals, oil and grease, bacteria, etc. and conveys them into water bodies (rivers, streams, reservoirs, and groundwater). Nonpoint sources may occur at many different locations spread over a large area and are regulated by waste discharge requirements, conditional waivers in the public interest, or prohibitions (2004 Nonpoint Source Implementation and Enforcement Policy, State Water Resources Control Board; webpage: http://www.waterboards.ca.gov/water_issues/programs/nps/#programs).

Potential nonpoint sources of pollution relevant to land uses in these watersheds:

- **Fertilizers and pesticides from careless application or improper disposal;**
- **Bacteria and nutrients from malfunctioning septic systems; human and animal feces;**
- **Sediment from erosion due to poorly designed or maintained roads and construction sites, streambank, shoreline, and rangeland erosion, abandoned mines, off-road vehicles, recreational trails, burned areas;**
- **Stormwater conveyance of grease, oil, metals, nitrogen/phosphorus-based fire suppression chemicals; nutrients, organic carbon, sediment, chemicals, and trash. Sources of these materials may be legal activities, or they may be from illegal activities such as unpermitted grading, methamphetamine labs and marijuana growing areas.**

It may be possible to determine which of these are causing water quality problems, or pose potential problems that can be prevented. However, an effective watershed-wide approach, emphasizing cooperative solutions, increased education, and development of partnerships, will be more likely to reduce all types of nonpoint source pollution in these watersheds.

Oak Shores Interceptor line:

A specific example of a known, potential source of pollution is the Oak Shores Interceptor line. The sewage collection system for this Nacimiento Reservoir community consists of nearly 10,000 feet of pipeline and several manholes located up to approximately 40 feet below the high water line of the reservoir. Exposed lateral pipelines coming from houses to the interceptor line may be vulnerable to breakage and vandalism. The sewage from residences could then flow into the reservoir. There are also challenges for maintenance and repair staff to gain access to the interceptor line when the line is under water. There is a program in place to ensure that no annexed parcels will be allowed to connect to the Interceptor line. Refer to existing conditions discussion for more examples of potential sources of point and/or nonpoint pollution.

GOAL : Reduce point and nonpoint source pollution in support of designated beneficial uses of local water bodies.

Objective 1: Encourage and provide incentives and information for public and private landowners and homeowners to protect ground and surface water while protecting both property and water rights.

Implementation 1A: Offer homeowner and small business owners water quality protection workshops regularly that detail safe pesticide product use and disposal; septic system maintenance; preventing pollutants from paved and unpaved roads from entering waterways, and generally increase the awareness about the potential impacts of residential areas on surface and groundwater quality.

Implementation 1B: Obtain or develop a flyer and distribute to all watershed residents detailing how we all have a role in protecting water quality and watershed uses.

Implementation 1C: Sponsor educational programs for farmers and ranchers specific to issues in these watersheds at which participants can earn continuing education units. Continue to sponsor Ranch Water Quality short courses.

Implementation 1D: Develop interpretive signage in strategic locations around the watersheds describing how each person has a role in protecting water quality. This could include explaining that Nacimiento Reservoir is a source of raw water that will be treated for drinking water and should be cared for.

Implementation 1E: Educate the public on the watershed and water quality impacts of illegal drug production such as marijuana farming on public lands and meth labs in our communities.

Objective 2: Reduce mercury sedimentation and acid mine drainage in the Nacimiento River watershed**.**

Implementation 2A: Continue to provide community support to US Environmental Protection Agency (EPA) for remediation of the Klau/Buena Vista Superfund Site through participation in the Community Advisory Group and public review and comment throughout the Superfund remediation process. Community support and support from our elected officials is critical to ensure that Congress allocates adequate federal funds to complete the project once the Superfund remediation assessment and design phases are complete.

Implementation 2B: Encourage the MCWRA to request that EPA conduct a comprehensive reservoir bottom sediment study of Nacimiento Reservoir to provide detail to decision makers about future management decisions to include the extent of contamination and the timeframe involved that would reduce mercury level in fish tissue to acceptable levels.

Objective 3: Improve erosion and sediment control for new development and redevelopment in both counties and support the use of Low Impact Development (LID) (integrated management measures that mimic the natural hydrology of the watershed) for stormwater management and road design in urbanized area.

Implementation 3A: Conduct community outreach in the Nacimiento River watershed of San Luis Obispo County to increase awareness about the County's Stormwater Management Programs including informing the public that there will be more frequent, comprehensive grading/stormwater inspections and enhanced enforcement of violations. The new inspection programs, provided for in the revised San Luis Obispo County ordinances, are scheduled to be implemented between 2010 and 2011.

Implementation 3B: Community road associations or other local entities could partner with county departments in the relevant county, Resource Conservation Districts, water purveyors, and other entities to provide annual trainings for private contractors and county maintenance and road crews that would include instruction on the use of management practices that minimize pollutant runoff and erosion damage caused by roads and construction projects.

Implementation 3C: Encourage SLO County Planning and Building through existing regulation to adequately condition new development to ensure infrastructure keeps pace with increased recreational use which may impact shoreline erosion and to determine cumulative impacts of operational launch ramps when water is below High Water Mark.

Implementation 3D: Provide community support for LID methods to reduce the volume and velocity of urban stormwater runoff to downstream lakes and streams by commenting on draft county ordinances as required by the County Stormwater Management Programs.

Goal: Reduce the potential for contamination of the reservoirs by domestic wastewater.

Objective 1: Reduce the potential for sewage leaks from the Oak Shores 'Interceptor line' into the Nacimiento Reservoir.

Implementation 1A: Encourage SLO County (County Service Area 7A) to continue monitoring for leaks and explore other options to fund project which would eliminate this risk to water quality. Institute recommendations #2 through #5 from the 2004 Interceptor Bypass Study.

Implementation 1B: Design and build modified collection system to minimize chance of leakage into the reservoir and to facilitate maintenance and repairs. Ensure that all laterals as well as the collection line are buried and are not vulnerable to vandalism.

Objective 2: Reduce the potential for sewage contamination from public areas to both reservoirs.

Implementation 2A:
Ensure that floating toilets and any other non-plumbed public toilets are routinely pumped and kept clean. Ensure that spills are cleaned up immediately.

Implementation 2B:
Ensure that public, plumbed toilets are properly operating and kept clean. Ensure that spills are cleaned up immediately (Steering Committee requested more detail here).

Implementation 2C: Ensure that public toilet facility capacity matches usage needs.

Objective 3: Reduce the possibility of contamination from septic tanks to both reservoirs.

Implementation 3: Encourage homeowners and residents in these watersheds to do regular septic system maintenance and educate them about "septic safe" practices and cleaning products.

Objective 4: Reduce the possibility of contamination from residential and commercial sewage collection infrastructure to both reservoirs.

Implementation 4A: Ensure that home owners and business owners know who to call for immediate repair of broken, leaking or backed up sewage lines.

Implementation 4B: Ensure that home owners and business owners know who to call if they observe a leaking sewage line that has not been repaired in a timely manner.

Objective 5: Ensure that wastewater treatment facilities operate pursuant to their waste discharge permit.

Implementation 5: Properly design, site, and maintain wastewater treatment facilities and all associated infrastructure.

Figure 38. Impacts of culvert on the Tank Road
(Source: US-LT RCD, 2007)

ISSUE 4 – The Role of Agriculture

ISSUE:

Agriculture in these watersheds is an important contributor to the local economy and is the base of livelihood for many multi-generational families and emerging businesses. Consistent private property rights, and the ability to make decisions internally rather than by an external entity, are what make agricultural endeavors viable in these watersheds. Stewardship of agricultural lands and watershed functions is also crucial to the viability of agricultural operations.

STATUS and REFERENCES:

Agriculture is desired in these communities for many reasons. Farming and ranching operations in these watersheds bring dollars to the local and state economy through the production and marketing of vegetable row crops, fruit and nut orchards, wine and table grapes, cow-calf operations, and contract grazing. These operations also create jobs such as crop care consultants, ranch managers, field foreman and crews, equipment and supply vendors. Beyond these direct, economic benefits, it has been said that, "if you eat food and wear clothes, you are involved in agriculture."

Farming and ranching in these watersheds is also the backbone of property values based upon the rural character and aesthetic views that exist here. More and more Californians and others seek places with a rural feel that are far from urban activity. For many, a move to places like these watersheds symbolizes a personal success in having escaped the hussle and bussle of urban living. Although they come to enjoy this rural paradise, some who move here do not anticipate but discover a vibrant, working landscape of farming and ranching businesses. They discover large, slow-moving farm implements and livestock carriers on roads; wild pig and deer hazards on the roads; dust; noise; and wine tasting and leisure traffic all due to the rural character they sought. This influx of urbanites can cause misunderstandings or accusations about how agriculture impacts the watersheds. There is a need to establish and maintain neighborly communication and information sharing.

Well managed agriculture can provide specific water quality benefits compared to some other land uses. The ground required for raising crops or livestock allows rainwater to saturate the soil keeping organic matter alive, and providing recharge areas to ground water. The soil and vegetation that agriculture requires protects surface water quality by filtering out excess nutrients or other pollutants as water crosses the land. Well managed agricultural operations can do a better job of preventing erosion than some other land uses. In addition, some wildlife species can benefit from agricultural operations and the open spaces provided.

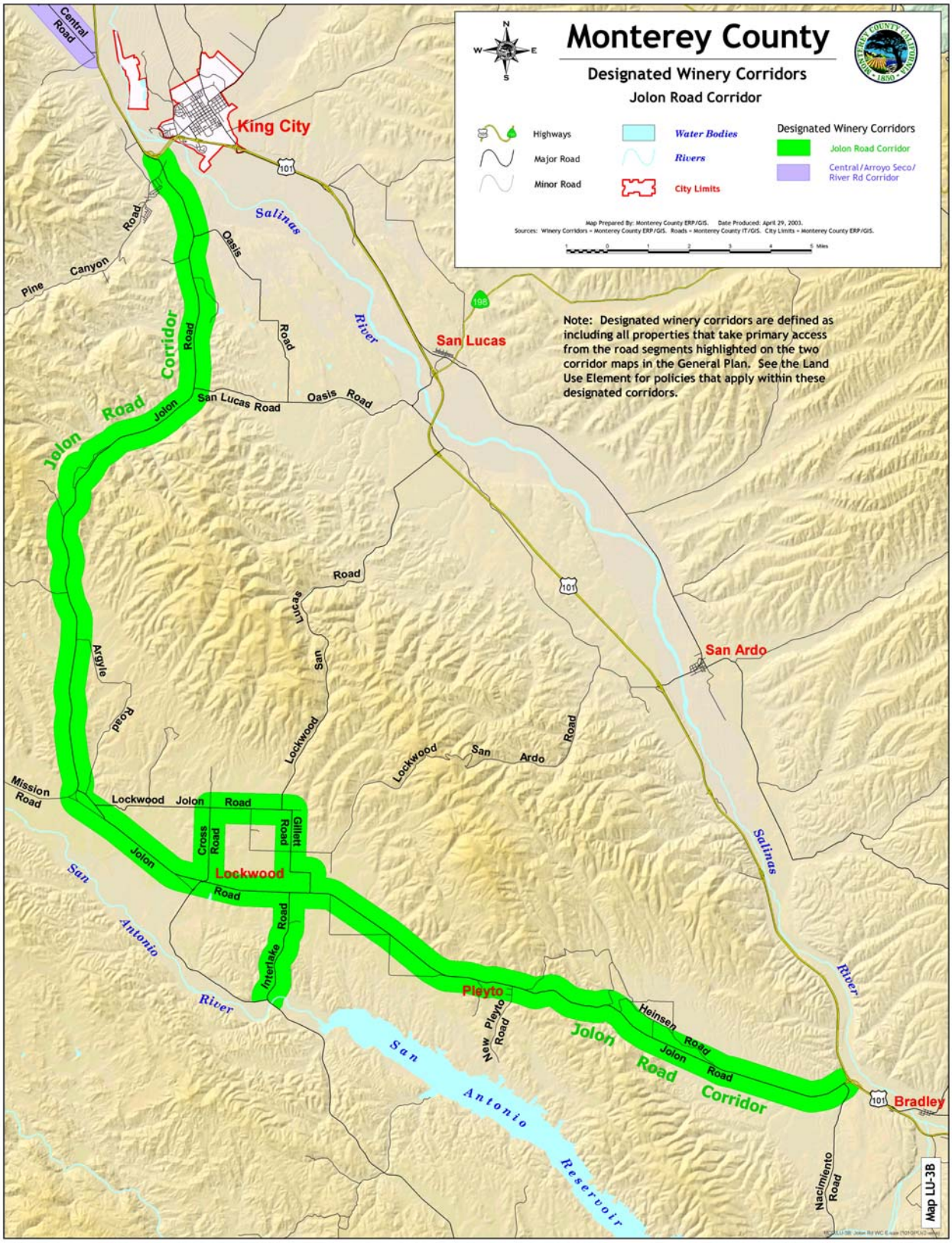

Figure 39. Designated Winery Corridor

GOAL: Ensure that agriculture (farming and ranching) remains a vibrant and economically viable part of these watersheds.

OBJECTIVE 1: Encourage and support the efforts of landowners, farmers, and ranchers to protect soil, water, and air resources critical for keeping agricultural operations a productive part of the economy through the promotion of research, education, and outreach.

Implementation 1A: Monterey County Water Resources Agency (MCWRA) should work with UC Cooperative Extension, Resource Conservation Districts, Farm Bureaus and others to offer the "Ranch Water Quality Short Course" periodically to existing leaseholders on MCWRA land and to other, local rangeland owners / operators. Prepare and distribute DVDs of the November 2007 course conducted in the San Antonio watershed.

Implementation 1B: The Monterey and San Luis Obispo County Farm Bureaus should work with UC Cooperative Extension, Resource Conservation Districts, County departments, water agencies and others to offer water quality protection trainings and workshops to farmers and ranchers in these watersheds on a regular basis. Both implementation 1A and 1B should include bringing in innovative researchers and land managers to share their knowledge and experience with local farmers and ranchers.

Implementation 1C: Encourage watershed specific research through collaborative efforts with private and public landowners to develop strategies to protect natural resources as part of profitable agricultural operations.

Implementation 1D: Assist the Natural Resources Conservation Service (NRCS), Resource Conservation Districts and others with outreach to ensure information on conservation incentive programs through the Farm Bill and other mechanisms are well known to local landowners, farmers, and ranchers.

Implementation 1E: Utilize the Resource Conservation District of Monterey County's Livestock and Lands program to provide educational workshops, materials, and planning assistance for qualified livestock owners in these watersheds.

Implementation 1F: Utilize the general strategies (those not specific to the lands owned by the MCWRA) contained in the Grazing Management Plan as an example for management of grazing in the two watersheds.

Implementation 1G: Create an open dialog about the use of grazing for controlling noxious weeds, improving habitat and improving the health of the grasslands of the Nacitone watersheds.

Objective 2: Educate the public about agricultural operations, its role in the local economy and efforts in environmental protection.

Implementation 2A: Develop an agricultural speaker's bureau through local chambers of commerce, Farm Bureau and farm centers to provide presentations and farm/ranch tours upon request.

Implementation 2B: Encourage local farmers and ranchers to offer their perspective and experience as part of AgKnowledge, an emerging program to educate community leaders about the role agriculture in our communities. The program began in 2007 as part of a joint effort by Monterey County Ag Education and the Grower-Shipper Foundation.

Implementation 2C: Encourage and support local communities to pass to younger generations the importance of protecting watershed uses and watershed resource through schools, farm days and 4H.

Objective 3: Improve coordination and communication among regulatory entities, private, and public entities to manage land and water resources in an effective and environmentally conscious manner.

Implementation 3: Consider creating a Grazing Advisory Committee made up of members of the ranching community, RCD, NRCS and UC Cooperative Extension that would meet periodically to advise public agencies on their grazing programs.

Objective 4: Encourage ranch managers to monitor grazing land on a continuing basis.

Implementation 4A: In order to evaluate effectiveness of management strategies on grazed land, it is recommended that the Residual Dry Matter (RDM) is monitored each fall to ensure that grazing lands and facilities are in good order. Seasonal variations and rainfall should be considered in the RDM evaluation.

Implementation 4B: Encourage ranchers to attend periodic Ranch Water Quality Short Courses.

Implementation 4C: Support private landowners to prepare and implement with assistance from CAL Fire and the local fire districts, an integrated fire plan that addresses the use of managed fires and grazing to accomplish objectives of reducing understory and the potential for hotter, more destructive wildland fires.

ISSUE 5 – Fire in the Watersheds

ISSUE:

The risk of large, unplanned fires in these watersheds is very high due to an abundant fuel load.

> *Far from being the disasters that the media frequently portray them to be, fires in California are essential in maintaining the state's spectacular biodiversity. Not only do fires engender the diversity of California's ecosystems, they directly and indirectly affect the services and products these ecosystems provide to the state's human residents; these include clean water, timber, and recreation opportunities. This is not to say that all fires are beneficial or that they now burn as they did historically. Some fires may be disasters from both an ecological and a social perspective (California Watershed Assessment Manual, 2005).*

The risk to loss of life and property from wildfires has been substantially increased because of the encroachment of residential uses within and adjacent to fire-prone woodlands. Alterations of the period an area burns due to fire suppression and other changes in the natural fire cycle as well as changes in climate on fire behavior are just starting to be understood. Managed burns (often called prescribed burns) and mechanical thinning can be used to safely reduce fuel load and also to manage invasive vegetation. Only Fort Hunter Liggett currently uses prescribed burns in these watersheds as a regular tool. Judicious grazing can also reduce vegetation fuel load. Educating the public, preventing catastrophic wildfires, and safely utilizing fire to conduct land management are priorities for these watersheds.

Fire management is important to preventing negative water quality impacts though not all of these impacts can be avoided. Loss of vegetative ground cover after a fire increases runoff sending eroded soil and nutrients, and other pollutants into the water. Included in this runoff can also be the nitrogen –phosphorus based fire suppression chemicals used by the Cal Fire (also known as the California Department of Forestry and Fire Protection) and other fire agencies. One of the most common of these fire chemicals is Phos-Chek which is dropped as a fire retardant from aircraft.

STATUS and REFERENCES:

There have been several major fires in the upper watersheds since this area was first settled. Significant watershed impacts occur including very large amounts of sediments which caused significant problems. The 1977 Marble cone fire was in part the result of a heavy "sticky snow" which fell in winters just prior to the fire which broke so many trees and large shrubs that fuel load increased by 80%. Similar conditions have occurred in the winter just prior to the 2008 Indians Fire which could have played a large part in the severity of the burn. Most large fires in these watersheds are lightning caused. However, fires may also be caused by people where sufficient fuel load and oxygen are available. Therefore, an educational approach to fire will be the most effective in preventing catastrophic events.

While this plan was being completed, two large fires called the Basin/Indian Complex and the Chalk Fire occurred in June/July 2008 and September/October 2008 respectively. The Indians Fire burned over 30,000 acres (approximately 14% of the entire San Antonio River watershed).

Final numbers for the Chalk Fire were not available before this plan went to press. The portion of the Indians Fire that burned in the San Antonio River watershed occurred in the upper watershed area primarily on the Los Padres National Forest and FHL land. Final Findings of facts and specific recommended treatments of the fire impacts were developed too late in the process to be used in this plan; however, the following is a summary of major initial findings. USFS analysis indicates that the "south side of the Indians Fire contains a large portion of high soil burn severity". More than 75% of the area that burned in the San Antonio watershed was classified as moderate to high severity; compared to the overall proportion of moderate to high severity in the entire Basin/Indians Fire which was approximately 60%. The hot nature of the fire is expected to create significantly increased runoff rates that could result in a doubling of the runoff that would have normally occurred from a storm of the same magnitude. Hazards are expected to be primarily related to flooding and debris flows. The fire was most severe in the Bear Canyon and Coleman Canyon (Mission Creek) sub-watersheds. Lessons learned from this fire should be incorporated in future updates to this plan. (USFS Draft BAER report August 2008, MCWRA 2008)

Following the Basin/Complex fire that occurred during the development of this Watersheds Management Plan, an interesting observation was made by a member of the Steering Committee. Understory had burned so hot as to damage mature oak woodlands in some parts of the burned area. However, on the Los Padres National Forest grazing allotment which has been nearly continuously grazed for 40 years, Valley Oaks emerged unscathed. It was suggested that this area could be monitored over time to better understand grazing for fire management.

Causes of California Fires 2000 - 2005	
Lightning	5%
Arson	7%
Debris burning	10%
Miscellaneous	13%
Undetermined	14%
Vehicles	14%
Campfire	3%
Equipment Use	27%
Power Line	3%
Playing with fire	2%
Smoking	2%

Source: www.cdfdata.fire.ca.gov/incidents/incidents_statsevents

Figure 40. Causes of California Fires 2000 - 2005

A fire policy of suppression in these watersheds has allowed substantial increase in fuel loads and can have significant economic costs. Statewide fire suppression expenditures for 2005-06 were approximately $105 million (3/2006 www.fire.ca.gov). If fire frequencies increased, fire intensity and damage would be expected to decrease. Fire suppression is a strategy that only temporarily avoids severe wildfires that endanger human life and property as well as water quality and watershed health. The following paragraph clearly states the importance of local involvement in fire management and is relevant for these watersheds:

> *"Californians need to embrace a different model of how to view fires on these landscapes. Our response needs to be tempered by the realization that these are natural events that cannot be eliminated from (Southern) California. In this respect we can learn much from the science of earthquake or other natural disaster management. No one pretends they can stop them, rather they engineer infrastructure to minimize impacts, and in this respect there is much that can be done at the local level".* Jon E. Keeley in *Fremontia.*

In addition, consideration of differential suppression in different habitats is warranted as depicted by Zeke Lunder, Chief Fire Planner/Fire Management/GIS Planner for North Tree Fire International.

> *Suppression damage is not equal across the landscape. Some areas are more susceptible to damage than others. Some pastureland and chaparral areas recover quickly from bulldozer impacts while others do not.*

Mr. Lunder also suggests that suppression using dozer lines and other disturbances could be avoided in areas of serpentine soils in the watersheds which are rich in endemic species. Further Mr. Lunder suggests that a holistic approach for determining suppression techniques is needed to address the best suppression methods for specific situations. For example, while mechanized fuel treatment is to be avoided in erosion prone areas, this same treatment may inadvertently act to spread invasives species when used elsewhere in the watersheds.

A discussion of fire suppression, fire management strategies, and water quality concerns caused by fires should be part of the improved communication and coordination effort suggested below as a recommendation of this Plan.

GOAL: Reduce the risk associated with catastrophic wildfire impacts on life, property, and natural resources through increased public awareness and understanding of what causes these events.

OBJECTIVE 1: Work with California Department of Forestry and Fire Protection, US Forest Service, Camp Roberts, Fort Hunter Liggett, Bureau of Land Management, Fire Safe Councils and other appropriate parties to address fire protection and fuel load reduction while enhancing watershed health.

Implementation 1A: Encourage all agencies and landowners to reduce fuel loads using a diverse set of vegetation management tools such as grazing, prescribed burning, and mechanical equipment where erosion hazard is not severe. This would reduce the cost and losses in the residential interface zones caused by devastating wildfires.

Implementation 1B: Support Local Fire Safe Councils to include, but not be limited to, the following activities:
a) provide a forum for the community to give input and provide local knowledge to policy makers.
b) organize workshops on fire safe topics such as creating a defensible space and providing defensible space rebates
c) review, discuss, distribute and comment on Cal Fire's plan for the watersheds with particular attention to the following:

- Conditions of burn permits
- Roadside fuel reduction
- Coordination of public and private fuel breaks
- Community evacuation plans
- Effect on streams and riparian habitat

Implementation 1C: Gather information among all parties on methods available for managing risks for preventing destructive wildfires in the watersheds and distribute this information to appropriate watershed users.

Implementation 1D: Encourage wildland firefighting agencies to develop appropriate mitigation for the impact of fire suppression materials.

Implementation 1E: Obtain flyers for local distribution and plan educational workshops for watershed residents on topics such as :

Maintaining a defensible space,
Ensuring a sufficient water source for fire prevention
Landscape with fire resistant trees and shrubs
Other fire prevention landscaping techniques
Safety and emergency protocol development for the home
Evacuation plans for humans and animals

Implementation 1F: Develop and use GIS and other mapping technologies to establish prioritized sensitive areas to target appropriate fire suppression techniques and treatments.

Objective 2: Work with all agencies within the watersheds to consider elements of future development that would recognize the inevitability of fire and protect infrastructure property and vital watershed cover.

Implementation 2A: Encourage participation by residents in both watersheds to provide comments to future planning documents related to fire and fire management for carefully planned development away from forested areas and to ensure adequate defensible space is incorporated. This can be done on an individual basis or through existing or newly established Fire Safe Councils or other community associations.

Implementation 2B: Work with county and fire management entities to carefully plan any future development near or adjacent to areas of high fire potential and in areas that are difficult to provide fire protection. Support and/or conduct documentation of the increased damage that occurs when housing/other buildings are in proximity to forests and work with county planning departments to incorporate guidelines.

Implementation 2C: Encourage the Monterey District of the Los Padres National Forest to develop a Wilderness Areas Fire Management Plan for the Monterey District.

Implementation 2D: Encourage the cooperation of the fire departments and air pollution control districts in allowing controlled fire as a management tool on agricultural and rural lands in the watersheds. Work with agricultural land owners to permit the use of controlled burns to address excessive and overgrown underbrush.

Objective 3: Work with CalFire and US Forest Service (in light of the Basin and Indians fires) to include the community in rehabilitation of burned areas and to work toward increased preparedness for post-fire work.

Implementation 3A: Encourage fire agencies to include knowledgeable watershed residents in the planning of rehabilitation of burned areas. Encourage these agencies to work with watershed residents to prevent the premature mandatory evacuation of individuals who have the local knowledge needed by fire agencies to protect watershed residents and resources.

Implementation 3B: Encourage watershed residents to actively participate in Fire Safe Council and ensure information is passed to residents of the watershed to help them prepare for future fires.

Implementation 3C: Encourage Fire Safe Councils, fire agencies and residents to be prepared to contend with post-fire water quality issues that are as inevitable as the fire themselves.

Figure 41. CALFire aircraft dropping flame retardent
(Source: CALFire, 2008)

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ISSUE 6 – Taking Enforcement Action

ISSUE:

Inadequately enforced regulations result in negligent practices and illegal activities that can negatively impact water quality and watershed uses.

STATUS and REFERENCES:

In some cases, the most efficient and cost effective method for protecting water quality from point and nonpoint sources of pollution is to enforce existing regulations. Lack of adequate enforcement can lead to the following types of activities that may cause harm to water quality.

- grading without a permit causing erosion, sedimentation and transport of other pollutants
- littering and dumping of trash
- abandoned methamphetamine labs and hillside marijuana gardens
- vandalized public toilet facilities
- careless boat operation causing fuel leaks or shoreline erosion
- vandalized boat docks spreading Styrofoam and other debris in the reservoir

Activities that do not necessarily affect water quality, but that are priorities to prevent in these watersheds include:

- removal of oak trees under certain conditions and in specific locations
- disturbance or destruction of cultural resources

GOAL: Enforce existing regulations, laws and ordinances that will help protect water quality and watershed health.

Objective 1: Support jurisdictional entities to use their existing authority rather than develop new regulations.

Implementation 1A: Encourage cross-jurisdictional communication to identify barriers to and potential improvement of enforcement.

Implementation 1B: Communicate boating regulations and watershed protection measures at each entrance to the reservoirs through handouts, signage, etc.

Implementation 1C: Encourage MCWRA and San Luis Obispo county to work together with local groups to develop materials (pamphlet, brochure) explaining existing regulations, jurisdictional areas, and available services and resources for use by residents and visitors.

Implementation 1D: Encourage San Luis Obispo County to do more to educate homeowners about existing grading and erosion control regulations and to better enforce those regulations.

Implementation 1E: Support the development of a management plan that involves community input and participation as required for the Milipitas Special Interest Area. This Area was designated by the US Forest Service in the Los Padres National Forest Plan in order to protect cultural resources and cultural landscape of the upper watershed.

Implementation 1F: Encourage landowners to consult with UC Cooperative Extension, Resource Conservation Districts, Farm Bureaus and others for erosion and sediment control programs.

Objective 2: Encourage the public to become familiar with and utilize Cal Fire Standards for protecting homes and properties.

Implementation 2: Include Cal Fire Standards 1 – 8 (methods for defending residential properties against fires) in a 'Watershed Citizens' guide which is recommended under other Goals in this Chapter. These standards include: maintaining a defensible space, ensuring a sufficient water source for fire prevention, landscape with fire resistant trees and shrubs, other fire prevention landscaping techniques, safety and emergency protocol development for the home, evacuation plans for humans and animals.

Objective 3: Encourage the public and all jurisdictional entities to become familiar with existing laws that protect cultural resources such as California Environmental Protection Act (CEQA) for local and state projects and the National Environmental Protection Act (NEPA) for federal projects or projects on federal lands. Cultural resources can include archaeological sites, historic sites, actual locations, landscape features, and specific plants.

Implementation 3A: Recommend funding for a CEQA workshop to be made available to local county staff, landowners, and private consultants working on both private and public projects to cover all aspects of the law and implementation, not just the cultural resource aspects.

Implementation 4A: Because of the prevalence of archaeological and historic sites in these watersheds, develop a user friendly manual on how to comply with CEQA when cultural resources may exist in a project area and how to handle burial sites if found with reference to the governing laws.

The following two Objectives are specific to the enforcement of the San Luis Obispo County Stormwater Management Programs and Ordinances:

Stormwater Management Objective 1: Improve erosion and sediment control for new development and redevelopment as part of County Stormwater Management Programs.

Implementation 1: Conduct community outreach regarding new County Stormwater Management Program requirements that include more frequent, comprehensive grading/ stormwater inspections and enhanced enforcement of violations as provided for in new County ordinances and new inspection programs scheduled to be implemented between 2010 and 2011.

Stormwater Management Objective 2: Detect and eliminate illicit discharges within urban areas according to the new County ordinance.

Implementation 2: Enforce the new County Stormwater Pollution Prevention and Discharge Control Ordinance. Agriculture is specifically exempted.

ISSUE 7 – Coordination & Communication

ISSUE:

Ineffective coordination and communication between and among counties, jurisdictional entities, regulatory entities, community groups and residents in the watersheds can negatively impact water quality and watershed uses.

STATUS and REFERENCES:

Lack of coordination and communication between large public land managers (such as the military, national forest, MCWRA) and local community's presents challenges in protecting water quality and watershed uses. Coordination and communication among agencies and communities can deter the spread of invasive species from one location to another (Yellow star thistle, Quagga mussels, certain algae species, white bass, other invasives) and pool resources and information to cooperatively manage resources (possible examples include: Tank Road use and impacts, grazing lands, fire management, water quality monitoring, clean up of marijuana growing sites in upper watersheds).

Increasing communication and coordination among the various parties in these watersheds can prevent the loss of watershed uses and ensure protection of water quality. Public agencies and governmental representatives such as County Supervisors should maintain a watershed-wide perspective and strive to be responsive to issues and conditions in smaller, sub-watersheds.

Members of Steering Committee, TAC and members of the public rank their top issues and concerns in the watersheds

Figure 42. (Source: MCWRA, 2007)

From the public agency perspective, cooperative partnerships are the most cost effective way to manage public resources with limited funding. These two watersheds are in two counties. In both watersheds there are large landowners whose actions can have a significant effect on the management of watershed resources. In both watersheds, private landowners are largely dependent on the Monterey County Water Resources Agency's water resources for the development and enhancement of their investments. Those water resources in turn, are dependent upon good stewardship of other lands in the watersheds. By working in a more coordinated and cooperative manner, the two counties can identify issues and develop solutions before a regulatory action is considered necessary by outside agencies.

An important tool that will enable counties and other entities to discuss and address issues that arise is an inventory of existing data sources and programs for these watersheds. The *Watershed Resources Inventory* (WRI) of this Plan located in Appendices A is a step in that direction with over 200 source references concerning water supply, water quality, extent and condition of natural resources. The MCWRA is the repository for the documents contained in the WRI where source materials will be maintained as a discrete collection so that it can be systematically added to with the additions tracked over time.

GOAL: Achieve coordinated efforts between and among jurisdictional entities, regulatory entities, community groups, residents, and other individuals in the watersheds to manage watershed resources in the most effective manner transcending political boundaries and protecting property rights.

OBJECTIVE 1: Bring regulatory and jurisdictional entities together in conversation with local watershed users through "roundtable" discussions to develop cooperative guidelines, achieve common goals and exchange perspectives for the management of watershed resources and protection of water quality.

OBJECTIVE 2: Achieve improved and effective working relationships by determine appropriate nexus for partnerships to obtain funding in support of these roundtables.

Implementation 2A: Function and Objectives of proposed Roundtables:
Each of the roundtables is proposed as an implementation measure and could integrate with others as cross-over of issues becomes important and individual liaisons are no longer adequate for collaboration. Roundtables could function to:

- Identify roles and responsibilities for managing the watersheds cooperatively, for the purpose of protecting water quality and watershed uses.
- Develop and implement cooperative guidelines that commit the agencies to a formal cooperation leading to a comprehensive public process.
- Ensure cooperative guidelines will achieve common goals using common terminology.
- Explain and understand regulatory mandates, jurisdictions of each entity, and existing laws
- Host community forums to gather concerns and explain cooperative guidelines
- Provide a forum for project proponents to explain projects and potential watershed and water quality impacts
- Develop liaison relationships with other roundtable groups to share information and coordinate as needed
- Conduct education and outreach to the community (Example: develop Watershed Stewardship Guide modules for use by all watershed users).
- Discuss methods for the cooperative management of watershed uses and resources and the prevention of point and nonpoint source pollution
- Review and incorporate technical information provided by scientists and engineers

Implementation 2B: Inter-County Task Force on land use and water resources planning:
Staff of appropriate county departments and elected officials work to identify opportunities for coordination and resolve existing or potential future conflicts related to watershed management, water quality protection, and water supply issues.

Develop goals, strategies and actions that each county can agree to by taking the following cooperative steps:

- Clearly identify roles and responsibilities for effective management of Nacimiento Reservoir and the surrounding lands.
- Each county lists their needs related to the watersheds;
- Overlay each county General and Specific Area Plans and Elements along with its land use and grading ordinances, Integrated Regional Water Management Plans and Stormwater Management Plans, etc for the watersheds. Identify operational gaps or unnecessary overlaps and discuss alternatives. Example: a cooperative effort to correlate land use designations between the two counties took place to develop the GIS data for this Nacitone plan.
- Discuss disagreements or miscommunications regarding each jurisdictional entity's role and responsibility

Topics that could be addressed by this group: Preventing nonpoint source pollution; design standards for roads and culverts in the watersheds proper marina and dam operations, etc.

Implementation 2C: Water Quality Monitoring & Information Exchange:
Increase opportunities for coordination among the various groups conducting water quality monitoring in the watersheds through development of common protocol and sharing of data. Compile an inventory of monitoring efforts noting frequency of sampling, parameters, and locations. *See the Water Quality Monitoring goals and objectives section for more specifics.*

Implementation 2D: Recreation roundtable:
Expand the existing information exchange between Monterey County Park Rangers and watershed residents on enforcement issues to include Monterey County Water Resources Agency (MCWRA) and the Nacimiento Regional Water Management Advisory Council (NRWMAC) to:

- Address invasive species threat and work with counties to coordinate prevention efforts
- Provide updates on the water projects (Salinas Valley Water Project and the Nacimiento Water Project);
- Provide more timely reservoir release schedule information;
- Update county entities on study of alternative release scenarios;
- Keep county informed on issues or conditions related to recreational use of the reservoirs.
- Address water quality impacts of recreational activities

Implementation 2E: Livestock grazing roundtable
Bring together private and public owners/operators of grazing lands to discuss their various livestock grazing goals and develop options consistent with common goals for water quality protection. Encourage involvement of other interested parties. A first step might be to evaluate the possibility of developing a coordinated grazing program for both watersheds in order to stimulate positive, working relationships with local land and livestock owners. Possible steps are:

- Develop livestock grazing options consistent with common goals
- Inventory the available grazing acreage and steps that would need to be taken to expand that acreage.

- Evaluate the options
- Implement the options in a cooperative agreement committing agencies to an open public process.

Implementation 2F: Neighborhood Road Associations

Groups of residents along county or non-county roads meet to determine short and long-term goals and objectives and take cooperative actions such as periodic clean-ups. Support to these groups could be provided through Resource Conservation District and/or Natural Resources Conservation Service programs. These groups could provide community support to RCDs/NRCS or county departments in seeking funds to conduct road improvement projects. These associations could also be community forums for learning about other issues such as fire management, water quality protection practices, etc.

- **Review county design standards for roads and culverts**
- **Review Low Impact Development methods for roads and proper installation and maintenance of culverts**
- **Identify and plan for the management of roadside vegetation where needed**
- **Conduct roadside clean-ups**

Implementation 2G: Invasive Species Roundtable

Aquatic: This would be a formalization of the existing cooperative efforts taking place between the two counties and with the Department of Fish & Game, residents, and visitors to prevent the invasion of Quagga/Zebra mussels into Nacimiento and San Antonio Reservoirs.

Terrestrial: This group would work in conjunction with the county Weed Management Areas to coordinate activities and funding to eradicate invasive plant species and animal species as needed.

OBJECTIVE 3: Continue the Nacitone Watersheds Steering Committee by seeking funding and contracting with a watershed coordinator/grant writer.

ISSUE 8 – Watershed Health: Plants & Animals

ISSUE:

The ecological interactions among plants, animals and the physical environment are integral to the maintenance of water quality and watershed uses. As the watersheds experience changes through development, ecological interactions may be impaired as habitats are altered. Woodlands for example provide important soil production and water retention services vital to the recharge capability of the local hydrology. They also provide important habitats for possible threatened species dependent upon them. The available documentation on the biota of the watersheds is almost entirely from federal lands. There is a need to inventory and track cumulative impacts to the watershed to ensure that water quality and watershed uses are not impaired.

STATUS and REFERENCES:

According to several studies between 1991 and 1997 (Pavlik et al.) the presence of oak trees increases soil productivity and may enhance water quality, forage quality, species diversity, and wildlife habitat. Both Monterey and San Luis Obispo counties have existing ordinances to protect oak trees. The US Forest Service has designated an area in the upper San Antonio watershed as the Valley Oak Research Natural Area since it contains the last stand of Valley Oak savannah on National Forest land. This area is open for scientific study on a multitude of topics including why there has been poor oak tree regeneration. The designation of this research area does not change any uses of the land.

The Blue Oak Woodland habitat of FHL comprises about 32% of the installation. It occurs in pure stands and in open savanna communities. Blue oak is the most frequently recorded and dominant species in all three types of blue oak communities.

The Nacimiento Reservoir is home to at least three of multiple active bald eagle nesting sites on the Central Coast. It also has a viable large and smallmouth bass population and is the only reservoir in California stocked with white bass. The Nacimiento River watershed has habitat that is capable of supporting the California Tiger Salamander. The Nacimiento River below the dam is listed as a steelhead river.

The San Antonio reservoir is one of the largest eagle winter habitats in Central California. Over 60 eagles, both bald and golden, have been counted around the reservoir. The upper San Antonio watershed is a nesting site of the protected California condor with a range from the Pacific Ocean to the Pinnacles National Monument. The Department of Fish and Game is responsible for enforcing a current no-lead bullet law within Condor habitat pursuant to Assembly Bill 821 enacted into law in 2007 establishing section 3004.5 of the Fish and Game Code relating to Ammunition Certification for big game and nongame bird and nongame mammal hunting in Condor Range. The ultimate purpose of using ammunition and projectiles certified to contain no lead is to ensure that hunters are not exposing condors to secondary lead poisoning.

San Antonio reservoir has a variety of fish species with catfish and largemouth bass being two of the most popular amongst fishermen. The San Antonio watershed provides habitat for several species designated as either threatened or endangered by the U.S. Fish and Wildlife

Service including the endangered Arroyo Toad, San Joaquin Kit Fox and the threatened California Tiger Salamander.

Vernal pools, which are seasonal wetlands, are also found in the San Antonio watershed and provide habitat for species like the California Tiger Salamander. Statewide, over 90% of these small, valuable and threatened vernal pool ecosystems have already been lost. The San Antonio Valley contains 84 mapped pools in areas with vehicle and ground disturbance limitations or they are located in Fort Hunter Liggett Sensitive Resource Protection Areas (SRPs). (Additional information about resource protections in place is contained in Part 4: Jurisdictional and Existing Regulatory Framework).

Goal: Maintain ecological and watershed functions that support water quality by increasing awareness of all stakeholders

Objective 1: Establish scientific basis for recognizing cumulative impacts to watershed health.

Coordinate with private and public land owners/managers, Camp Roberts, Fort Hunter Liggett, Los Padres National Forest, RCDs, county planning staff, county Agricultural Commissioners' Weed Management Area efforts to do the following:

Implementation 1A: Identify suitable models for tracking and calculating cumulative impacts of human activity and natural changes upon plant and animal communities.

Implementation 1B: Develop and maintain an inventory of plants and animals in these watersheds.

Implementation 1C: Provide biological surveys on lands owned by parties interested in scientifically documenting the present status as part of the above-mentioned inventory.

Implementation 1D: Recognize the effectiveness of Monterey County's oak tree ordinance and work with San Luis Obispo county landowners and planners to determine possible protection needs in Nacitone watersheds in that county.

Objective 2: Establish outreach and education programs to protect watershed health.

Implementation 2A: Support entities responsible for enforcing the use of non-lead bullets for hunting in the watersheds by distributing information on the law and the effects of lead bullets on wildlife, especially California condors, and upon people if animals shot with lead bullets are consumed.

Implementation 2B: Develop and provide, to interested landowners, balanced information about the Williamson Act, conservation easements and projects proposed by land trusts. This information would hi-light the legal commitment on the part of the landowner; types of conservation easements; and options for negotiating allowable activities on any contemplated conservation easement.

Implementation 2C: Foster and support a stewardship ethic among watershed users by incorporating information on all of the above into a "Watershed Stewardship Guide" module within a series of guides. This module might be named for the title of this section, *Watershed Health: Plants & Animals* and would be developed in coordination with Monterey County Parks and other appropriate entities.

Implementation 2D: Encourage and support local communities to pass to younger generations the importance of protecting watershed uses and watershed resources.

Implementation 2E: Provide factual information to make the public aware of how a "wild and scenic" designation under the federal Wild and Scenic Rivers Act affects public and private lands along the north and south fork of the San Antonio River through the Ventana Wild and Scenic Rivers Proposal and the Final Environmental Impact Statement for the Southern California Forest Plan Revisions.

Figure 43. Oak Woodlands on USFS grazing alottment in San Antonio Valley

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ISSUE 9 – Roads & Culverts

ISSUE:

Roads have been identified as a major source of water pollution in watersheds throughout the United States. In addition to water quality impacts, poorly built roads result in higher maintenance costs to landowners, can cause significant property damage and can be less safe than properly built roads. Some roads and culverts in these watersheds were built or designed to handle less runoff than they are receiving and are therefore in need of re-design and/or more regular maintenance.

STATUS and REFERENCES:

Erosion and resulting sedimentation is a natural process often accelerated by human activities. Excessive sedimentation clouds water, which reduces the amount of sunlight reaching aquatic plants; covers fish spawning areas and food supplies; and clogs the gills of fish. In addition, other pollutants such as phosphorus, pathogens and heavy metals are often attached to the soil particles and end up in downstream water bodies.

A significant but manageable source of erosion and sedimentation in most watersheds is roads. Paved and unpaved roads exist throughout the upper, mid and lower Nacitone watersheds both on private and public land. Road and culvert design, construction, and maintenance practices, if not well planned, can concentrate water, causing accelerated erosion and possibly road washouts sending sediment downstream.

Unpaved roads can generate more sediment than paved roads and are higher priorities for design, construction and maintenance to minimize erosion. There are unpaved roads in all portions of these watersheds. The largest amount of unpaved roads occurs on the two military installations. However, there are areas throughout the two watersheds on both private and public lands with higher road densities than the averages listed in figure 40. In a 2001 study of erosion sources, Lewis Et. Al (California Agriculture 55(4):32-8) found that roads were a larger sediment source on ranches than grazing.

A brief assessment of roads was conducted by the MCWRA for this watersheds plan. The assessment consisted of two parts. The roads of both watersheds were assessed using GIS and roads on MCWRA land were assessed by the US-LS RCD.

The GIS assessment found many old roads and firebreaks that do not appear to have been used for many years, and appear to be possible sources of sediment to stream channels in both watersheds. Data sets were created to calculate the number of linear miles of roads. Road surface material and ownership classification as either public agency or private roads was also collected. Ground truthing was limited and was only done on a few easily accessible roads. The two watersheds contain a little over 2,300 linear miles of roads. There are 315.3 miles of paved roads and 1,985.8 miles of dirt roads and fire breaks that exist in these two watersheds. Given a watershed area of 705.3 square miles, this yields a road density (linear miles of road per square mile of area) of 3.26.

In addition to MCWRA analysis of roads, the US-LT RCD visited the eight agency leases and did a quick assessment of road impacts. The RCD determined that the Tank Road (or "Tank Trail") and ranch roads on MCWRA parcels around both reservoirs are potentially significant sources of erosion and sedimentation into the reservoirs that could have negative water quality impacts. Both military facilities in the Nacitone have easements to use the Tank Road which is owned by MCWRA and is an important route between the two facilities.

Existing Road Infrastructure

	Total (linear miles)	Paved Roads (miles)	Dirt Roads & Fire Breaks (miles)	Road Density (square miles)
Both Watersheds	**2,301.2**	**315.3**	**1,985.8**	**3.26**
San Antonio River Watershed	1,272.3	183.5	1,088.8	3.70
Nacimiento River Watershed	1,028.9	131.8	897.1	2.84

Source: MCWRA, 2008

Figure 44. Existing Road Infrastructure

culverts and developing a plan to reduce their negative impacts. Such surveys have been done in many other watersheds using aerial maps and field work to ground truth locations of highly erodible soils, steep slopes, and other conditions to prioritize roads for upgrade, maintenance, or re-routing.

GOAL: Maintain or enhance water quality and watershed health by minimizing accelerated erosion resulting from roads and culverts in these watersheds.

Objective 1: Fund the development of a roads survey through a coordinated effort among the two counties, military, and forest service staff and willing private landowners. Include in this project the development of a watershed-specific guidebook and workshop for private contractors, landowners, and staff of public entities.

Implementation 1A: Request that the two counties evaluate current design standards for roads and drainage structures to ensure they are sufficient to protect water quality in these watersheds and that these standards are provided to contractors, developers, and landowners in a clear and understandable format.

Implementation 1B: Seek funding to conduct road system surveys, prioritize potential problem areas, and prepare projects to be "ready for implementation" as funding becomes available.

Objective 2: Rebuild, properly maintain, and repair existing roads and prudently develop and build any new roads.

Implementation 2A : Provide road and culvert design, construction and maintenance educational materials and/or workshops for private contractors and landowners / land managers using already developed materials such as the "Handbook for Forest and Ranch Roads" by Pacific Watershed Associates for private roads.

Implementation 2B: Seek funding to conduct a focused survey on the Tank Road which runs from Fort Hunter Liggett to Camp Roberts and passes over MCWRA land on the north shore of the San Antonio reservoir. The survey and proposed upgrades to the road should be developed in a coordinated effort among the MCWRA, the RCD, the U.S. ARMY and the California National Guard at Camp Roberts.

Implementation 2C: Encourage landowners to seek technical assistance from various agencies, private consultants, or groups such as the Natural Resources Conservation Service (NRCS) and the Resource Conservation Districts (RCDs) to minimize accelerated erosion resulting from roads and culverts on their private lands. Ensure landowners are aware of cost-share, incentive programs that may be available for road improvement projects.

Implementation 2D: Encourage the US Forest Service to develop a management plan for the Milpitas Special Interest Area that addresses unauthorized/unclassified (non-system) roads on their lands in that area. (A map of these roads is included in Appendix J).

Figure 45. Dirt road on MCWRA property
(Source: MCWRA, 2006)

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ISSUE 10 – Education & Outreach

ISSUE:

Information about existing conditions within these watersheds, watershed functions, how human uses can affect water quality and how we can protect the watersheds are important for everyone living in, working in, and visiting these watersheds.

GOAL: Increase the awareness and understanding of water quality, watershed uses, and watershed functions by those living in, working in, and enjoying the watersheds.

Objective 1: Work with other entities and their existing publications to ensure there are effective materials and programs made available to all watershed users.

Implementation 1A: Develop a catalogue of existing printed material and websites that are available for watershed residents and visitors with information on the following: (this list is not intended to be exhaustive and will be added to over time).

- How to identify methamphetamine labs, marijuana growing sites and who to contact or what to do about them
- Invasive, exotic plant species and plant disease hit list and control measures
- Invasive, exotic insect / animal species hit list and transfer prevention measures
- Shoreline erosion processes – how you can prevent it
- Boat and boating laws
- Information on the prosecution of vandals
- Fire prevention – Cal Fire standards for defensible homes
- The water projects : what, where, why, and how for the Salinas Valley Water Project and the Nacimiento Water Project
- Water conservation measures and new technologies for homeowners and farmers
- Cultural resources – why they are important and how to appreciate them
- Historic resources – biking map with narratives on adobes, classic views, streams, the mission, wineries, etc.
- Plants & Animals of the watersheds
- What is "wild and scenic" and what could it mean to you?
- Ecological diversity and cattle grazing
- Mercury: why should you care? (water, soil, fish tissue, air)
- Trash in streams/lakes: life cycle of a Styrofoam cup
- How to keep petroleum and other pollutants out of streams/lakes
- Septic Safe education – how to use septic-safe household chemicals and soap; doing your own regular inspections
- Stormwater pollution prevention
- Low Impact Development measures for new and significant re-development projects
- Homeowners guide to preventing nonpoint source pollution
- Wildfire prevention
- Fire evacuation plans for humans and animals
- Low Impact or Zero Impact Camping

Implementation 1B: Encourage and support local communities to pass to younger generations the importance of protecting watershed uses and watershed resource through schools, farm days and 4H. *(**Note:** Annual "Farm Day Experience" events have occurred in King City for approximately the past 10 years. This event hosts 1,000s of third graders to learn about farming, ranching, and the resources they depend upon).*

Implementation 1C: Periodically offer Grazing and Irrigated Ag Water Quality Short Course as a cooperative program of the UC Cooperative Extension Services, Farm Bureau, RCDs, NRCS and the MCWRA.

ISSUE 11 – Invasive Species

ISSUE:

Non-native exotic species have historically entered these watersheds. Some exotics are invasive as they rapidly out-compete native species for habitat and can degrade watershed uses. Invasive species threaten the diversity or abundance of native species through competition for resources, predation, and parasitism, interbreeding with native populations, transmitting diseases, or causing physical or chemical changes to the invaded habitat. Through their impacts on natural ecosystems, agricultural and other developed lands, water delivery and flood protection systems, invasive species may also negatively affect human health and/or the economy. Examples of direct impact to human activities include the clogging of navigable waterways and water delivery systems, weakening flood control structures, damaging crops, introducing diseases to animals that are raised or harvested commercially, and diminishing sport fish populations. Management of invasive plants and animals through grazing, cultivation techniques, and physical/chemical eradication methods often occurs in an independent and uncoordinated manner by individual landowners or by land managers within differing jurisdictions.

GOAL: Maintain or enhance water quality and watershed health by increasing cooperative efforts among landowners and managers regarding invasive exotic plants and animals.

Objective 1: Prevent the introduction of invasive species and diseases into the watersheds including the reservoirs (examples: sudden oak death, Quagga/Zebra mussels, giant bamboo, tamarisk, etc.)

Implementation 1A: Encourage interagency cooperation on measures required to prevent the introduction of invasive species.

Implementation 1B: State and local agencies, and resident associations should continue to provide information through informational brochures and signage to incoming boaters and other watercraft users or other recreationalists on the problems associated with specific invasive species, the potential consequences, and how they can help prevent the introduction of these species.

Implementation 1C: Monterey County, San Luis Obispo County and resident associations should work together to develop and implement programs to control invasive species.

Implementation 1D: Provide factual, educational materials about the potential to spread Sudden Oak Death by transporting firewood from areas where the disease occurs, i.e. along the Big Sur coastline.

Implementation 1E: Prevent the entry and spread of exotic and invasive species.

Objective 2: Control the spread of invasive species in the watersheds including the reservoirs (example: yellow star thistle).

Implementation 2A: Encourage landowners and homeowners to control the spread of exotic and invasive plant and animal species.

Implementation 2B: Work with each county's weed management area and the California Department of Fish and Game's Invasive Species Program.

Implementation 2C: Create an open dialog about the use of mechanical and chemical means as well as burning and grazing for controlling noxious weeds, improving habitat and improving the health of the grasslands of the Nacitone watersheds.

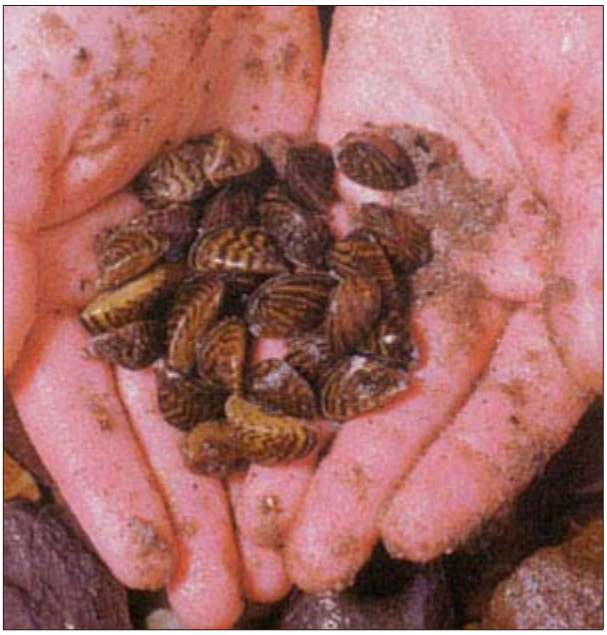

Figure 46. Zebra mussels
(Source: CA Dept. Fish and Game)

E. From recommendation to Action: A Living Plan

The Nacitone Watersheds Management Plan represents a written plan demonstrating an accumulation of facts, figures, and implementation recommendations. Less evident are the myriad relationships that have grown out of the process of stakeholder meetings. The interactivity and relationship building that has occurred will be a critical component of the success and longevity of the plan.

As the Steering Committee reflects on the efforts thus far extended to produce the plan, it has considered the following methods for better ensuring the plans contents are utilized to the fullest extent possible.

Immediate Steering Committee Actions

The Steering Committee has agreed to begin setting into motion the following tasks:

1. Presenting the plan to both County's Boards of Supervisors
2. Identifying subsequent grant opportunities to capitalize on implementation recommendations
3. Configuring a Watersheds Advisory Committee (WAC) which would shepherd the plan forward until such time as a staff position is identified and funded to work with the WAC to support water protection efforts in the Nacitone watersheds.
4. Distributing this plan in coordination with the Monterey County Water Resources Agency
5. Consideration of a user-friendly format for the plan to encourage wider public appeal
6. Facilitating the prioritization and forward momentum of implementation actions. Determining which of the implementations to facilitate and/or implement.
7. Choose a date for the next stakeholders meeting to be convened by the WAC

Method for Plan Distribution

<u>Public Outreach</u>

To the extent possible, Steering Committee members may 'shop the plan around' to groups and associations whose missions have a nexus with the plan. The Steering Committee has been contacting those identified as potential partners for implementation recommendation and will continue to solicit participation in the form of idea exchange and generation of next steps to kick off implementation recommendations.

<u>Targeted Entities</u>

The following groups will receive copies of the plan.

- Technical Advisory Committee members representing jurisdictional agencies in the watersheds
- Representatives of jurisdictional agencies identified in the jurisdictional section of the plan
- Chairpersons of each County Board of Supervisors

- Specific staff members of each County such as Public Works Directors, Planning and Building Department Directors, Reservoir Operations Committee of MCWRA
- People providing public comment
- Steering Committee members
- Members of the public upon request

In addition, the following electronic venues will be used to distribute the plan.

- Nacitone Watershed Group website
- Monterey County Water Resources Agency web site
- Request links on jurisdictional web sites

Strategic Planning

The goals and objectives of this plan may be beneficial starting places for both Counties when they pursue up-dates of General Plan elements relative to these watersheds. Future groups should refer to County General Plans for policies that may support or prevent implementing the Plan's goals and objectives.

Future of the Nacitone Watershed Group Funding

The following is a list of potential strategies for consideration.

1. MCWRA and SLO County Public Works to collaborate on a grant to fund a watershed coordinator.
2. Current watershed group to draft a Memorandum of Agreement (MOA) of potentially involved parties and identify roles and responsibilities of involvement. MOA could be structured to include public agency, local non-governmental organization (NGO), and local sponsoring agency (existing water quality interests) for each county. MOA could be structured to include local, regional, state and federal organizations and agencies that hold a stake in the health of the watersheds. MOA could be structured with signatories' agreement to financially contribute to support a scope of work derived from the MOA.
3. Pursue Supplemental Environmental Projects arising out of RWQCB or other agency violations. For example, Tract 1990 has been levied a fine, some portion of which could be assigned to projects arising out of the NWMP.

Future Plan Updates

As new information on the condition of the watersheds becomes available and new actions to protect and enhance watershed health are agreed upon by stakeholders, the plan could be updated based upon the guidance and direction of the WAC. This plan is not intended to be modified or revised by entities other than a stakeholder or similar group. In addition, as implementation recommendations are acted upon, successes will be accumulated. There will be a need to track the outcomes of the recommendations, monitoring for water quality improvements over the long term.

F. Pending Changes to the Watershed

At this time, the Nacimiento and Salinas Valley Water Projects are being built and will be operational by 2010. A synopsis of both projects is provided below.

Salinas Valley Water Project (SVWP)

The SVWP has several components. Only part of Phase1 would be included in the infrastructure of the Nacitone Watersheds, including spillway modifications to the Nacimiento Dam and re-operation of the reservoirs. Modification of the spillway will increase the capacity of the spillway so it would be able to pass the probable maximum flood (PMF) event. Construction of the Nacimiento Dam spillway modifications include lowering the existing spillway crest approximately twelve feet to an elevation of 788 feet, installing a twelve and a quarter-foot high inflatable rubber dam and raising and strengthening the side walls of the existing spillway chute. Although the maximum capacity of the reservoir would not be altered, larger storm flows can be passed by the spillway. The spillway modification at Nacimiento would allow the MCWRA to're-operate' the reservoir to increase the amount of water stored during the winter and released during the spring and summer months for conservation (i.e., groundwater recharge through the Salinas River bed) and, ultimately, for downstream diversion. The MCWRA currently operates both reservoirs, and although no physical modifications at San Antonio would occur, both reservoirs are operated as a system such that more water would be available for release (SVWP EIR, 2002; SVWP 100% Design Submittal, Boyle Engineering, Feb 2007).

The following significant impacts were found to be unavoidable regarding the SVWP: potential effects on largemouth bass spawning in Nacimiento Reservoir; a reduction in aesthetic values and recreation at the reservoirs; and short-term, construction-related air emissions. The MCWRA Board of Supervisors determined that the benefits of the project overrode the need to avoid those impacts. Therefore, on June 4, 2002, the Board of Supervisors issued a Statement of Overriding Considerations as provided in CEQA Guidelines section 15093 (SWRCB Notice of Petition to Change the Place of Use and Add Points of Diversion 2004).

Nacimiento Water Project

In 1959, San Luis Obispo County Flood Control and Water Conservation District obtained entitlement to 17,500 acre-feet of water per year from Nacimiento Reservoir by an agreement with the Monterey County Water Resources Agency. The project to convey raw water from the reservoir to contracting entities involves a 45-mile pipeline, three tanks, and a multi-port intake facility at the reservoir. Only the intake structure and a small portion of the pipeline lie in the watershed study area. The project is intended to supplement the San Luis Obispo County water supply (SLO County Public Works brochure, 2007). Contracting communities include Paso Robles, Templeton, Atascadero, San Luis Obispo, and County Service Area 10, Benefit Zone A.

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Part 4
Jurisdictional and Existing Regulatory Framework

The NACITONE watershed falls under the jurisdiction of many local, state and federal government agencies. In addition, there are numerous non-regulatory entities that exist and have various missions and functions. A first step toward cooperative management of these watersheds across regulatory and non-regulatory entities is to understand the jurisdictions, roles and responsibilities of these entities. The following section gives a brief overview of regulatory agencies and non-regulatory entities that function in one or both of these watersheds.

A. Regulatory Agencies

Regulatory refers to policies that are forms of legal restrictions that are carried out by the government. The following lists regulatory agencies that have jurisdiction within the NACITONE Watershed and which have a substantial regulatory presence.

Federal Agencies

Federal Energy Regulatory Commission (FERC)

Mission: The Federal Energy Regulatory Commission regulates and oversees energy industries in the economic, environmental, and safety interests of the American public.

Authority: The Federal Energy Regulatory Commission is an independent agency that regulates the interstate transmission of natural gas, oil, and electricity, as well as natural gas and hydropower projects. FERC is responsible for licensing and inspecting private, municipal, and state hydroelectric projects. FERC also oversees environmental matters related to natural gas and hydroelectricity projects and major electricity policy initiatives. The Energy Policy Act of 2005 gave FERC additional responsibilities as outlined in FERC's Top Priorities and updated Strategic Plan.

Guiding Document: FERC Strategic Plan

FERC is responsible for all regulations related to dam/spillway safety requirements at Nacimiento Reservoir. The FERC is headquartered in Washington, DC and also has a regional office in San Francisco.

Relevant websites: http://www.ferc.gov/about/about.asp and http://www.ferc.gov/industries/hydropower/safety.asp

National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service

NOAA Fisheries is a division of the National Oceanic and Atmospheric Administration (NOAA).

Mission: Stewardship of living marine resources through science-based conservation and management and the promotion of healthy ecosystems

Authority: Several major statutes or laws form the legal basis for the programs of the National Oceanic and Atmospheric Administration; Coastal Zone Management Act, Endangered Species Act, Magnuson-Stevens Fishery and Management Act, Marine Mammal Protection Act, National Marine Sanctuaries Act.

Enforcement activities are carried out in cooperation with other State and Federal agencies in the Southwest Region to ensure compliance with various federal regulations relating to stewardship of fishery and protected species resources. For example, NOAA Fisheries works locally with the Army Corps permitting process by providing "Biological Opinions" on proposed projects. These opinions describe potential impacts to protected species and contain restrictions and appropriate mitigations that assure protection of these species during project implementation. Private land owners can work with NOAA Fisheries to develop Habitat Conservation Plans in order to obtain incidental take permits under the Endangered Species Act.

Guiding Document: The NOAA Fisheries Strategic Plan contains three goals: rebuilding and maintaining sustainable fisheries, promoting the recovery of protected species, and protecting and maintaining the health of coastal marine habitats.

The NACITONE Watershed is located in the NOAA Fisheries' Southwest Region which includes California, Hawaii, and the Pacific Trust Territories; the headquarters are located in Long Beach, California. The region is responsible for managing fisheries off the coast of California for salmon, ground fish, and anchovies; and/or conducting enforcement, marine mammal and habitat programs to protect fishes, marine mammals and endangered species within the region. The Southwest Region Field Office is located in Santa Rosa, California. The field office's primary purpose is the administration of the Endangered Species Act, particularly the protection of listed salmonids including Coho, Chinook Salmon, and Steelhead Trout. NOAA Fisheries is also responsible for administering the Clean Water Act, Federal Power Act, Fish and Wildlife coordination Act and the Magnuson-Stevens Act.

Relevant websites: http://swr.nmfs.noaa.gov/ and http://www.lib.noaa.gov/noaainfo/heritage/heritage.html

United States Army Corps of Engineers (ACOE)

Mission: The Army Corps of Engineers' missions include five broad areas of water resources, environment, infrastructure, homeland security and warfighting. The water resource mission is 'in support of Nation's interests, build broad-based relationships and alliances to collaboratively provide comprehensive, systems-based, sustainable and integrated solutions to water resources national and international challenges'. The Corps environmental mission has two major focus areas: restoration and stewardship. Efforts in both areas are guided by the Corps environmental operating principles, which to balance economic and environmental concerns.

Authority: The legislative origins of the program are in the Rivers and Harbors Acts of 1890 (superseded) and 1899 (33 U.S.C. 401, et seq.). The Congress of the United States has assigned the U.S. Army Corps of Engineers the responsibility for regulation and construction and other works in the waters of the United States. The Corps is charged with protecting our nation's harbors and navigation channels from destruction and encroachment, and with restoring and maintaining environmental quality. The principal regulatory mechanisms of the Army Corps that relate to watershed enhancement are the Clean Water Act, Section 404(b)(1) Guideline;

Marine Protection; Research and Sanctuaries Act; Endangered Species Act; National Historic Preservation Act; Coastal Zone Management Act; National Environmental Protection Act; and others as they relate to the regulatory actions of the District. Army Corps of Engineers permits are needed for any work done below the ordinary high water mark of a freshwater entity, discussion with an Army Corps of Engineers representative must be done prior to applying for a permit. According to the Army Corps of Engineers website, responsibilities are accomplished by regulating activities in three areas (1) discharge of fill or dredged materials in coastal and inland waters and wetlands; (2) construction and dredging in navigable waters of the United States; and (3) transport of dredged materials for dumping into ocean waters. The Army Corps of Engineers defines Navigable Waters on their website as the following "those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity".

Guiding Document: Civil Works Strategic Plan

The NACITONE Watersheds lies within the San Francisco District of the South Pacific Division of the Army Corps of Engineers. The local Army Corps of Engineers office is located in San Francisco, California.

Relevant websites: http://www.spn.usace.army.mil/ and http://www.iwr.usace.army.mil/

United States Bureau of Land Management (BLM)

Mission: The mission of BLM is to "sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations"

Authority: The Bureau of Land Management is responsible for managing all federal lands in the public domain. (http://www.blm.gov/wo/st/en/info/About_BLM.html). BLM was given the charge of multiple-use management by Congress, which is defined as management of public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. There are numerous legislative acts and regulations which apply to BLM lands and can be found at http://www.blm.gov/wo/st/en/info/regulations.html.

Guiding Document: BLM Manual

BLM operates at both the federal and state levels. The following are BLM lands within the Nacimiento and San Antonio River watersheds: Redonda Mountain Sensitive Resource Area, Rocky Butte Botanical Area, Tierra Redonda, and Waterdog Creek. Any action affecting the above stated lands must be reviewed by an interdisciplinary team to determine if they are in conformance with the existing planning base, this includes all current BLM law, executive order, regulation, policy and land use plans. The NACITONE Watershed falls under the jurisdiction of the Bakersfield Field Office.

Relevant websites: http://www.blm.gov/ca/st/en/fo/bakersfield.html

United States Environmental Protection Agency (EPA)

Mission: The EPA gives the following mission statement on its website, "research, standard setting, monitoring and enforcement with regard to five environmental hazards: air and water pollution, solid waste disposal, radiation, and pesticides". Founded in 1970 as an independent agency, the Environmental Protection Agency is generally responsible for protecting human health and safeguarding the natural environment in the United States. While presiding over the entire country, the EPA also coordinates and supports research and pollution mitigation activities by state and local governments as well as private and public groups, individuals and educational institutions.

Authority: The California Environmental Protection Agency is responsible for implementing Federal Acts, such as the Clean Air Act and the Clean Water Act, that align with corresponding State Laws in an effort to streamline the agency's tasks.

Guiding Document: The Pacific Southwest's Strategic Plan (Plan) sets out the Region's goals for the next five years and describes how the EPA intends to achieve a cleaner, healthier environment.

The NACITONE Watershed lies in the US EPA's Southwest Region (Region 9). This region contains Arizona, California, Hawaii, Nevada, and the Pacific Islands and the headquarters are in San Francisco.

Relevant websites: http://www.epa.gov/region09/ and http://www.epa.gov/cfo/plan/plan.htm

United States Fish and Wildlife Service (USFWS)

Mission: The U.S. Fish and Wildlife Service is the principal federal agency for conserving, protecting, and enhancing fish, wildlife, plants, and their habitats for the continuing benefit of the public.

Authority: The Service enforces federal wildlife protection laws such as the Endangered Species Act, and works in consultation with the Army Corps of Engineers to ensure that permitted projects protect fish and wildlife. The Service evaluates impacts and appropriate mitigations for endangered species that may be impacted by proposed projects. When protected species are involved, the Service prepares "Biological Opinions" on the project to assess the potential impacts and restrict potentially harmful activities and also is responsible for issuing any incidental take permits under the Federal Endangered Species Act. In order for an incidental take permit to be issued a habitat conservation plan is required. The issuance of these permits is contingent on the applicant obtaining a State permit.

Fish and Wildlife Service receives authority to engage applicants early in the project planning process and to make any necessary changes to the project, from the Fish and Wildlife Coordination Act, National Environmental Policy Act, and Endangered Species Act. In regards to Military Lands, the Service reviews the specific entity's management of natural resources and provides guidance on endangered species and the management of their critical habitat.

The NACITONE Watershed lies in the Service's Pacific Region (Region #1). This region headquarters is located in Portland, OR and the region contains the states of Washington, Oregon, California, Idaho, Nevada, Hawaii, and the Pacific Islands.

Relevant websites: http://www.fws.gov/pacific/ and http://www.fws.gov/policy/.

United States Forest Service (USFS)

The U.S. Department of Agriculture Forest Service is a Federal agency that manages public lands in national forests and grasslands. The agency was established by Congress in 1905 to provide quality water and timber for the Nation.

Mission: The mission of the USDA Forest Service is to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations. The Forest Service strives to manage resources under the best combination of uses to benefit the American people while ensuring the productivity of the land and protecting the quality of the environment.

The agency accomplishes its mission through five main activities:

- Protection and management of natural resources on National Forest System lands.
- Research on all aspects of forestry, rangeland management, and forest resource utilization.
- Community assistance and cooperation with State and local governments, forest industries, and private landowners to help protect and manage non-Federal forest and associated range and watershed lands to improve conditions in rural areas.
- Achieving and supporting an effective workforce that reflects the full range of diversity of the American people.
- International assistance in formulating policy and coordinating U.S. support for the protection and sound management of the world's forest resources.

Authority: The Forest Service is responsible for managing national forests for multiple uses and benefits and for the sustained yield of renewable resources such as water, forage, wildlife, wood, and recreation.

Guiding Document: The Forest Service Directive System consists of the Forest Service Manual and Handbooks, which codify the agency's policy, practice, and procedure. The system serves as the primary basis for the internal management and control of all programs and the primary source of administrative direction to Forest Service employees.

The Forest Service is organized into National Forests in ten different regions. The NACITONE Watershed is located within Region 5, Pacific Southwest Region, Los Padres National Forest.

Relevant websites: http://www.fs.fed.us/r5/ and http://www.fs.fed.us/publications/

United States Department of Defense (DoD)

Mission: U.S. Pacific Command, in concert with other U.S. government agencies and regional military partners, promotes security and peaceful development in the Asia-Pacific region by deterring aggression, advancing regional security cooperation, responding to crises, and fighting to win.

The NACITONE watersheds are in the Pacific Command of the DoD.

Relevant websites: http://www.pacom.mil/about/mvp-statements.shtml

State Agencies

State Resources Agency

Mission: To restore, protect and manage the state's natural, historical and cultural resources for current and future generations using creative approaches and solutions based on science, collaboration and respect for all the communities and interests involved.

The Department of Fish and Game, the Department of Forestry and Fire Protection, the Department of Water Resources, and the Department of Boating and Waterways all fall under the direction of the State Resources Agency.

California Department of Fish and Game (CDFG)

Mission: The Department of Fish and Game mission is to manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public.

Authority: To meet this responsibility, the law requires any person, state or local government agency, or public utility proposing a project that may impact a river, stream, or lake to notify the CDFG before beginning the project. If the CDFG determines that the project may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement (1602 Agreement) is required. The principal enforcement mechanism for the CDFG is the California Fish and Game Code, Section 1602. Exclusions include projects conducted by a governmental agency and permit requirements from the Army Corps of Engineers.

The CDFG is responsible for reviewing the management of natural resources on military lands and provides guidance on federally listed species and the management of their critical habitat. The CDFG currently owns two land allotments adjacent to Camp Roberts which comprise the Big Sandy Wildlife Area which totals 865 acres. The CDFG is responsible for riparian habitats located within both watersheds and with support of USFWS adopted a no-net-loss policy for California riparian habitats.

Guiding Documents: The Fish and Game Strategic Plan emphasizes the directions CDFG needs to establish and follow to meet future challenges. It does not describe all of the things the Department currently does. The Fish and Game code identifies the agency's enforcement and regulation purview.

The NACITONE Watershed is located within CDFG's Central Region, a region that includes Fresno, Kern, Kings, Madera, Mariposa, Merced, Monterey, San Benito, San Luis Obispo, Stanislaus, Tulare and Tuolumne counties. The region's main office is located in Fresno, California and there is a local office in San Luis Obispo.

Relevant websites: http://www.dfg.ca.gov/regions/4/ , http://www.dfg.ca.gov/about/resource-mgmt.html and http://www.dfg.ca.gov/habcon/1600/

California Department of Forestry and Fire Protection (CAL FIRE)

Mission: The Department of Forestry and Fire Protection "protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and watershed values providing social, economic, and environmental benefits to rural and urban citizens" (http://www.fire.ca.gov/). A majority of the CAL FIRE workforce responds to all types of emergencies.

Authority: CAL FIRE crews and equipment are responsible for the protection of over 31 million acres of California's privately-owned wildlands. In addition, they provide emergency services of all kinds within 36 of California's 58 counties through local government contracts (http://www.fire.ca.gov/).

CAL FIRE's Resource Management Program strives to protect California's natural resources including 85 million acres that are classified as wildlands. These wildlands provide the state with timber, watershed, wildlife habitat, and recreation resources. The goal of the CAL FIRE Resource Management Program is to maintain the sustainability of all these natural resources. The Department achieves this goal by "administering state and federal forestry assistance programs for landowners, demonstrating sound management practices on eight demonstration state forests, enforcing the California Forest Practice Act on all non-federal timberlands, providing research and educational outreach to the public on forest pests, and coordinating efforts for fuel reduction to reduce the risk of fire and improve the quality of California ecosystems" (http://www.fire.ca.gov/).

Guiding Documents: The California Fire Plan is the state's road map for reducing the risk of wildfire. By placing the emphasis on what needs to be done long before a fire starts, the Fire Plan looks to reduce fire fighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health.

San Luis Obispo County (CDFSLO)

The California Department of Forestry and Fire Protection has provided fire protection for the County of San Luis Obispo by cooperative agreements since 1929. Cal Fire/San Luis Obispo County 's mission is "t**o serve and safeguard the community from the impacts of fire, emergency injury and illness, and other physical dangers by providing emergency fire/ rescue response, public education, planning, and prevention for the County of San Luis Obispo and its residents".**

CDFSLO has two fire stations within the NACITONE Watershed; the Heritage Ranch Fire Station in Paso Robles and the Oak Shores Fire Station in Bradley.

Relevant websites: http://www.cdfslo.org/ and http://www.fire.ca.gov/communications/communications_factsheets.php

Department of Water Resources (DWR)

Mission: The Department of Water Resources provides dam safety and flood control services, assists local water districts in water management and conservation activities, promotes recreational opportunities, and plans for future statewide water needs. The DWR also operates and maintains the State Water Project, including the California Aqueduct. The mission of the

Division of Flood Management is to prevent loss of life and reduce property damage caused by floods, and to assist in recovery efforts following any natural disaster.

Authority: California Water Code, Sections 10004-10013.

Guiding Document: California Water Plan provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The Plan, which is updated every five years, presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses. The Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs.

The NACITONE Watershed falls within two districts of the DWR: the Upper Salinas Groundwater Basin is under the San Joaquin District's jurisdiction and the Paso Robles Groundwater Basin is within the Southern Coast Jurisdiction.

Relevant websites: http://www.sjd.water.ca.gov/ and http://www.dpla.water.ca.gov/sd/index.html

Division of Safety of Dams (DSOD)

The Division of Safety of Dams was created by the State Legislature in 1929 under the California Department of Water Resources. The mission of the Division of Safety of Dams is t**o protect people against loss of life and property from dam failure. The California Water Code entrusts this regulatory power to the Department of Water Resources which delegates the program to the Division of Safety of Dams.** Division engineers and engineering geologists review and approve plans and specifications for the design of dams and oversee their construction to insure compliance with the approved plans and specifications. The dams at both the Nacimiento and San Antonio Reservoirs are inspected yearly by the DSOD. The Division of Safety of Dams main office is located in Sacramento, California and the dams at both the Nacimiento and San Antonio Reservoirs fall into the Central Region for Field Engineering.

Relevant websites: http://www.water.ca.gov/damsafety/ and http://www.water.ca.gov/damsafety/FAQuestions/index.cfm

Department of Boating and Waterways

Mission: To provide safe and convenient public access to California's waterways and leadership in promoting the public's right to safe, enjoyable, and environmentally sound recreational boating.

Authority: In 1959, the State Legislature, under authority of the Federal Boating Act of 1958, added Chapter 5 to Division 3 of the Harbors and Navigation Code. This act provided for the registration of most undocumented vessels by the State. It also established a comprehensive set of State laws and regulations governing the equipment and operation of vessels on all waters of the State. Since then the Departments responsibilities have grown.

Guiding document:

Relevant website: http://www.dbw.ca.gov/ and http://www.dbw.ca.gov/Environmental/

Regional Water Quality Control Board (RWQCB)

The Regional Water Quality Control Board is the local administrative unit of the State Water Resource Control Board.

Mission: The mission of the RWQCB is to develop and enforce water quality objectives and implementation plans that will best protect the beneficial uses of the State's waters. Each RWQCB has nine part-time Board members appointed by the Governor and confirmed by the State Senate. RWQCB's are responsible for developing "basin plans" for their hydrologic areas, governing requirements, issuance of waste discharge permits, enforcement actions against violators, and monitoring water quality.

Authority: The focus of the RWQCB is water quality; the Clean Water Act is the primary enforcement tool. The RWQCB also maintains the State's 303 d. list of impaired water bodies (section 303 d. of the Clean Water Act). When a water body is listed on the 303 d. list, regional offices prepare studies and remediation plans to bring water quality within the State's standards and to reduce the Total Maximum Daily Loads to acceptable levels.

The RWQCB becomes involved in watershed enhancement projects as part of Section 401 of the Clean Water Act. The Board works in coordination with the Army Corps of Engineers to issue compliance documents for this section of the CWA. The RWQCB has a bulk of the regulatory responsibility for the cleanup of releases from military facilities.

The RWQCB recently modified discharge permits associated with irrigated agriculture requiring landowners and farm operators to enroll in the Conditional Ag Waiver program which requires the development and implementation of a farm water quality management plan for the reduction of water quality impacts. The RWQCB is currently enrolling landowners and farm operators in the program.

The California Water Code provides regulatory guidance.

Guiding Documents: Central Coast Basin Plan

State Defined Designated Beneficial Uses for Water Quality

RWQCB Basin Plans identify the designated beneficial uses for water bodies within each hydrologic basin and the water quality objectives (stated as physical and/or chemical parameters) to be achieved or maintained to protect each beneficial use. Beneficial uses for a particular water-body include municipal, agricultural and industrial supply, power generation, recreation, aesthetic enjoyment, navigation and preservation, and enhancement of fish, wildlife and other aquatic resources.

The Central Coast Region Water Quality Plan (Basin Plan), adopted by the Regional Water Quality Control Board (RWQCB) in 1989 and approved by the state board in 1990, defines beneficial uses for water bodies in the Central Coast, defines water quality objectives to protect these uses, and outlines implementation and monitoring plans. Amendments to the Basin Plan were approved by the RWQCB on February 11, 1994 and September 8, 1994.

The state defines pollution as impairment to beneficial uses in terms of the physical, chemical, or biological characteristics of water. There is also an "anti-degradation" directive in both state and federal law. EPA requires a biennial water quality assessment that describes the level to

which a water body can support its designated beneficial uses: fully supporting, fully supporting but threatened, partially supporting and not supporting (Range Water Quality Management Plan 1995).

When activities occur that adversely impact water quality and a beneficial use is no longer being supported, remediation actions may occur to restore beneficial uses. One way to approach goals and strategy development is to consider what actions could be planned to preserve or restore impacted beneficial uses. Those actions could be configured into a strategy to preserve/ restore beneficial uses. The Regional Water Quality Control Board has also removed designated beneficial uses for particular water bodies. This happens in rare instances when it is determined that the beneficial use is no longer appropriate for that water body.

The Central Coast Basin Plan provides a list of designated beneficial uses for many of the water bodies in these two watersheds.

None of the rivers in the watershed have beneficial use designations of aquaculture (AQUA), estuarine habitat (EST), marine habitat (MAR), inland saline water habitat (SAL), preservation of biological habitats of special significance (BIOL), shellfish harvesting (SHELL) or areas of special biological significance (ASBS).

Relevant websites: http://www.swrcb.ca.gov/rwqcb3/index.htm and http://www.swrcb.ca.gov/rwqcb3/WMI/Index.htm

Office of Environmental Health Hazard Assessment (Cal/EPA)

Mission: To protect and enhance public health and the environment by scientific evaluation of risks posed by hazardous substances.

Authority: The Department is responsible for developing and providing risk managers in state and local government agencies with toxicological and medical information relevant to decisions involving public health.

Guiding Document: OEHHA's Strategic Plan
Relevant websites: http://oehha.ca.gov/about/description.html and http://oehha.ca.gov/fish.html

California National Guard

Mission: The California Army National Guard organizes, trains, equips, and resources community based land forces. On order, mobilizes to support state and/or federal authority.

Authority:

Guiding Document: California National Guard Strategic Plan

Relevant websites: http://www.calguard.ca.gov/Pages/default.aspx

Local Agencies

The primary local resource agencies related to watersheds jurisdiction are included. In addition, the following local agencies may be involved in the protection of water quality and watershed health but are not further described in this section: county agriculture commissioner offices, county health departments, cooperative extensions and law enforcement agencies and departments.

Monterey County Parks Department

Mission: The Monterey County Parks Department maintains stewardship over a system of county parks. These outdoor recreation resources are managed to preserve, promote, and interpret the natural, historical, and cultural values of Monterey County. They are operated to provide opportunities for the public's enjoyment, inspiration, education, personal development and cultural enrichment.

Relevant websites: http://www.co.monterey.ca.us/parks/nacimiento.html and http://www.co.monterey.ca.us/parks/sanantonio.html

Monterey County Resource Management Agency - Planning and Building Services Departments

Mission: The Mission of the Resource Management Agency – Planning and Building Services Department is to efficiently process planning permits, provide quality long-range planning and consistently develop and administer land use policies.

Authority: California state law requires each city and county to adopt "a comprehensive, long-term general plan for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning" (Government Code section 65300).

Guiding Document: Monterey County's General Plan identifies standards and programs for the development of unincorporated areas.

A majority of the NACITONE watershed falls within the South County Planning Area which has its own set of development standards and regulations with the South County Area Plan. Lands surrounding the San Antonio Reservoir are designated within the Monterey County General Plan as Public/Quasi-public and Rural Grazing, with smaller surrounding areas designated as Farmlands and Permanent Grazing. A small area north of the San Antonio Reservoir is designated for Rural Residential use with a minimum of 5 acres per unit. The NACITONE Watershed is partially located in unincorporated Monterey County.

General Plan (2006)

The General Plan is currently being updated.

Relevant websites: http://www.co.monterey.ca.us/rma/services.htm and http://www.co.monterey.ca.us/planning/gpu/draftNov2007/default.htm

County of San Luis Obispo, Planning and Building Department

Mission: The Planning and Building Departments mission is 'promoting the wise use of land helping to build great communities.'

Authority: California state law requires each city and county to adopt "a comprehensive, long-term general plan for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning" (Government Code section 65300).

Guiding Document: The San Luis Obispo County General Plan expresses the county's development goals and embodies public policy relative to the distribution of future land uses. It identifies county's land use, circulation, environmental, economic, and social goals and policies as they relate to land use and development.

Part of the NACITONE Watershed is located within unincorporated San Luis Obispo County, and falls within the area covered by the Nacimiento Area Plan. The County's General Plan identifies standards and programs for the development of unincorporated areas and the Nacimiento Area Plan provides specific development regulations for the area. Lands surrounding Nacimiento Reservoir are for the most part designated as Agricultural and Open Space within the SLO County General Plan. Land uses adjacent to the reservoir primarily include Rural Residential, Recreation, Agriculture, and Open Space, with some Residential Suburban.

Conservation Element

This element is in the process of an update initiated in 2006. There is an existing Conservation Element included in the "Environment Plan" from 1974. The draft plan is scheduled to be released in October 2008 with Planning Commission hearings in February 2009 and Board of Supervisors hearings in August 2009.

Relevant websites: http://www.slocounty.ca.gov/planning.htm and http://www.slocounty.ca.gov/planning/General_Plan__Ordinances_and_Elements.htm

County of San Luis Obispo, Public Works and Transportation Department

Provides public services related to the safe and efficient movement of traffic on the 1,310 miles of County maintained roadways; engineering and surveying review of proposed land development; administration and operation of various water and waste water wholesale and retail facilities, including the Nacimiento Water Supply and Los Osos Waste Water Projects; long term master water planning; franchise administration for the unincorporated areas. The Public Works Department is also responsible for managing the County's Storm Water Management Program. The San Luis Obispo County Water Quality Laboratory is part of the Utilities Division of the Public Works Department.

Relevant websites: Website for SLO Co. PWD: http://www.slocounty.ca.gov/PW.htm
Website for Nacimiento Water Project: http://www.slocounty.ca.gov/PW/NacWP.htm

B. Legal regulatory Framework

California Environmental Quality Act (CEQA) is the foundation of environmental law in California; it strives to protect all aspects of the environment through thorough analysis. CEQA requires state and local agencies to prepare Environmental Impact Reports for most projects. These reports are then analyzed and used to make decisions about the severity of the impacts on the environment. CEQA also requires that mitigation measures are identified for all impacts. If an action is identified as a project an Initial Study is required, after analysis of the initial study occurs the decision is made to either make a Negative Declaration of environmental impacts or to prepare an Environmental Impact Report. If impacts are found mitigation measures and project alternatives must be discussed. The responsible agency can decide to go forward with a project despite environmental impacts with a Statement of Overriding Consideration, which explains why the benefits of a project outweigh the environmental impacts.

National Environmental Protection Act (NEPA) is the federal law that requires all federal agencies to prepare Environmental Impact Statements for actions that have a significant impact on the environment. NEPA is also a model for several policies at the state level, including CEQA. Environmental Impact Statements are very similar to EIRs and require that any environmental impacts be identified as well as creating mitigation measures to address the impacts.

Clean Water Act (CWA) is the cornerstone of surface water quality protection in the United States. (The Act does not deal directly with ground water or with water quantity issues.) The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water.

The Porter-Cologne Water Quality Control Act establishes the State Water Resources Control Board and each Regional Water Quality Control Board as the principal State agencies for having primary responsibility in coordinating and controlling water quality in California.

C. Resources Agencies - Non-Regulatory Entities

Non-regulatory entities can operate on the Federal, State and Local levels and are designed to perform necessary functions that do not involve direct policy. These entities do not enforce laws. Their focus is generally on education, voluntary landowner participation, and landowner assistance.

Federal Agencies

National Oceanic and Atmospheric Administration (NOAA) Restoration Center

The National Oceanic and Atmospheric Administration perform many non-regulatory tasks through its Restoration Center which plans, implements, and funds coastal restoration projects throughout the United States.

Mission: The NOAA's website identifies that the Restoration Center's mission is to "enhance living marine resources to benefit the nation's fisheries by restoring their habitats". The NOAA Restoration Center accomplishes its mission by restoring degraded habitats, advancing the science of coastal habitat restoration, transferring restoration technology to the private sector, the public and other government agencies and by fostering habitat stewardship and conservation ethics.

Three primary programs allow the Restoration Center to restore fisheries habitat. The first is the Community-based Restoration Program which takes a grass-roots approach to restoration and engages communities to participate in hands-on local habitat restoration projects. The second program is the Damage Assessment Remediation and Restoration Program, which brings in scientists and managers after oil spills, toxic releases, or ship groundings to restore injured marine resources. The Restoration Research Program works to advance new science and technology within the restoration field.

Relevant websites: http://www.nmfs.noaa.gov/habitat/restoration/

Natural Resources Conservation Service (NRCS)

Originally called the Soil Conservation Service, the Natural Resources Conservation Service was established in 1935 and has provided leadership in a partnership effort to help America's private land owners and managers conserve their soil, water, and other natural resources.

Mission: The NRCS has six mission goals: high quality and productive soils, clean and abundant water, healthy plant and animal communities, clean air, adequate energy supply, and working farms and ranchlands. In order to achieve these goals, the NRCS implements the following strategies:

- Cooperative conservation: seeking and promoting cooperative efforts to achieve conservation goals.
- Watershed approach: providing information and assistance to encourage and enable locally-led, watershed-scale conservation.
- Market-based approach: facilitating the growth of market-based opportunities that encourage the private sector to invest in conservation on private lands.

Service offices serving the Nacitone watersheds are located in Templeton and Salinas.

Relevant websites: http://www.ca.nrcs.usda.gov/

United States Fish and Wildlife Service (USFWS) Partners for Fish and Wildlife Program

The United States Fish and Wildlife Service participates in a cooperative conservation program called Partners in Wildlife.

Mission: The Program's mission is to efficiently achieve voluntary habitat restoration on private lands, through financial and technical assistance, for the benefit of Federal Trust Species. The USFWS's website lists the program's four main objectives: Promote and implement habitat improvement projects that benefit Federal Trust Species, Provide conservation leadership and promote partnerships, Encourage public understanding and participation, Work with U.S. Department of Agriculture to implement conservation programs. The Partners program has locally based field biologists who work directly with private landowners and other partners to plan implement and monitor their projects in an environmentally friendly manner.

Relevant websites: http://www.fws.gov/partners/

Local Agencies and Organizations

Cal-Shasta Club

Cal-Shasta Club is a private recreation club consisting of 120 members, located on 340 acres, situated along the southern shoreline of Nacimiento Reservoir. Amenities consist of approximately 6 miles of private roads, launch ramp, helicopter pad (day and night), ice machines, clubhouse, a park and BBQ facility.

Relevant websites: http://lakenacimientosouthshorearea.com/Cal-Shasta.htm

Heritage Ranch Community Service District

Mission: The purpose and mission of Heritage Ranch CSD is to provide municipal services to the Village of Heritage Ranch in a manner that is efficient, safe and in accordance with applicable law. These services include the supply of drinking water, the disposal of wastewater, removal of solid waste, parks and recreation and retail gasoline.

The Heritage Ranch CSD is responsible for the operation and maintenance of the Heritage Ranch sewer and for allocating the 1100 acre feet per year allotment from the Nacimiento Reservoir for the Community of Heritage Ranch. The District's service area includes 5,361 acres; the Heritage Ranch CSD is bounded on the west by Nacimiento Reservoir, on the north by Nacimiento River, on the east by Camp Roberts, and on the south by certificated parcels. The Heritage Ranch CSD is located in Paso Robles, within the Community of Heritage Ranch.

Relevant websites: http://www.heritageranchcsd.com/

Home Owner's Associations

Heritage Ranch Owner's Association

The Heritage Ranch Owner's Association is responsible for managing 9,150 acres of land including 2,104 single-family residential lots and 5,100 acres of open space. Heritage Ranch is located along the southern shoreline of the Nacimiento Reservoir.

Relevant websites: http://hroa.us/main.htm

Oak Shores Community Association

The Oak Shores Community Association is responsible for the management of the Oak Shores Community and its facilities, which include a marina, clubhouse, boat slips and campground. The Association consists of five committees, Finance, Recreation, Architectural Review, Oak Leaves and Private Docks. The Finance Committee creates an annual operating budget for the community. The Oak Shores Community Association is managed by a Board of Directors, but also employs staff to carry out general management, business operations, code enforcement and maintenance.

Relevant websites: http://oakshores.us/

Santa Lucia Cabinowners Association

The Santa Lucia Cabinowners are a tract of recreational residences within the Los Padres National Forest and the upper San Antonio and Arroyo Seco River watersheds. They are sanctioned by the National Forest Homeowners Association.

Laguna Vista Boat Club

Laguna Vista Boat Club is located on the north shore of Nacimiento Reservoir at the end of Bee Rock Road. The club was established in 1964 and has 21 members on 10 acres. The members share a common area referred to as "The Point".

Lake Recreation and Public Safety Roundtable

The Lake Recreation and Public Safety Roundtable is an informal group of representatives from communities around Nacimiento Reservoir that meets with Monterey County Park Rangers to discuss issues of common concern to the Rangers and communities around the reservoir. The group works together to provide communication and support to goals and initiatives of Monterey County and the various private organizations.

Monterey County Farm Bureau

Monterey County Farm Bureau is a private, nonprofit association of farmers and ranchers throughout Monterey County. The Farm Bureau serves as a collective voice for farmers and ranchers and provides information, benefits and services. Farm Bureau cooperates with other agricultural organizations to fulfill its purpose of working for the solutions to the problems of the farm, the farm home and the rural community.

Relevant website: http://www.montereycountyfarmbureau.org/

Monterey County Water Resources Agency (MCWRA)

Mission: The Monterey County Water Resources Agency manages, protects and enhances the quantity and quality of water and provides specified flood control for present and future generations of Monterey County.

Specific information regarding reservoirs, precipitation, stream flow and groundwater are provided on the MCWRA website, or can be found at the office located in Salinas. The MCWRA carries out all County of Monterey Flood Control and Water Conservation District actions.

Relevant websites: http://www.mcwra.co.monterey.ca.us/

Nacimiento Regional Water Management Advisory Committee (NRWMAC)

NRWMAC represents visitors, property owners and enthusiasts of all sorts that enjoy Nacimiento Reservoir. NRWMAC acts as the collective voice of reservoir area property owners at the Monterey County Reservoir Operations Committee meetings held monthly in Salinas. This is where decisions are made which control the outflow of water from the reservoir. NRWMAC's goal is to maximize the water level in Nacimiento Reservoir from May 1st through October 1st.

Ranchos Del Lago

Ranchos Del Lago is an area of 21 privately owned parcels ranging in size from 7 to 268 acres. The parcels are located on the south side of Nacimiento Reservoir. Amenities include a community launch ramp.

Resource Conservation District of Monterey County (RCDMC)

Resource Conservation Districts are organized under the California Public Resources Code. The Monterey Resource Conservation Districts located within the Central Coast Region and is responsible for carrying out natural resource conservation programs within its boundaries, which cover 2,141,430 acres.

Mission: The mission of the RCDMC is to conserve and improve natural resources, integrating the demand for environmental quality with the needs of agricultural and urban users. The Monterey Resource Conservation District provides direct assistance to Monterey County farmers and landowners to protect soil, water, and natural habitats. The RCDMC mainly does public education work but also provides technical assistance to land users, schools, groups, organizations and the general public in conjunction with the Natural Resources Conservation Service. The RCDMC also partners with agricultural and natural resource protection organizations and agencies throughout the Central Coast.

Relevant websites: http://www.rcdmonterey.org/

Running Deer Ranch

Running Deer Ranch is an area on the south side of Nacimiento Reservoir in the area of Frankln and Las Tablas creeks. The Ranch consists of 138 property owners. Parcels range in size from 3 to 40 acres. The owners have a common area called "The Point" where they have a picnic area and boat launch ramp.

San Luis Obispo County Water Resources Advisory Committee

Mission: The San Luis Obispo County Water Resources Advisory Committee's purpose is to advise the County Board of Supervisors concerning all water resources policy decisions of the San Luis Obispo County Flood Control and Water Conservation District.

The Committee is also responsible for making recommendations for specific water resource programs and methods of financing these programs to the Board of Supervisors. The Committee includes members from the County at Large, every City in San Luis Obispo County, every local Community Service District, Resource Conservation Districts, Agriculture and the County Farm Bureau, Environmental representatives, and Water Agencies and Institutions. The committee meets once a month in San Luis Obispo.

Relevant websites: http://www.slocountywater.org/site/Water%20Resources/Advisory%20Committee/index.htm

San Luis Obispo County Farm Bureau

The San Luis Obispo County Farm Bureau is a non-governmental, non-profit, voluntary membership corporation that's purpose is to protect and promote agricultural interests throughout San Luis Obispo County and to find solutions to the problems of the farm, the farm home and the rural community. Farm Bureau strives to protect and improve the ability of farmers and ranchers engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of California's resources.

Relevant website:
http://www.slofarmbureau.org/About-Us/About-Us.htm

South Nacimiento Road Association (SNRA)

The South Nacimiento Road Association represents more than 500 property owners who maintain approximately 11 miles of private roads that come from Chimney Rock road along the shore of Nacimiento Reservoir. This area covers approximately 8000 acres.

Relevant websites: http://lakenacimientosouthshorearea.com/SNRA%20ROAD%20REPAIR%20PRIORITY%20LIST%202008%20REV2.13.08.pdf

South Shore Village Vacation Club

South Shore Village Vacation Club is located on the south shore of Nacimiento Reservoir at the west end of the reservoir in an area often referred to as "The Narrows". The club owns approximately 560 acres, and has 40 members. Amenities include consist of launch ramps, bathroom facilities, ice machines, and a daytime heliport.

Tri-Counties Boat Club

Tri-Counties Boat Club is located on the south side of Nacimiento Reservoir in the Las Tablas bay area. The Club owns 40 acres and has 86 members. Facilities include a BBQ area and boat launch ramp.

Upper Salinas Las Tablas Resource Conservation District

Resource Conservation Districts are organized under the California Public Resources Code. The Upper Salinas Las Tablas Resource Conservation District is responsible for carrying out natural resource conservation programs within its boundaries, which covers approximately 1.5 million acres of the Central Coast area of California, extending from southeastern Monterey County to northwestern, central, and eastern San Luis Obispo County. About 700,000 acres are grazing lands and 400,000 are cropland; livestock production and dry farmed grains and hay are the major income producers for large landowners. The district includes 1,365,000 acres in San Luis Obispo County (about three-quarters of the county area) and 138,000 acres within Monterey County. The largest landowners are the federal government (Forest Service, BLM and U.S. Army (Camp Roberts), Hearst Corporation (Hearst Ranch and the Jack Ranch: *not located within the NACITONE Watershed*), and the Monterey County Water Resources Agency (Nacimiento Reservoir and the lands surrounding the reservoir).

In addition, the US-LT RCD has some purview over grading permits in the watersheds inside San Luis Obispo County plus the areas of Camp Roberts and Parkfield in Monterey County. Under the Alternative Review Program, landowners that neglected to obtain a County grading permit are referred to the RCD. The landowner can apply for an ARP grading permit or be referred back to the San Luis Obispo County Code Enforcement and District Attorney's Office. The Erosion Control Assistants Program, available to all landowners in San Luis Obispo County voluntarily, also connects to Code Enforcement and /or the District Attorney similar to the ARP. These alternative options for grading and erosion control enforcement provide with a second chance to meet permitting requirements and ensure that Best Management Practices are implemented.

Guiding Document: Upper Salinas Watershed Action Plan, Annual Plan and Long Range Plan

Relevant websites: http://www.us-ltrcd.org/ and http://www.mcwra.co.monterey.ca.us/Agency_data/USLS%20RCD%20Watershed%20Action%20Plan/USLS%20RCD%20Watershed%20Action%20Plan.htm

D. Relationship to Other existing Plans

The NACITONE Watersheds Management Plan is a non-regulatory document. This section reviews regulatory and non-regulatory plans that focus on or include these watersheds. Recommendations of the NACITONE Plan attempt to complement these existing plans where there is relevance to issues identified for these watersheds.

Central Coast Region Basin Plan (1994)
California Regional Water Quality Control Board

The goal of the Central Coast Region Basin Plan is to show how the quality of the surface and ground waters in the Central Coast Region should be managed to provide the highest water quality reasonably possible. The plan lists the various water uses and describes the water quality level that must be maintained to allow those uses. The Regional Board implements the Basin Plan by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose waste discharges can affect water quality. The Basin Plan is implemented by encouraging water users to improve the quality of their water supplies. Public works or other projects that affect water quality are reviewed and their impacts identified. The Central Coast Regional Board has jurisdiction over a 300-mile long by 40-mile wide section of California's central coast. Its geographic area encompasses all of Santa Cruz, San Benito, Monterey, San Luis Obispo, and Santa Barbara Counties.

Central Coast Regional Water Quality Control Board Vision (2008)

The Central Coast Regional Water Quality Control Board is moving in a fundamentally new strategic direction, based upon a Vision of Healthy Functioning Watersheds. This new Vision represents a refocusing of their approach providing a new framework for how they conduct business and achieve measurable results. The Vision structures their work towards their highest water quality priorities and more strategically aligns them with the anticipated challenges and opportunities in water quality and positions the agency to respond more nimbly to unexpected ones. For more information visit:
http://www.waterboards.ca.gov/centralcoast/publications_forms/publications/vision/index.shtml

Nacimiento Area Plan, San Luis Obispo County (2003)

The Nacimiento Area Plan is a supplemental plan to the County's General Plan. The plan deals specifically with 97,665 acres that comprise the planning area which is adjacent to the Monterey County line to the North, the Adelaida planning area to the South, Camp Roberts to the East and the Santa Lucia Range to the West. Nacimiento Reservoir is the center of the planning area. This plan describes County land use policies for the Nacimiento Planning Area, including regulations which are also adopted as part of the Land Use Ordinance.

Water Supply Programs (WSP-14, 15, 16, 17)
The Plan identifies issues related to water supply, the first refers to reservoir water use and the need to identify properties illegally taking water directly from the reservoir and removing all equipment used for this purpose. The second addresses the possibility of using reclaimed water and returning it to the reservoir to allow "equivalent amounts of water to be taken from reservoir supplies" (p.3-10). The last issue deals specifically with Oak Shores and Heritage Ranch, "if total water use reaches 1,100 acre feet per year, a moratorium should be placed on further development within the affected project"(p.3-10).

Rural Area Programs
The following programs apply to portions of the Nacimiento Planning Area outside of village reserve lines, in the land use categories listed.

Areawide *(RAP-1)*
The Plan states that the county should continue to encourage owners of eligible lands to participate in the agricultural preserve program.

Open Space (RAP-2)
The Plan states that the County will work with Monterey County Flood Control and Water Conservation District to create plans "for a wilderness park with appropriate passive recreational uses" (p.6-13).

Village Programs
The following program applies to all land use categories within the Heritage and Oak Shores village reserve lines.

Phasing Plans (VP-1)
The Plan states that the County will work with developers and Monterey County to update current project phasing plans and will include them within the Land Use Element.

Combining Designations
The Plan refers to combining Designations as "special overlay land use categories applied in areas of the county with potentially hazardous conditions or special resources, where more detailed project review is needed to avoid or minimize adverse environmental impacts, or effects of hazardous conditions on proposed projects" (p.7-1).

The Santa Lucia Range and Foothill Areas
For the Village portion of the Planning Area the combined designation refers to those lands having moderately high and high landslide risk potential. The designation only refers to areas with high landslide risk that are located within the Rural portion of the Planning Area.

Nacimiento River and Canyon; Dip, Franklin, Las Tablas, Snake and Town Creeks; and Lake Nacimiento

This designation refers to water courses that are "identified as having potential flood hazards and development proposals must incorporate mitigation measures" (p.7-1). Specifically for Nacimiento Reservoir, "the 800 foot elevation constitutes the lake's high water level and no habitable structures are permitted below the 825 foot elevation" (p.7-1).

Tierra Redonda Mountain
This mountain is a major area landmark and is under Bureau of Land Management ownership. The mountain is considered to have high preservation priority by the State Department of Parks and Recreation and is of ecological importance. The mountain is considered to be public land and preservation of the entire mountain is the best strategy for conserving the ecosystem.

Lake Nacimiento Drive-Interlake Road
This road has been adopted as a State scenic highway route from Chimney Rock Road northwest to the Monterey County line; all visual impacts in this area should be minimized.

Rocky Butte Botanical Area
The Plan identifies this area as having botanical and scenic value. The Bureau of Land Management owns approximately 460 acres of this area, the remaining acres are privately owned and the County will encourage open space easements for these portions.

In addition, the following apply to specific Land Use Ordinances for the Nacimiento Area Plan:

Section 22.102.040

Site planning and development standards
Proposed development shall be designed and constructed in compliance with the following standards.

Snake and Dip Creeks**.** Retain Snake and Dip Creeks in their natural state, except for stock ponds and low intensity recreational uses such as trails and picnic areas.

Vegetation Protection**.** Site new development to avoid areas of dense brush and oak woodland vegetation.

Section 22.102.060

Protection of native vegetation**.** New parcels and development shall be sited where possible to avoid areas of dense brush and oak woodland vegetation, and locate building sites along ridges or hilltops where development would not be silhouetted against the sky, as seen from existing and proposed collector and arterial streets.

San Luis Obispo Integrated Regional Water Management Plan (2005)
San Luis Obispo County

The San Luis Obispo Integrated Regional Water Management Plan identifies five water management planning objectives which include water supply, water quality protection and improvement, ecosystem preservation and restoration, groundwater monitoring and management and flood management. The Nacitone watersheds fall in the Salinas and Nacimiento Water Planning Areas.

The Nacitone Watershed Management Plan will aid in meeting the objectives and regional solutions defined in the IRWMP (Section H3). Related objectives include to "protect and improve source water quality" and "protect and improve groundwater quality from point and nonpoint source pollution, including nitrate contamination; MTBE and other industrial, agricultural, and commercial sources of contamination; naturally occurring mineralization, boron, radionuclide, geothermal contamination; and seawater intrusion and salts." In addition, the IRWMP states that "projects recommended in sub-regional plans have already been coordinated at the sub-regional level and can be considered excellent candidates for implementation of the IRWMP" (Section M1.3). The Regional Priorities section provides a process for modifying priorities in response to change. It is anticipated that the Nacitone Plan, as a local watershed planning document, will be incorporated into the IRWMP using the adaptive management strategy (Section F4).

Nacitone Watershed Management Plan Issues	Salinas Valley Integrated Regional Water Management Plan Categories	San Luis Obispo Integrated Regional Water Management Plan Categories
1. Recreation 2. Gaps in Knowledge: Monitoring and Information Needs 3. Preventing Pollution from Point and Nonpoint Sources 4. The Role of Agriculture 5. Fire in the Watersheds 6. Taking Enforcement Action 7. Communication & Coordination 8. Watershed Health: Plants & Animals 9. Roads and Culverts 10. Education and Outreach 11. Invasive Species	1. Water Supply 2. Water Quality 3. Flood Protection 4. Environmental Enhancement	1. Water Quality 2. Water Supply 3. Ecosystem Preservation and Restoration 4. Groundwater Monitoring and Management 5. Flood Management

Figure 47. Comparison of issues addressed in the Nacitone WMP to the categories covered in the SV IRWMP and the SLO IRWMP

Salinas Valley Integrated Regional Water Management Plan (2006) Monterey County Water Resource Agency

The Salinas Valley IRWMP provides goals and objectives that address water supply, water quality, and other environmental issues at a regional scale. The planning area is defined by the Salinas Valley Groundwater Basin and describes a Long Term Regional Priority (Section 6.3.4) to implement integrated watershed management in the Nacimiento and San Antonio River watersheds in order to improve the water quality in the reservoirs as well as the riparian habitat and aquatic ecosystems of the Salinas River and the Salinas River Groundwater Basin. The Nacitone Plan will provide the essential local level of knowledge, planning and project prioritization to assist MCWRA in meeting this long term priority.

South County Area Plan, Monterey County (2007)

The South County Area Plan supersedes the General Plan for the South County Area. The plan consists of 1,281 square miles of the southernmost section of Monterey County. The area is bordered by the Central Salinas Valley Planning Area to the North, the San Benito, Fresno and Kings County lines to the East, the Coast Planning Area makes up the western border and the San Luis Obispo County line is the Southern boundary.

Land Use (SC-1.2, 1.3)
The Plan encourages clustered development in order to preserve agricultural land and open space and to make the most efficient use of land; and any policy or program (including large lot zoning and agricultural land trusts) that enhance the competitive capabilities of farms and ranches.

Safety (SC-4.1)
The Plan requires that any channelization or realignment work on the Salinas River may not be permitted unless an assessment by the Monterey County Water Resources Agency is done to ensure that the work will not increase flood hazards downstream.

Public Services (SC-5.2, 5.3, 5.5, 5.6)
The South County Area Plan will strive to protect and preserve natural and artificial groundwater recharge areas, water quality, natural resources, soils and watersheds. All New Development shall not occur on or in close proximity to the main channels and associated floodways of the Nacimiento, San Antonio, and Salinas Rivers. The Plan states that all commercial recreation facilities for camping and boating shall be compatible with surrounding uses, of moderate size, and consistent with all resource protection and hazard avoidance policies. The County also hopes to establish a park site along the Salinas River at Camp Roberts.

Stormwater Management Program - National Pollution Discharge Elimination System (NPDES)
San Luis Obispo County

The County Stormwater Management Program encompasses the designated unincorporated urbanized areas of San Luis Obispo County. The program complies with all of the US Environmental Protection Agency, National Pollutant Discharge Elimination System Phase II Final Rule and State Water Resources Control Board "Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems". This program was developed to reduce stormwater pollutants to receiving waters to the maximum extent practicable through the use of Best Management Practices.

Relevant website: http://www.slocounty.ca.gov/PW/Stormwater/SWMP.htm

Existing Management Objectives of Military Installations and the United States Forest Service

The United States Army at the Fort Hunter Liggett training base, the National Guard at Camp Roberts, and the US Forest Service, Monterey District at Los Padres National Forest are important watershed partners for the Nacitone Steering Committee and any future efforts that might arise from this Watersheds Management Plan. The public lands entrusted to those three entities represent approximately 48.1% of the combined San Antonio and Nacimiento Rivers watersheds.

In the Fort Hunter Liggett April 2007 amended Integrated Natural Resources Management Plan (INRMP, 2007) an ecosystem management philosophy is set forth.

> *In accordance with that philosophy, FHL is developing partnerships with various agencies to support management of its natural resources. Major partners in implementing this plan (INRMP 2007) are the USFWS and the CDFG. Other partners include other Department of Defense agencies, other Federal and State agencies, universities, contractors, and private citizens. An emphasis of the INRMP is to strengthen existing partnerships and to identify and develop new partnerships (INRMP, 2007, pg.5).*

The development and strengthening of partnerships with all the parties noted in the above paragraph was also a strong emphasis of the Nacitone Steering Committee across all issue areas identified in the *Watershed Strategy.* A representative from the Fort Hunter Liggett Environmental Division participated with the Steering Committee and Technical Advisory Committee. Camp Roberts staff met with the Nacitone Facilitator and was also an early partner

with the MCWRA in preparing the grant proposal for the watersheds management plan. US Forest Service, Monterey District staff contributed to several Steering Committee meetings, provided background information and helped review sections of the *Watershed Strategy.*

Nexus with the Nacitone Watershed Strategy:

Environmental documents from the two military installations and the US Forest Service contain goals that are similar to those in the *Watershed Strategy* as well as identify opportunities for additional data collection.

For example, the military Land Condition Trend Analysis (LCTA) process for both military installations could be useful in tracking long-term trends in the watershed. LCTA was initiated in the mid-1980s by the Department of Army for uniform data collection. LCTA collects physical and biological resources data to relate land conditions to training activities. These data are intended to provide information to effectively manage land use and natural resources.

Below are six, selected issues from the Fort Hunter Liggett INRMP, 2007 with goals that are very similar to those in the *Watershed Strategy* thereby presenting opportunities for collaboration to achieve common goals.

Selected Issues, Goals, and Actions from the Fort Hunter Liggett INRMP, 2007 (pages 159-184)

WATER QUALITY - Issue: *Although water quality is high in both major river drainages, the potential for point source and nonpoint source contamination from sedimentation and nutrients exists.* ***Goal:*** *Maintain high quality surface waters to support viable populations of aquatic and terrestrial life.*
Actions
1. Continue to implement the storm-water pollution prevention plan (Radian Corporation 1995).
2. Maintain vegetation in watersheds and at reservoirs to promote natural filtering of sediments.
3. Continue to monitor surface water quality. Collect total suspended solids data from the San
Antonio River at Nacimiento Road and at Sam Jones Road for determination of overall impacts of Cantonment area use stations on tributary streams to better pinpoint sources of suspected sediment loadings.
4. Continue groundwater monitoring that includes drinking water monitoring and monitoring for suspected pollution sources.
5. Continue reservoir and initiate river water chemistry data collection (dissolved oxygen, pH, temperature, and nitrates).

OAK WOODLANDS - Issue: *Recruitment of mature oak trees is poor throughout California and will eventually result in the loss of the mature component of the oak population.*
Goal: *Maintain and enhance mature oak woodland stands and enhance oak woodland seedling regeneration.*
Actions
1. Minimize oak loss resulting from mechanical removal and controlled burns.
2. Continue study to determine effects of different fire regimes on mature valley oak trees.
3. Continue FHL Training Regulation 350-2 restrictions that protect oak woodlands.

4. Use existing GIS data to develop large-scale management units by classifying areas by dominant vegetation (e.g., valley oak savanna, blue oak woodland). Within these, identify locations most frequently used for military training, annual burn sites, potential future grazing sites, and endangered species habitats.
5. Identify management and monitoring requirements in the management units, such as exotic species control, propagating and replanting oaks, and assessing effects of frequent fire.
6. Identify the status of stands in management units, such as recruitment occurrence, stand density, and health of trees in the stand.
7. Identify areas where oaks historically occurred that might support restored oak stands.
8. Identify areas where oak recruitment is most likely to be successful and focus efforts at those locations.
9. Continue to collect acorns from FHL; propagate acorns; and use these for replanting efforts on FHL.

NATIVE BUNCH GRASSLANDS
Issue: *Most native bunchgrasses have been replaced with less desirable exotic annual species of grasses.* ***Goal****: Maintain and promote widespread and diverse native bunchgrass grasslands.*
Actions
1. Continue reseeding projects by the LRAM (Land Rehabilitation and Maintenance) program using a mixture of native grass seeds.
2. Investigate the potential for livestock grazing and fire to be used in promoting and enhancing native bunchgrasslands.

RARE NATURAL COMMUNITIES - Issue: *CNDDB rare natural communities occurring on FHL include sycamore alluvial woodland, valley needlegrass grassland, and valley oak woodland. FHL should ensure that they remain viable and intact components of the FHL ecosystem.* ***Goal:*** *Protect rare natural communities through measures described for individual vegetation communities.*
Action - *Continue to implement protective measures described for individual vegetation communities.*

FIRE - Issue: *Wildland fire is a relatively common event that affects the landscape of FHL. The effects of wildland and prescribed fire on natural resources are not well documented or understood.* ***Goal:*** *Assess the impact of fire on species of interest, vegetation communities, and animal and plant populations of interest.*
Actions
1. Evaluate fire history and species information with GIS
Goal: *Use fire as a tool to achieve natural resource management and training goals and objectives.*
2. Use prescribed fire to manipulate vegetation to achieve natural resource and training goals and objectives.
3. Coordinate with Directorate of Fire Services of prescribed burns through environmental review.
4. Complete and implement the Wildland Fire Management Plan.

GRAZING - Issue: *Livestock grazing was terminated on FHL in 1991 due to excessive forage utilization and unacceptable resource damage associated with poor livestock management and drought.* ***Goal:*** *Evaluate the possibility of developing a grazing program that promotes biological diversity, provides minimum impact to the military mission, is*

tailored to the native flora and fauna of FHL, does not conflict with Endangered Species Act compliance, and protects and maintains cultural resources.
Actions
1. Develop a livestock grazing options that are consistent with the goal.
2. Complete an environmental assessment to determine whether the grazing program should be reinitiated.
3. Implement the grazing management plan option selected.
(INRMP, 2007 – Fort Hunter Liggett).

Camp Roberts has developed Land Rehabilitation and Maintenance (LRAM) goals and objectives and an Environmental Awareness program that could be assessed for possible collaborative opportunities with the Nacitone Watersheds Management Plan. Below are two of the goals listed for *Riparian Ecosystem Management and River, Pond and Reservoir Ecosystem Management in the Camp Roberts* INRMP, 2000.

GOAL: Protect and enhance riparian habitats to ensure healthy, functioning systems.

GOAL: Protect and maintain aquatic ecosystems in accordance with state and federal laws and regulations and adhering to the principles of ecosystem management for the purposes of a training resource and each river's designated beneficial uses.

The U.S. Forest Service, Monterey District staff are key partners for a future Nacitone community group to identify shared goals for these watersheds. There is a ***Land Management Plan***, prepared in September 2005, covering the entire Los Padres National Forest which reaches into Santa Barbara County. That document is not specific to the Nacitone watersheds portion of the Los Padres National Forest, but includes general strategies that may yield opportunities for collaboration in the Nacitone. For example, a Conservation Strategy Emphasis for the next 3-5 years on page 112 of the September 2005 Plan includes the following under *Education/ Information/Interpretation:*

- Importance of riparian and aquatic species habitat
- Value of vegetation management
- Importance of keeping vehicles on roads
- Importance of keeping foot traffic on wilderness trails
- Species linkages and corridors and biological diversity
- Importance of reducing exposure of wildlife to lead poisoning

There is also a Draft Environmental Impact Statement (EIS) Revised Land Management Plan. These documents should be reviewed for goals, objectives, or guiding principles that may align with Nacitone Watersheds Management Plan goals and objectives.

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www.nacitonewater.org

Bureau of Reclamation
http://www.usbr.gov/main/about/
http://www.usbr.gov/mp/aboutus.html

California Department of Forestry and Fire Protection
http://www.fire.ca.gov/

California Department of Water Resources
http://www.water.ca.gov/

California Department of Water Resources Division of Safety of Dams
http://www.damsafety.water.ca.gov/

California Environmental Protection Agency
http://www.calepa.ca.gov/

CAL FIRE- County of San Luis Obispo
http://www.cdfslo.org/

Heritage Ranch Owner's Association
http://hroa.us/main.htm

Monterey County Water Resources Agency
http://www.mcwra.co.monterey.ca.us/

National Oceanic and Atmospheric Administration (NOAA) Restoration Center
http://www.nmfs.noaa.gov/habitat/restoration/

Oak Shores Community Association
http://oakshores.us/

Regional Water Quality Control Board (RWQCB)
http://www.swrcb.ca.gov/index.shtml

San Luis Obispo County Water Resources Advisory Committee
http://www.slocountywater.org/site/Water%20Resources/Advisory%20Committee/

San Luis Obispo County Public Works Department
http://www.slocounty.ca.gov/PW.htm

Nacimiento Water Project
http://www.slocounty.ca.gov/PW/NacWP.htm

Upper Salinas Las Tablas Resource Conservation District
http://www.us-ltrcd.org/long-range.html

United States Bureau of Land Management
http://www.blm.gov/wo/st/en/info/About_BLM.html

United States Fish and Wildlife Service
http://www.fws.gov/habitatconservation/wrda.htm

USFWS Partners Program
http://ecos.fws.gov/partners/viewContent.do?viewPage=home

Glossary

Alluvial - clay, silt, sand, gravel, or similar sediment material deposited by running water

Beneficial use – Historical, present, and potential uses of water in the Basin as defined by the RWQCB. The intent is to ensure the continuance of beneficial uses and establish compatible water quality standards as well as the level of treatment necessary to maintain the standards.

Confluence - the meeting place of two streams

Critical habitat – a specific area, identified by the NOAA Fisheries and/or USFWS, in which are found physical or biological features essential to the conservation of the species, and which may require special management considerations or protection. Multiple impacts are considered when designating critical habitat.

Electrofishing – a common fish population monitoring technique that uses electricity to stun fish before they are caught and counted. The survey determines abundance, density and species composition.

Epilimnion – the water layer overlying the thermocline of a lake

Evaporation – dissipation of water into vapor usually caused from heating by the sun groundwater basins

Habitat - the place or environment where a plant or animal naturally lives

Hydrophytic – a plant that grows in water or very moist ground; an aquatic plant

Hypoliminion – the water layer below the thermocline of a lake

Mean daily discharge – average stream flow per day

Mitigation – an action that results in a smaller impact or a compensates for an unavoidable impact

mg/L – milligrams per liter; a unit of measurement to express the concentration of a substance in a solution; same as "parts per million (ppm)" for aqueous solutions

Non-point source – pollution arising from many unidentifiable sources i.e. agriculture

Point source – pollution arising from a single identifiable source i.e. wastewater outfall

Redd – salmon nest

Riparian - area on the bank of a watercourse

Thermal refuge – stream area, usually a tributary or confluence, used by Steelhead for its cooler waters as refuge from warmer waters of the main channel.

Thermocline - the region in a thermally stratified body of water which separates warmer surface water from cold deep water and in which temperature decreases rapidly with depth

Turbidity – opaqueness/ clarity of water due to suspended sediment loads

Unincorporated – areas falling outside of city limits such as County lands and towns

Urban reserve lines – designated line beyond city limits where development will focus in the future

Watershed – the land area that contributes runoff to a particular water body

Wild and scenic - selected rivers that possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values that are preserved in free flowing condition with their immediate environments for the benefit and enjoyment of present and future

Abbreviations

BMP	Best Management Practice
BRAC	Base Realignment and Closure
CCAMP	Central Coast Ambient Monitoring Program
CCRWQCB	Central Coast Regional Water Quality Control Board
CEQA	California Environmental Quality Act
Cfs	cubic feet per second
CNDDB	California Natural Diversity Database
CSD	Community Service District
DO	Dissolved Oxygen
EIR	Environmental Impact Report
EPA - (US)	Environmental Protection Agency
FHL	Fort Hunter Liggett
GIS	Geographic Information Systems
INRMP	Integrated Natural Resources Management Plan
IRWMP	Integrated Regional Water Management Plan
IWMP	Integrated Watershed Management Plan
LID	Low Impact Development
LRMP	Land and Resource Management Plan
MCFCWCD	Monterey County Flood Control and Water Conservation District
MCWRA	Monterey County Water Resources Agency
MOU	Memorandum of Understanding
MSL	Mean Sea Level
MTBE	Methyl Tertiary-Butyl Ether
NEPA	National Environmental Protection Act
NGVD 29	National Geodetic Vertical Datum of 1929
NMFS	National Marine Fisheries Service
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resource Conservation Service
NRWMAC	Nacimiento Regional Water Management Advisory Council
NWP	Nacimiento Water Project
RCD	Resource Conservation District
RWQCB	Regional Water Quality Control Board (Central Coast Region)
SAM	Central Coast Water Quality Data Synthesis Assessment and Management Project
SH&G	Swanson Hydrology & Geomorphology (a private company)
SVWP	Salinas Valley Water Project
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
VOC	Volatile Organic Compounds
WRI	Watershed Resources Inventory

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Resources for Residents and Landowners

Water Quality

- Facts about Cyanobacteria & Cyanobacterial Harmful Algal Blooms

Center for Disease Control and Prevention
http://www.cdc.gov/hab/cyanobacteria/facts.htm

- Klau/ Buena Vista Mine Superfund Site

U.S. Environmental Protection Agency
http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/95831d90484434d7882574260072fadf/dcb0a4770abe6b618825746e0060ae01/$FILE/Klau6_08%2091kb.pdf
http://www.epa.gov/superfund/sites/npl/nar1732.htm

- Mercury Impacts/ Fish Advisories

http://www.dnr.state.wi.us/org/caer/cea/mercury/impact.htm
http://www.ehib.org/topics/BifoldForWeb.pdf
http://www.ehib.org/topic.jsp?topic_key=173

- Alternative Review Process

Upper Salinas Las Tablas Resource Conservation District
http://www.us-ltrcd.org/review.html

- Handbook of Agricultural Conservation Practices

Monterey Resource Conservation District
http://www.rcdmonterey.org/pdf/AgHandbook.pdf

- Cover Up Story: Erosion Control Handbook

Upper Salinas Las Tablas Resource Conservation District & SLO County
Copies available from:
US/ LT Resource Conservation District
(805) 434-0396 ext. 4

Water Projects

- Salinas Valley Water Project

http://www.mcwra.co.monterey.ca.us/welcome_svwp_n.htm

- Nacimiento Water Project

http://www.slocounty.ca.gov/PW/NacWP

Rangeland Management & Grazing

- California Rangeland Resolution

http://www.rangelandtrust.org/RangelandResolution6-24-08.pdf

- California Rangeland

UC Davis Extension
http://californiarangeland.ucdavis.edu/

- Grazing Handbook

Sotoyome Resource Conservation District
http://sotoyomercd.org/GrazingHandbook.pdf

- Riparian Area Management: Grazing Management for Riparian-Wetland Areas, TR 1737-14 1997

Bureau of Land Management and the Forest Service
Copies available from:
BLM, National Business Center, BC-650B
PO Box 25047
Denver, Colorado 80225-0047

- Management reduces E. coli in irrigated pasture runoff

Knox, Tate, Dahlgren and Atwill, 2007
http://calag.ucop.edu/0704OND/pdfs/IrrigationEcoli.pdf

- Significant Escherichia coli attenuation by vegetative buffers on annual grasslands

Tate, Atwill, Bartolome, Nader, 2006
http://jeq.scijournals.org/cgi/reprint/35/3/795

Fire

- Homeowner's Checklist: How to Make your Home Fire Safe

California Department of Forestry and Fire Protection
http://www.fire.ca.gov/communications/downloads/fact_sheets/Checklist.pdf

- Residential Burning

http://www.slocleanair.org/programs/residential.asp

Roads

- Low Maintenance Roads for Ranch, Fire and Utilities Access

Wildland Solutions
http://nohvcclibrary.forestry.uga.edu/SCANNED%20FILES/T-0028.pdf

Agricultural Water Quality

- Agriculture Management Series includes cover crops, access roads, filter buffer strips, self-monitoring of farm or ranch, rock energy dissipaters, and grassed waterways (GW 101 through 106-2006)

San Luis Obispo Farm Bureau, Natural Resource Conservation Service

Contact:
The San Luis Obispo Farm Bureau
651 Tank Farm Rd.
San Luis Obispo, CA 93401

Recreation

- ABC's of California Boating Law

CA Department of Boating and Waterways, 2007
http://www.dbw.ca.gov/Pubs/Abc/

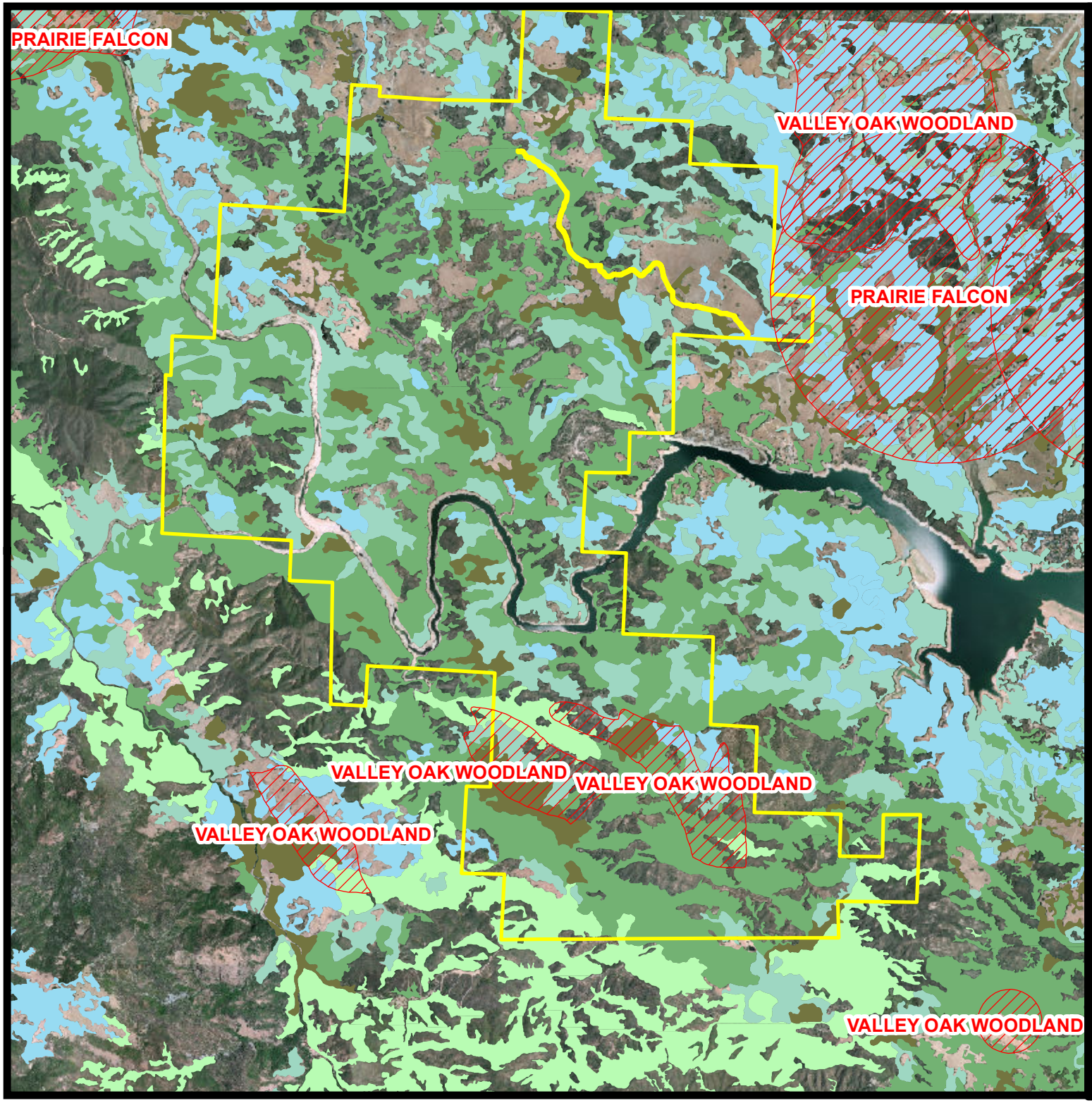
Species and Habitat

- How to Grow California Oaks

McCreary, UC Cooperative Extension
http://danr.ucop.edu/ihrmp/oak04.htm

- Wildlife Among the Oaks

Johnson, Integrated Hardwood Range Management Program
http://danr.ucop.edu/ihrmp/allpubs.html



The Land Conservancy of San Luis Obispo County

Attiyeh Ranch

Natural Ecosystems

San Luis Obispo County

Legend

- CNDDB
- Attiyeh Ranch
- Coast Live Oak - mixed Hardwoods
- Coast Live Oak - Blue Oak
- Coast Live Oak
- Tucker Oak
- Blue Oak - California Juniper
- Blue Oak
- Black Oak
- Valley Oak
- Canyon Live Oak (rare)

Scale

2,000 0 6,000 Feet

1:50,000

Map produced by Stacey Smith
LCSLO Conservation Project Manager
October 29, 2012
Oak data, Couunty of SLO and
Aerial Information Systems, 2008
CNDDB data, CDFG, 2006.

N

2007 CENSUS OF AGRICULTURE

United States

Summary and State Data

Volume 1 • Geographic Area Series • Part 51

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United States Department of Agriculture
Tom Vilsack, Secretary
National Agricultural Statistics Service
Cynthia Z.F. Clark, Administrator

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The success of the census of agriculture is directly dependent upon the participation of America's farmers and ranchers, and we are grateful for every agricultural operator who furnished the information requested. Their cooperation and support helped make the 2007 Census of Agriculture the most successful count in history. It was their future, their voice, and their responsibility and they spoke out for their farms and their industry.

The 2007 census was the most comprehensive effort to date to reach all agriculture operations, regardless of size. We appreciate our relationship with the American Indian community and the many community based organizations across the country that helped educate their constituents about the importance of the census. Their support aided greatly in our efforts.

Additionally, there were many organizations and partners who recognize the importance of good data and helped encourage producers to respond. The farm organizations, stakeholder groups, and agricultural media were instrumental in building awareness of the census and encouraging farmers and ranchers to participate. They truly were effective partners driving the message that the census is every producer's voice, future, and responsibility.

Other USDA agencies and representatives from State departments of agriculture offered invaluable advice during the planning, data collection, and processing phases of the census. They also provided critical assistance at the local level to farmers and ranchers completing census forms. Special thanks are extended to the enumerators who collect data locally through NASS's cooperative agreement with the National Association of State Departments of Agriculture. By helping NASS build and maintain quality relationships with our primary stakeholders, the enumerators are important contributors to quality statistics.

Members of the Advisory Committee on Agriculture Statistics and representatives of both public and private organizations offered recommendations on census content. NASS appreciates their strong and consistent support for our programs.

Finally, NASS acknowledges the services provided by the U.S. Department of Commerce, National Processing Center in Jeffersonville, IN.

Detailed census of agriculture information is available online at www.agcensus.usda.gov. Information about NASS and its programs is available at www.nass.usda.gov. If you would like more information, you can also call (800) 727-9540 or email nass@nass.usda.gov.

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B. General Explanation and Census of Agriculture Report Form B-1

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Introduction

HISTORY

For 156 years (1840 - 1996), the U.S. Department of Commerce, Bureau of the Census was responsible for collecting census of agriculture data. The 1997 Appropriations Act contained a provision that transferred the responsibility for the census of agriculture from the Bureau of the Census to the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS). The 2007 Census of Agriculture is the 27th Federal census of agriculture and the third conducted by NASS.

The first agriculture census was taken in 1840 as part of the sixth decennial census of population. The agriculture census continued to be taken as part of the decennial census through 1950. A separate mid-decade census of agriculture was conducted in 1925, 1935, and 1945. From 1954 to 1974, the census was taken for the years ending in 4 and 9. In 1976, Congress authorized the census of agriculture to be taken for 1978 and 1982 to adjust the data reference year so that it coincided with other economic censuses. This adjustment in timing established the agriculture census on a 5-year cycle collecting data for years ending in 2 and 7.

USES OF CENSUS DATA

The census of agriculture is the leading source of facts and statistics about the Nation's agricultural production. It provides a detailed picture of U.S. farms and ranches every five years and is the only source of uniform, comprehensive agricultural data for every State and county or county equivalent in the U.S.

Agriculture census data are routinely used by farm organizations, businesses, State departments of agriculture, elected representatives and legislative bodies at all levels of government, public and private sector analysts, the news media, and colleges and universities. Agriculture census data are used to:

- Evaluate, change, promote, and formulate farm and rural policies and programs that help agricultural producers;
- Study historical trends, assess current conditions, and plan for the future;
- Formulate market strategies, provide more efficient production and distribution systems, and locate facilities for agricultural communities;
- Make energy projections and forecast needs for agricultural producers and their communities;
- Develop new and improved methods to increase agricultural production and profitability;
- Allocate local and national funds for farm programs, e.g. extension service projects, agricultural research, soil conservation programs, and land-grant colleges and universities;
- Plan for operations during drought and emergency outbreaks of diseases or infestations of pests.
- Analyze and report on the current state of food, fuel, feed, and fiber production in the United States.

In addition agricultural news media and agricultural associations use census data as background material for stories and articles on U.S. agriculture and the foods we produce.

AUTHORITY

The 2007 Census of Agriculture is required by law

under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law directs the Secretary of Agriculture to conduct a census of agriculture in 1998 and in every fifth year after, covering the prior year. The census of agriculture includes each State, Puerto Rico, Guam, the U.S. Virgin Islands, the Commonwealth of Northern Mariana Islands, and American Samoa.

FARM DEFINITION

The census definition of a farm is any place from which $1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year. The definition has changed nine times since it was established in 1850. The current definition was first used for the 1974 Census of Agriculture and has been used in each subsequent agriculture census. This definition is consistent with the definition used for current USDA surveys. The farm definition used for each U.S. territory varies. The report for each territory includes a discussion of its farm definition.

DATA COMPARABILITY

Most data are comparable between the 2007 and 2002 censuses. A few changes were made to the 2007 census that affect comparability for some data items. See Appendix B, General Explanation and Census of Agriculture Report Form, Data Changes for a detailed discussion of these changes. Dollar figures are expressed in current dollars and have not been adjusted for inflation or deflation. In general, data for censuses since 1974 are not fully comparable with data for 1969 and earlier censuses due to changes in the farm definition.

REFERENCE PERIOD

Reference periods for the 2007 Census of Agriculture were similar to those used in the 2002 Census of Agriculture. Reference periods used were:

- Crop production is measured for the calendar year, except for a few crops such as avocados, citrus, and olives for which the production year overlaps the calendar year. See Appendix B, General Explanation and Census of Agriculture Report Form for details.

- Livestock, poultry, and machinery and equipment inventories, market value of land and buildings, and grain storage capacity are measured as of December 31 of the census year.

- Crop and livestock sales, farm expenses, income from federal farm programs, irrigation, Commodity Credit Corporation loans, Conservation Reserve, Farmable Wetlands, Conservation Reserve Enhancement, and Wetlands Reserve Program participation, direct sales income, chemical and fertilizer use, farm-related income, and hired farm labor data are measured for the calendar year.

TABLES AND APPENDICES

Chapter 1. Table 1 shows U.S.-level historical data through the 1978 census and tables 2 through 57 show detailed U.S.-level data usually accompanied by historical data from the 2002 census. Tables 58 through 65 show detailed U.S.-level data cross-tabulated by several categories for the 2007 census only.

Chapter 2. State-level data are presented in 56 tables in 2 different table formats - State and State summary. Most tables include 2002 historical data. State tables include general data for all States within the U.S. The State names are listed in alphabetical order in the column headings. State summary tables provide comprehensive data for all States reporting a data item.

Appendix A. Provides information about data collection and data processing activities and discusses the statistical methodology used in conducting and evaluating the census. Table A summarizes nonresponse and coverage adjustment for selected items for the U.S. Table B provides reliability estimates of U.S. totals for selected items. Table C summarizes nonresponse and coverage adjustment for selected items at the State level. Table D provides total number of American Indian or Alaska Native farm operators both on and off reservations by State.

Appendix B. Includes definitions of specific terms and phrases used in this publication, including items in the publication tables that carry the note "see text." It also provides facsimiles of the report form and instruction sheet used to collect data.

RESPONDENT CONFIDENTIALITY

In keeping with the provisions of Title 7 of the United States Code, no data are published that would disclose information about the operations of an individual farm or ranch. All tabulated data are subjected to an extensive disclosure review prior to publication. Any tabulated item that identifies data reported by a respondent or allows a respondent's data to be accurately estimated or derived, was suppressed and coded with a 'D'. However, the number of farms reporting an item is not considered confidential information and is provided even though other information is withheld.

SPECIAL EFFORTS DIRECTED AT MINORITIES

NASS implemented several activities to improve coverage of minority farm operators. These activities included, but were not limited to:

- Obtaining mail lists from organizations likely to contain names and addresses of minority farm operators; and
- Conducting pre-census promotion activities that targeted women, American Indian and Alaska Native, Black and African American, and Spanish, Hispanic, or Latino origin farm operators; and
- In 2002 an initial effort was made to collect data from individual operators on American Indian reservations in three States. In 2007 this effort was expanded to attempt to collect data from operators on reservations in all States with reservations; and
- Producing a Spanish report form version for Field Office and enumerator use.

SPECIAL STUDIES AND CUSTOM TABULATIONS

Special studies such as the 2008 Farm and Ranch Irrigation Survey, the 2008 Organic Production Survey, the 2009 Census of Horticultural Specialties, the 2010 Census of Aquaculture, and the 2010 Land and Economic Stability Survey are part of the census program and provide supplemental information to the 2007 Census of Agriculture in the respective subject area. Results are published in print and on the internet.

Custom-designed tabulations may be developed when data are not published elsewhere. These tabulations are developed to individual user specifications on a cost-reimbursable basis and shared with the public. The census Volume 1 on CD-ROM is an alternative data source that should be investigated before requesting a custom tabulation.

All special studies and custom tabulations are subject to a thorough disclosure review prior to release to prevent the disclosure of any individual respondent data. Requests for custom tabulations can be submitted via the internet from the NASS home page, by mail, or by e-mail to:

DataLab
National Agricultural Statistics Service
Room 6436A, Stop 2054
1400 Independence Avenue, S.W.
Washington, D.C. 20250 - 2054
or
Datalab@nass.usda.gov

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used throughout the tables:

- Represents zero.

(D) Withheld to avoid disclosing data for individual farms.

(H) Standard error or relative standard error of estimate is greater than or equal to 99.95 percent.

(IC) Independent city

(L) Standard error or relative standard error of estimate is less than .05 percent.

(NA) Not available.

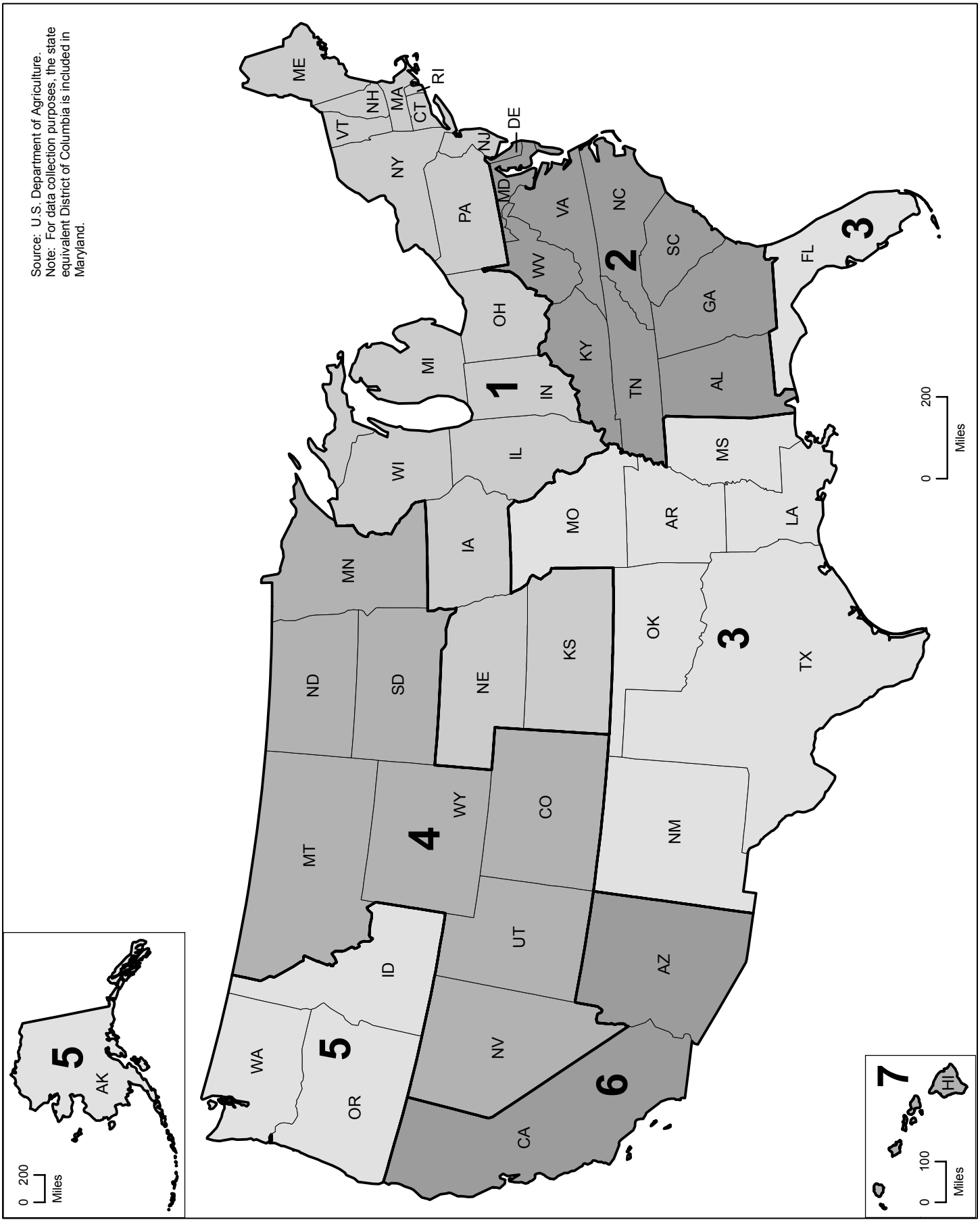
(X) Not applicable.

(Z) Less than half of the unit shown.

cwt Hundredweight

sq ft Square feet

Report Form Regions for the 2007 Census of Agriculture



USDA, National Agricultural Statistics Service

Figure 1. Profile of the Nation's Agriculture

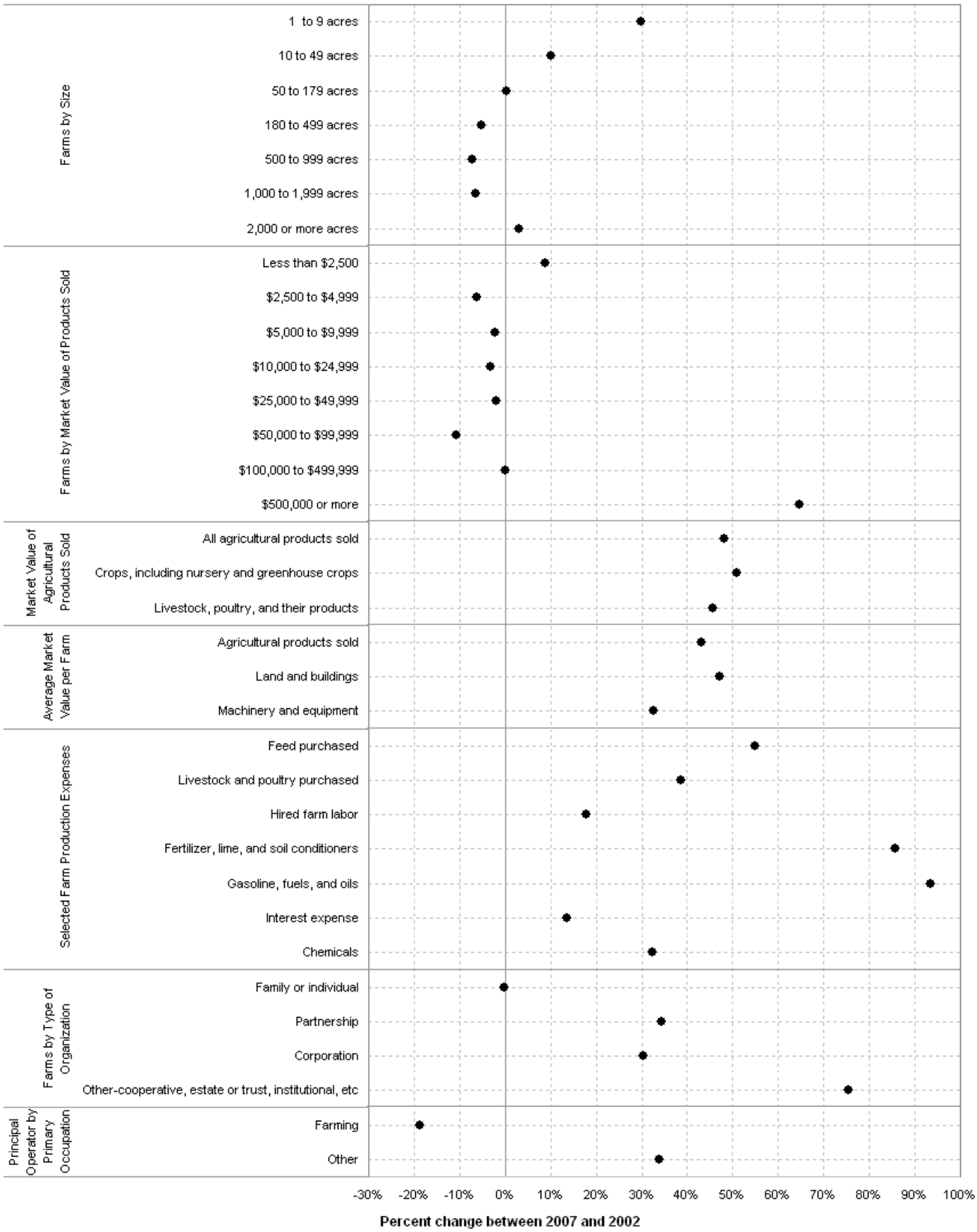


Figure 2. Farms by Size

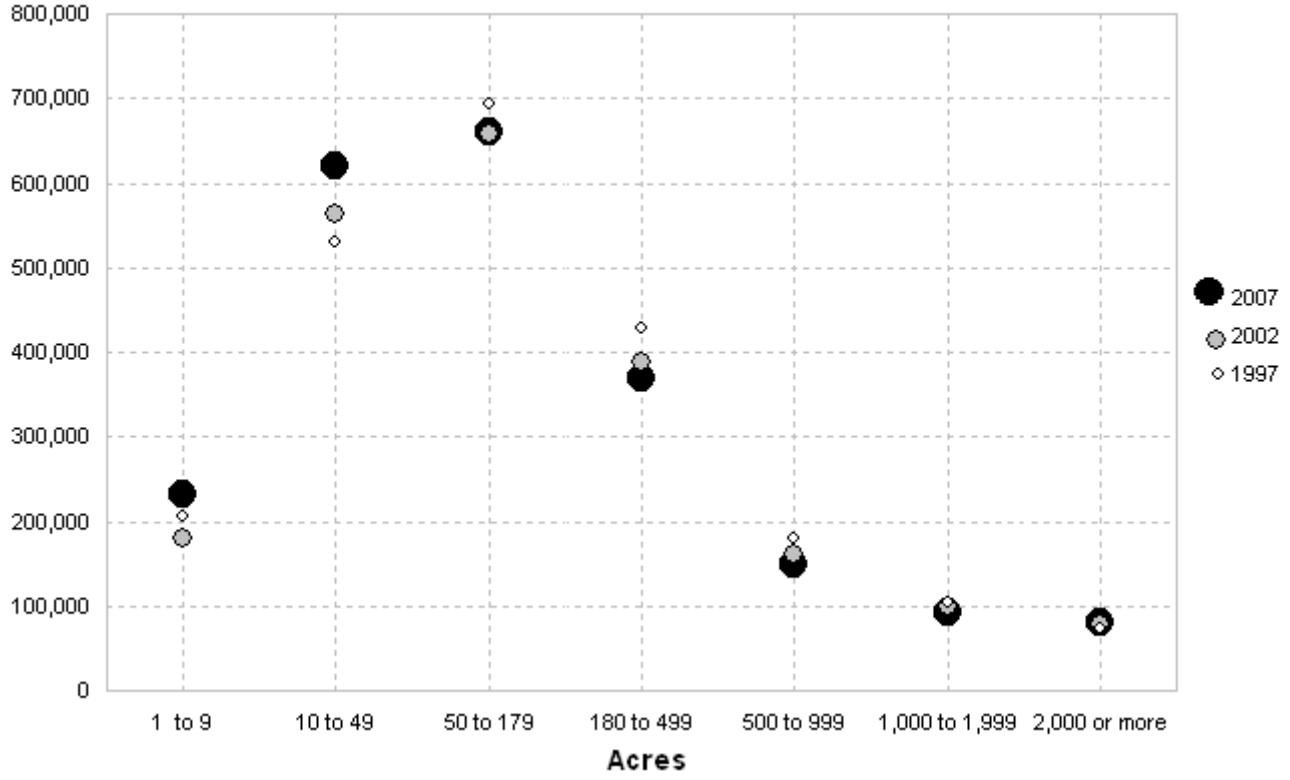


Figure 3. Farms by Market Value of Agricultural Products Sold

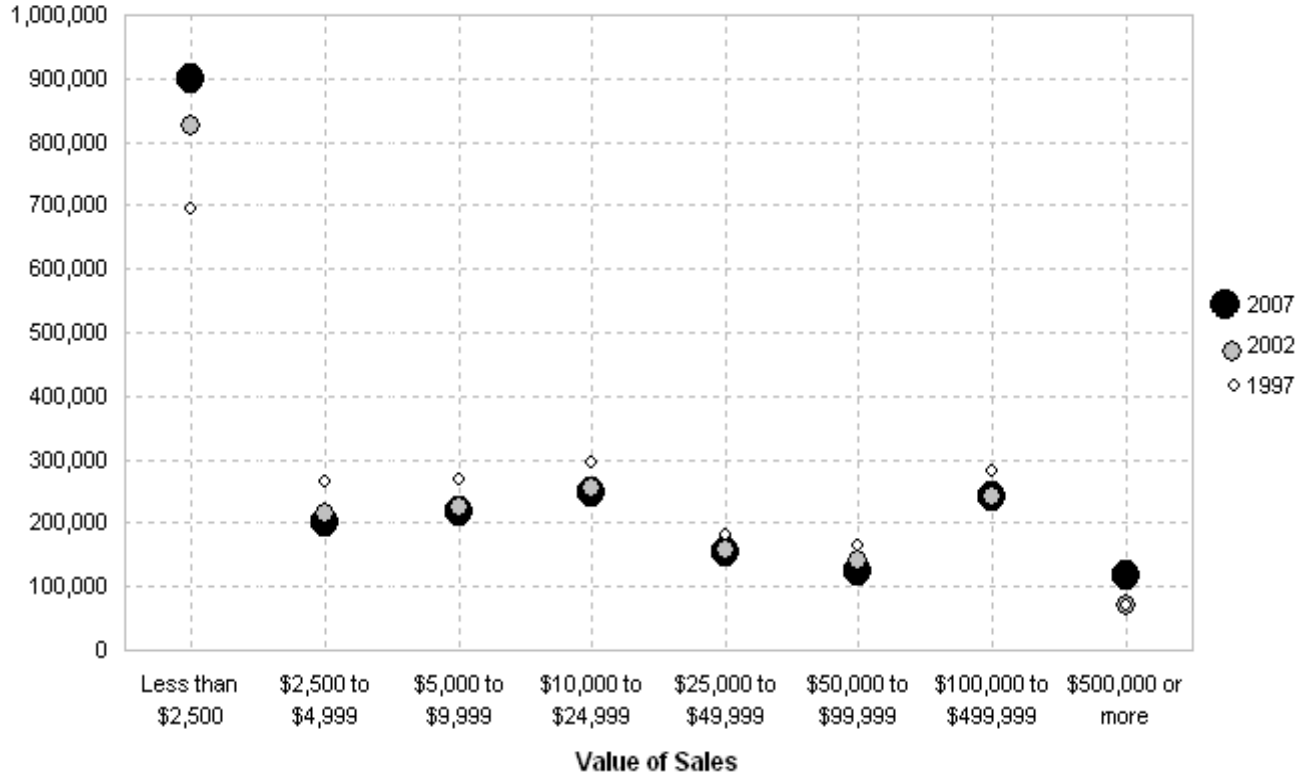


Figure 4. Market Value of Agricultural Products Sold

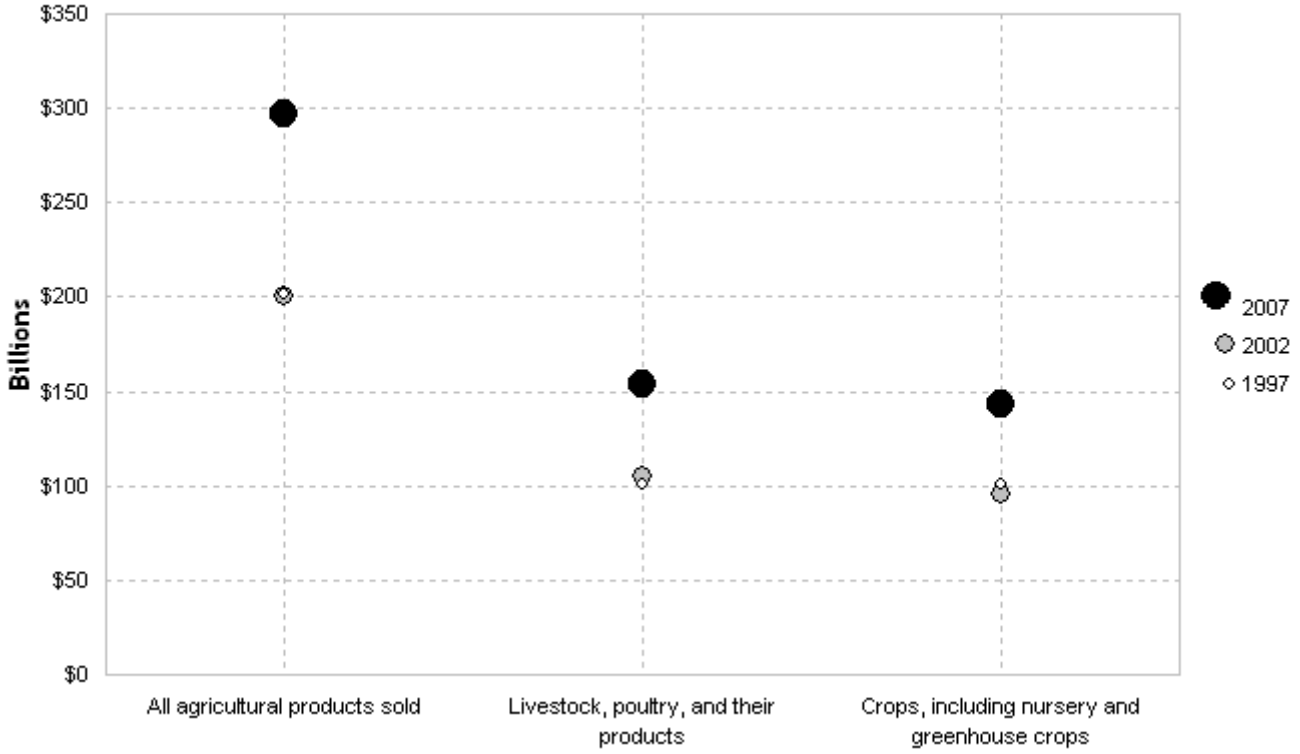


Figure 5. Average Market Value per Farm

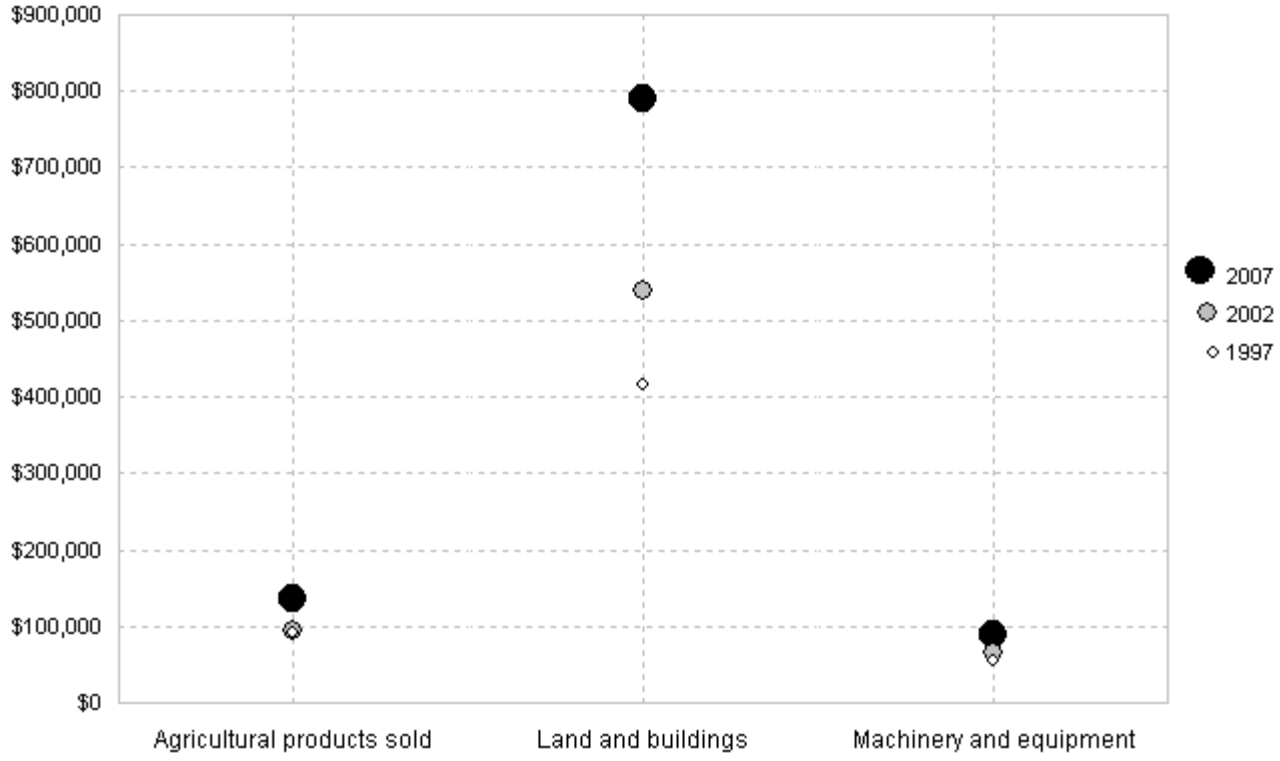


Figure 6. Selected Farm Production Expenses

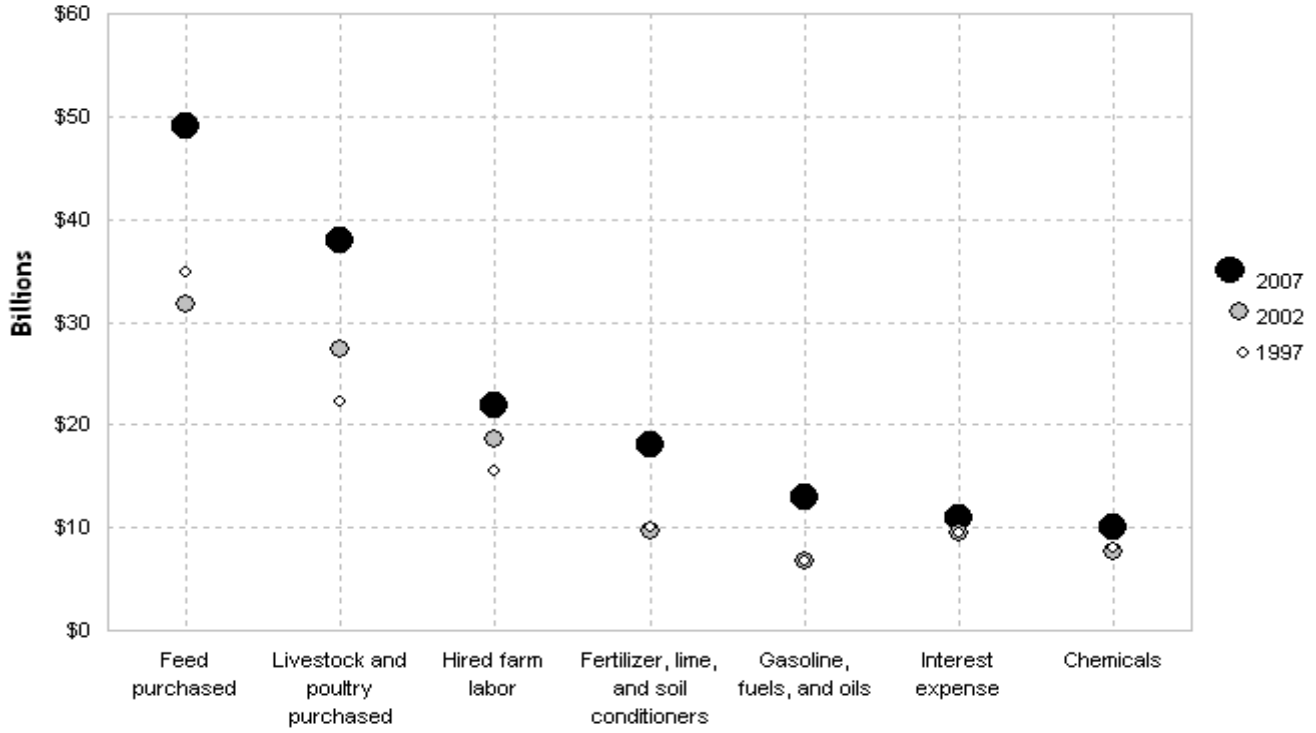


Figure 7. Selected Farm Production Expenses - Percent of Total

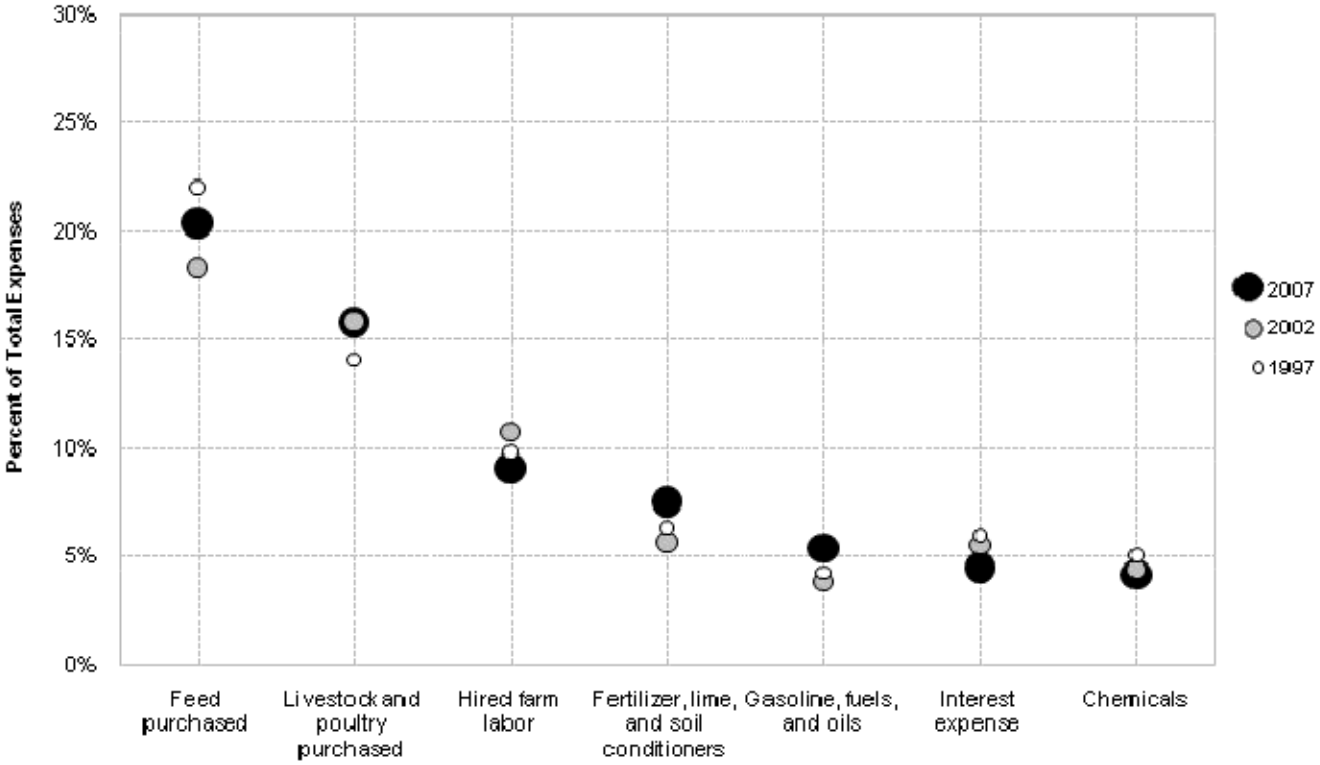


Figure 8. Farms by Type of Organization - Percent of Total

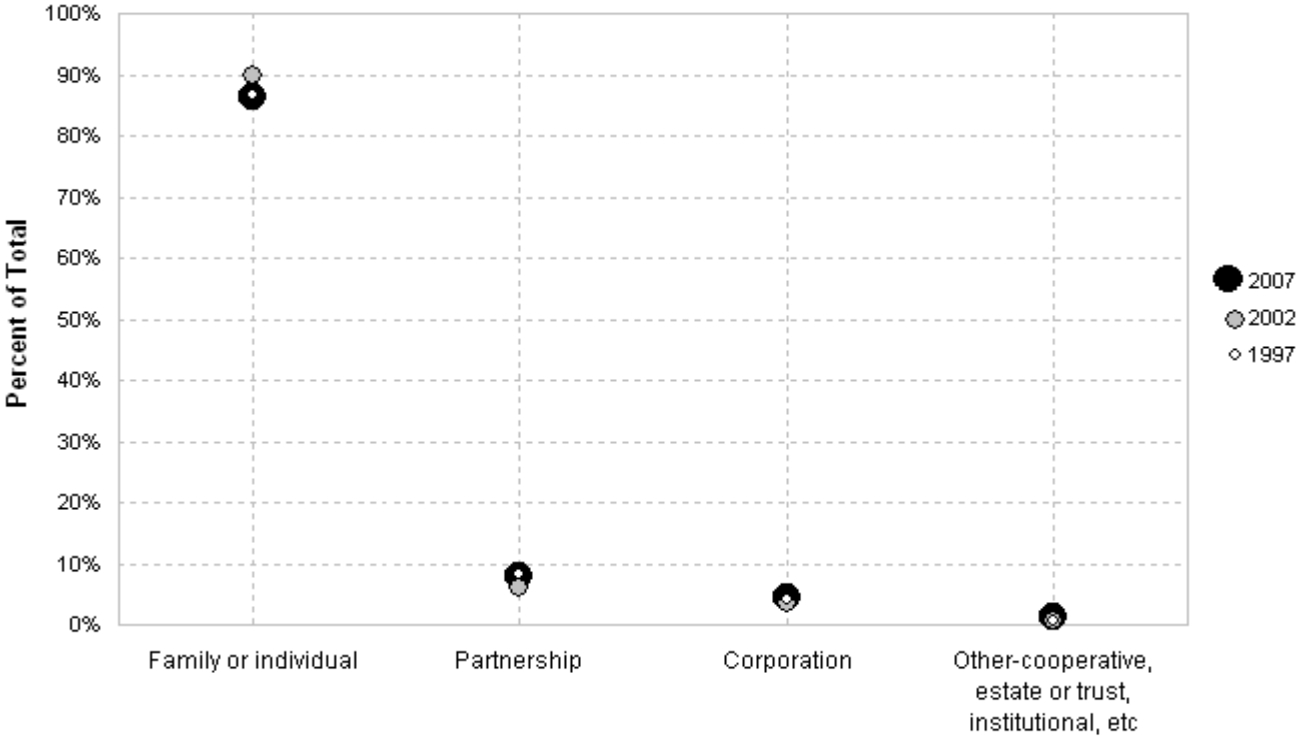


Figure 9. Principal Operator by Primary Occupation- Percent of Total

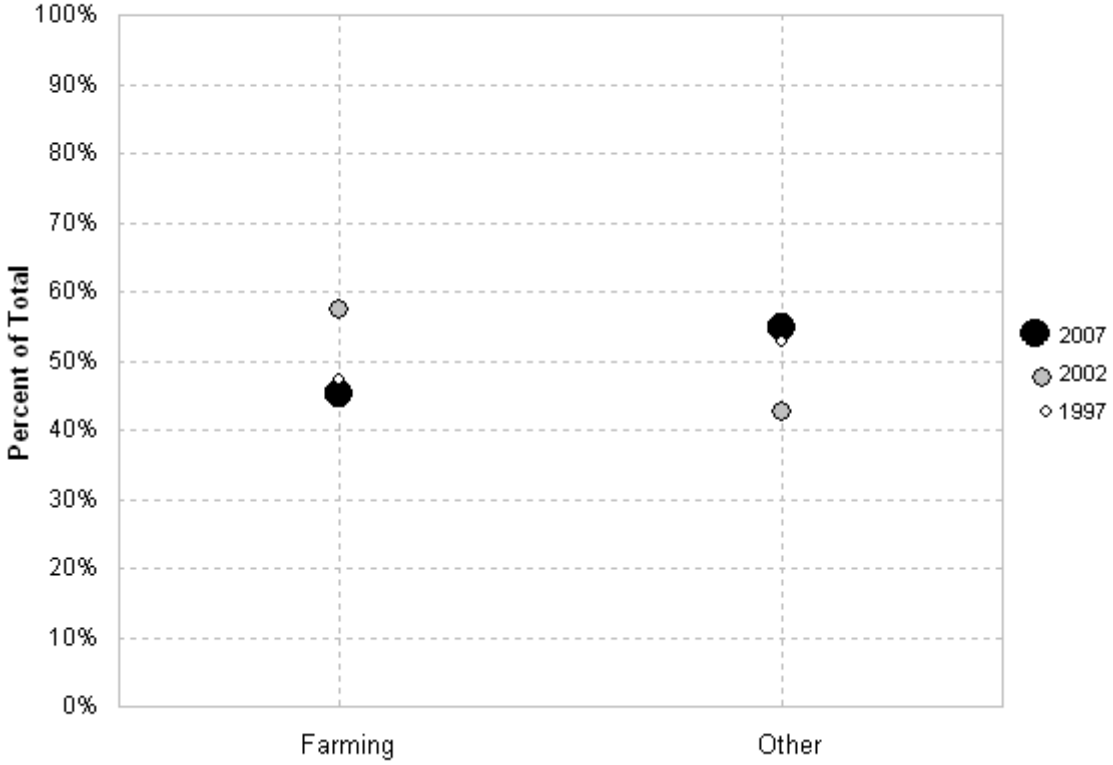


Table 1. **Historical Highlights: 2007 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text]

All farms	2007	2002	1997	Not adjusted for coverage				
				1997	1992	1987	1982	1978
Farms ..... number	2,204,792	2,128,982	2,215,876	1,911,859	1,925,300	2,087,759	2,240,976	2,257,775
Land in farms ..... acres	922,095,840	938,279,056	954,752,502	931,795,255	945,531,506	964,470,625	986,796,579	1,014,777,234
Average size of farm ..... acres	418	441	431	487	491	462	440	449
Estimated market value of land and buildings [1]:								
Average per farm ..... dollars	791,138	537,833	416,007	449,748	357,056	289,387	345,869	279,672
Average per acre ..... dollars	1,892	1,213	967	933	727	627	784	619
Estimated market value of all machinery and equipment [1] $1,000	194,783,471	136,624,880	119,302,923	110,256,802	93,316,496	85,801,360	93,662,947	77,600,689
Average per farm ..... dollars	88,357	66,570	53,861	57,678	48,605	41,227	41,919	34,471
Farms by size:								
1 to 9 acres	232,849	179,346	205,390	153,515	166,496	183,257	187,665	151,233
10 to 49 acres	620,283	563,772	530,902	410,833	387,711	412,437	449,252	391,554
50 to 179 acres	660,530	658,705	694,489	592,972	584,146	644,849	711,652	759,047
180 to 499 acres	368,368	388,617	428,215	402,769	427,648	478,294	526,510	581,631
500 to 999 acres	149,713	161,552	179,447	175,690	186,387	200,058	203,925	213,209
1,000 to 1,999 acres	92,656	99,020	103,007	101,468	101,923	102,078	97,395	97,800
2,000 acres or more	80,393	77,970	74,426	74,612	70,989	66,786	64,577	63,301
Total cropland ..... farms	1,685,339	1,751,450	1,857,239	1,661,395	1,697,137	1,848,574	2,010,609	2,081,604
acres	406,424,909	434,164,946	445,324,765	431,144,896	435,365,878	443,318,233	445,362,028	453,874,133
Harvested cropland ..... farms	1,328,004	1,362,608	1,545,681	1,410,606	1,491,786	1,643,633	1,809,756	1,904,602
acres	309,607,601	302,697,252	318,937,401	309,395,475	295,936,976	282,223,880	326,306,462	317,145,955
Irrigated land ..... farms	301,028	299,583	308,818	279,442	279,357	291,628	278,277	280,779
acres	56,599,305	55,311,236	56,289,172	55,058,128	49,404,030	46,386,201	49,002,433	50,349,906
Market value of agricultural products sold (see text) $1,000	297,220,491	200,646,355	201,379,812	196,864,649	162,608,334	136,048,516	131,900,223	107,073,458
Average per farm ..... dollars	134,807	94,245	90,880	102,970	84,459	65,165	58,858	47,424
Crops, including nursery and greenhouse crops $1,000	143,657,928	95,151,954	100,668,794	98,055,656	75,228,256	58,931,085	62,256,087	48,203,200
Livestock, poultry, and their products $1,000	153,562,563	105,494,401	100,711,018	98,808,993	87,380,078	77,117,431	69,644,136	58,870,258
Farms by value of sales [2]:								
Less than $2,500	900,327	826,558	693,026	496,514	422,767	490,296	536,327	460,535
$2,500 to $4,999	200,302	213,326	265,667	228,477	231,867	262,918	278,208	300,699
$5,000 to $9,999	218,531	223,168	267,575	237,975	251,883	274,972	281,802	314,088
$10,000 to $24,999	248,285	256,157	293,639	274,040	301,804	326,166	340,254	394,876
$25,000 to $49,999	154,732	157,906	179,629	170,705	195,354	219,636	248,828	300,515
$50,000 to $99,999	125,456	140,479	163,510	158,160	187,760	218,050	251,501	263,092
$100,000 to $499,999	240,873	240,746	282,422	277,194	286,951	263,698	274,580	203,695
$500,000 or more	116,286	70,642	70,408	68,794	46,914	32,023	27,800	17,973
Farms by type of organization:								
Family or individual	1,906,335	1,909,598	1,922,590	1,643,424	1,653,491	1,809,324	1,945,639	1,965,860
Partnership	174,247	129,593	185,607	169,462	186,806	199,559	223,274	232,538
Corporation	96,074	73,752	90,432	84,002	72,567	66,969	59,792	50,231
Other-cooperative, estate or trust, institutional, etc	28,136	16,039	17,247	14,971	12,436	11,907	12,271	9,146
Principal operator by days of work off farm [3]:								
None	777,747	962,200	832,585	755,254	801,881	844,476	861,798	942,803
Any	1,427,045	1,166,782	1,254,537	1,042,158	992,773	1,115,560	1,187,374	1,203,286
200 days or more	876,301	832,348	870,945	709,279	665,570	737,206	774,844	770,045
Principal operator by primary occupation:								
Farming	993,881	1,224,246	1,044,388	961,560	1,053,150	1,138,179	1,234,787	1,269,305
Other	1,210,911	904,736	1,171,488	950,299	872,150	949,580	1,006,189	988,470
Average age of principal operator ..... years	57.1	55.3	54.0	54.3	53.3	52.0	50.5	50.3
Total farm production expenses [1] $1,000	241,113,666	173,199,216	157,752,357	150,590,993	130,779,261	108,138,053	(NA)	(NA)
Selected farm production expenses [1]:								
Livestock and poultry purchased or leased (see text) $1,000	38,003,682	27,420,965	22,213,229	21,614,559	23,043,431	19,344,645	17,174,334	16,039,244
Feed purchased $1,000	49,095,106	31,694,850	34,749,048	32,759,966	24,084,507	19,163,364	18,591,984	15,785,995
Fertilizer, lime, and soil conditioners [4 5] $1,000	18,107,194	9,751,460	9,999,752	9,597,128	8,204,324	6,684,944	7,689,365	6,330,581
Gasoline, fuels, and oils $1,000	12,912,179	6,675,419	6,715,936	6,371,515	6,120,452	5,277,227	7,888,052	4,691,425
Hired farm labor $1,000	21,877,661	18,568,446	15,457,896	14,841,036	12,961,639	10,866,236	8,441,180	6,814,428
Interest expense [6] $1,000	10,880,731	9,571,577	9,392,431	8,928,107	8,111,337	8,158,268	11,668,942	(NA)
Chemicals [4] $1,000	10,074,914	7,608,921	7,934,936	7,581,424	6,133,705	4,690,243	4,282,213	2,889,503
Livestock and poultry:								
Cattle and calves inventory ..... farms	963,669	1,018,359	1,188,659	1,046,863	1,074,349	1,176,346	1,354,992	1,346,106
number	96,347,858	95,497,994	99,907,017	98,989,244	96,135,825	95,847,299	104,475,827	103,865,109
Beef cows ..... farms	764,984	796,436	899,756	804,595	803,241	841,778	957,698	954,360
number	32,834,801	33,398,271	34,193,965	34,066,615	32,545,976	31,652,593	34,202,607	34,326,274
Milk cows ..... farms	69,890	91,989	125,041	116,874	155,339	202,068	277,762	312,095
number	9,266,574	9,103,959	9,139,812	9,095,439	9,491,818	10,084,697	10,849,890	10,221,692
Cattle and calves sold ..... farms	798,290	851,971	1,121,003	1,011,809	1,034,189	1,150,523	1,278,609	1,320,163
number	74,071,936	73,509,165	75,005,184	74,089,046	70,562,908	72,603,841	71,216,727	78,020,351
Hogs and pigs inventory ..... farms	75,442	78,895	124,889	109,754	191,347	243,398	329,833	445,117
number	67,786,318	60,405,103	61,188,149	61,206,236	57,563,118	52,271,120	55,366,205	57,697,318
Hogs and pigs sold ..... farms	74,789	82,028	112,377	102,106	188,167	238,819	315,095	423,578
number	206,807,181	184,997,686	142,956,569	142,611,882	111,326,807	96,569,359	94,783,598	90,757,143
Layers inventory (see text) ..... farms	145,615	98,315	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
number	349,772,508	334,435,155	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Broilers and other meat-type chickens sold ..... farms	27,091	32,006	27,737	23,937	23,949	27,645	30,100	31,743
number	8,914,828,122	8,500,313,357	7,366,526,456	6,741,927,110	5,428,589,485	4,361,975,630	3,516,622,889	3,062,154,490

See footnote(s) at end of table.

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Table 1. **Historical Highlights: 2007 and Earlier Census Years** - Con.

[For meaning of abbreviations and symbols, see introductory text]

All farms	2007	2002	1997	Not adjusted for coverage				
				1997	1992	1987	1982	1978
Selected crops harvested:								
Corn for grain ....farms	347,760	348,590	450,520	430,711	503,935	627,602	715,171	810,577
acres	86,248,542	68,230,523	71,088,454	69,796,716	69,339,869	58,701,505	69,857,993	70,043,480
bushels	12,738,519,330	8,613,061,814	8,732,478,098	8,578,634,770	8,697,362,804	6,725,001,837	7,508,721,493	6,805,185,861
Corn for silage or greenchop ....farms	84,317	103,621	123,325	119,308	(NA)	(NA)	(NA)	(NA)
acres	5,979,661	6,683,995	5,771,666	5,727,594	(NA)	(NA)	(NA)	(NA)
tons	104,224,795	97,132,738	89,219,954	88,380,934	(NA)	(NA)	(NA)	(NA)
Wheat for grain, all ....farms	160,810	169,528	252,922	243,568	292,464	352,237	446,075	378,574
acres	50,932,969	45,519,976	62,084,743	58,836,344	59,089,470	53,224,174	70,910,293	54,155,168
bushels	1,993,648,378	1,577,005,140	2,329,807,815	2,204,026,684	2,206,729,476	1,887,103,964	2,373,246,659	1,607,540,430
Winter wheat for grain ....farms	136,103	141,062	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres	35,785,969	29,303,293	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
bushels	1,444,540,438	1,104,334,391	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Durum wheat for grain ....farms	3,723	5,325	7,070	6,887	(NA)	(NA)	(NA)	(NA)
acres	2,138,734	2,717,841	3,202,949	3,099,732	(NA)	(NA)	(NA)	(NA)
bushels	73,201,303	81,170,077	88,251,199	85,802,466	(NA)	(NA)	(NA)	(NA)
Spring wheat for grain ....farms	28,733	30,333	47,193	46,268	(NA)	(NA)	(NA)	(NA)
acres	13,008,266	13,498,842	18,024,687	17,488,113	(NA)	(NA)	(NA)	(NA)
bushels	475,906,637	391,500,672	537,892,213	519,176,940	(NA)	(NA)	(NA)	(NA)
Oats for grain ....farms	42,558	63,763	94,811	89,606	(NA)	(NA)	(NA)	(NA)
acres	1,509,149	1,996,916	2,739,810	2,680,958	(NA)	(NA)	(NA)	(NA)
bushels	89,508,669	109,840,449	154,654,269	151,327,329	(NA)	(NA)	(NA)	(NA)
Barley for grain ....farms	19,848	24,747	43,269	41,930	(NA)	(NA)	(NA)	(NA)
acres	3,521,957	4,015,654	6,108,682	5,944,951	(NA)	(NA)	(NA)	(NA)
bushels	207,089,232	214,800,035	346,413,080	336,435,009	(NA)	(NA)	(NA)	(NA)
Sorghum for grain ....farms	26,242	33,172	50,860	49,397	(NA)	(NA)	(NA)	(NA)
acres	6,769,834	6,755,326	8,647,643	8,470,353	(NA)	(NA)	(NA)	(NA)
bushels	482,452,865	333,485,523	569,984,239	559,070,136	(NA)	(NA)	(NA)	(NA)
Sorghum for silage or greenchop ....farms	5,625	7,042	7,962	7,918	(NA)	(NA)	(NA)	(NA)
acres	450,041	406,031	384,320	382,024	(NA)	(NA)	(NA)	(NA)
tons	5,763,450	3,904,834	4,669,985	4,640,291	(NA)	(NA)	(NA)	(NA)
Soybeans for beans ....farms	279,110	317,611	367,300	354,692	381,000	441,899	511,229	537,037
acres	63,915,821	72,399,844	67,773,274	66,147,726	56,351,304	55,291,205	64,832,842	61,339,849
bushels	2,582,423,697	2,707,719,216	2,560,330,804	2,504,307,294	2,053,163,265	1,838,053,979	1,989,993,158	1,722,154,229
Dry edible beans, excluding limas ....farms	6,236	8,647	11,348	10,911	(NA)	(NA)	(NA)	(NA)
acres	1,455,549	1,691,775	1,731,898	1,691,899	(NA)	(NA)	(NA)	(NA)
cwt	25,353,900	29,687,475	27,888,555	27,223,851	(NA)	(NA)	(NA)	(NA)
Cotton, all ....farms	18,605	24,805	33,640	31,493	34,812	43,046	38,266	52,628
acres	10,493,238	12,456,162	13,897,404	13,235,236	10,961,720	9,826,081	9,781,404	12,693,772
bales	18,898,128	17,145,345	18,706,703	17,878,743	15,370,310	13,280,143	11,375,524	10,686,447
Tobacco ....farms	16,234	56,977	93,530	89,706	124,270	136,682	179,141	188,649
acres	359,846	428,631	837,363	838,530	831,231	633,310	931,655	963,224
pounds	778,301,825	873,350,412	1,744,192,909	1,747,702,321	1,697,831,562	1,215,221,360	1,871,309,459	1,918,189,782
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ....farms	869,534	884,831	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres	61,455,483	64,041,337	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
tons, dry	155,393,762	154,976,932	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Rice ....farms	6,084	8,046	9,627	9,291	(NA)	(NA)	(NA)	(NA)
acres	2,758,792	3,197,641	3,161,576	3,122,120	(NA)	(NA)	(NA)	(NA)
cwt	198,538,690	210,358,014	184,412,536	182,231,457	(NA)	(NA)	(NA)	(NA)
Sunflower seed, all ....farms	6,403	7,506	11,176	11,067	(NA)	(NA)	(NA)	(NA)
acres	2,000,153	1,833,435	(D)	2,534,708	(NA)	(NA)	(NA)	(NA)
pounds	2,820,962,445	2,042,510,240	(D)	3,198,790,249	(NA)	(NA)	(NA)	(NA)
Sugarbeets for sugar ....farms	4,022	5,027	7,057	7,102	(NA)	(NA)	(NA)	(NA)
acres	1,253,817	1,365,769	1,449,819	1,453,824	(NA)	(NA)	(NA)	(NA)
tons	31,937,325	27,793,126	29,740,760	29,775,479	(NA)	(NA)	(NA)	(NA)
Sugarcane for sugar ....farms	692	953	1,079	973	(NA)	(NA)	(NA)	(NA)
acres	846,666	978,393	890,193	875,180	(NA)	(NA)	(NA)	(NA)
tons	31,127,405	35,319,767	31,986,258	31,549,377	(NA)	(NA)	(NA)	(NA)
Pineapples harvested ....farms	42	34	28	28	(NA)	(NA)	(NA)	(NA)
acres	(D)	10,211	(D)	(D)	(NA)	(NA)	(NA)	(NA)
tons	(D)	314,626	(D)	(D)	(NA)	(NA)	(NA)	(NA)
Peanuts for nuts ....farms	6,182	8,640	12,788	12,221	(NA)	(NA)	(NA)	(NA)
acres	1,200,564	1,223,093	1,377,097	1,352,155	(NA)	(NA)	(NA)	(NA)
pounds	3,703,138,887	3,137,586,781	3,434,648,039	3,377,142,874	(NA)	(NA)	(NA)	(NA)
Vegetables harvested for sale (see text) [7] ....farms	69,172	54,391	60,631	53,727	61,969	60,819	69,109	73,183
acres	4,682,588	3,698,744	3,906,983	3,773,219	3,782,358	3,467,563	3,330,637	3,534,142
Potatoes ....farms	15,014	9,408	11,649	10,523	(NA)	(NA)	(NA)	(NA)
acres	1,131,963	1,266,087	1,372,458	1,355,241	(NA)	(NA)	(NA)	(NA)
Sweet potatoes ....farms	1,910	2,366	1,976	1,770	(NA)	(NA)	(NA)	(NA)
acres	105,284	92,310	80,953	77,384	(NA)	(NA)	(NA)	(NA)
Land in orchards ....farms	115,935	113,649	123,420	106,069	116,207	120,434	123,663	121,852
acres	5,039,476	5,330,439	5,349,292	5,158,064	4,770,778	4,560,163	4,750,667	4,463,627

[1] Data for 2002 and prior years are based on a sample of farms.
[2] Data for 1982 and 1978 exclude abnormal farms.
[3] Data for 1997 and prior years do not include imputation for item nonresponse.
[4] Data for 1982 and 1978 do not include cost of custom applications; data for chemicals include the cost of lime for 1978.
[5] Data for 1997 and prior years exclude cost of lime and manure.
[6] 1982 data do not include imputation for item nonresponse.
[7] Data for 2002 and prior years do not include potatoes, sweet potatoes, or ginseng.

Table 2. **Market Value of Agricultural Products Sold Including Landlord's Share and Direct Sales: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item		2007	Percent of total in 2007	2002
Total sales (see text)	farms	2,204,792	100.0	2,128,982
	$1,000	297,220,491	100.0	200,646,355
Average per farm	dollars	134,807	(X)	94,245
By value of sales:				
Less than $1,000 (see text)	farms	688,833	31.2	570,919
	$1,000	84,357	(Z)	63,223
$1,000 to $2,499	farms	211,494	9.6	255,639
	$1,000	350,588	0.1	422,136
$2,500 to $4,999	farms	200,302	9.1	213,326
	$1,000	718,027	0.2	762,554
$5,000 to $9,999	farms	218,531	9.9	223,168
	$1,000	1,552,543	0.5	1,577,184
$10,000 to $19,999	farms	190,402	8.6	197,967
	$1,000	2,682,120	0.9	2,781,507
$20,000 to $24,999	farms	57,883	2.6	58,190
	$1,000	1,277,703	0.4	1,285,921
$25,000 to $39,999	farms	107,046	4.9	109,310
	$1,000	3,367,661	1.1	3,438,976
$40,000 to $49,999	farms	47,686	2.2	48,596
	$1,000	2,112,835	0.7	2,154,772
$50,000 to $99,999	farms	125,456	5.7	140,479
	$1,000	8,961,255	3.0	10,024,295
$100,000 to $249,999	farms	147,500	6.7	159,052
	$1,000	24,212,940	8.1	25,401,608
$250,000 to $499,999	farms	93,373	4.2	81,694
	$1,000	33,409,883	11.2	28,530,105
$500,000 to $999,999	farms	60,777	2.8	41,969
	$1,000	42,690,783	14.4	28,944,401
$1,000,000 or more	farms	55,509	2.5	28,673
	$1,000	175,799,795	59.1	95,259,672
$1,000,000 to $2,499,999	farms	40,390	1.8	20,724
	$1,000	60,549,290	20.4	30,618,426
$2,500,000 to $4,999,999	farms	9,578	0.4	4,611
	$1,000	32,299,503	10.9	15,700,332
$5,000,000 or more	farms	5,541	0.3	3,338
	$1,000	82,951,002	27.9	48,940,914
Value of sales by commodity or commodity group:				
Crops, including nursery and greenhouse	farms	986,080	44.7	944,656
	$1,000	143,657,928	48.3	95,151,954
Grains, oilseeds, dry beans, and dry peas	farms	479,467	21.7	485,124
	$1,000	77,215,262	26.0	39,957,698
Corn	farms	347,540	15.8	(NA)
	$1,000	39,909,600	13.4	(NA)
Wheat	farms	159,527	7.2	(NA)
	$1,000	10,623,640	3.6	(NA)
Soybeans	farms	285,089	12.9	(NA)
	$1,000	20,283,986	6.8	(NA)
Sorghum	farms	27,142	1.2	(NA)
	$1,000	1,651,798	0.6	(NA)
Barley	farms	18,326	0.8	(NA)
	$1,000	701,047	0.2	(NA)
Rice	farms	6,085	0.3	(NA)
	$1,000	2,020,231	0.7	(NA)
Other grains, oilseeds, dry beans, and dry peas	farms	55,228	2.5	(NA)
	$1,000	2,024,959	0.7	(NA)
Tobacco	farms	16,228	0.7	56,879
	$1,000	1,268,114	0.4	1,616,533
Cotton and cottonseed	farms	18,591	0.8	24,721
	$1,000	4,898,608	1.6	4,005,366
Vegetables, melons, potatoes, and sweet potatoes	farms	69,100	3.1	59,044
	$1,000	14,683,058	4.9	12,785,898
Total sales (see text) - Con.				
Value of sales by commodity or commodity group - Con.				
Crops, including nursery and greenhouse - Con.				
Fruits, tree nuts, and berries	farms	112,690	5.1	107,707
	$1,000	18,625,459	6.3	13,770,603
Nursery, greenhouse, floriculture, and sod (see text)	farms	50,784	2.3	56,070
	$1,000	16,632,734	5.6	14,686,390
Cut Christmas trees and short rotation woody crops	farms	13,374	0.6	14,744
	$1,000	384,594	0.1	399,848
Other crops and hay (see text)	farms	434,502	19.7	359,262
	$1,000	9,950,098	3.3	7,929,618
Livestock, poultry, and their products	farms	1,080,312	49.0	1,094,608
	$1,000	153,562,563	51.7	105,494,401
Poultry and eggs	farms	148,911	6.8	83,381
	$1,000	37,065,947	12.5	23,972,333
Cattle and calves	farms	798,290	36.2	851,971
	$1,000	61,209,970	20.6	45,115,184
Milk and other dairy products from cows	farms	69,763	3.2	78,963
	$1,000	31,848,029	10.7	20,281,166
Hogs and pigs	farms	74,789	3.4	82,028
	$1,000	18,056,981	6.1	12,400,977
Sheep, goats, and their products	farms	121,171	5.5	96,249
	$1,000	704,855	0.2	541,745
Horses, ponies, mules, burros, and donkeys	farms	114,317	5.2	128,045
	$1,000	2,061,862	0.7	1,328,733
Aquaculture (see text)	farms	6,409	0.3	6,653
	$1,000	1,415,271	0.5	1,132,524
Other animals and other animal products (see text)	farms	43,226	2.0	29,391
	$1,000	1,199,649	0.4	721,738
Value of landlord's share of total sales (see text)	farms	97,706	4.4	132,567
	$1,000	6,429,386	2.2	4,567,940
Value of agricultural products sold directly to individuals for human consumption (see text)	farms	136,817	6.2	116,733
	$1,000	1,211,270	0.4	812,204
Average per farm	dollars	8,853	(X)	6,958
By value of sales:				
$1 to $499	farms	35,440	1.6	32,420
	$1,000	7,217	(Z)	6,645
$500 to $999	farms	20,547	0.9	19,145
	$1,000	14,013	(Z)	13,124
$1,000 to $4,999	farms	49,957	2.3	42,660
	$1,000	113,960	(Z)	93,611
$5,000 to $9,999	farms	13,060	0.6	9,598
	$1,000	88,174	(Z)	64,517
$10,000 to $24,999	farms	10,032	0.5	7,256
	$1,000	151,063	0.1	108,766
$25,000 to $49,999	farms	3,903	0.2	2,831
	$1,000	133,328	(Z)	96,322
$50,000 or more	farms	3,878	0.2	2,823
	$1,000	703,515	0.2	429,220

Table 3. **Economic Class of Farms by Market Value of Agricultural Products Sold and Government Payments: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	2007			2002		
	Market value of agricultural products sold and government payments	Market value of agricultural products sold	Government payments	Market value of agricultural products sold and government payments	Market value of agricultural products sold	Government payments
Total ..... farms	2,204,792	2,204,792	838,391	2,128,982	2,128,982	707,596
$1,000	305,204,413	297,220,491	7,983,922	207,192,033	200,646,355	6,545,678
Average per farm ..... dollars	138,428	134,807	9,523	97,320	94,245	9,251
By economic class (see text):						
Less than $1,000 (see text) ..... farms	499,880	499,880	42,392	430,953	430,953	32,113
$1,000	96,287	76,839	19,447	72,256	57,982	14,274
$1,000 to $2,499 ..... farms	270,712	270,712	84,577	307,368	307,368	78,955
$1,000	448,240	332,461	115,779	508,032	406,419	101,613
$2,500 to $4,999 ..... farms	246,309	246,309	79,547	243,026	243,026	63,640
$1,000	883,995	684,721	199,274	869,724	730,080	139,644
$5,000 to $9,999 ..... farms	254,834	254,834	86,525	246,624	246,624	74,071
$1,000	1,810,538	1,487,807	322,731	1,746,161	1,516,014	230,147
$10,000 to $24,999 ..... farms	274,274	274,274	110,475	272,333	272,333	99,095
$1,000	4,363,801	3,809,812	553,989	4,320,060	3,898,412	421,647
$25,000 to $49,999 ..... farms	163,500	163,500	85,763	163,521	163,521	77,352
$1,000	5,794,771	5,286,277	508,494	5,804,256	5,351,075	453,181
$50,000 to $99,999 ..... farms	129,124	129,124	83,208	142,532	142,532	80,572
$1,000	9,219,416	8,644,217	575,199	10,201,815	9,565,866	635,949
$100,000 to $249,999 ..... farms	149,049	149,049	109,858	162,831	162,831	105,162
$1,000	24,400,981	23,255,874	1,145,107	26,118,804	24,669,460	1,449,344
$250,000 to $499,999 ..... farms	96,251	96,251	74,977	85,909	85,909	55,887
$1,000	34,366,766	32,979,970	1,386,796	30,084,128	28,737,798	1,346,330
$500,000 to $999,999 ..... farms	63,567	63,567	46,387	44,348	44,348	26,437
$1,000	44,578,145	43,155,934	1,422,210	30,597,894	29,645,206	952,687
$1,000,000 or more ..... farms	57,292	57,292	34,682	29,537	29,537	14,312
$1,000	179,241,475	177,506,579	1,734,896	96,868,904	96,068,044	800,861
$1,000,000 to $2,499,999 ..... farms	41,863	41,863	26,894	21,460	21,460	11,131
$1,000	62,751,056	61,508,308	1,242,748	31,701,358	31,119,399	581,958
$2,500,000 to $4,999,999 ..... farms	9,845	9,845	5,606	4,719	4,719	2,093
$1,000	33,190,470	32,838,901	351,569	16,055,540	15,910,405	145,135
$5,000,000 or more ..... farms	5,584	5,584	2,182	3,358	3,358	1,088
$1,000	83,299,949	83,159,370	140,579	49,112,006	49,038,239	73,767

Table 4. **Farm Production Expenses: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	2007		2002 [1]	
	Farms	Expenses ($1,000)	Farms	Expenses ($1,000)
Total farm production expenses ..... farms	2,204,792	(X)	2,128,739	(X)
$1,000	(X)	241,113,666	(X)	173,199,216
Average per farm ..... dollars	(X)	109,359	(X)	81,362
Farms with expenses of-				
$1 to $4,999	644,719	1,655,720	684,419	1,695,592
$5,000 to $9,999	403,952	2,916,158	382,830	2,759,610
$10,000 to $24,999	459,374	7,302,343	414,513	6,575,093
$25,000 to $49,999	224,454	7,889,886	207,376	7,318,953
$50,000 to $99,999	153,001	10,838,004	158,459	11,290,294
$100,000 to $249,999	152,309	24,360,578	157,390	24,876,960
$250,000 to $499,999	80,173	28,206,925	68,886	23,918,374
$500,000 or more	86,810	157,944,051	54,866	94,764,340
$500,000 to $999,999	48,097	33,642,494	33,455	22,936,146
$1,000,000 to $2,499,999	28,358	42,316,707	15,467	22,853,457
$2,500,000 or more	10,355	81,984,849	5,944	48,974,736
Fertilizer, lime, and soil conditioners purchased ..... farms	1,148,218	(X)	1,189,850	(X)
$1,000	(X)	18,107,194	(X)	9,751,460
percent of total	(X)	7.5	(X)	5.6
Farms with expenses of-				
$1 to $499	226,075	51,543	297,129	69,615
$500 to $999	146,916	100,835	176,830	121,878
$1,000 to $4,999	361,940	845,892	375,137	869,786
$5,000 to $9,999	120,976	834,074	123,464	851,112
$10,000 to $24,999	128,570	2,010,462	122,943	1,908,074
$25,000 to $49,999	74,633	2,606,599	57,486	1,963,547
$50,000 to $99,999	51,569	3,539,258	26,158	1,748,718
$100,000 or more	37,539	8,118,531	10,703	2,218,728
Chemicals purchased ..... farms	918,604	(X)	947,279	(X)
$1,000	(X)	10,074,914	(X)	7,608,921
percent of total	(X)	4.2	(X)	4.4
Farms with expenses of-				
$1 to $499	363,791	68,141	389,490	69,595
$500 to $999	101,325	66,773	105,801	71,044
$1,000 to $4,999	200,968	469,643	216,565	510,715
$5,000 to $9,999	74,975	516,869	80,770	560,551
$10,000 to $24,999	87,810	1,371,239	87,705	1,357,507
$25,000 to $49,999	46,594	1,597,703	38,385	1,303,594
$50,000 or more	43,141	5,984,544	28,563	3,735,916
$50,000 to $99,999	25,974	1,754,115	18,221	1,221,758
$100,000 or more	17,167	4,230,429	10,342	2,514,158
Seeds, plants, vines, and trees ..... farms	775,893	(X)	874,634	(X)
$1,000	(X)	11,740,521	(X)	7,598,706
percent of total	(X)	4.9	(X)	4.4
Farms with expenses of-				
$1 to $499	214,856	44,031	292,770	57,661
$500 to $999	87,308	59,180	105,454	71,931
$1,000 to $4,999	192,154	460,175	229,549	546,116
$5,000 to $9,999	78,764	551,183	86,922	606,811
$10,000 to $24,999	94,698	1,496,210	93,704	1,465,651
$25,000 or more	108,113	9,129,742	66,235	4,850,535
$25,000 to $49,999	56,320	1,959,350	41,571	1,418,259
$50,000 or more	51,793	7,170,392	24,664	3,432,277
Livestock and poultry purchased or leased (see text) ..... farms	490,819	(X)	553,714	(X)
$1,000	(X)	38,003,682	(X)	27,420,965
percent of total	(X)	15.8	(X)	15.8
Farms with expenses of-				
$1 to $999	124,612	50,125	188,952	80,084
$1,000 to $4,999	181,802	415,611	201,697	451,427
$5,000 to $9,999	53,636	364,796	46,910	319,483
$10,000 to $24,999	43,805	666,559	40,216	624,519
$25,000 to $49,999	22,469	787,765	24,908	893,573
$50,000 to $99,999	20,299	1,432,045	20,905	1,472,883
$100,000 to $249,999	24,183	3,794,351	17,402	2,677,616
$250,000 or more	20,013	30,492,430	12,724	20,901,380
$250,000 to $499,999	10,282	3,558,871	6,683	2,318,534
$500,000 to $999,999	5,407	3,691,579	3,200	2,182,095
$1,000,000 or more	4,324	23,241,980	2,841	16,400,751
Breeding livestock purchased or leased (see text) [2] ..... farms	278,572	(X)	316,013	(X)
$1,000	(X)	3,599,873	(X)	2,037,136
percent of total	(X)	1.5	(X)	1.2
Farms with expenses of-				
$1 to $999	62,767	28,757	114,452	53,951
$1,000 to $4,999	129,211	291,766	142,588	314,166
$5,000 to $9,999	36,423	245,581	30,410	203,473
$10,000 to $24,999	29,163	435,262	17,995	267,365
$25,000 to $49,999	10,672	361,181	5,751	194,919
$50,000 to $99,999	5,544	372,762	2,465	165,736
$100,000 to $249,999	3,287	479,333	1,469	218,908
$250,000 or more	1,505	1,385,231	883	618,619
$250,000 to $499,999	831	276,556	492	166,219
$500,000 to $999,999	359	239,095	233	151,388
$1,000,000 or more	315	869,580	158	301,013
Other livestock and poultry purchased or leased (see text) ..... farms	279,155	(X)	309,818	(X)
$1,000	(X)	34,403,809	(X)	25,383,829
percent of total	(X)	14.3	(X)	14.7
Farms with expenses of-				
$1 to $999	95,601	33,118	116,571	40,170
$1,000 to $4,999	77,406	173,027	82,119	184,126
$5,000 to $9,999	20,942	141,412	20,055	138,968

See footnote(s) at end of table.

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Table 4. **Farm Production Expenses: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	2007		2002 [1]	
	Farms	Expenses ($1,000)	Farms	Expenses ($1,000)
Total farm production expenses - Con.				
Livestock and poultry purchased or leased (see text) - Con.				
Other livestock and poultry purchased or leased (see text) - Con.				
Farms with expenses of- Con.				
$10,000 to $24,999	17,664	273,161	24,612	391,826
$25,000 to $49,999	12,964	464,151	19,937	721,327
$50,000 to $99,999	15,121	1,078,629	18,914	1,337,038
$100,000 to $249,999	21,069	3,330,769	15,896	2,453,862
$250,000 or more	18,388	28,909,542	11,714	20,116,512
$250,000 to $499,999	9,406	3,261,322	6,125	2,129,914
$500,000 to $999,999	5,014	3,426,206	2,931	2,000,961
$1,000,000 or more	3,968	22,222,014	2,658	15,985,638
Feed purchased ... farms	1,135,968	(X)	1,240,747	(X)
$1,000	(X)	49,095,106	(X)	31,694,850
percent of total	(X)	20.4	(X)	18.3
Farms with expenses of-				
$1 to $999	276,754	134,022	448,091	199,950
$1,000 to $4,999	489,852	1,179,110	488,407	1,095,253
$5,000 to $9,999	145,865	980,402	109,803	742,164
$10,000 to $24,999	99,463	1,488,804	77,875	1,190,667
$25,000 to $49,999	39,387	1,359,442	39,460	1,375,142
$50,000 to $99,999	27,007	1,873,688	28,319	1,975,166
$100,000 or more	57,640	42,079,638	48,792	25,116,509
$100,000 to $249,999	23,472	3,688,690	24,780	4,028,202
$250,000 to $499,999	13,792	4,902,567	13,815	4,830,520
$500,000 to $999,999	11,774	8,180,867	6,422	4,349,224
$1,000,000 or more	8,602	25,307,514	3,775	11,908,562
Gasoline, fuels, and oils ... farms	2,148,806	(X)	2,024,139	(X)
$1,000	(X)	12,912,179	(X)	6,675,419
percent of total	(X)	5.4	(X)	3.9
Farms with expenses of-				
$1 to $999	1,060,249	389,630	1,195,911	380,309
$1,000 to $4,999	644,296	1,454,385	542,768	1,213,911
$5,000 to $9,999	176,711	1,210,387	139,637	958,887
$10,000 to $24,999	159,613	2,444,200	102,392	1,530,199
$25,000 to $49,999	64,765	2,200,834	29,049	975,011
$50,000 or more	43,172	5,212,742	14,382	1,617,102
Utilities (see text) ... farms	1,102,530	(X)	1,241,247	(X)
$1,000	(X)	5,917,615	(X)	4,874,139
percent of total	(X)	2.5	(X)	2.8
Farms with expenses of-				
$1 to $499	319,496	77,651	444,892	98,319
$500 to $999	187,064	125,516	211,603	143,465
$1,000 to $4,999	402,839	897,172	417,203	928,562
$5,000 to $9,999	94,098	636,868	86,235	584,234
$10,000 to $24,999	63,720	946,076	53,020	793,635
$25,000 or more	35,313	3,234,332	28,294	2,325,925
$25,000 to $49,999	19,269	654,485	15,968	544,468
$50,000 or more	16,044	2,579,847	12,326	1,781,457
Supplies, repairs, and maintenance ... farms	1,992,234	(X)	1,898,607	(X)
$1,000	(X)	15,896,723	(X)	13,386,560
percent of total	(X)	6.6	(X)	7.7
Farms with expenses of-				
$1 to $999	781,234	311,565	784,459	293,725
$1,000 to $4,999	697,083	1,593,073	634,389	1,451,860
$5,000 to $9,999	203,187	1,386,239	201,307	1,381,697
$10,000 to $24,999	186,784	2,850,769	174,254	2,656,967
$25,000 to $49,999	73,014	2,483,098	63,484	2,152,181
$50,000 or more	50,932	7,271,980	40,714	5,450,130
$50,000 to $99,999	32,460	2,175,746	26,450	1,782,166
$100,000 or more	18,472	5,096,233	14,264	3,667,964
Hired farm labor ... farms	482,186	(X)	554,434	(X)
$1,000	(X)	21,877,661	(X)	18,568,446
percent of total	(X)	9.1	(X)	10.7
Farms with expenses of-				
$1 to $999	133,450	55,806	182,063	71,127
$1,000 to $4,999	128,812	296,222	143,203	328,494
$5,000 to $9,999	45,178	310,084	52,284	361,128
$10,000 to $24,999	62,944	1,010,191	71,326	1,147,709
$25,000 to $49,999	44,532	1,552,151	44,660	1,555,272
$50,000 to $99,999	31,406	2,153,566	29,688	2,043,437
$100,000 or more	35,864	16,499,641	31,210	13,061,278
$100,000 to $249,999	21,237	3,209,259	18,999	2,860,137
$250,000 to $499,999	7,674	2,633,567	6,657	2,288,242
$500,000 or more	6,953	10,656,815	5,554	7,912,900
Contract labor ... farms	182,701	(X)	228,692	(X)
$1,000	(X)	4,514,166	(X)	3,451,190
percent of total	(X)	1.9	(X)	2.0
Farms with expenses of-				
$1 to $999	49,657	23,261	80,399	35,708
$1,000 to $4,999	66,104	154,932	83,102	190,041
$5,000 to $9,999	23,128	156,699	25,238	170,315
$10,000 to $24,999	22,821	347,567	22,077	334,127
$25,000 to $49,999	9,730	334,449	8,266	281,294
$50,000 or more	11,261	3,497,258	9,610	2,439,704
$50,000 to $99,999	5,425	370,081	4,585	315,770
$100,000 or more	5,836	3,127,178	5,025	2,123,935

See footnote(s) at end of table.

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Table 4. **Farm Production Expenses: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	2007		2002 [1]	
	Farms	Expenses ($1,000)	Farms	Expenses ($1,000)
Total farm production expenses - Con.				
Customwork and custom hauling ..... farms	362,475	(X)	449,633	(X)
$1,000	(X)	4,091,038	(X)	3,313,737
percent of total	(X)	1.7	(X)	1.9
Farms with expenses of-				
$1 to $999	119,768	49,523	190,127	71,542
$1,000 to $4,999	131,318	314,608	156,518	363,795
$5,000 to $9,999	45,341	312,477	46,660	321,328
$10,000 to $24,999	38,421	584,326	34,817	526,321
$25,000 to $49,999	14,558	496,996	11,716	398,978
$50,000 or more	13,069	2,333,107	9,795	1,631,774
$50,000 to $99,999	7,169	487,740	5,692	384,360
$100,000 or more	5,900	1,845,367	4,103	1,247,413
Cash rent for land, buildings, and grazing fees ..... farms	490,372	(X)	497,885	(X)
$1,000	(X)	13,274,530	(X)	9,045,945
percent of total	(X)	5.5	(X)	5.2
Farms with expenses of-				
$1 to $499	52,418	13,354	67,318	17,093
$500 to $999	46,034	31,444	54,946	37,488
$1,000 to $4,999	139,911	338,874	151,638	362,253
$5,000 to $9,999	59,281	418,157	60,431	425,011
$10,000 to $24,999	76,679	1,226,320	74,884	1,193,684
$25,000 to $49,999	49,210	1,735,259	43,457	1,521,093
$50,000 or more	66,839	9,511,123	45,211	5,489,325
Rent and lease expenses for machinery, equipment, and farm share of vehicles ..... farms	109,199	(X)	150,761	(X)
$1,000	(X)	1,385,219	(X)	1,468,423
percent of total	(X)	0.6	(X)	0.8
Farms with expenses of-				
$1 to $499	26,207	5,658	38,538	8,114
$500 to $999	13,073	8,743	17,290	11,720
$1,000 to $4,999	31,997	75,965	44,201	106,687
$5,000 to $9,999	13,193	89,342	19,303	131,841
$10,000 to $24,999	13,463	205,916	19,089	288,568
$25,000 to $49,999	5,778	195,744	7,076	240,665
$50,000 or more	5,488	803,851	5,264	680,828
Interest expense ..... farms	667,454	(X)	758,437	(X)
$1,000	(X)	10,880,731	(X)	9,571,577
percent of total	(X)	4.5	(X)	5.5
Farms with expenses of-				
$1 to $999	84,911	39,987	129,879	57,386
$1,000 to $4,999	204,965	552,135	254,895	666,770
$5,000 to $9,999	131,888	933,714	144,418	1,014,700
$10,000 to $24,999	144,100	2,236,720	142,251	2,191,290
$25,000 to $49,999	60,183	2,064,139	53,348	1,823,367
$50,000 to $99,999	27,391	1,844,320	22,576	1,521,985
$100,000 or more	14,016	3,209,716	11,070	2,296,080
Secured by real estate ..... farms	519,095	(X)	575,525	(X)
$1,000	(X)	7,185,334	(X)	6,704,002
percent of total	(X)	3.0	(X)	3.9
Farms with expenses of-				
$1 to $999	58,501	27,723	76,792	36,396
$1,000 to $4,999	171,356	467,924	208,079	555,379
$5,000 to $9,999	113,086	794,547	122,715	855,997
$10,000 to $24,999	112,218	1,704,569	110,824	1,672,207
$25,000 to $49,999	39,515	1,340,416	35,634	1,209,623
$50,000 to $99,999	16,376	1,088,482	14,484	969,119
$100,000 or more	8,043	1,761,673	6,997	1,405,280
Not secured by real estate ..... farms	413,327	(X)	405,177	(X)
$1,000	(X)	3,695,397	(X)	2,867,575
percent of total	(X)	1.5	(X)	1.7
Farms with expenses of-				
$1 to $999	122,808	52,846	128,940	53,847
$1,000 to $4,999	153,159	369,094	151,545	361,171
$5,000 to $9,999	55,182	378,324	55,960	384,976
$10,000 to $24,999	51,428	784,548	46,502	702,642
$25,000 to $49,999	18,841	635,881	14,430	488,558
$50,000 to $99,999	7,830	521,807	5,332	354,203
$100,000 or more	4,079	952,898	2,468	522,179
Property taxes paid ..... farms	1,995,808	(X)	1,962,637	(X)
$1,000	(X)	6,223,048	(X)	5,350,817
percent of total	(X)	2.6	(X)	3.1
Farms with expenses of-				
$1 to $499	454,063	105,512	524,265	123,719
$500 to $999	341,399	246,963	371,098	266,649
$1,000 to $4,999	922,357	2,119,792	828,923	1,837,703
$5,000 to $9,999	172,489	1,162,779	146,887	992,595
$10,000 to $24,999	80,800	1,176,774	70,599	1,037,795
$25,000 or more	24,700	1,411,228	20,865	1,092,356
All other production expenses (see text) ..... farms	1,115,703	(X)	1,254,079	(X)
$1,000	(X)	17,119,339	(X)	13,418,059
percent of total	(X)	7.1	(X)	7.7
Farms with expenses of-				
$1 to $999	407,085	164,687	485,923	191,768
$1,000 to $4,999	358,755	829,036	418,356	954,753
$5,000 to $9,999	116,535	805,365	136,957	937,601
$10,000 to $24,999	117,977	1,838,193	122,973	1,882,393
$25,000 to $49,999	55,174	1,914,702	47,952	1,641,257
$50,000 to $99,999	32,742	2,268,098	23,972	1,619,412
$100,000 or more	27,435	9,299,259	17,946	6,190,875
$100,000 to $249,999	19,580	2,912,175	12,303	1,830,715
$250,000 or more	7,855	6,387,085	5,643	4,360,161

See footnote(s) at end of table.

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Table 4. **Farm Production Expenses: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	2007		2002 [1]	
	Farms	Expenses ($1,000)	Farms	Expenses ($1,000)
Production expenses paid by landlords [3] ....farms	67,427	(X)	151,106	(X)
$1,000	(X)	1,556,963	(X)	1,553,363
percent of total	(X)	0.6	(X)	0.9
Farms with expenses of-				
$1 to $499	2,864	733	18,375	3,869
$500 to $999	3,185	2,323	13,476	9,647
$1,000 to $4,999	17,140	46,619	64,040	168,675
$5,000 to $9,999	11,289	80,387	18,863	133,417
$10,000 to $24,999	15,678	250,625	20,910	323,517
$25,000 or more	17,271	1,176,276	15,442	914,237
$25,000 to $49,999	9,275	324,040	9,554	325,025
$50,000 to $99,999	5,346	365,281	4,197	281,667
$100,000 or more	2,650	486,954	1,691	307,545
Depreciation expenses claimed (see text) ....farms	963,340	(X)	853,797	(X)
$1,000	(X)	20,185,540	(X)	15,389,666
percent of total	(X)	8.4	(X)	8.9
Farms with expenses of-				
$1 to $499	66,311	16,918	74,746	17,122
$500 to $999	65,279	45,670	65,702	45,084
$1,000 to $4,999	312,807	802,036	277,499	692,028
$5,000 to $9,999	160,756	1,109,621	134,780	932,081
$10,000 to $24,999	178,505	2,781,287	156,463	2,476,370
$25,000 or more	179,682	15,430,008	144,607	11,226,981
$25,000 to $49,999	89,091	3,071,659	80,688	2,779,078
$50,000 to $99,999	51,983	3,550,709	41,143	2,796,207
$100,000 or more	38,608	8,807,639	22,776	5,651,696

[1] 2002 data are based on a sample of farms.
[2] 2002 data do not include breeding livestock leased.
[3] Landlord production expenses are included within total farm production expenses.

Table 5. **Net Cash Farm Income of Operations and Operators: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	2007		2002 [1]	
	Farms	Income ($1,000)	Farms	Income ($1,000)
Net cash farm income of the operations (see text)	2,204,792	74,581,098	2,128,740	40,514,055
Average per farm ....dollars	(X)	33,827	(X)	19,032
Farms with net gains [2]	1,037,041	92,793,203	993,861	56,331,179
Average per farm ....dollars	(X)	89,479	(X)	56,679
Farms with gains of-				
less than $1,000	102,871	48,868	124,144	58,926
$1,000 to $4,999	221,477	597,359	241,585	641,893
$5,000 to $9,999	128,828	931,210	131,153	948,708
$10,000 to $24,999	170,636	2,784,542	167,489	2,728,301
$25,000 to $49,999	119,233	4,277,334	116,525	4,153,454
$50,000 or more	293,996	84,153,889	212,965	47,799,897
Farms with net losses	1,167,751	18,212,104	1,134,879	15,817,124
Average per farm ....dollars	(X)	15,596	(X)	13,937
Farms with losses of-				
less than $1,000	134,307	68,177	162,801	81,238
$1,000 to $4,999	426,570	1,186,542	436,645	1,182,088
$5,000 to $9,999	247,156	1,771,484	223,990	1,593,340
$10,000 to $24,999	225,863	3,508,974	190,168	2,938,479
$25,000 to $49,999	76,927	2,642,891	66,633	2,300,598
$50,000 or more	56,928	9,034,037	54,642	7,721,380
Net cash farm income of operators (see text)	2,204,792	64,197,836	2,128,740	33,736,140
Average per farm ....dollars	(X)	29,117	(X)	15,848
Farm operators reporting net gains [2]	1,025,783	83,150,709	996,318	50,109,938
Average per farm ....dollars	(X)	81,061	(X)	50,295
Farms with gains of-				
less than $1,000	103,330	49,052	127,811	60,222
$1,000 to $4,999	222,713	601,028	252,947	673,249
$5,000 to $9,999	129,906	939,508	134,225	970,317
$10,000 to $24,999	173,780	2,838,890	172,526	2,809,436
$25,000 to $49,999	122,964	4,413,901	120,590	4,297,534
$50,000 or more	273,090	74,308,331	188,219	41,299,180
Farm operators reporting net losses	1,179,009	18,952,873	1,132,422	16,373,798
Average per farm ....dollars	(X)	16,075	(X)	14,459
Farms with losses of-				
less than $1,000	135,011	68,495	161,193	80,157
$1,000 to $4,999	428,133	1,191,080	427,898	1,160,938
$5,000 to $9,999	248,731	1,783,013	223,801	1,593,370
$10,000 to $24,999	228,206	3,548,458	193,289	2,991,582
$25,000 to $49,999	78,919	2,715,135	68,724	2,377,936
$50,000 or more	60,009	9,646,693	57,517	8,169,815

[1] 2002 data are based on a sample of farms.
[2] Farms with total production expenses equal to total of market value of agricultural products sold, government payments, and farm-related income are included as farms with gains of less than $1,000.

Table 6. **Government Payments and Commodity Credit Corporation Loans: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	2007 Farms	2007 Value ($1,000)	2002 Farms	2002 Value ($1,000)
Government payments	838,391	7,983,922	707,596	6,545,678
Average per farm ... dollars	(X)	9,523	(X)	9,251
Farms with receipts of-				
$1 to $999	197,090	85,490	170,695	75,507
$1,000 to $4,999	314,688	794,506	257,381	632,955
$5,000 to $9,999	127,355	902,077	106,314	754,165
$10,000 to $24,999	121,735	1,910,008	107,749	1,681,992
$25,000 to $49,999	50,424	1,743,212	44,901	1,544,611
$50,000 or more	27,099	2,548,628	20,556	1,856,448
Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs [1]	346,227	1,756,226	268,830	1,387,956
Average per farm ... dollars	(X)	5,072	(X)	5,163
Farms with receipts of-				
$1 to $999	84,656	41,326	61,047	29,371
$1,000 to $4,999	167,773	406,059	133,930	320,296
$5,000 to $9,999	50,454	351,228	39,278	273,879
$10,000 to $24,999	32,266	484,902	25,630	384,229
$25,000 or more	11,078	472,711	8,945	380,181

Item	2007 Farms	2007 Value ($1,000)	2002 Farms	2002 Value ($1,000)
Government payments - Con.				
Amount from other federal farm programs	687,434	6,227,696	531,316	5,157,722
Average per farm ... dollars	(X)	9,059	(X)	9,707
Farms with receipts of-				
$1 to $999	218,674	86,781	155,849	64,955
$1,000 to $4,999	226,532	564,402	161,265	399,969
$5,000 to $9,999	88,264	625,015	75,616	537,614
$10,000 to $24,999	92,270	1,453,875	84,759	1,329,830
$25,000 or more	61,694	3,497,622	53,827	2,825,355
Commodity Credit Corporation Loans (see text)	50,572	4,445,758	106,120	3,833,308
Average per farm ... dollars	(X)	87,909	(X)	36,122
Farms with receipts of-				
$1 to $999	4,246	1,541	14,704	6,377
$1,000 to $4,999	4,792	12,683	23,974	61,682
$5,000 to $9,999	3,396	25,133	13,848	98,070
$10,000 to $19,999	5,389	78,958	14,976	211,457
$20,000 to $24,999	2,312	51,091	4,965	108,637
$25,000 to $49,999	8,416	304,406	13,540	477,345
$50,000 or more	22,021	3,971,946	20,113	2,869,741

[1] 2002 data do not include Farmable Wetlands Program or Conservation Reserve Enhancement Program payments.

Table 7. **Income From Farm-Related Sources: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	2007 Farms	2007 Value ($1,000)	2002 Farms	2002 Value ($1,000)
Total income from farm-related sources, gross before taxes and expenses (see text)	693,187	10,489,874	621,926	5,859,226
Average per farm ... dollars	(X)	15,133	(X)	9,421
Farms with receipts of-				
$1 to $999	202,035	74,061	227,619	80,006
$1,000 to $4,999	207,733	508,874	197,319	471,843
$5,000 to $9,999	89,353	627,048	73,960	513,788
$10,000 to $24,999	97,998	1,542,249	71,413	1,101,514
$25,000 to $49,999	49,568	1,722,636	29,784	1,019,940
$50,000 or more	46,500	6,015,006	21,831	2,672,136
Customwork and other agricultural services	121,874	1,875,665	124,697	1,391,573
Average per farm ... dollars	(X)	15,390	(X)	11,160
Farms with receipts of-				
$1 to $999	25,639	11,580	30,430	13,554
$1,000 to $4,999	41,637	101,285	44,943	107,413
$5,000 to $9,999	17,782	121,410	18,140	122,889
$10,000 to $24,999	19,356	296,332	18,465	278,559
$25,000 to $49,999	9,183	313,173	7,233	243,447
$50,000 or more	8,277	1,031,886	5,486	625,712
Gross cash rent or share payments	241,923	2,883,897	183,502	1,630,485
Average per farm ... dollars	(X)	11,921	(X)	8,885
Farms with receipts of-				
$1 to $999	51,159	25,155	49,783	23,642
$1,000 to $4,999	89,738	218,877	71,990	171,377
$5,000 to $9,999	37,116	260,235	26,201	183,100
$10,000 to $24,999	37,047	579,165	22,401	345,615
$25,000 or more	26,863	1,800,464	13,127	906,751
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products	47,603	594,944	45,866	465,046
Average per farm ... dollars	(X)	12,498	(X)	10,139
Farms with receipts of-				
$1 to $999	11,903	4,906	11,120	4,606
$1,000 to $4,999	14,037	34,592	14,174	35,178
$5,000 to $9,999	7,075	49,102	7,425	51,452
$10,000 to $24,999	8,224	127,544	8,414	129,443
$25,000 or more	6,364	378,800	4,733	244,368
Agri-tourism and recreational services (see text)	23,350	566,834	28,016	202,184
Average per farm ... dollars	(X)	24,276	(X)	7,217
Farms with receipts of-				
$1 to $999	5,104	2,047	8,626	3,477
$1,000 to $4,999	7,997	18,635	10,986	24,489

Item	2007 Farms	2007 Value ($1,000)	2002 Farms	2002 Value ($1,000)
Total income from farm-related sources, gross before taxes and expenses (see text) - Con.				
Agri-tourism and recreational services (see text) - Con.				
Farms with receipts of - Con.				
$5,000 to $9,999	3,118	20,614	3,492	23,066
$10,000 to $24,999	3,494	52,245	3,011	44,455
$25,000 or more	3,637	473,294	1,901	106,696
Patronage dividends and refunds from cooperatives	288,196	854,995	254,296	505,449
Average per farm ... dollars	(X)	2,967	(X)	1,988
Farms with receipts of-				
$1 to $999	185,501	50,613	181,385	44,461
$1,000 to $4,999	72,057	160,082	53,817	115,062
$5,000 to $9,999	15,409	104,201	9,930	67,275
$10,000 to $24,999	9,725	145,306	6,094	90,378
$25,000 or more	5,504	394,792	3,070	188,274
Crop and livestock insurance payments (see text)	82,001	1,676,727	(NA)	(NA)
Average per farm ... dollars	(X)	20,448	(X)	(NA)
Farms with receipts of-				
$1 to $999	11,736	5,759	(NA)	(NA)
$1,000 to $4,999	24,373	63,535	(NA)	(NA)
$5,000 to $9,999	13,066	92,220	(NA)	(NA)
$10,000 to $24,999	15,713	248,601	(NA)	(NA)
$25,000 or more	17,113	1,266,611	(NA)	(NA)
Amount from state and local government agricultural program payments (see text)	34,410	145,413	(NA)	(NA)
Average per farm ... dollars	(X)	4,226	(X)	(NA)
Farms with receipts of-				
$1 to $999	14,101	5,523	(NA)	(NA)
$1,000 to $4,999	12,829	30,417	(NA)	(NA)
$5,000 to $9,999	3,741	25,645	(NA)	(NA)
$10,000 to $24,999	2,807	42,683	(NA)	(NA)
$25,000 or more	932	41,144	(NA)	(NA)
Other farm-related income sources (see text)	118,939	1,891,400	(NA)	(NA)
Average per farm ... dollars	(X)	15,902	(X)	(NA)
Farms with receipts of-				
$1 to $999	40,970	15,559	(NA)	(NA)
$1,000 to $4,999	35,477	83,706	(NA)	(NA)
$5,000 to $9,999	12,549	86,750	(NA)	(NA)
$10,000 to $24,999	13,649	211,840	(NA)	(NA)
$25,000 or more	16,294	1,493,543	(NA)	(NA)

Table 8. **Land: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

All farms		2007 Total	2007 Percent of total	2002
LAND USE				
Farms	number	2,204,792	100.0	2,128,982
Land in farms	acres	922,095,840	100.0	938,279,056
Total cropland	farms	1,685,339	76.4	1,751,450
	acres	406,424,909	44.1	434,164,946
Harvested cropland	farms	1,328,004	60.2	1,362,608
	acres	309,607,601	33.6	302,697,252
Farms by acres harvested:				
1 to 49 acres		700,266	31.8	688,492
1 to 9 acres		233,119	10.6	223,038
10 to 19 acres		182,514	8.3	177,964
20 to 29 acres		126,330	5.7	126,713
30 to 49 acres		158,303	7.2	160,777
50 to 99 acres		179,055	8.1	186,980
100 to 199 acres		141,875	6.4	158,005
200 to 499 acres		143,776	6.5	163,027
500 to 999 acres		82,211	3.7	90,412
1,000 to 1,999 acres		53,728	2.4	54,281
2,000 acres or more		27,093	1.2	21,411
Cropland used only for pasture or grazing	farms	404,753	18.4	716,202
	acres	35,771,154	3.9	60,557,805
Other cropland	farms	469,860	21.3	506,163
	acres	61,046,154	6.6	70,909,889
Cropland idle or used for cover crops or soil-improvement but not harvested and not pastured or grazed	farms	360,225	16.3	380,300
	acres	37,968,749	4.1	37,281,096
Cropland on which all crops failed or were abandoned	farms	89,587	4.1	119,642
	acres	7,405,898	0.8	17,069,564

All farms		2007 Total	2007 Percent of total	2002
LAND USE - Con.				
Total cropland - Con.				
Other cropland - Con.				
Cropland in cultivated summer fallow	farms	67,960	3.1	72,335
	acres	15,671,507	1.7	16,559,229
Total woodland	farms	843,294	38.2	818,105
	acres	75,098,603	8.1	75,878,213
Woodland pastured	farms	370,297	16.8	379,795
	acres	28,609,690	3.1	31,128,955
Woodland not pastured	farms	596,123	27.0	568,956
	acres	46,488,913	5.0	44,749,258
Permanent pasture and rangeland, other than cropland and woodland pastured (see text)	farms	1,132,606	51.4	850,913
	acres	408,832,116	44.3	395,278,829
Land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc	farms	1,126,272	51.1	1,165,564
	acres	31,740,212	3.4	32,957,068
CONSERVATION PRACTICES AND CROP INSURANCE				
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) [1]	farms	346,231	(X)	268,748
	acres	38,547,450	(X)	32,723,967
Land enrolled in crop insurance programs (see text)	farms	349,408	(X)	394,538
	acres	222,267,817	(X)	214,806,181

[1] 2002 data do not include farms with land in Farmable Wetlands or Conservation Reserve Enhancement Programs.

Table 9. **Land in Farms, Harvested Cropland, and Irrigated Land, by Size of Farm: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

All farms	Farms		Land in farms (acres)		Harvested cropland (acres)		Irrigated land (acres)	
	2007	2002	2007	2002	2007	2002	2007	2002
Land in farms	2,204,792	2,128,982	922,095,840	938,279,056	309,607,601	302,697,252	56,599,305	55,311,236
Farms by size:								
1 to 9 acres	232,849	179,346	1,080,019	847,601	291,828	249,242	174,275	154,680
10 to 49 acres	620,283	563,772	15,918,542	14,712,409	4,296,973	4,111,751	1,015,333	1,038,782
50 to 69 acres	153,862	151,823	8,930,361	8,802,045	2,451,606	2,468,654	368,738	401,428
70 to 99 acres	192,043	190,728	15,783,304	15,672,135	4,500,846	4,649,652	590,571	629,402
100 to 139 acres	175,146	174,524	20,313,722	20,237,716	5,775,871	6,114,934	680,824	741,245
140 to 179 acres	139,479	141,630	21,954,090	22,289,695	6,590,706	7,273,320	834,371	908,127
180 to 219 acres	87,502	91,262	17,283,570	18,033,867	5,588,532	6,217,966	635,717	718,849
220 to 259 acres	68,313	71,842	16,258,454	17,092,961	5,730,418	6,455,901	681,808	754,019
260 to 499 acres	212,553	225,513	75,892,077	80,620,413	30,444,392	34,088,945	3,816,440	4,329,539
500 to 999 acres	149,713	161,552	104,140,461	112,444,149	51,556,447	56,659,861	7,842,051	8,541,152
1,000 to 1,999 acres	92,656	99,020	127,595,277	135,675,665	69,844,694	72,787,584	12,144,224	12,631,088
2,000 to 4,999 acres	57,699	56,345	170,612,215	165,220,744	81,583,763	70,886,312	16,170,391	14,028,639
5,000 acres or more	22,694	21,625	326,333,748	326,629,656	40,951,525	30,733,130	11,644,562	10,434,286
Farms with harvested cropland	1,328,004	1,362,608	661,228,034	684,475,824	309,607,601	302,697,252	54,694,090	53,427,991
Farms by size:								
1 to 9 acres	91,191	78,325	427,467	357,731	291,828	249,242	130,874	115,955
10 to 49 acres	298,858	281,732	7,941,327	7,612,363	4,296,973	4,111,751	811,772	842,819
50 to 69 acres	88,505	89,994	5,149,703	5,234,019	2,451,606	2,468,654	317,195	353,068
70 to 99 acres	117,021	120,784	9,641,664	9,946,867	4,500,846	4,649,652	515,889	557,915
100 to 139 acres	109,554	116,069	12,742,970	13,503,259	5,775,871	6,114,934	602,967	671,536
140 to 179 acres	88,133	96,693	13,870,426	15,219,985	6,590,706	7,273,320	758,257	834,124
180 to 219 acres	60,334	66,232	11,922,192	13,091,349	5,588,532	6,217,966	580,323	660,774
220 to 259 acres	48,977	54,344	11,656,364	12,927,366	5,730,418	6,455,901	637,599	711,201
260 to 499 acres	159,319	176,671	57,158,548	63,428,119	30,444,392	34,088,945	3,649,437	4,143,671
500 to 999 acres	121,080	134,118	84,564,934	93,630,712	51,556,447	56,659,861	7,637,143	8,328,377
1,000 to 1,999 acres	78,927	85,362	108,934,832	117,172,443	69,844,694	72,787,584	11,934,858	12,417,277
2,000 to 4,999 acres	49,546	47,640	146,286,227	139,127,177	81,583,763	70,886,312	15,925,648	13,744,579
5,000 acres or more	16,559	14,644	190,931,380	193,224,434	40,951,525	30,733,130	11,192,128	10,046,695
Farms with irrigated land	301,028	299,583	231,003,205	243,442,396	86,529,391	79,050,919	56,599,305	55,311,236
Farms by size:								
1 to 9 acres	60,926	53,732	264,193	229,946	137,774	123,723	174,275	154,680
10 to 49 acres	81,444	78,883	1,904,753	1,863,561	881,491	914,394	1,015,333	1,038,782
50 to 69 acres	13,514	14,279	781,903	825,468	365,277	405,763	368,738	401,428
70 to 99 acres	15,180	15,827	1,242,704	1,296,119	590,848	637,358	590,571	629,402
100 to 139 acres	12,908	13,574	1,497,247	1,572,845	716,810	789,621	680,824	741,245
140 to 179 acres	11,013	11,817	1,734,907	1,858,597	886,855	982,891	834,371	908,127
180 to 219 acres	7,042	7,797	1,391,802	1,539,214	700,874	800,766	635,717	718,849
220 to 259 acres	5,954	6,577	1,417,472	1,565,393	768,349	865,673	681,808	754,019
260 to 499 acres	22,281	24,993	8,104,606	9,108,784	4,664,357	5,297,681	3,816,440	4,329,539
500 to 999 acres	24,072	26,253	17,154,230	18,662,390	10,849,817	11,556,221	7,842,051	8,541,152
1,000 to 1,999 acres	21,330	22,624	29,931,322	31,554,837	19,024,570	19,140,078	12,144,224	12,631,088
2,000 to 4,999 acres	17,240	15,907	51,882,475	47,523,480	28,266,871	22,914,034	16,170,391	14,028,639
5,000 acres or more	8,124	7,320	113,695,591	125,841,762	18,675,498	14,622,716	11,644,562	10,434,286

Table 10. **Irrigation: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Farms with irrigation		2007	2002
Farms	number	301,028	299,583
Proportion of farms	percent	13.7	14.1
Irrigated land	acres	56,599,305	55,311,236
Average per farm	acres	188	185
Acres irrigated:			
1 to 9 acres	farms	118,524	109,972
	acres	380,553	358,740
10 to 49 acres	farms	71,858	73,148
	acres	1,637,926	1,673,511
50 to 99 acres	farms	25,467	27,094
	acres	1,761,170	1,878,687
100 to 199 acres	farms	25,815	28,011
	acres	3,545,638	3,851,651
200 to 499 acres	farms	29,207	31,449
	acres	9,143,515	9,883,105

Farms with irrigation		2007	2002
Irrigated land - Con.			
Acres irrigated - Con.			
500 to 999 acres	farms	16,569	17,329
	acres	11,498,297	12,001,034
1,000 to 1,999 acres	farms	9,129	8,839
	acres	12,424,990	11,814,949
2,000 acres or more	farms	4,459	3,741
	acres	16,207,216	13,849,559
Irrigated land use:			
Harvested cropland	farms	256,105	258,030
	acres	51,537,104	50,334,022
Pastureland and other land	farms	72,585	69,568
	acres	5,062,201	4,977,214
Land in irrigated farms	acres	231,003,205	243,442,396
Cropland	acres	104,747,528	104,354,218
Harvested cropland	acres	86,529,391	79,050,919

Table 11. **Selected Characteristics of Irrigated and Nonirrigated Farms: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	All farms		Irrigated farms				Nonirrigated farms	
			Any land irrigated		All harvested cropland irrigated			
	2007	2002	2007	2002	2007	2002	2007	2002
Farms ..... number	2,204,792	2,128,982	301,028	299,583	163,890	165,493	1,903,764	1,829,399
Land in farms ..... acres	922,095,840	938,279,056	231,003,205	243,442,396	87,900,817	115,995,413	691,092,635	694,836,660
Estimated market value of land and buildings [1]:								
Average per farm ..... dollars	791,138	537,833	1,564,384	980,820	1,478,628	929,284	668,871	464,690
Average per acre ..... dollars	1,892	1,213	2,039	1,205	2,757	1,337	1,843	1,216
Irrigated land ..... acres	56,599,305	55,311,236	56,599,305	55,311,236	27,347,373	29,626,767	(X)	(X)
Land in farms according to use:								
Total cropland ..... farms	1,685,339	1,751,450	274,207	282,056	163,890	165,493	1,411,132	1,469,394
acres	406,424,909	434,164,946	104,747,528	104,354,218	30,591,411	36,564,673	301,677,381	329,810,728
Harvested cropland ..... farms	1,328,004	1,362,608	259,591	261,842	163,890	165,493	1,068,413	1,100,766
acres	309,607,601	302,697,252	86,529,391	79,050,919	25,061,466	27,285,631	223,078,210	223,646,333
Pastureland, excluding woodland pastured ..... farms	1,372,880	1,315,656	144,856	135,998	58,067	53,244	1,228,024	1,179,658
acres	444,603,270	455,836,634	113,241,325	128,409,896	50,565,761	73,415,908	331,361,945	327,426,738
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) [2] ..... farms	346,231	268,748	18,642	16,135	4,334	4,493	327,589	252,613
acres	38,547,450	32,723,967	3,886,030	3,541,507	959,743	1,113,911	34,661,420	29,182,460
Owned and rented land in farms:								
Owned land in farms ..... farms	2,064,225	1,979,140	274,220	270,487	149,308	149,296	1,790,005	1,708,653
acres	571,303,487	584,963,623	137,996,371	152,902,448	59,889,572	83,477,003	433,307,116	432,061,175
Rented or leased land in farms ..... farms	682,759	700,846	108,592	111,445	44,788	48,171	574,167	589,401
acres	350,792,353	353,315,433	93,006,834	90,539,948	28,011,245	32,518,410	257,785,519	262,775,485
Market value of agricultural products sold (see text) $1,000	297,220,491	200,646,355	118,510,873	82,012,629	65,333,520	50,363,856	178,709,618	118,633,726
Average per farm ..... dollars	134,807	94,245	393,687	273,756	398,643	304,326	93,872	64,848
Crops, including nursery and greenhouse crops ..... farms	986,080	944,656	228,397	224,628	140,554	138,495	757,683	720,028
$1,000	143,657,928	95,151,954	78,297,158	56,880,330	46,872,638	38,438,428	65,360,770	38,271,625
Livestock, poultry, and their products ..... farms	1,080,312	1,094,608	115,698	109,099	46,119	42,181	964,614	985,509
$1,000	153,562,563	105,494,401	40,213,715	25,132,299	18,460,881	11,925,427	113,348,848	80,362,102
Total farm production expenses [1] $1,000	241,113,666	173,199,216	93,256,498	67,113,575	50,648,686	39,463,677	147,857,169	106,085,641
Average per farm ..... dollars	109,359	81,362	309,793	222,471	309,041	234,962	77,666	58,063
Fertilizer, lime, and soil conditioners ..... farms	1,148,218	1,189,850	222,809	228,075	124,709	132,547	925,409	961,775
$1,000	18,107,194	9,751,460	6,908,217	3,722,090	3,131,542	1,947,065	11,198,977	6,029,370
Chemicals ..... farms	918,604	947,279	195,876	202,745	107,017	117,116	722,728	744,534
$1,000	10,074,914	7,608,921	4,969,102	3,731,671	2,611,435	2,092,627	5,105,812	3,877,250
Seeds, plants, vines, and trees ..... farms	775,893	874,634	165,987	171,392	84,894	90,699	609,906	703,242
$1,000	11,740,521	7,598,706	5,500,969	3,563,587	2,875,413	2,045,598	6,239,552	4,035,119
Livestock and poultry purchased or leased (see text) ..... farms	490,819	553,714	62,179	62,328	24,507	23,949	428,640	491,386
$1,000	38,003,682	27,420,965	12,154,749	8,425,872	4,312,036	3,499,701	25,848,933	18,995,093
Feed purchased ..... farms	1,135,968	1,240,747	115,713	118,676	44,556	44,980	1,020,255	1,122,071
$1,000	49,095,106	31,694,850	11,769,054	6,933,473	5,883,993	3,555,750	37,326,052	24,761,378
Gasoline, fuels, and oils ..... farms	2,148,806	2,024,139	297,405	294,880	161,121	163,596	1,851,401	1,729,259
$1,000	12,912,179	6,675,419	4,985,466	2,541,145	2,435,868	1,379,127	7,926,713	4,134,274
Utilities (see text) ..... farms	1,102,530	1,241,247	241,663	234,131	130,946	130,653	860,867	1,007,116
$1,000	5,917,615	4,874,139	3,160,225	2,407,969	2,064,768	1,660,929	2,757,390	2,466,170
Supplies, repairs, and maintenance ..... farms	1,992,234	1,898,607	287,678	282,412	156,275	156,420	1,704,556	1,616,195
$1,000	15,896,723	13,386,560	6,135,332	5,041,850	3,421,944	2,986,190	9,761,391	8,344,710
Hired farm labor ..... farms	482,186	554,434	125,463	140,222	67,353	77,822	356,723	414,212
$1,000	21,877,661	18,568,446	14,195,848	12,014,635	9,812,338	8,449,391	7,681,813	6,553,811
Contract labor ..... farms	182,701	228,692	58,478	67,919	37,417	45,852	124,223	160,773
$1,000	4,514,166	3,451,190	3,522,492	2,648,365	2,958,804	2,253,850	991,673	802,825
Customwork and custom hauling ..... farms	362,475	449,633	70,576	82,149	37,233	46,559	291,899	367,484
$1,000	4,091,038	3,313,737	2,109,644	1,690,197	1,391,789	1,192,006	1,981,393	1,623,541
Cash rent for land, buildings, and grazing fees ..... farms	490,372	497,885	86,426	84,307	35,468	36,143	403,946	413,578
$1,000	13,274,530	9,045,945	4,462,767	2,971,081	1,914,043	1,426,142	8,811,763	6,074,864
Rent and lease expenses for machinery, equipment, and farm share of vehicles ..... farms	109,199	150,761	30,125	40,779	15,009	21,660	79,074	109,982
$1,000	1,385,219	1,468,423	740,547	743,202	407,284	428,171	644,673	725,221
Interest expense ..... farms	667,454	758,437	117,788	135,376	56,518	69,107	549,666	623,061
$1,000	10,880,731	9,571,577	3,657,491	3,161,184	1,914,499	1,760,294	7,223,240	6,410,393
Property taxes paid ..... farms	1,995,808	1,962,637	271,603	278,448	145,791	154,483	1,724,205	1,684,189
$1,000	6,223,048	5,350,817	1,710,027	1,443,251	945,865	828,992	4,513,021	3,907,566
All other production expenses (see text) ..... farms	1,115,703	1,254,079	196,243	205,507	97,554	109,177	919,460	1,048,572
$1,000	17,119,339	13,418,059	7,274,567	6,074,004	4,567,066	3,957,847	9,844,773	7,344,055
Commodity Credit Corporation loans (see text) ..... farms	50,572	106,120	11,148	19,765	3,049	6,141	39,424	86,355
$1,000	4,445,758	3,833,308	1,581,343	1,289,588	428,941	415,783	2,864,416	2,543,720
Government payments received ..... farms	838,391	707,596	91,061	83,084	33,152	32,224	747,330	624,512
$1,000	7,983,922	6,545,678	2,266,308	1,779,743	639,228	604,322	5,717,613	4,765,935
Income from farm-related sources (see text) ..... farms	693,187	621,926	101,356	90,804	43,250	39,530	591,831	531,122
$1,000	10,489,874	5,859,226	2,917,966	1,750,097	1,346,824	882,934	7,571,908	4,109,129
Estimated market value of all machinery and equipment [1] ..... farms	2,204,513	2,052,348	301,001	295,976	163,867	166,012	1,903,512	1,756,372
$1,000	194,783,471	136,624,880	49,002,143	35,530,511	21,277,088	16,997,347	145,781,328	101,094,369
Average per farm ..... dollars	88,357	66,570	162,797	120,045	129,844	102,386	76,585	57,559
Livestock inventory:								
Cattle and calves ..... farms	963,669	1,018,359	95,815	95,054	38,392	36,619	867,854	923,305
number	96,347,858	95,497,994	26,672,244	23,523,112	11,953,538	10,997,094	69,675,614	71,974,882
Milk cows ..... farms	69,890	91,989	7,673	9,297	3,065	3,718	62,217	82,692
number	9,266,574	9,103,959	3,475,160	2,808,735	2,369,749	1,817,623	5,791,414	6,295,224
Hogs and pigs ..... farms	75,442	78,895	9,204	8,828	3,085	3,010	66,238	70,067
number	67,786,318	60,405,103	12,015,505	12,103,893	3,666,338	5,624,275	55,770,813	48,301,210
Sheep and lambs ..... farms	83,134	73,814	13,326	11,862	6,356	5,063	69,808	61,952
number	5,819,162	6,341,799	1,939,693	2,149,883	1,153,822	1,239,169	3,879,469	4,191,916

[1] 2002 data are based on a sample of farms.
[2] 2002 data do not include farms with land in Farmable Wetlands or Conservation Reserve Enhancement Programs.

Table 12. **Cattle and Calves - Inventory: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	2007		2002	
	Farms	Number	Farms	Number
Cattle and calves	963,669	96,347,858	1,018,359	95,497,994
Farms with-				
1 to 9	233,078	1,155,984	211,030	1,104,588
10 to 19	174,518	2,392,813	189,193	2,607,827
20 to 49	240,975	7,518,194	271,202	8,480,012
50 to 99	135,117	9,344,247	153,618	10,648,669
100 to 199	91,193	12,434,470	103,513	14,078,261
200 to 499	59,234	17,697,011	62,774	18,563,597
500 to 999	18,814	12,863,312	17,587	11,824,807
1,000 to 2,499	7,892	11,555,420	6,984	10,055,238
2,500 to 4,999	1,762	5,945,320	1,553	5,198,887
5,000 or more	1,086	15,441,087	905	12,936,108
Cows and heifers that had calved	818,992	42,101,375	864,823	42,502,230
Farms with-				
1 to 9	250,204	1,171,271	242,961	1,188,410
10 to 19	162,022	2,191,968	181,093	2,441,353
20 to 49	214,549	6,587,956	233,923	7,164,148
50 to 99	102,217	6,881,511	114,073	7,662,487
100 to 199	52,618	6,956,160	56,546	7,423,403
200 to 499	28,198	8,074,336	27,991	7,974,686
500 to 999	6,189	4,072,378	5,696	3,729,848
1,000 to 2,499	2,330	3,343,596	2,081	2,993,763
2,500 or more	665	2,822,199	459	1,924,132
Beef cows	764,984	32,834,801	796,436	33,398,271
Farms with-				
1 to 9	246,863	1,160,439	239,452	1,173,512
10 to 19	160,005	2,162,448	178,038	2,396,265
20 to 49	200,840	6,090,407	215,320	6,495,074
50 to 99	84,253	5,656,207	89,874	6,000,331
100 to 199	43,575	5,753,342	45,354	5,957,914
200 to 499	23,635	6,722,106	23,126	6,538,095
500 to 999	4,413	2,861,202	4,002	2,579,856
1,000 to 2,499	1,215	1,648,412	1,110	1,536,333
2,500 or more	185	780,238	160	720,891

Item	2007		2002	
	Farms	Number	Farms	Number
Cattle and calves - Con.				
Cows and heifers that had calved - Con.				
Milk cows	69,890	9,266,574	91,989	9,103,959
Farms with-				
1 to 9	14,426	38,147	21,016	53,250
10 to 19	3,568	48,821	5,270	72,388
20 to 49	16,344	576,070	21,974	769,740
50 to 99	18,986	1,280,983	25,465	1,733,946
100 to 199	8,975	1,180,985	10,816	1,398,341
200 to 499	4,307	1,278,721	4,546	1,336,479
500 to 999	1,702	1,161,865	1,646	1,115,307
1,000 or more	1,582	3,700,982	1,256	2,624,508
1,000 to 2,499	1,104	1,673,772	(NA)	(NA)
2,500 or more	478	2,027,210	(NA)	(NA)
Other cattle (see text)	788,633	54,246,483	875,850	52,995,764
Farms with-				
1 to 9	329,593	1,386,215	348,102	1,479,533
10 to 19	147,914	1,973,684	173,744	2,320,653
20 to 49	155,011	4,684,915	183,102	5,518,682
50 to 99	72,829	4,904,323	84,287	5,671,311
100 to 199	40,703	5,433,374	45,719	6,073,657
200 to 499	27,467	8,131,785	27,595	8,054,938
500 to 999	9,344	6,412,405	8,390	5,563,088
1,000 to 2,499	4,122	5,974,122	3,457	4,950,011
2,500 or more	1,650	15,345,660	1,454	13,363,891
Cattle on feed (see text)	50,009	16,098,910	80,743	14,905,545
Farms with-				
1 to 9	15,818	65,809	30,409	129,481
10 to 19	7,072	93,242	13,778	179,989
20 to 49	9,136	280,083	14,552	432,316
50 to 99	6,313	426,159	9,207	615,629
100 to 199	4,375	586,624	5,889	780,033
200 to 499	3,744	1,118,788	4,139	1,212,797
500 to 999	1,997	1,429,215	1,442	966,408
1,000 to 2,499	780	1,152,679	620	942,904
2,500 or more	774	10,946,311	707	9,645,988

Table 13. **Cattle and Calves - Sales: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Number sold	2007			2002		
	Farms	Number	Value ($1,000)	Farms	Number	Value ($1,000)
Cattle and calves	798,290	74,071,936	61,209,970	851,971	73,509,165	45,115,184
Farms by number sold-						
1 to 9	285,131	1,243,461	795,632	284,154	1,336,269	626,456
10 to 19	151,782	2,059,477	1,262,079	171,936	2,330,959	1,060,182
20 to 49	177,736	5,447,558	3,366,696	201,880	6,155,302	2,893,061
50 to 99	86,706	5,907,243	3,821,272	95,235	6,468,999	3,187,275
100 to 199	47,855	6,458,387	4,425,833	50,753	6,829,693	3,600,889
200 to 499	31,095	9,218,477	6,682,424	31,607	9,346,664	5,167,722
500 to 999	10,304	6,963,334	5,457,305	9,925	6,632,350	3,812,848
1,000 to 2,499	5,282	7,757,543	6,214,389	4,420	6,453,995	3,900,049
2,500 to 4,999	1,322	4,381,837	3,602,079	1,038	3,439,833	2,207,936
5,000 or more	1,077	24,634,619	25,582,262	1,023	24,515,101	18,658,766
Cattle, including calves weighing 500 pounds or more	681,126	60,376,684	(NA)	709,973	59,375,018	(NA)
Farms by number sold-						
1 to 9	297,526	1,192,607	(NA)	310,294	1,270,054	(NA)
10 to 19	122,477	1,620,881	(NA)	131,408	1,732,545	(NA)
20 to 49	127,694	3,852,708	(NA)	133,067	3,992,368	(NA)
50 to 99	60,513	4,089,677	(NA)	61,934	4,187,936	(NA)
100 to 199	34,637	4,641,988	(NA)	36,058	4,839,373	(NA)
200 to 499	24,114	7,080,491	(NA)	24,227	7,118,078	(NA)
500 to 999	8,025	5,396,029	(NA)	7,711	5,134,916	(NA)
1,000 to 2,499	4,160	6,100,214	(NA)	3,510	5,071,881	(NA)
2,500 to 4,999	1,023	3,378,386	(NA)	829	2,757,107	(NA)
5,000 or more	957	23,023,703	(NA)	935	23,270,760	(NA)
Cattle on feed (see text)	76,396	27,595,928	(NA)	105,978	28,163,195	(NA)
Farms by number sold-						
1 to 9	34,543	129,460	(NA)	49,020	185,669	(NA)
10 to 19	10,574	138,957	(NA)	15,703	206,223	(NA)
20 to 49	11,736	357,197	(NA)	17,006	517,703	(NA)
50 to 99	6,579	449,362	(NA)	9,444	638,774	(NA)
100 to 199	4,710	634,210	(NA)	6,320	849,888	(NA)
200 to 499	3,975	1,183,536	(NA)	4,743	1,411,101	(NA)
500 to 999	1,980	1,376,157	(NA)	1,792	1,207,688	(NA)
1,000 to 2,499	1,264	1,872,253	(NA)	968	1,451,404	(NA)
2,500 to 4,999	366	1,248,925	(NA)	298	1,030,300	(NA)
5,000 or more	669	20,205,871	(NA)	684	20,664,445	(NA)
Calves weighing less than 500 pounds	414,324	13,695,252	(NA)	500,652	14,134,147	(NA)
Farms by number sold-						
1 to 9	188,636	804,207	(NA)	233,120	1,014,514	(NA)
10 to 19	92,239	1,200,194	(NA)	113,533	1,470,755	(NA)
20 to 49	86,922	2,504,176	(NA)	103,368	2,958,070	(NA)
50 to 99	26,191	1,695,544	(NA)	29,695	1,929,030	(NA)
100 to 199	11,029	1,438,458	(NA)	12,047	1,556,614	(NA)
200 to 499	6,405	1,865,081	(NA)	6,394	1,809,303	(NA)
500 to 999	1,788	1,177,158	(NA)	1,650	1,090,889	(NA)
1,000 or more	1,114	3,010,434	(NA)	845	2,304,972	(NA)

Table 14. **Cattle and Calves Herd Size by Inventory and Sales: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Herd size	Cattle and calves inventory						Cattle and calves sales		
	Total		Cows and heifers that had calved		Other cattle (see text)				
	Farms	Number	Farms	Number	Farms	Number	Farms	Number	Value ($1,000)
Total	963,669	96,347,858	818,992	42,101,375	788,633	54,246,483	758,684	72,036,486	59,607,689
Farms with herd size of-									
1 to 9	233,078	1,155,984	165,386	639,812	155,064	516,172	126,747	737,451	469,334
10 to 19	174,518	2,392,813	151,434	1,460,860	133,383	931,953	128,762	1,163,397	708,632
20 to 49	240,975	7,518,194	218,807	4,709,892	198,295	2,808,302	203,856	3,751,523	2,332,247
50 to 99	135,117	9,344,247	124,659	5,461,923	127,506	3,882,324	125,377	4,963,918	3,142,892
100 to 199	91,193	12,434,470	83,821	6,882,349	87,839	5,552,121	87,969	6,793,024	4,457,224
200 to 499	59,234	17,697,011	51,664	8,758,981	57,548	8,938,030	57,326	10,599,652	7,609,397
500 to 999	18,814	12,863,312	15,106	5,269,659	18,467	7,593,653	18,186	8,842,821	7,119,716
1,000 to 2,499	7,892	11,555,420	6,245	4,506,870	7,729	7,048,550	7,650	8,072,020	6,567,597
2,500 to 4,999	1,762	5,945,320	1,314	2,252,449	1,720	3,692,871	1,739	4,706,975	3,940,153
5,000 or more	1,086	15,441,087	556	2,158,580	1,082	13,282,507	1,072	22,405,705	23,260,497
No cattle and calves herd, as of Dec. 31, 2007	(X)	(X)	(X)	(X)	(X)	(X)	39,606	2,035,450	1,602,280

Table 15. **Cow Herd Size by Inventory and Sales: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Cow herd [1]	Cattle and calves inventory						Cattle and calves sales		
	Total		Cows and heifers that had calved		Other cattle (see text)				
	Farms	Number	Farms	Number	Farms	Number	Farms	Number	Value ($1,000)
Total	818,992	74,406,565	818,992	42,101,375	643,956	32,305,190	667,551	40,211,326	27,512,988
Farms with cow herd size of-									
1 to 9	250,204	2,444,357	250,204	1,171,271	172,190	1,273,086	158,593	1,280,969	843,057
10 to 19	162,022	3,774,421	162,022	2,191,968	120,887	1,582,453	131,569	1,830,374	1,175,512
20 to 49	214,549	11,187,414	214,549	6,587,956	171,869	4,599,458	189,576	5,529,121	3,629,701
50 to 99	102,217	12,452,019	102,217	6,881,511	94,606	5,570,508	99,340	6,642,895	4,386,715
100 to 199	52,618	12,558,006	52,618	6,956,160	49,264	5,601,846	51,615	6,995,416	4,896,700
200 to 499	28,198	14,455,921	28,198	8,074,336	26,512	6,381,585	27,784	8,561,532	6,317,916
500 to 999	6,189	7,185,245	6,189	4,072,378	5,842	3,112,867	6,117	4,176,292	3,040,987
1,000 to 2,499	2,330	5,711,115	2,330	3,343,596	2,167	2,367,519	2,303	2,924,742	1,881,744
2,500 or more	665	4,638,067	665	2,822,199	619	1,815,868	654	2,269,985	1,340,655
No cow herd, as of Dec. 31, 2007	144,677	21,941,293	(X)	(X)	144,677	21,941,293	130,739	33,860,610	33,696,982

[1] Cow herd includes beef cows, milk cows, and heifers that had calved.

Table 16. **Beef Cow Herd Size by Inventory and Sales: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Beef cow herd	Cattle and calves inventory							
	Total		Cows and heifers that had calved				Other cattle (see text)	
			Total		Beef cows			
	Farms	Number	Farms	Number	Farms	Number	Farms	Number
Total	764,984	59,897,763	764,984	33,758,026	764,984	32,834,801	593,695	26,139,737
Farms with beef herd size of-								
1 to 9	246,863	2,714,096	246,863	1,358,260	246,863	1,160,439	170,058	1,355,836
10 to 19	160,005	3,881,912	160,005	2,270,349	160,005	2,162,448	119,164	1,611,563
20 to 49	200,840	10,638,096	200,840	6,315,509	200,840	6,090,407	158,925	4,322,587
50 to 99	84,253	10,366,939	84,253	5,804,285	84,253	5,656,207	77,205	4,562,654
100 to 199	43,575	10,560,641	43,575	5,863,127	43,575	5,753,342	40,623	4,697,514
200 to 499	23,635	12,241,349	23,635	6,811,697	23,635	6,722,106	22,223	5,429,652
500 to 999	4,413	5,205,230	4,413	2,879,598	4,413	2,861,202	4,183	2,325,632
1,000 to 2,499	1,215	2,983,468	1,215	1,671,943	1,215	1,648,412	1,139	1,311,525
2,500 or more	185	1,306,032	185	783,258	185	780,238	175	522,774
No beef cow herd, as of Dec. 31, 2007	198,685	36,450,095	54,008	8,343,349	(X)	(X)	194,938	28,106,746

Beef cow herd	Cattle and calves sales								
	Total			Cattle				Calves	
				Total		Cattle on feed (see text)			
	Farms	Number	Value ($1,000)	Farms	Number	Farms	Number	Farms	Number
Total	618,755	34,917,699	24,897,082	526,300	26,758,433	44,385	4,519,409	335,564	8,159,266
Farms with beef herd size of-									
1 to 9	157,562	1,305,277	834,389	125,866	885,618	12,225	101,465	72,249	419,659
10 to 19	130,116	1,847,100	1,175,440	105,662	1,217,095	8,952	160,406	72,162	630,005
20 to 49	177,249	5,364,822	3,530,351	150,394	3,718,418	11,455	467,709	101,729	1,646,404
50 to 99	81,965	6,021,554	4,038,898	76,075	4,411,406	5,651	610,787	51,344	1,610,148
100 to 199	42,777	6,409,521	4,562,239	40,531	5,044,199	3,468	762,097	23,641	1,365,322
200 to 499	23,323	7,794,961	5,924,685	22,249	6,395,188	2,049	1,138,408	11,550	1,399,773
500 to 999	4,371	3,441,156	2,678,316	4,180	2,877,026	443	750,269	2,143	564,130
1,000 to 2,499	1,209	1,845,325	1,427,328	1,166	1,510,882	128	291,016	625	334,443
2,500 or more	183	887,983	725,435	177	698,601	14	237,252	121	189,382
No beef cow herd, as of Dec. 31, 2007	179,535	39,154,237	36,312,887	154,826	33,618,251	32,011	23,076,519	78,760	5,535,986

Table 17. **Milk Cow Herd Size by Inventory and Sales: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Milk cow herd	Cattle and calves inventory							
	Total		Cows and heifers that had calved				Other cattle (see text)	
			Total		Milk cows			
	Farms	Number	Farms	Number	Farms	Number	Farms	Number
Total	69,890	17,199,704	69,890	9,894,291	69,890	9,266,574	63,734	7,305,413
Farms with milk cow herd size of-								
1 to 9	14,426	547,110	14,426	278,487	14,426	38,147	11,255	268,623
10 to 19	3,568	148,494	3,568	75,352	3,568	48,821	3,011	73,142
20 to 49	16,344	1,202,187	16,344	655,485	16,344	576,070	15,414	546,702
50 to 99	18,986	2,620,187	18,986	1,379,735	18,986	1,280,983	18,366	1,240,452
100 to 199	8,975	2,328,633	8,975	1,272,318	8,975	1,180,985	8,578	1,056,315
200 to 499	4,307	2,324,971	4,307	1,330,633	4,307	1,278,721	4,062	994,338
500 to 999	1,702	1,947,534	1,702	1,177,929	1,702	1,161,865	1,587	769,605
1,000 or more	1,582	6,080,588	1,582	3,724,352	1,582	3,700,982	1,461	2,356,236
1,000 to 2,499	1,104	2,752,803	1,104	1,685,446	1,104	1,673,772	1,019	1,067,357
2,500 or more	478	3,327,785	478	2,038,906	478	2,027,210	442	1,288,879
No milk cow herd, as of Dec. 31, 2007	893,779	79,148,154	749,102	32,207,084	(X)	(X)	724,899	46,941,070

Milk cow herd	Cattle and calves sales							Dairy product sales	
	Total			Cattle		Calves			
	Farms	Number	Value ($1,000)	Farms	Number	Farms	Number	Farms	Value ($1,000)
Total	62,688	6,404,939	3,323,421	56,108	3,023,425	46,107	3,381,514	67,866	31,671,003
Farms with milk cow herd size of-									
1 to 9	10,153	338,179	237,987	8,415	217,495	5,469	120,684	12,463	100,554
10 to 19	2,937	73,110	57,588	2,489	47,825	1,972	25,285	3,534	121,697
20 to 49	14,991	401,983	247,799	13,332	222,205	11,363	179,778	16,332	1,585,945
50 to 99	18,400	831,574	488,694	16,998	474,591	13,906	356,983	18,976	3,927,075
100 to 199	8,774	747,781	438,278	8,107	409,255	6,926	338,526	8,971	3,822,948
200 to 499	4,209	831,423	441,730	3,837	392,744	3,597	438,679	4,306	4,590,827
500 to 999	1,672	705,684	333,071	1,528	283,912	1,488	421,772	1,702	4,286,602
1,000 or more	1,552	2,475,205	1,078,274	1,402	975,398	1,386	1,499,807	1,582	13,235,356
1,000 to 2,499	1,083	1,084,088	454,848	979	440,620	952	643,468	1,104	6,116,637
2,500 or more	469	1,391,117	623,425	423	534,778	434	856,339	478	7,118,719
No milk cow herd, as of Dec. 31, 2007	735,602	67,666,997	57,886,549	625,018	57,353,259	368,217	10,313,738	1,897	177,026

Table 18. **Cattle and Calves - Number Sold Per Farm by Sales: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Number sold	Cattle and calves			Cattle, including calves weighing 500 pounds or more				Calves weighing less than 500 pounds	
				Total		Cattle on feed (see text)			
	Farms	Number	Value ($1,000)	Farms	Number	Farms	Number	Farms	Number
Total	798,290	74,071,936	61,209,970	681,126	60,376,684	76,396	27,595,928	414,324	13,695,252
Farms by number of cattle and calves sold -									
1 to 9	285,131	1,243,461	795,632	222,859	804,177	23,930	81,140	119,602	439,284
10 to 19	151,782	2,059,477	1,262,079	126,166	1,257,556	11,846	107,766	88,952	801,921
20 to 49	177,736	5,447,558	3,366,696	157,961	3,473,065	14,922	305,925	107,958	1,974,493
50 to 99	86,706	5,907,243	3,821,272	81,774	4,106,796	9,020	423,732	51,411	1,800,447
100 to 199	47,855	6,458,387	4,425,833	45,628	4,818,306	6,183	596,456	25,580	1,640,081
200 to 499	31,095	9,218,477	6,682,424	29,615	7,191,312	5,050	1,121,049	14,102	2,027,165
500 to 999	10,304	6,963,334	5,457,305	9,801	5,556,711	2,520	1,374,528	4,202	1,406,623
1,000 to 2,499	5,282	7,757,543	6,214,389	5,013	6,362,974	1,678	1,919,602	1,885	1,394,569
2,500 or more	2,399	29,016,456	29,184,341	2,309	26,805,787	1,247	21,665,730	632	2,210,669

Table 19. **Hogs and Pigs - Inventory: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Hogs and pigs	2007		2002	
	Farms	Number	Farms	Number
Total hogs and pigs	75,442	67,786,318	78,895	60,405,103
Farms with-				
1 to 24	45,047	260,154	38,303	262,098
25 to 49	4,292	146,672	5,650	193,931
50 to 99	3,182	215,206	4,682	319,128
100 to 199	2,590	354,203	4,611	626,869
200 to 499	4,524	1,467,383	7,755	2,463,794
500 to 999	3,588	2,488,234	6,010	4,175,405
1,000 to 1,999	4,013	5,527,798	5,148	6,849,279
2,000 to 4,999	5,356	16,532,918	4,530	13,798,995
5,000 or more	2,850	40,793,750	2,206	31,715,604
Hogs and pigs used or to be used for breeding	32,867	6,290,610	39,367	6,174,439
Farms with-				
1 to 24	24,006	140,312	24,794	169,828
25 to 49	2,427	81,667	4,047	136,919
50 to 99	1,815	120,806	3,660	246,631

Hogs and pigs	2007		2002	
	Farms	Number	Farms	Number
Total hogs and pigs - Con.				
Hogs and pigs used or to be used for breeding - Con.				
Farms with - Con.				
100 to 199	1,408	184,483	2,831	368,969
200 to 499	1,256	378,897	1,952	580,702
500 or more	1,955	5,384,445	2,083	4,671,390
Other hogs and pigs	66,441	61,495,708	71,923	54,230,664
Farms with-				
1 to 24	38,194	214,156	34,240	227,230
25 to 49	3,450	116,006	4,661	157,264
50 to 99	2,652	177,656	4,160	277,423
100 to 199	2,355	314,087	4,318	570,087
200 to 499	4,494	1,424,141	7,681	2,388,116
500 to 999	3,618	2,478,132	5,834	4,009,622
1,000 or more	11,678	56,771,530	11,029	46,600,922

Table 20. **Hogs and Pigs - Sales: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Hogs and pigs	2007			2002		
	Farms	Number	Value ($1,000)	Farms	Number	Value ($1,000)
Total hogs and pigs sold	74,789	206,807,181	18,056,981	82,028	184,997,686	12,400,977
Farms with sales of-						
1 to 24	39,101	249,834	28,810	34,032	233,429	20,813
25 to 49	4,819	163,975	15,359	5,545	189,128	14,167
50 to 99	3,660	246,540	23,975	5,019	336,718	24,716
100 to 199	3,052	411,738	40,344	4,925	666,814	50,238
200 to 499	4,253	1,305,183	139,517	6,947	2,184,766	173,508
500 to 999	3,357	2,370,219	277,126	6,143	4,324,402	358,854
1,000 to 1,999	3,484	4,749,177	549,299	6,148	8,361,901	692,422
2,000 to 4,999	5,072	16,416,306	1,910,310	6,059	18,504,172	1,521,681
5,000 or more	7,991	180,894,209	15,072,240	7,210	150,196,356	9,544,579

Table 21. **Hogs and Pigs Herd Size by Inventory and Sales: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Herd size	Hogs and pigs inventory						Hogs and pigs sales		
	Total		Used or to be used for breeding		Other hogs and pigs				
	Farms	Number	Farms	Number	Farms	Number	Farms	Number	Value ($1,000)
Total inventory	75,442	67,786,318	32,867	6,290,610	66,441	61,495,708	61,677	203,065,949	17,668,617
Farms with-									
1 to 24	45,047	260,154	17,985	71,899	36,688	188,255	31,731	542,532	50,627
25 to 49	4,292	146,672	3,236	37,754	4,019	108,918	4,050	321,828	29,521
50 to 99	3,182	215,206	2,374	46,309	3,053	168,897	3,094	518,099	48,721
100 to 199	2,590	354,203	1,865	57,731	2,507	296,472	2,577	845,142	86,745
200 to 499	4,524	1,467,383	2,409	150,835	4,456	1,316,548	4,494	3,668,970	379,818
500 to 999	3,588	2,488,234	1,500	218,663	3,543	2,269,571	3,566	6,790,915	659,607
1,000 to 1,999	4,013	5,527,798	1,279	417,746	3,989	5,110,052	3,996	16,465,902	1,542,960
2,000 to 4,999	5,356	16,532,918	1,150	887,583	5,336	15,645,335	5,320	48,955,437	4,616,491
5,000 or more	2,850	40,793,750	1,069	4,402,090	2,850	36,391,660	2,849	124,957,124	10,254,128
No hogs or pigs on Dec. 31, 2007	(X)	(X)	(X)	(X)	(X)	(X)	13,112	3,741,232	388,363

Table 22. **Hogs and Pigs - Inventory and Sales by Number Sold Per Farm: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Hogs and pigs	Hogs and pigs inventory						Hogs and pigs sales		
	Total		Used or to be used for breeding		Other hogs and pigs				
	Farms	Number	Farms	Number	Farms	Number	Farms	Number	Value ($1,000)
Total sold	61,677	67,559,741	28,042	6,259,870	55,658	61,299,871	74,789	206,807,181	18,056,981
Farms with sales of-									
1 to 24	28,750	234,296	11,251	53,967	24,678	180,329	39,101	249,834	28,810
25 to 49	4,149	108,539	3,112	25,585	3,420	82,954	4,819	163,975	15,359
50 to 99	3,234	154,248	2,449	34,563	2,769	119,685	3,660	246,540	23,975
100 to 199	2,724	226,620	2,089	40,991	2,397	185,629	3,052	411,738	40,344
200 to 499	3,800	726,173	2,654	94,035	3,585	632,138	4,253	1,305,183	139,517
500 to 999	3,061	1,321,104	1,578	111,099	2,992	1,210,005	3,357	2,370,219	277,126
1,000 to 1,999	3,277	2,384,263	1,321	160,657	3,231	2,223,606	3,484	4,749,177	549,299
2,000 to 4,999	4,871	7,771,903	1,200	313,065	4,823	7,458,838	5,072	16,416,306	1,910,310
5,000 or more	7,811	54,632,595	2,388	5,425,908	7,763	49,206,687	7,991	180,894,209	15,072,240
None sold	13,765	226,577	4,825	30,740	10,783	195,837	(X)	(X)	(X)

Table 23. **Hogs and Pigs - Inventory by Type of Producer: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Herd size	Independent grower		Contractor or integrator		Contract grower (Contractee)	
	Farms	Number	Farms	Number	Farms	Number
Total inventory	66,267	31,809,284	712	9,538,977	8,463	26,438,057
Farms with-						
1 to 24	44,967	259,594	63	405	17	155
25 to 49	4,273	145,949	5	186	14	537
50 to 99	3,128	211,348	10	690	44	3,168
100 to 199	2,475	337,221	19	2,724	96	14,258
200 to 499	3,643	1,164,772	39	12,791	842	289,820
500 to 999	2,382	1,669,319	54	35,124	1,152	783,791
1,000 to 1,999	2,084	2,854,592	91	132,289	1,838	2,540,917
2,000 to 4,999	2,187	6,692,081	154	500,989	3,015	9,339,848
5,000 or more	1,128	18,474,408	277	8,853,779	1,445	13,465,563

Table 24. **Hogs and Pigs - Number Sold by Type of Producer: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Hogs and pigs	Independent grower		Contractor or integrator		Contract grower (Contractee)	
	Farms	Number	Farms	Number	Farms	Number
Total hogs and pigs sold	65,067	84,580,834	727	31,447,930	8,995	90,778,417
Farms with-						
1 to 24	39,039	249,294	61	(D)	1	(D)
25 to 49	4,801	163,349	16	(D)	2	(D)
50 to 99	3,643	245,296	8	507	9	737
100 to 199	3,034	409,385	5	560	13	1,793
200 to 499	4,042	1,228,168	28	9,611	183	67,404
500 to 999	2,606	1,826,177	35	22,569	716	521,473
1,000 to 1,999	2,363	3,202,590	43	57,949	1,078	1,488,638
2,000 to 4,999	2,552	8,000,920	94	300,788	2,426	8,114,598
5,000 or more	2,987	69,255,655	437	31,054,862	4,567	80,583,692

Table 25. **Hogs and Pigs - Inventory by Type of Operation: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Herd size	Farrow to wean		Farrow to finish		Finish only		Farrow to feeder		Nursery		Other	
	Farms	Number	Farms	Number	Farms	Number	Farms	Number	Farms	Number	Farms	Number
Total inventory	5,102	6,559,162	21,513	20,096,038	28,321	29,116,843	5,460	3,004,856	1,638	4,809,569	13,408	4,199,850
Farms with-												
1 to 24	3,026	23,062	10,984	77,803	15,674	82,502	3,504	28,675	267	1,269	11,592	46,843
25 to 49	425	14,253	1,954	68,455	856	28,684	678	22,947	26	844	353	11,489
50 to 99	244	16,571	1,587	109,874	680	45,020	493	32,605	11	727	167	10,409
100 to 199	103	13,753	1,506	208,407	613	81,628	248	34,080	15	2,442	105	13,893
200 to 499	138	46,794	2,035	652,025	1,849	606,027	215	66,423	143	49,805	144	46,309
500 to 999	205	147,731	1,204	850,834	1,795	1,226,778	71	49,927	171	109,044	142	103,920
1,000 to 1,999	336	471,116	865	1,183,112	2,273	3,133,122	78	110,430	219	295,042	242	334,976
2,000 to 4,999	290	939,620	743	2,264,523	3,272	10,068,602	89	256,990	477	1,502,721	485	1,500,462
5,000 or more	335	4,886,262	635	14,681,005	1,309	13,844,480	84	2,402,779	309	2,847,675	178	2,131,549

Table 26. **Hogs and Pigs - Number Sold by Type of Operation: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Hogs and pigs	Farrow to wean		Farrow to finish		Finish only		Farrow to feeder		Nursery		Other	
	Farms	Number	Farms	Number	Farms	Number	Farms	Number	Farms	Number	Farms	Number
Total hogs and pigs sold	4,970	48,936,246	21,032	41,440,210	31,958	66,639,625	5,252	12,120,383	1,614	26,236,108	9,963	11,434,609
Farms with-												
1 to 24	2,055	21,169	9,433	68,473	17,570	100,783	2,360	21,484	165	1,079	7,518	36,846
25 to 49	632	21,602	1,801	62,093	1,126	37,357	756	25,922	21	724	483	16,277
50 to 99	417	28,299	1,507	102,473	782	51,913	617	42,030	7	395	330	21,430
100 to 199	280	36,270	1,474	200,589	625	84,068	452	61,353	12	1,502	209	27,956
200 to 499	219	65,470	2,156	655,645	1,235	390,188	424	125,829	23	7,706	196	60,345
500 to 999	75	51,660	1,397	980,432	1,502	1,076,411	186	124,613	56	38,688	141	98,415
1,000 to 1,999	78	112,032	1,186	1,596,511	1,905	2,594,106	102	136,370	92	133,435	121	176,723
2,000 to 4,999	157	527,668	967	3,011,429	3,151	10,298,532	135	402,036	255	796,355	407	1,380,286
5,000 or more	1,057	48,072,076	1,111	34,762,565	4,062	52,006,267	220	11,180,746	983	25,256,224	558	9,616,331

Table 27. **Poultry - Inventory and Number Sold: 2007 and 2002**

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Item	2007		2002	
	Farms	Number	Farms	Number
INVENTORY				
Layers (see text)	145,615	349,772,508	98,315	334,435,155
Farms with inventory of-				
1 to 49	125,195	2,006,251	82,693	1,366,625
50 to 99	10,648	651,314	7,431	443,106
100 to 399	5,001	785,699	3,684	557,490
400 to 3,199	785	783,776	487	507,033
3,200 to 9,999	626	4,691,571	672	5,051,441
10,000 to 19,999	1,373	20,218,149	1,421	20,695,146
20,000 to 49,999	1,292	35,972,247	1,127	31,665,909
50,000 to 99,999	261	18,129,706	302	21,436,185
100,000 or more	434	266,533,795	498	252,712,220
Pullets for laying flock replacement	22,514	105,876,529	25,624	94,882,450
Broilers and other meat-type chickens	32,668	1,602,574,592	37,937	1,389,279,047
Turkeys (see text)	17,226	107,173,804	16,586	93,028,191
Ducks	31,391	3,984,982	26,140	3,823,629
Emus	3,621	28,443	5,224	48,221
Geese	18,869	177,812	17,110	173,000
Ostriches	714	11,188	1,643	20,560
Pheasants	5,313	3,773,593	4,977	2,267,136
Pigeons or Squab	5,369	531,489	4,405	449,255
Quail	3,983	10,611,067	3,742	4,888,196
Other poultry (see text)	34,401	2,993,318	13,790	1,629,522
NUMBER SOLD				
Layers (see text)	24,971	194,955,057	18,621	202,947,490
Farms by number sold-				
1 to 99	19,091	386,526	13,776	282,433
100 to 399	1,669	281,575	1,150	180,715
400 to 3,199	563	604,332	294	318,466
3,200 to 9,999	721	5,417,492	605	4,457,915
10,000 to 19,999	1,433	21,419,741	1,223	17,758,088
20,000 to 49,999	1,053	29,334,123	895	25,984,561
50,000 to 99,999	197	13,887,039	305	21,684,118
100,000 or more	244	123,624,229	373	132,281,194

Item	2007		2002	
	Farms	Number	Farms	Number
NUMBER SOLD - Con.				
Pullets for laying flock replacement	4,169	161,354,686	8,193	174,916,701
Farms by number sold-				
1 to 1,999	2,382	155,483	6,337	284,617
2,000 to 15,999	126	1,150,407	135	1,182,881
16,000 to 29,999	286	6,199,685	256	5,575,458
30,000 to 59,999	625	26,423,877	662	28,218,548
60,000 to 99,999	382	28,132,401	425	31,101,790
100,000 or more	368	99,292,833	378	108,553,407
Broilers and other meat-type chickens	27,091	8,914,828,122	32,006	8,500,313,357
Farms by number sold-				
1 to 1,999	9,743	1,178,804	10,869	1,146,308
2,000 to 15,999	334	2,044,755	406	2,871,466
16,000 to 29,999	87	1,903,683	206	4,420,530
30,000 to 59,999	197	8,800,795	444	19,732,838
60,000 to 99,999	623	49,932,801	1,060	84,498,647
100,000 to 199,999	2,270	341,362,565	3,311	498,386,958
200,000 to 299,999	2,493	604,600,599	4,653	1,137,668,155
300,000 to 499,999	4,840	1,892,461,973	5,754	2,191,324,340
500,000 or more	6,504	6,012,542,147	5,303	4,560,264,115
Turkeys (see text)	8,284	295,793,159	8,436	283,247,649
Farms by number sold-				
1 to 1,999	5,529	213,253	5,590	217,182
2,000 to 7,999	85	350,941	93	429,577
8,000 to 15,999	110	1,288,711	126	1,527,243
16,000 to 29,999	255	5,752,318	290	6,485,730
30,000 to 59,999	792	34,512,017	789	34,005,988
60,000 to 99,999	686	51,117,518	748	55,689,033
100,000 or more	827	202,558,401	800	184,892,896
Ducks	5,946	27,321,288	5,835	24,143,066
Emus	524	6,540	1,143	15,682
Geese	2,497	161,133	2,920	200,564
Ostriches	155	5,697	472	16,038
Pheasants	2,582	10,876,586	2,519	7,206,460
Pigeons or squab	1,441	1,294,163	1,309	1,160,364
Quail	2,072	39,968,045	1,907	19,157,803
Other poultry (see text)	6,640	4,354,448	3,627	3,111,544

Table 28. **Sheep and Lambs - Inventory, Wool Production, and Number Sold: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	2007		2002	
	Farms	Number	Farms	Number
Sheep and lambs inventory	83,134	5,819,162	73,814	6,341,799
Farms with-				
1 to 24	54,889	520,091	44,562	402,400
25 to 99	21,070	952,129	20,694	969,275
100 to 299	4,762	746,733	5,670	903,061
300 to 999	1,599	801,425	1,995	1,027,243
1,000 to 2,499	502	779,440	558	851,511
2,500 to 4,999	165	571,054	185	644,231
5,000 or more	147	1,448,290	150	1,544,078

Item	2007		2002	
	Farms	Number	Farms	Number
Sheep and lambs inventory - Con.				
Ewes 1 year old or older	68,222	3,516,409	66,769	3,632,196
Wool production (pounds)	43,091	34,017,725	47,208	39,798,847
Sheep and lambs sold	53,268	4,579,608	47,464	5,426,904

Table 29. **Sheep and Lambs - Inventory, Wool Production, and Number Sold by Size of Flock: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Sheep and lambs inventory	Sheep and lambs inventory				Wool production		Sheep and lambs sold	
	Total		Ewes 1 year old or older					
	Farms	Number	Farms	Number	Farms	Pounds	Farms	Number
Total	83,134	5,819,162	68,222	3,516,409	42,494	33,787,534	49,039	4,448,272
Farms with inventory of-								
1 to 24	54,889	520,091	40,364	288,056	19,900	1,873,445	24,882	278,361
25 to 99	21,070	952,129	20,736	644,635	16,407	5,043,595	17,033	611,615
100 to 299	4,762	746,733	4,747	503,020	3,984	4,152,027	4,723	577,692
300 to 999	1,599	801,425	1,586	532,815	1,431	4,854,369	1,590	586,599
1,000 to 2,499	502	779,440	493	520,236	471	5,209,949	499	544,185
2,500 to 4,999	165	571,054	159	363,087	158	3,905,330	165	403,039
5,000 or more	147	1,448,290	137	664,560	143	8,748,819	147	1,446,781
No sheep and lambs as of Dec. 31, 2007	(X)	(X)	(X)	(X)	597	230,191	4,229	131,336

Table 30. **Ewes 1 Year Old or Older - Inventory, Wool Production, and Number Sold by Size of Ewe Flock: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Ewes 1 year old or older inventory	Sheep and lambs inventory				Wool production		Sheep and lambs sold	
	Total		Ewes 1 year old or older					
	Farms	Number	Farms	Number	Farms	Pounds	Farms	Number
Total	68,222	5,534,735	68,222	3,516,409	40,762	32,558,496	45,191	3,906,504
Farms with inventory of-								
1 to 24	48,632	717,207	48,632	424,000	24,405	3,124,402	27,091	377,214
25 to 99	14,807	964,101	14,807	665,732	12,090	5,255,979	13,350	696,246
100 to 199	2,365	484,653	2,365	312,312	2,045	2,699,044	2,348	381,683
200 to 499	1,388	640,431	1,388	402,136	1,242	3,680,550	1,376	478,239
500 to 999	496	552,275	496	335,942	469	3,362,762	494	399,171
1,000 to 2,499	354	835,043	354	531,706	336	5,542,084	352	612,127
2,500 to 4,999	123	692,437	123	428,705	120	4,638,662	123	469,481
5,000 or more	57	648,588	57	415,876	55	4,255,013	57	492,343
No ewes 1 year old or older as of Dec. 31, 2007	14,912	284,427	(X)	(X)	2,329	1,459,229	8,077	673,104

Table 31. **Other Animals and Animal Products - Inventory and Number Sold: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item		Inventory		Number sold	
		2007	2002	2007	2002
Colonies of bees	farms	27,908	17,357	1,046	937
	number	2,902,732	2,350,005	74,820	82,291
Honey collected (see text) [1]	farms	(X)	(X)	16,905	12,029
	pounds	(X)	(X)	152,057,812	134,551,490
Bison	farms	4,499	4,132	1,821	1,734
	number	198,234	231,950	62,890	57,210
Deer	farms	5,654	4,901	2,300	1,895
	number	269,537	286,863	44,210	43,526
Elk	farms	1,917	2,371	888	934
	number	68,251	97,901	13,049	16,058
Aquaculture value (see text)	farms	(X)	(X)	6,409	6,653
Goats, all	farms	144,466	91,462	61,748	43,495
	number	3,140,529	2,530,466	1,387,576	1,314,310
Angora goats	farms	7,215	5,075	1,645	1,662
	number	204,106	300,753	50,017	91,037
Mohair produced [1]	farms	(X)	(X)	4,312	2,434
	pounds	(X)	(X)	1,375,100	2,416,376
Milk goats	farms	27,481	22,389	9,095	8,850
	number	334,754	290,789	102,775	113,654
Meat and other goats	farms	123,278	74,980	54,280	36,403
	number	2,601,669	1,938,924	1,234,784	1,109,619
Horses and ponies	farms	575,942	542,223	133,472	124,586
	number	4,028,827	3,644,278	506,503	470,423
Horses and ponies owned	farms	501,528	(NA)	106,050	(NA)
	number	3,224,964	(NA)	400,845	(NA)
Mules, burros, and donkeys	farms	99,746	29,936	11,548	4,941
	number	283,806	105,358	32,467	17,385
Alpacas (see text)	farms	8,708	(NA)	2,461	(NA)
	number	121,904	(NA)	13,164	(NA)
Llamas	farms	26,060	16,887	3,411	3,756
	number	122,680	144,782	12,704	18,653
Mink and their pelts	farms	290	310	282	320
	number	1,507,719	1,113,941	2,811,470	2,506,819
Rabbits and their pelts	farms	27,137	10,073	6,811	4,326
	number	616,129	405,241	979,563	886,841
Other livestock (see text) [2]	farms	12,781	4,364	5,047	2,492
Other livestock products [1]	farms	(X)	(X)	5,904	4,105

[1] Data are for farms with production, not necessarily sold.
[2] 2002 data include alpacas.

Table 32. **Specified Crops Harvested - Yield per Acre Irrigated and Nonirrigated: 2007**

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	Entire crop irrigated			Part of crop irrigated				None of crop irrigated		
	Farms	Acres	Average yield per acre	Farms	Acres irrigated	Acres not irrigated	Average yield per acre	Farms	Acres	Average yield per acre
Barley for grain (bushels)	3,566	605,340	100.0	675	136,135	155,262	53.3	15,607	2,625,220	49.9
Corn for grain (bushels)	17,927	6,103,769	180.0	20,984	7,053,000	6,435,486	150.0	308,849	66,656,287	144.3
Corn for silage or greenchop (tons)	8,173	1,369,278	24.8	1,491	128,010	164,203	17.0	74,653	4,318,170	15.1
Cotton, all (bales)	4,256	2,046,094	2.5	4,520	1,989,516	2,243,148	1.8	9,829	4,214,480	1.5
Upland cotton (bales)	3,937	1,757,941	2.5	4,518	1,986,997	2,242,895	1.8	9,831	4,214,733	1.5
Pima cotton (bales)	551	290,672	2.7	-	-	-	-	-	-	-
Dry edible beans, excluding limas (cwt)	2,275	317,193	22.6	181	36,310	50,432	16.5	3,780	1,051,614	15.9
Oats for grain (bushels)	1,304	67,948	83.7	316	10,266	15,560	63.4	40,938	1,415,375	58.1
Peanuts for nuts (pounds)	1,301	251,564	3,722.5	1,080	167,225	186,723	3,234.1	3,801	595,052	2,725.8
Rice (cwt)	6,084	2,758,792	72.0	-	-	-	-	-	-	-
Sorghum for grain (bushels)	2,092	443,599	86.9	2,391	401,615	670,030	74.7	21,759	5,254,590	69.2
Soybeans for beans (bushels)	7,007	2,175,069	45.3	13,326	3,062,006	3,396,716	40.8	258,777	55,282,030	40.2
Sugarbeets for sugar (tons)	1,535	387,224	30.0	60	7,451	20,424	24.2	2,427	838,718	23.4
Sugarcane for sugar (tons)	210	431,796	38.7	9	3,409	3,373	33.3	473	408,088	34.7
Tobacco (pounds)	1,516	40,413	2,370.7	1,056	31,166	40,014	2,199.4	13,662	248,254	2,118.6
Wheat for grain, all (bushels)	7,695	1,806,902	80.3	7,518	1,557,177	3,703,599	42.7	145,597	43,865,291	37.0
Winter wheat for grain (bushels)	5,789	1,251,920	74.9	6,880	1,402,128	3,254,355	43.3	123,434	29,877,566	38.5
Durum wheat for grain (bushels)	514	183,423	99.0	39	4,728	28,690	30.9	3,170	1,921,893	28.1
Other Spring wheat for grain (bushels)	2,082	422,183	87.2	599	99,697	244,124	34.8	26,052	12,242,262	34.9
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	64,530	8,201,313	(X)	21,477	2,063,440	2,422,510	(X)	783,527	48,768,220	(X)
Alfalfa hay (tons, dry)	47,788	5,746,037	4.9	8,602	810,615	841,066	3.3	234,336	12,846,779	2.5
Small grain hay (tons, dry)	7,837	595,521	3.1	2,008	111,004	126,772	2.5	60,758	3,033,424	1.9
Tame hay other than alfalfa, small grain, and wild hay (tons, dry)	17,233	1,367,339	2.9	7,115	332,525	490,481	2.6	472,392	24,573,627	2.0
Wild hay (tons, dry)	4,265	751,651	1.4	1,728	116,164	141,107	1.4	119,550	6,236,891	1.4
Haylage or greenchop from alfalfa or alfalfa mixtures (tons, green)	2,477	341,176	7.6	703	52,489	74,586	7.6	37,768	2,946,019	6.5
All other haylage, grass silage, and greenchop (tons, green)	2,940	354,134	11.7	686	51,564	56,042	9.3	29,931	1,618,916	4.5
Land in vegetables (see text)	23,119	2,746,319	(X)	6,766	322,166	292,378	(X)	39,287	996,017	(X)
Land in orchards (see text)	54,587	3,825,311	(X)	6,602	156,005	140,608	(X)	54,746	917,552	(X)
Land in berries (see text)	9,910	151,581	(X)	1,600	24,987	26,651	(X)	13,507	58,514	(X)

Table 33. **Specified Crops by Acres Harvested: 2007 and 2002**

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007					2002				
	Farms	Acres	Quantity	Irrigated land		Farms	Acres	Quantity	Irrigated land	
				Farms	Acres				Farms	Acres
FIELD CROPS										
Barley for grain (bushels)	19,848	3,521,957	207,089,232	4,241	741,475	24,747	4,015,654	214,800,035	4,979	890,241
1 to 14 acres	3,785	28,944	1,752,290	434	3,377	5,231	39,484	2,253,081	471	3,878
15 to 24 acres	1,957	37,018	2,239,714	366	6,874	2,713	50,718	2,959,106	454	8,376
25 to 49 acres	2,546	87,411	5,343,395	597	19,704	3,416	117,814	6,866,062	764	26,019
50 to 99 acres	2,859	197,092	12,092,789	841	54,506	3,424	236,007	13,185,406	935	61,068
100 to 249 acres	4,469	706,873	41,637,978	1,046	147,419	5,190	810,928	43,031,002	1,223	172,138
250 to 499 acres	2,552	880,342	51,998,017	529	156,148	2,837	975,506	51,407,513	592	180,921
500 to 999 acres	1,209	795,084	48,238,423	285	164,008	1,426	926,625	49,240,051	349	195,626
1,000 acres or more	471	789,193	43,786,626	143	189,439	510	858,572	45,857,814	191	242,215
1,000 to 1,999 acres	351	451,803	25,843,018	94	96,307	387	495,594	27,203,262	134	135,660
2,000 to 2,999 acres	82	189,571	9,382,712	32	45,387	78	187,504	9,799,687	34	58,414
3,000 to 4,999 acres	33	119,526	6,633,457	15	(D)	40	149,814	7,443,417	21	(D)
5,000 acres or more	5	28,293	1,927,439	2	(D)	5	25,660	1,411,448	2	(D)
Canola (pounds)	3,123	1,149,682	1,418,549,887	104	13,535	3,831	1,208,251	1,446,267,120	79	8,925
1 to 14 acres	87	607	637,246	26	(D)	92	611	592,929	14	62
15 to 24 acres	30	571	687,688	3	46	42	784	897,870	3	50
25 to 49 acres	95	3,489	3,815,356	8	(D)	168	6,347	6,529,020	12	457
50 to 99 acres	305	21,977	24,460,843	12	735	471	34,363	34,949,836	14	909
100 to 249 acres	967	158,144	189,765,755	35	4,838	1,336	218,596	238,385,036	24	3,134
250 to 499 acres	896	316,782	387,932,771	14	3,150	997	342,840	403,844,616	5	1,633
500 to 999 acres	538	361,931	458,286,436	4	2,071	558	369,797	464,778,697	7	2,680
1,000 acres or more	205	286,181	352,963,792	2	(D)	167	234,913	296,289,116	-	-
Corn for grain (bushels)	347,760	86,248,542	12,738,519,330	38,911	13,156,769	348,590	68,230,523	8,613,061,814	34,278	9,709,872
1 to 14 acres	43,443	321,984	33,542,995	1,361	7,627	46,054	343,504	28,692,851	1,269	7,815
15 to 24 acres	24,565	464,222	50,766,917	859	14,331	26,655	504,470	45,370,212	864	14,941
25 to 49 acres	44,923	1,592,019	188,266,152	2,041	67,150	48,092	1,702,631	173,459,715	2,179	71,532
50 to 99 acres	56,749	3,983,761	510,979,422	4,129	255,120	60,638	4,249,032	476,455,129	4,225	265,788
100 to 249 acres	78,166	12,420,682	1,705,815,656	9,218	1,196,628	82,483	13,012,959	1,565,808,118	9,218	1,223,318
250 to 499 acres	50,807	17,773,739	2,586,255,887	8,429	2,146,928	48,540	16,826,251	2,142,549,203	7,760	2,066,141
500 to 999 acres	32,731	22,235,236	3,379,896,951	7,564	3,594,028	27,226	18,108,418	2,382,963,487	5,999	2,933,165
1,000 acres or more	16,376	27,456,899	4,282,995,350	5,310	5,874,957	8,902	13,483,258	1,797,763,099	2,764	3,127,172
1,000 to 1,999 acres	12,852	16,873,615	2,619,062,466	3,932	3,368,469	7,557	9,622,218	1,281,012,933	2,221	2,020,806
2,000 to 2,999 acres	2,309	5,421,247	845,597,953	918	1,349,090	965	2,233,269	299,890,161	374	597,430
3,000 to 4,999 acres	982	3,563,268	564,045,708	360	764,561	313	1,122,753	150,014,749	134	339,238
5,000 acres or more	233	1,598,769	254,289,223	100	392,837	67	505,018	66,845,256	35	169,698
Corn for silage or greenchop (tons)	84,317	5,979,661	104,224,795	9,664	1,497,288	103,621	6,683,995	97,132,738	11,597	1,453,708
1 to 14 acres	19,418	158,923	2,335,788	744	5,562	23,846	193,745	2,600,339	979	7,787
15 to 24 acres	14,789	277,358	4,304,808	838	14,588	17,934	337,529	4,631,949	1,056	18,734
25 to 49 acres	19,610	668,177	10,156,020	1,667	54,092	25,171	859,347	11,682,753	2,166	69,882
50 to 99 acres	15,268	1,009,691	15,801,321	2,085	130,568	19,096	1,265,960	17,045,986	2,618	164,353
100 to 249 acres	10,855	1,563,336	26,414,390	2,570	355,342	13,014	1,869,092	26,639,688	3,121	432,008
250 to 499 acres	2,859	956,488	17,867,678	1,052	328,030	3,241	1,076,055	16,742,862	1,092	336,613
500 to 999 acres	1,132	738,511	14,844,631	484	295,205	1,050	679,648	11,011,856	436	253,455
1,000 acres or more	386	607,177	12,500,159	224	313,901	269	402,619	6,777,305	129	170,876
Cotton, all (bales)	18,605	10,493,238	18,898,128	8,776	4,035,610	24,805	12,456,162	17,145,345	11,006	4,802,024
1 to 14 acres	522	4,349	6,375	125	952	727	5,825	6,831	150	1,116
15 to 24 acres	439	8,518	12,875	94	1,663	677	13,011	15,702	139	2,435
25 to 49 acres	1,098	39,981	61,851	341	11,101	1,749	63,047	77,194	437	14,181
50 to 99 acres	1,945	137,857	220,098	690	42,952	2,748	194,734	242,528	901	58,771
100 to 249 acres	3,886	634,558	1,115,426	1,680	229,649	5,472	892,804	1,181,363	2,286	321,808
250 to 499 acres	3,738	1,340,540	2,355,916	1,748	493,243	4,997	1,786,124	2,506,757	2,467	724,082
500 to 999 acres	3,758	2,612,262	4,679,699	1,977	969,882	4,977	3,473,421	4,694,362	2,596	1,343,561
1,000 acres or more	3,219	5,715,173	10,445,888	2,121	2,286,168	3,458	6,027,196	8,420,608	2,030	2,336,070
1,000 to 1,999 acres	2,385	3,220,808	5,790,351	1,519	1,228,612	2,672	3,548,946	4,680,706	1,529	1,315,244
2,000 to 2,999 acres	575	1,343,157	2,440,028	407	534,317	526	1,226,991	1,740,816	322	472,496
3,000 to 4,999 acres	214	764,905	1,408,763	160	325,340	201	743,917	1,097,938	140	296,625
5,000 acres or more	45	386,303	806,746	35	197,899	59	507,342	901,148	39	251,705
Upland cotton (bales)	18,286	10,202,566	18,098,998	8,455	3,744,938	24,606	12,223,770	16,529,672	10,807	4,569,632
1 to 14 acres	505	4,187	6,027	108	790	699	5,636	6,553	122	927
15 to 24 acres	442	8,582	13,092	97	1,727	676	13,004	15,686	138	2,428
25 to 49 acres	1,097	39,975	62,108	340	11,076	1,739	62,673	76,711	427	13,807
50 to 99 acres	1,922	135,994	215,540	667	41,089	2,741	194,048	241,888	894	58,085
100 to 249 acres	3,818	622,466	1,083,443	1,610	217,304	5,467	891,484	1,184,552	2,281	320,488
250 to 499 acres	3,683	1,318,898	2,297,778	1,693	471,497	4,953	1,769,827	2,468,832	2,423	707,785
500 to 999 acres	3,661	2,543,552	4,493,017	1,880	900,384	4,927	3,437,243	4,597,285	2,546	1,307,383
1,000 acres or more	3,158	5,528,912	9,927,993	2,060	2,101,071	3,404	5,849,855	7,938,165	1,976	2,158,729
1,000 to 1,999 acres	2,335	3,151,660	5,610,057	1,469	1,160,628	2,631	3,493,546	4,522,987	1,488	1,259,844
2,000 to 2,999 acres	571	1,333,106	2,416,916	403	524,266	518	1,207,379	1,688,172	314	452,884
3,000 to 4,999 acres	210	751,971	1,366,496	156	312,406	199	737,517	1,075,888	138	290,225
5,000 acres or more	42	292,175	534,524	32	103,771	56	411,413	651,118	36	155,776
Pima cotton (bales)	551	290,672	799,130	551	290,672	524	232,392	615,673	524	232,392
1 to 14 acres	29	239	491	29	239	49	363	692	49	363
15 to 24 acres	8	155	401	8	155	16	304	661	16	304
25 to 49 acres	31	1,105	2,590	31	1,105	47	1,685	3,579	47	1,685
50 to 99 acres	76	5,607	13,975	76	5,607	69	5,040	11,654	69	5,040
100 to 249 acres	151	23,697	63,809	151	23,697	137	22,800	60,490	137	22,800
250 to 499 acres	121	43,309	117,916	121	43,309	120	41,595	108,574	120	41,595
500 to 999 acres	89	59,944	160,710	89	59,944	63	42,500	118,212	63	42,500
1,000 acres or more	46	156,616	439,238	46	156,616	23	118,105	311,811	23	118,105
1,000 to 1,999 acres	38	49,320	126,349	38	49,320	16	19,645	52,699	16	19,645
2,000 to 2,999 acres	2	(D)	(D)	2	(D)	4	(D)	(D)	4	(D)
3,000 to 4,999 acres	3	(D)	(D)	3	(D)	1	(D)	(D)	1	(D)
5,000 acres or more	3	92,677	268,120	3	92,677	2	(D)	(D)	2	(D)
Dry edible beans, excluding limas (cwt)	6,236	1,455,549	25,353,900	2,456	353,503	8,647	1,691,775	29,687,475	3,858	581,595
1 to 14 acres	551	2,715	52,443	347	1,528	657	4,056	72,511	275	1,842
15 to 24 acres	267	5,147	97,375	124	2,369	417	8,123	158,745	216	4,178
25 to 49 acres	651	23,339	449,735	329	11,834	1,128	40,652	780,251	549	19,785
50 to 99 acres	1,058	74,470	1,480,204	470	32,175	1,703	119,127	2,310,838	894	61,586
100 to 249 acres	1,856	296,050	5,411,031	741	109,356	2,564	406,069	7,470,897	1,202	182,557
250 to 499 acres	1,066	369,608	6,296,771	267	81,060	1,398	472,969	8,090,902	503	156,322
500 to 999 acres	597	391,148	6,585,781	136	69,244	617	403,176	6,791,789	170	89,245
1,000 to 1,999 acres	157	201,061	3,431,030	33	28,969	142	179,323	2,955,315	36	32,738
2,000 acres or more	33	92,011	1,549,530	9	16,968	21	58,280	1,056,227	13	33,342

See footnote(s) at end of table.

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Table 33. **Specified Crops by Acres Harvested: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007					2002				
	Farms	Acres	Quantity	Irrigated land		Farms	Acres	Quantity	Irrigated land	
				Farms	Acres				Farms	Acres
FIELD CROPS - Con.										
Dry edible peas (cwt)	3,048	848,874	17,260,031	232	15,502	1,547	281,871	4,780,492	153	11,644
1 to 14 acres	144	800	14,289	30	137	195	945	12,589	19	138
15 to 24 acres	65	1,232	24,358	27	488	69	1,326	18,105	20	379
25 to 49 acres	227	8,225	173,244	50	1,705	145	5,382	93,072	36	1,247
50 to 99 acres	452	32,511	629,608	58	3,938	265	18,767	329,018	34	2,162
100 to 249 acres	961	156,886	3,221,953	52	6,135	487	75,761	1,292,838	31	4,084
250 to 499 acres	714	249,947	5,099,685	11	1,514	280	95,589	1,585,156	8	2,256
500 to 999 acres	386	254,240	5,259,439	3	(D)	91	61,249	999,565	4	(D)
1,000 acres or more	99	145,033	2,837,455	1	(D)	15	22,852	450,149	1	(D)
Flaxseed (bushels)	1,698	347,309	5,722,192	11	608	3,010	641,288	10,738,434	4	302
1 to 14 acres	50	370	5,214	2	(D)	59	517	6,729	-	-
15 to 24 acres	41	782	11,948	4	69	71	1,339	19,021	-	-
25 to 49 acres	122	4,305	62,261	1	(D)	242	8,867	127,432	-	-
50 to 99 acres	309	22,381	348,123	-	-	533	38,776	614,195	2	(D)
100 to 249 acres	704	112,097	1,885,845	1	(D)	1,195	187,496	3,028,914	2	(D)
250 to 499 acres	338	111,498	1,897,308	3	344	665	224,549	3,904,051	-	-
500 to 999 acres	121	76,607	1,231,124	-	-	216	138,284	2,334,822	-	-
1,000 acres or more	13	19,269	280,369	-	-	29	41,460	703,270	-	-
Hops (pounds)	68	31,145	60,668,474	68	31,145	94	(D)	(D)	94	(D)
Lentils (cwt)	811	301,132	3,724,878	8	1,202	647	198,997	2,448,940	6	881
Mint for oil, all (pounds of oil)	341	89,783	8,694,739	295	77,973	519	108,798	9,919,641	418	92,504
Oats for grain (bushels)	42,558	1,509,149	89,508,669	1,620	78,214	63,763	1,996,916	109,840,449	1,948	96,150
1 to 14 acres	18,582	144,404	8,394,047	461	3,131	28,277	223,200	12,991,557	596	(D)
15 to 24 acres	8,462	157,185	9,457,847	297	4,628	13,322	247,451	14,694,621	329	5,453
25 to 49 acres	7,839	262,804	15,662,195	323	9,950	12,111	405,505	23,451,508	380	11,124
50 to 99 acres	4,328	285,306	16,993,885	278	15,738	6,177	403,292	21,715,374	347	20,682
100 to 249 acres	2,643	373,096	21,947,932	201	23,734	3,202	444,623	22,554,896	216	26,132
250 to 499 acres	552	180,201	10,723,647	40	9,548	537	172,042	9,039,442	68	19,742
500 to 999 acres	135	83,995	5,110,885	17	8,770	114	69,613	3,529,088	10	5,103
1,000 acres or more	17	22,158	1,218,231	3	2,715	23	31,190	1,863,963	2	(D)
Peanuts for nuts (pounds)	6,182	1,200,564	3,703,138,887	2,381	418,789	8,640	1,223,093	3,137,586,781	2,900	462,620
1 to 14 acres	545	3,381	6,984,645	112	504	1,457	9,987	17,996,880	173	857
15 to 24 acres	370	7,105	18,368,093	80	1,414	801	15,144	31,902,966	136	2,402
25 to 49 acres	746	26,176	68,920,960	201	6,370	1,329	46,751	103,055,430	311	9,775
50 to 99 acres	1,163	80,422	238,769,085	395	23,484	1,602	108,501	259,930,075	582	33,939
100 to 249 acres	1,886	293,820	895,735,202	807	100,231	2,034	312,310	785,984,133	928	121,035
250 to 499 acres	920	307,824	980,417,597	473	109,336	952	316,923	831,211,798	491	129,683
500 to 999 acres	423	285,000	886,665,535	243	105,836	349	228,731	608,883,151	211	92,960
1,000 acres or more	129	196,836	607,277,770	70	71,614	116	184,746	498,622,348	68	71,969
Pineapples harvested (tons)	42	(D)	(D)	20	(D)	34	10,211	314,626	12	9,759
Popcorn (pounds, shelled)	968	201,623	860,878,543	377	93,204	1,701	309,879	945,158,986	545	117,002
1 to 14 acres	214	658	1,674,122	23	66	309	1,226	2,167,522	17	54
15 to 24 acres	23	427	1,145,762	3	60	74	1,412	2,741,659	13	235
25 to 49 acres	72	2,685	10,618,086	23	810	163	5,853	14,598,058	43	1,492
50 to 99 acres	134	9,572	35,195,389	43	2,885	295	21,022	59,225,081	100	6,866
100 to 249 acres	266	42,992	179,362,481	145	21,778	497	78,569	241,850,897	212	30,598
250 to 499 acres	158	54,064	231,431,081	86	25,870	205	69,387	216,022,743	88	24,881
500 to 999 acres	73	49,998	214,456,485	36	20,838	124	(D)	258,661,369	51	28,981
1,000 acres or more	28	41,227	186,995,137	18	20,897	34	(D)	149,891,657	21	23,895
Proso millet (bushels)	1,528	542,108	17,333,479	127	12,552	1,250	282,664	3,810,986	108	9,961
1 to 14 acres	35	226	4,724	7	(D)	42	235	4,977	8	(D)
15 to 24 acres	33	609	17,373	2	(D)	42	780	15,895	6	118
25 to 49 acres	107	3,938	113,440	18	565	141	4,940	90,943	16	580
50 to 99 acres	215	15,211	464,964	30	1,748	254	17,745	266,762	20	1,235
100 to 249 acres	458	72,031	2,179,379	31	3,887	406	63,936	925,638	36	4,349
250 to 499 acres	340	119,952	3,625,530	21	2,397	225	78,924	1,171,383	9	1,400
500 to 999 acres	221	149,630	4,963,734	12	2,906	110	75,837	857,470	12	2,114
1,000 acres or more	119	180,511	5,964,335	6	1,005	30	40,267	477,918	1	(D)
Rice (cwt)	6,084	2,758,792	198,538,690	6,084	2,758,792	8,046	3,197,641	210,358,014	8,046	3,197,641
1 to 14 acres	61	503	30,346	61	503	120	1,039	59,136	120	1,039
15 to 24 acres	71	1,402	88,363	71	1,402	143	2,721	142,753	143	2,721
25 to 49 acres	338	12,268	865,389	338	12,268	469	17,033	992,384	469	17,033
50 to 99 acres	577	41,501	2,841,512	577	41,501	770	55,170	3,413,438	770	55,170
100 to 249 acres	1,459	246,020	17,307,378	1,459	246,020	2,214	371,716	24,352,037	2,214	371,716
250 to 499 acres	1,616	569,073	41,071,480	1,616	569,073	2,199	775,819	51,409,270	2,199	775,819
500 to 999 acres	1,346	892,471	64,295,581	1,346	892,471	1,504	1,001,665	65,518,769	1,504	1,001,665
1,000 acres or more	616	995,554	72,038,641	616	995,554	627	972,478	64,470,228	627	972,478
1,000 to 1,999 acres	487	642,135	45,843,949	487	642,135	522	666,999	44,763,159	522	666,999
2,000 to 2,999 acres	88	207,880	15,206,256	88	207,880	75	174,125	11,696,225	75	174,125
3,000 to 4,999 acres	40	(D)	(D)	40	(D)	24	87,242	5,545,571	24	87,242
5,000 acres or more	1	(D)	(D)	1	(D)	6	44,112	2,465,273	6	44,112
Rye for grain (bushels)	5,160	267,361	6,652,604	210	10,832	7,344	285,366	7,253,118	269	14,057
1 to 14 acres	2,164	14,161	450,454	45	216	3,649	23,809	740,907	82	307
15 to 24 acres	790	14,729	402,723	32	434	1,096	20,226	553,746	32	357
25 to 49 acres	908	30,938	804,309	36	767	1,182	39,540	1,029,255	45	1,010
50 to 99 acres	583	38,254	1,038,127	35	1,394	732	47,516	1,195,947	48	1,982
100 to 249 acres	494	70,898	1,714,581	44	4,307	528	75,452	1,909,661	48	4,726
250 to 499 acres	163	54,914	1,238,949	14	2,676	102	33,919	832,878	9	2,015
500 to 999 acres	46	27,981	627,841	3	(D)	(NA)	(NA)	(NA)	(NA)	(NA)
1,000 acres or more	12	15,486	375,620	1	(D)	(NA)	(NA)	(NA)	(NA)	(NA)
Safflower (pounds)	766	164,003	203,814,924	250	37,787	878	182,292	270,105,054	264	52,199
1 to 14 acres	31	214	207,853	16	101	82	432	371,374	12	75
15 to 24 acres	21	376	467,219	14	(D)	31	626	853,626	10	194
25 to 49 acres	54	2,006	2,683,992	28	943	80	2,975	4,244,704	30	958
50 to 99 acres	137	9,766	12,522,541	44	2,962	149	10,339	16,801,468	60	4,088
100 to 249 acres	294	46,516	63,923,397	94	13,454	296	46,641	69,698,999	81	10,919
250 to 499 acres	164	55,708	74,885,461	42	12,835	154	53,733	82,778,678	39	12,293

See footnote(s) at end of table.

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Table 33. **Specified Crops by Acres Harvested: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007					2002				
	Farms	Acres	Quantity	Irrigated land		Farms	Acres	Quantity	Irrigated land	
				Farms	Acres				Farms	Acres
FIELD CROPS - Con.										
Safflower (pounds) - Con.										
500 to 999 acres	56	37,492	39,510,926	10	5,335	(NA)	(NA)	(NA)	(NA)	(NA)
1,000 acres or more	9	11,925	9,613,535	2	(D)	(NA)	(NA)	(NA)	(NA)	(NA)
Sorghum for grain (bushels)	26,242	6,769,834	482,452,865	4,483	845,214	33,172	6,755,326	333,485,523	4,300	705,103
1 to 14 acres	1,294	10,456	611,767	140	905	1,945	15,171	711,580	142	979
15 to 24 acres	1,315	25,353	1,529,893	123	1,947	2,020	38,800	1,901,458	166	2,735
25 to 49 acres	3,326	119,310	7,892,012	346	10,226	4,842	172,632	8,414,975	421	12,834
50 to 99 acres	5,009	354,093	24,848,005	626	36,016	6,836	476,601	23,786,198	735	41,877
100 to 249 acres	7,302	1,150,289	83,478,849	1,346	156,650	9,520	1,481,653	74,590,912	1,337	155,943
250 to 499 acres	4,377	1,511,136	109,895,106	966	207,968	4,789	1,640,241	84,217,841	823	176,294
500 to 999 acres	2,443	1,641,274	119,368,881	645	227,722	2,375	1,581,392	78,626,939	484	177,968
1,000 acres or more	1,176	1,957,923	134,828,352	291	203,780	845	1,348,836	61,235,620	192	136,473
1,000 to 1,999 acres	937	1,244,316	86,693,096	232	137,133	700	892,728	41,773,417	163	93,475
2,000 to 2,999 acres	168	397,214	26,210,215	47	39,105	95	222,285	9,464,532	19	27,248
3,000 to 4,999 acres	59	212,015	14,822,365	11	(D)	38	140,572	5,926,087	9	(D)
5,000 acres or more	12	104,378	7,102,676	1	(D)	12	93,251	4,071,584	1	(D)
Sorghum for silage or greenchop (tons)	5,625	450,041	5,763,450	1,163	170,742	7,042	406,031	3,904,834	1,103	98,016
1 to 14 acres	1,347	10,118	84,162	64	443	2,112	14,902	116,732	112	847
15 to 24 acres	834	15,619	154,640	99	1,575	1,132	21,344	171,026	142	2,369
25 to 49 acres	1,172	40,110	431,197	176	5,589	1,535	52,349	452,902	246	7,586
50 to 99 acres	1,048	69,395	751,191	272	16,556	1,155	76,878	682,591	255	15,481
100 to 249 acres	849	124,665	1,477,304	322	44,040	848	120,077	1,194,124	240	30,852
250 to 499 acres	257	87,206	1,223,397	151	45,939	185	61,880	657,027	72	19,636
500 to 999 acres	87	57,081	943,719	56	30,586	(NA)	(NA)	(NA)	(NA)	(NA)
1,000 acres or more	31	45,847	697,840	23	26,014	(NA)	(NA)	(NA)	(NA)	(NA)
Soybeans for beans (bushels)	279,110	63,915,821	2,582,423,697	20,333	5,237,075	317,611	72,399,844	2,707,719,216	22,852	5,460,192
1 to 14 acres	19,755	168,726	6,016,303	282	1,803	20,698	181,912	5,738,536	313	2,094
15 to 24 acres	18,703	358,638	12,828,026	397	6,286	21,290	407,567	13,385,144	479	7,916
25 to 49 acres	39,453	1,410,843	53,168,014	1,209	35,981	44,509	1,588,337	54,595,467	1,320	41,552
50 to 99 acres	51,482	3,627,583	145,072,555	2,527	142,035	58,785	4,136,836	150,656,410	3,036	175,804
100 to 249 acres	70,698	11,281,858	464,265,830	5,657	643,553	81,993	13,039,146	489,589,238	6,540	771,100
250 to 499 acres	44,381	15,444,692	642,969,207	4,797	1,061,985	50,973	17,737,396	682,423,159	5,353	1,210,979
500 to 999 acres	25,097	16,830,023	686,573,369	3,383	1,368,371	28,978	19,378,369	738,554,858	3,846	1,544,605
1,000 acres or more	9,541	14,793,458	571,530,393	2,081	1,977,061	10,385	15,930,281	572,776,404	1,965	1,706,142
1,000 to 1,999 acres	7,905	10,183,238	397,841,512	1,615	1,228,641	8,727	11,269,228	410,382,670	1,541	1,102,101
2,000 to 2,999 acres	1,163	2,702,212	102,073,492	308	405,123	1,216	2,804,383	98,150,869	294	358,859
3,000 to 4,999 acres	399	1,418,465	54,222,674	140	295,305	357	1,282,157	44,293,693	113	206,000
5,000 acres or more	74	489,543	17,392,715	18	47,992	85	574,513	19,949,172	17	39,182
Sugarbeets for sugar (tons)	4,022	1,253,817	31,937,325	1,595	394,675	5,027	1,365,769	27,793,126	2,087	471,556
1 to 14 acres	46	330	8,597	27	165	122	1,035	20,994	66	579
15 to 24 acres	85	1,673	42,746	43	843	162	3,128	64,880	71	1,382
25 to 49 acres	302	10,928	273,928	151	5,514	426	15,236	313,767	213	7,576
50 to 99 acres	590	42,655	1,113,377	304	21,906	834	58,960	1,233,726	416	29,432
100 to 249 acres	1,274	209,350	5,420,524	549	88,403	1,567	253,373	5,283,507	705	109,439
250 to 499 acres	1,004	355,048	8,792,618	316	101,865	1,175	407,519	8,235,580	401	131,680
500 to 999 acres	540	355,078	8,892,447	143	85,825	582	385,592	7,631,363	156	99,853
1,000 to 1,999 acres	159	204,053	5,374,872	55	67,234	139	178,416	3,707,172	47	57,413
2,000 acres or more	22	74,702	2,018,216	7	22,920	20	62,510	1,302,137	12	34,202
Sugarcane for sugar (tons)	692	846,666	31,127,405	219	435,205	953	978,393	35,319,767	276	496,608
1 to 14 acres	50	341	10,621	22	60	44	303	9,964	4	24
15 to 24 acres	21	393	11,446	3	55	25	475	15,823	-	-
25 to 49 acres	40	1,322	45,896	10	351	56	2,001	67,533	14	471
50 to 99 acres	38	2,631	92,837	19	1,316	78	6,037	222,413	34	2,567
100 to 249 acres	81	13,571	464,091	52	8,449	130	20,343	743,968	67	10,295
250 to 499 acres	96	34,638	1,191,447	35	12,535	171	61,740	2,021,210	60	20,314
500 to 999 acres	157	111,896	3,821,781	22	13,903	229	164,983	5,456,943	39	24,597
1,000 to 1,999 acres	121	167,308	5,792,840	20	25,596	138	190,938	6,227,200	14	17,891
2,000 acres or more	88	514,566	19,696,446	36	372,940	82	531,573	20,554,713	44	420,449
Sunflower seed, all (pounds)	6,403	2,000,153	2,820,962,445	608	102,219	7,506	1,833,435	2,042,510,240	571	70,363
1 to 14 acres	366	1,909	1,529,163	51	217	852	3,564	2,407,073	88	245
15 to 24 acres	136	2,573	2,343,956	12	184	197	3,764	3,347,333	17	322
25 to 49 acres	319	11,504	12,737,481	30	1,023	484	17,701	17,507,863	60	1,803
50 to 99 acres	834	60,650	77,839,974	98	6,203	1,115	79,074	83,047,463	127	7,863
100 to 249 acres	2,110	340,685	471,038,872	235	32,525	2,402	382,929	420,295,060	178	24,429
250 to 499 acres	1,494	519,809	740,639,472	106	27,138	1,482	506,985	573,929,954	71	17,484
500 to 999 acres	824	543,516	762,024,834	57	18,265	728	475,024	536,253,488	23	10,036
1,000 acres or more	320	519,507	752,808,693	19	16,664	246	364,394	405,722,006	7	8,181
Sunflower seed - oil varieties (pounds)	5,501	1,710,057	2,443,486,848	415	73,297	6,286	1,500,828	1,694,628,777	394	46,709
1 to 14 acres	255	1,405	1,081,603	28	122	573	2,454	1,589,983	52	127
15 to 24 acres	122	2,319	2,090,705	9	141	172	3,328	2,988,903	11	215
25 to 49 acres	274	9,845	10,881,758	16	536	424	15,658	15,580,200	39	1,175
50 to 99 acres	730	53,436	68,343,009	68	4,211	1,020	72,291	75,722,132	99	6,065
100 to 249 acres	1,840	298,115	415,936,903	164	22,668	2,088	332,133	367,512,945	124	16,703
250 to 499 acres	1,326	458,829	657,943,701	77	19,340	1,228	418,920	478,520,058	49	11,653
500 to 999 acres	691	456,658	650,240,441	40	13,460	597	388,208	444,455,501	14	4,817
1,000 acres or more	263	429,450	636,968,728	13	12,819	184	267,836	308,259,055	6	5,954
Sunflower seed - non-oil varieties (pounds)	1,135	290,096	377,475,597	206	28,922	1,477	332,607	347,881,463	193	23,654
1 to 14 acres	119	560	527,002	26	97	300	1,142	831,595	41	120
15 to 24 acres	18	328	350,570	4	47	36	642	565,763	7	127
25 to 49 acres	62	2,263	2,625,932	13	481	77	2,754	2,844,867	21	(D)
50 to 99 acres	152	10,815	13,855,510	37	2,460	166	11,986	12,884,906	38	2,417
100 to 249 acres	408	64,563	83,361,280	88	11,762	440	71,796	77,020,108	59	8,526
250 to 499 acres	216	73,995	100,202,803	21	6,587	294	100,023	110,342,991	19	5,872
500 to 999 acres	115	73,034	95,057,509	11	3,643	121	78,139	77,573,336	7	3,737
1,000 acres or more	45	64,538	81,494,991	6	3,845	43	66,125	65,817,897	1	(D)
Tobacco (pounds)	16,234	359,846	778,301,825	2,572	71,578	56,977	428,631	873,350,412	5,923	97,355
0.1 to 0.9 acres	235	127	273,459	15	7	9,519	5,066	8,943,748	307	160
1.0 to 1.9 acres	1,493	1,739	3,625,099	69	76	14,323	16,809	29,107,690	577	667
2.0 to 2.9 acres	1,827	3,865	7,983,071	103	216	8,618	18,471	32,184,289	534	1,079
3.0 to 4.9 acres	2,772	9,835	20,444,753	220	688	8,239	28,871	54,281,198	747	2,442

See footnote(s) at end of table.

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Table 33. **Specified Crops by Acres Harvested: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007					2002				
	Farms	Acres	Quantity	Irrigated land		Farms	Acres	Quantity	Irrigated land	
				Farms	Acres				Farms	Acres
FIELD CROPS - Con.										
Tobacco (pounds) - Con.										
5.0 to 9.9 acres	3,459	22,642	49,649,665	405	2,438	7,157	45,973	90,523,753	1,057	6,133
10.0 to 24.9 acres	3,129	45,747	99,386,489	610	7,366	5,099	74,807	153,115,742	1,246	15,818
25.0 to 49.9 acres	1,343	45,743	100,047,433	410	10,606	2,201	74,689	158,705,669	745	21,126
50.0 to 74.9 acres	699	41,163	88,471,744	282	11,763	954	56,337	118,486,949	355	17,065
75.0 to 99.9 acres	406	34,150	73,500,622	141	7,681	342	28,567	61,227,015	136	8,847
100.0 acres or more	871	154,835	334,919,490	317	30,738	525	79,042	166,774,359	219	24,019
100.0 to 249.9 acres	738	106,634	229,521,335	273	23,915	482	64,288	138,116,090	202	20,152
250.0 acres or more	133	48,201	105,398,155	44	6,823	43	14,754	28,658,269	17	3,867
Wheat for grain, all (bushels)	160,810	50,932,969	1,993,648,378	15,213	3,364,079	169,528	45,519,976	1,577,005,140	13,330	2,910,181
1 to 14 acres	13,795	117,426	5,569,894	564	4,290	19,232	161,776	7,471,665	560	4,377
15 to 24 acres	12,908	245,624	11,721,223	544	9,488	15,781	299,989	14,223,702	614	10,722
25 to 49 acres	22,584	792,718	37,195,636	1,252	40,328	25,174	881,306	40,923,128	1,333	43,231
50 to 99 acres	26,825	1,857,801	83,681,696	2,153	129,629	27,384	1,890,287	82,690,685	2,054	127,838
100 to 249 acres	34,703	5,439,157	228,595,995	3,831	477,553	34,401	5,362,078	214,381,675	3,623	478,245
250 to 499 acres	21,167	7,412,051	291,347,790	2,723	620,383	21,018	7,344,223	264,661,912	2,372	594,823
500 to 999 acres	15,789	10,868,661	414,670,130	2,150	744,254	15,636	10,757,322	361,250,724	1,647	672,804
1,000 acres or more	13,039	24,199,531	920,866,014	1,996	1,338,154	10,902	18,822,995	591,401,649	1,127	978,141
1,000 to 1,999 acres	9,234	12,418,248	472,504,501	1,393	716,301	8,316	11,032,298	355,768,931	831	550,178
2,000 to 2,999 acres	2,403	5,625,869	213,983,781	374	313,685	1,685	3,962,016	119,302,451	167	165,920
3,000 to 4,999 acres	1,102	3,996,858	148,576,472	167	175,961	727	2,612,687	81,182,031	105	185,592
5,000 acres or more	300	2,158,556	85,801,260	62	132,207	174	1,215,994	35,148,236	24	76,451
Winter wheat for grain (bushels)	136,103	35,785,969	1,444,540,438	12,669	2,654,048	141,062	29,303,293	1,104,334,391	10,805	2,222,029
1 to 14 acres	12,937	110,034	5,240,347	447	3,349	18,360	154,598	7,203,358	441	3,365
15 to 24 acres	12,083	229,679	11,047,292	435	7,478	14,885	282,644	13,597,948	515	8,876
25 to 49 acres	20,704	726,633	34,494,781	1,020	32,332	23,216	811,096	38,518,819	1,102	35,197
50 to 99 acres	23,882	1,651,453	75,239,559	1,722	101,308	24,204	1,665,563	75,135,928	1,678	103,142
100 to 249 acres	29,775	4,642,675	197,895,038	3,140	378,149	28,593	4,426,126	184,929,317	2,933	378,681
250 to 499 acres	16,980	5,915,926	236,900,350	2,359	511,004	15,671	5,438,966	208,213,349	1,908	462,859
500 to 999 acres	11,447	7,819,647	302,457,298	1,854	597,682	10,261	6,995,987	251,693,334	1,382	529,626
1,000 acres or more	8,295	14,689,922	581,265,773	1,692	1,022,746	5,872	9,528,313	325,042,338	846	700,283
1,000 to 1,999 acres	6,138	8,173,443	317,363,189	1,214	569,369	4,731	6,185,494	214,592,308	654	416,292
2,000 to 2,999 acres	1,438	3,346,576	131,838,799	317	232,844	768	1,785,631	58,338,389	110	114,355
3,000 to 4,999 acres	565	2,045,090	82,019,791	113	116,561	316	1,108,032	36,608,474	67	110,336
5,000 acres or more	154	1,124,813	50,043,994	48	103,972	57	449,156	15,503,167	15	59,300
Durum wheat for grain (bushels)	3,723	2,138,734	73,201,303	553	188,151	5,325	2,717,841	81,170,077	683	210,670
1 to 14 acres	57	423	14,027	8	66	54	388	20,335	18	146
15 to 24 acres	36	683	24,708	6	115	52	1,001	29,438	4	82
25 to 49 acres	142	5,117	217,768	34	1,204	188	6,833	268,454	42	1,484
50 to 99 acres	305	21,780	875,139	64	4,433	522	37,882	1,438,315	110	7,665
100 to 249 acres	920	150,949	6,475,693	201	31,401	1,463	240,257	8,287,325	234	37,440
250 to 499 acres	843	296,771	10,835,280	109	37,025	1,283	449,142	14,176,954	150	48,194
500 to 999 acres	770	523,982	17,926,619	88	48,785	1,002	682,306	19,982,657	79	46,693
1,000 acres or more	650	1,139,029	36,832,069	43	65,122	761	1,300,032	36,966,599	46	68,966
1,000 to 1,999 acres	463	615,189	20,152,371	31	37,530	566	747,480	21,581,303	33	39,310
2,000 to 2,999 acres	128	296,895	9,302,929	5	(D)	139	327,769	8,420,832	6	(D)
3,000 to 4,999 acres	51	179,087	6,036,755	6	15,468	50	180,601	5,341,962	6	(D)
5,000 acres or more	8	47,858	1,340,014	1	(D)	6	44,182	1,622,502	1	(D)
Other Spring wheat for grain (bushels)	28,733	13,008,266	475,906,637	2,681	521,880	30,333	13,498,842	391,500,672	2,581	477,482
1 to 14 acres	1,056	8,949	418,095	170	1,442	1,099	9,016	357,993	178	1,453
15 to 24 acres	1,066	20,491	914,204	173	3,155	1,087	21,034	856,185	172	3,157
25 to 49 acres	2,275	80,319	3,454,899	319	11,007	2,454	87,732	3,216,229	336	11,462
50 to 99 acres	3,745	263,773	11,148,646	532	34,229	3,836	269,765	9,486,598	466	30,553
100 to 249 acres	6,814	1,097,611	42,628,242	720	98,555	7,167	1,152,700	37,252,579	702	96,749
250 to 499 acres	5,462	1,931,494	72,526,455	351	96,134	5,849	2,062,034	62,641,108	350	96,564
500 to 999 acres	4,763	3,292,423	124,146,593	242	120,236	5,145	3,541,364	104,110,732	226	105,234
1,000 acres or more	3,552	6,313,206	220,669,503	174	157,122	3,696	6,355,197	173,579,248	151	132,310
1,000 to 1,999 acres	2,578	3,444,988	126,303,436	120	97,270	2,777	3,664,387	104,210,357	109	88,765
2,000 to 2,999 acres	641	1,494,451	51,043,379	35	39,742	619	1,446,910	37,350,108	27	22,625
3,000 to 4,999 acres	266	942,955	29,870,851	16	(D)	241	867,099	23,384,332	12	20,445
5,000 acres or more	67	430,812	13,451,837	3	(D)	59	376,801	8,634,451	3	475
HAY, FORAGE, AND FIELD AND GRASS SEEDS										
Field and grass seed crops, all	6,038	1,178,726	(X)	1,457	323,441	10,332	1,422,133	(X)	1,705	271,935
1 to 14 acres	935	7,194	(X)	179	1,176	1,790	13,475	(X)	219	1,420
15 to 24 acres	625	11,825	(X)	81	1,433	1,284	24,243	(X)	145	2,603
25 to 49 acres	1,108	38,410	(X)	171	5,846	2,019	70,110	(X)	253	8,265
50 to 99 acres	1,112	75,026	(X)	241	15,476	1,953	132,018	(X)	298	19,295
100 to 249 acres	1,151	177,868	(X)	309	43,838	1,942	287,754	(X)	364	48,686
250 to 499 acres	539	186,272	(X)	221	62,233	761	258,604	(X)	221	60,030
500 to 999 acres	329	222,836	(X)	135	63,071	381	253,190	(X)	132	66,982
1,000 to 1,999 acres	168	216,994	(X)	88	79,200	150	195,526	(X)	58	53,099
2,000 acres or more	71	242,301	(X)	32	51,168	52	187,213	(X)	15	11,555
Alfalfa seed (pounds)	806	121,467	62,115,239	569	102,958	1,234	110,617	58,020,460	740	87,177
1 to 14 acres	151	1,164	276,865	89	600	271	1,849	408,923	120	742
15 to 24 acres	70	1,299	458,533	40	764	160	3,001	844,766	73	1,395
25 to 49 acres	129	4,678	1,573,778	82	2,920	262	9,167	3,040,774	149	5,232
50 to 99 acres	152	10,012	3,834,193	109	7,229	227	15,651	6,406,686	139	9,791
100 to 249 acres	176	28,081	12,791,297	133	20,731	216	32,733	16,161,246	165	24,298
250 to 499 acres	81	27,452	14,780,871	71	23,385	66	22,813	15,868,054	64	22,023
500 to 999 acres	26	17,126	9,240,229	24	15,742	26	16,311	9,358,034	24	14,604
1,000 acres or more	21	31,655	19,159,473	21	31,587	6	9,092	5,931,977	6	9,092
Fescue seed (pounds)	2,917	386,122	303,243,394	272	39,930	5,172	565,691	323,023,498	280	34,491
1 to 14 acres	340	2,711	1,309,583	29	163	604	4,653	1,307,175	26	178
15 to 24 acres	330	6,210	1,890,775	13	256	593	11,239	3,190,030	20	334
25 to 49 acres	641	21,941	7,193,568	24	735	1,103	38,746	11,646,424	42	1,351
50 to 99 acres	619	41,642	17,654,843	50	3,048	1,167	77,723	26,610,399	41	2,232
100 to 249 acres	600	89,865	53,124,103	69	8,227	1,196	174,342	76,753,648	83	8,630
250 to 499 acres	238	79,098	68,083,337	55	11,494	356	116,775	74,213,767	44	10,214
500 to 999 acres	108	69,213	60,975,613	21	7,363	115	73,299	57,736,370	20	9,044
1,000 acres or more	41	75,442	93,011,572	11	8,644	38	68,914	71,565,685	4	2,508

See footnote(s) at end of table.

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Table 33. **Specified Crops by Acres Harvested: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007					2002				
	Farms	Acres	Quantity	Irrigated land		Farms	Acres	Quantity	Irrigated land	
				Farms	Acres				Farms	Acres
HAY, FORAGE, AND FIELD AND GRASS SEEDS - Con.										
Field and grass seed crops, all - Con.										
Ryegrass seed (pounds)	968	307,722	504,262,904	300	54,641	1,039	290,963	459,929,090	260	32,031
1 to 14 acres	119	878	851,619	24	170	162	1,216	840,390	34	235
15 to 24 acres	80	1,474	1,576,018	18	309	101	1,842	1,686,079	30	452
25 to 49 acres	113	3,990	4,830,208	38	1,263	133	4,681	5,416,305	28	714
50 to 99 acres	135	9,384	12,888,709	38	2,153	150	10,483	14,928,070	36	1,731
100 to 249 acres	211	34,540	49,924,030	66	6,681	200	32,719	49,386,699	59	6,332
250 to 499 acres	141	50,343	83,491,419	56	13,925	139	48,657	82,929,939	39	9,288
500 to 999 acres	106	71,439	116,473,401	39	13,427	86	59,493	97,611,612	20	6,818
1,000 to 1,999 acres	40	53,391	91,999,136	12	7,570	47	62,066	98,477,655	8	5,213
2,000 acres or more	23	82,283	142,228,364	9	9,143	21	69,806	108,652,341	6	1,248
Forage - land used for all hay and all haylage, grass silage, and greenchop (tons, dry equivalent) (see text)	869,534	61,455,483	155,393,762	86,007	10,264,753	884,831	64,041,337	154,976,932	81,995	10,269,779
1 to 14 acres	222,523	1,782,574	3,818,751	21,388	144,402	218,375	1,747,343	3,843,141	18,859	127,802
15 to 24 acres	145,010	2,696,092	5,660,375	9,771	163,838	144,703	2,699,068	5,810,867	8,757	146,004
25 to 49 acres	193,724	6,622,570	14,520,765	13,283	401,960	195,797	6,711,272	14,954,256	12,547	377,851
50 to 99 acres	151,549	10,130,109	23,508,354	13,260	772,849	157,359	10,537,846	24,972,881	12,970	755,302
100 to 249 acres	111,368	16,174,036	40,234,014	15,339	1,932,748	120,899	17,638,529	43,339,615	15,790	1,994,512
250 to 499 acres	30,370	10,110,738	26,403,785	7,313	1,989,174	32,307	10,784,457	25,904,827	7,312	2,013,840
500 to 999 acres	10,911	7,068,019	19,449,434	3,655	1,905,935	11,608	7,538,310	18,409,508	3,945	2,063,389
1,000 acres or more	4,079	6,871,345	21,798,283	1,998	2,953,847	3,783	6,384,514	17,741,837	1,815	2,791,079
1,000 to 1,999 acres	3,146	4,036,040	12,047,028	1,435	1,480,720	2,965	3,785,049	9,803,335	1,325	1,391,325
2,000 to 2,999 acres	592	1,351,348	4,389,818	328	608,012	499	1,141,046	3,125,682	277	485,977
3,000 to 4,999 acres	257	923,166	3,354,192	178	524,289	237	845,250	2,764,394	151	469,975
5,000 acres or more	84	560,791	2,007,244	57	340,826	82	613,169	2,048,426	62	443,802
Hay - All hay including alfalfa, other tame, small grain, and wild (tons, dry) (see text)	845,050	58,121,003	138,113,218	82,892	9,830,856	870,541	60,645,417	137,858,890	79,751	9,879,867
1 to 14 acres	218,869	1,754,377	3,761,311	20,633	139,708	216,413	1,742,671	3,761,564	18,392	125,495
15 to 24 acres	143,230	2,665,502	5,556,256	9,419	157,822	145,518	2,716,192	5,772,243	8,608	144,255
25 to 49 acres	191,435	6,546,731	14,087,807	12,933	390,762	197,362	6,765,296	14,763,055	12,434	375,523
50 to 99 acres	147,089	9,800,828	21,730,789	12,797	745,306	155,297	10,351,875	23,311,025	12,699	742,935
100 to 249 acres	102,489	14,836,986	34,489,730	14,704	1,857,264	112,385	16,284,045	37,005,660	15,211	1,939,565
250 to 499 acres	27,793	9,250,586	22,423,747	7,028	1,911,449	29,242	9,766,070	21,646,308	6,960	1,931,897
500 to 999 acres	10,249	6,653,151	16,810,404	3,463	1,796,953	10,719	6,959,480	15,766,440	3,730	1,974,291
1,000 acres or more	3,896	6,612,842	19,253,174	1,915	2,831,592	3,605	6,059,788	15,832,595	1,717	2,645,906
1,000 to 1,999 acres	2,991	3,850,115	10,628,439	1,377	1,425,396	2,825	3,598,909	8,712,178	1,253	1,323,555
2,000 to 2,999 acres	567	1,294,438	3,799,635	311	581,987	482	1,102,757	2,871,402	269	479,329
3,000 to 4,999 acres	254	909,079	3,007,423	171	495,038	222	790,347	2,447,283	139	435,009
5,000 acres or more	84	559,210	1,817,677	56	329,171	76	567,775	1,801,732	56	408,013
Alfalfa hay (tons, dry)	290,726	20,244,497	65,349,074	56,390	6,556,652	344,197	22,637,984	68,524,529	55,841	6,809,432
1 to 14 acres	92,193	686,330	1,719,458	14,118	96,318	104,748	791,913	2,043,824	12,484	87,396
15 to 24 acres	45,446	852,047	2,307,915	6,195	110,156	55,152	1,032,810	2,782,259	5,880	103,564
25 to 49 acres	58,111	1,995,215	5,716,031	8,759	284,094	70,285	2,414,646	6,796,768	8,898	287,895
50 to 99 acres	45,111	3,017,573	9,055,847	9,226	582,781	56,124	3,747,064	10,836,525	9,447	593,572
100 to 249 acres	33,781	4,927,194	15,490,978	10,581	1,447,112	41,136	5,943,297	17,182,124	11,254	1,537,125
250 to 499 acres	10,329	3,470,482	11,111,633	4,521	1,346,929	11,159	3,746,318	10,737,445	4,729	1,410,228
500 to 999 acres	4,221	2,738,429	9,121,367	2,012	1,147,072	4,277	2,768,073	8,774,952	2,215	1,282,690
1,000 acres or more	1,534	2,557,227	10,825,845	978	1,542,190	1,316	2,193,863	9,370,632	934	1,506,962
1,000 to 1,999 acres	1,223	1,592,047	6,285,213	738	857,858	1,042	1,324,561	5,039,489	701	794,177
2,000 to 2,999 acres	192	446,948	1,886,403	140	274,854	166	377,010	1,776,573	137	287,282
3,000 to 4,999 acres	93	337,543	1,733,862	77	253,600	80	288,278	1,435,686	70	234,699
5,000 acres or more	26	180,689	920,367	23	155,878	28	204,014	1,118,884	26	190,804
Small grain hay (tons, dry)	70,603	3,866,721	8,253,840	9,845	706,525	76,584	4,354,516	7,501,232	9,840	665,293
1 to 14 acres	21,928	169,026	318,665	2,512	17,119	25,614	187,781	349,285	2,321	15,682
15 to 24 acres	12,306	229,709	460,416	1,331	22,840	12,822	239,008	457,300	1,326	23,264
25 to 49 acres	14,975	511,135	1,018,064	1,901	59,862	15,280	520,426	966,945	2,009	64,609
50 to 99 acres	11,016	726,322	1,474,018	1,717	100,374	11,353	751,297	1,364,953	1,881	113,974
100 to 249 acres	7,932	1,135,575	2,433,009	1,649	204,304	8,492	1,231,357	2,188,713	1,702	220,328
250 to 499 acres	1,826	601,712	1,405,396	500	137,106	2,164	715,130	1,133,124	414	112,351
500 to 999 acres	498	314,249	719,527	179	87,720	665	415,327	637,383	150	74,047
1,000 acres or more	122	178,993	424,745	56	77,200	194	294,190	403,529	37	41,038
Other tame hay (tons, dry)	496,740	26,763,972	54,347,673	24,348	1,699,864	504,861	26,944,228	53,477,464	22,535	1,616,719
1 to 14 acres	130,829	1,064,853	2,210,794	7,361	47,811	131,733	1,068,860	2,164,405	6,698	43,625
15 to 24 acres	90,528	1,679,914	3,294,798	3,387	52,352	92,828	1,728,132	3,399,925	3,083	49,577
25 to 49 acres	119,370	4,060,660	8,080,902	4,419	122,749	121,909	4,146,546	8,279,784	4,110	115,205
50 to 99 acres	87,090	5,746,034	11,542,819	3,774	196,249	88,318	5,804,901	11,662,863	3,594	192,473
100 to 249 acres	54,542	7,714,795	15,591,946	3,445	389,972	55,950	7,881,203	15,892,727	3,329	388,232
250 to 499 acres	10,712	3,470,659	7,033,085	1,166	288,986	10,646	3,447,997	6,778,364	1,049	275,044
500 to 999 acres	2,870	1,793,730	3,818,397	532	255,080	2,762	1,717,729	3,288,588	475	246,322
1,000 acres or more	799	1,233,327	2,774,932	264	346,665	715	1,148,860	2,010,808	197	306,241
1,000 to 1,999 acres	645	802,103	1,793,104	205	215,578	585	742,532	1,324,851	148	155,505
2,000 to 2,999 acres	106	237,962	588,096	37	65,193	86	191,669	333,978	29	47,900
3,000 to 4,999 acres	38	134,670	308,981	19	54,894	32	110,059	179,238	13	42,940
5,000 acres or more	10	58,592	84,751	3	11,000	12	104,600	172,741	7	59,896
Wild hay (tons, dry)	125,543	7,245,813	10,162,631	5,993	867,815	114,056	6,708,689	8,355,665	5,270	788,423
1 to 14 acres	40,583	315,053	477,465	1,804	10,202	37,267	283,391	418,378	1,506	8,982
15 to 24 acres	24,076	444,618	651,318	719	10,702	21,316	395,003	554,605	652	9,715
25 to 49 acres	27,529	931,256	1,394,666	891	24,666	24,000	811,750	1,126,225	757	21,055
50 to 99 acres	17,726	1,159,860	1,732,268	804	43,524	16,196	1,056,810	1,458,940	689	37,323
100 to 249 acres	11,005	1,564,310	2,254,902	804	100,936	11,045	1,566,777	2,026,024	791	102,909
250 to 499 acres	2,903	966,606	1,298,863	474	140,411	2,565	847,935	981,471	431	133,546
500 to 999 acres	1,084	704,961	945,100	281	162,891	1,062	687,493	739,579	280	169,521
1,000 acres or more	637	1,159,149	1,408,049	216	374,483	605	1,059,530	1,050,443	164	305,372
1,000 to 1,999 acres	462	601,067	764,140	148	183,332	438	546,890	577,456	111	129,680
2,000 to 2,999 acres	99	221,438	252,524	32	64,693	102	229,627	197,568	26	51,778
3,000 to 4,999 acres	53	188,299	211,572	28	71,166	47	166,221	176,064	19	64,622
5,000 acres or more	23	148,345	179,813	8	55,292	18	116,792	99,355	8	59,292
All haylage, grass silage, and greenchop (tons, green)	68,936	5,494,926	34,959,627	6,340	799,363	62,785	5,324,920	34,631,619	5,028	686,112
1 to 14 acres	13,982	109,113	401,399	1,413	9,016	11,461	77,860	439,385	806	4,766
15 to 24 acres	9,448	177,371	772,916	627	10,489	6,873	130,187	696,815	386	6,607

See footnote(s) at end of table.

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Table 33. **Specified Crops by Acres Harvested: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007					2002				
	Farms	Acres	Quantity	Irrigated land		Farms	Acres	Quantity	Irrigated land	
				Farms	Acres				Farms	Acres
HAY, FORAGE, AND FIELD AND GRASS SEEDS - Con.										
All haylage, grass silage, and greenchop (tons, green) - Con.										
25 to 49 acres	14,444	500,505	2,554,279	964	28,829	12,515	438,336	2,593,438	751	23,410
50 to 99 acres	14,901	1,008,870	5,563,496	989	58,511	14,921	1,015,758	6,148,399	965	56,638
100 to 249 acres	12,158	1,745,656	10,579,787	1,370	174,887	13,116	1,876,781	11,764,642	1,289	165,369
250 to 499 acres	2,852	946,445	6,655,960	561	160,288	2,939	967,626	6,543,012	508	144,527
500 to 999 acres	888	574,560	4,484,581	299	166,408	757	490,159	3,792,218	228	130,143
1,000 to 1,999 acres	201	256,844	2,268,203	76	79,758	165	209,810	1,735,527	69	78,047
2,000 acres or more	62	175,562	1,679,006	41	111,177	38	118,403	918,183	26	76,605
Haylage or greenchop from alfalfa or alfalfa mixtures (tons, green)	40,948	3,414,270	22,604,406	3,180	393,665	43,798	3,547,160	23,403,394	2,623	365,572
1 to 14 acres	6,503	51,322	224,057	747	4,650	7,261	47,088	294,100	414	2,227
15 to 24 acres	4,954	93,974	520,928	278	4,676	4,684	89,249	521,749	204	3,305
25 to 49 acres	8,761	307,297	1,854,049	450	13,695	9,062	318,423	2,026,814	372	12,109
50 to 99 acres	10,440	706,239	4,311,880	530	30,669	11,334	768,383	4,848,828	512	30,895
100 to 249 acres	7,938	1,124,508	7,208,764	700	86,680	9,139	1,289,448	8,234,536	694	92,361
250 to 499 acres	1,691	561,796	4,034,424	270	77,997	1,768	577,872	3,929,119	253	71,422
500 to 999 acres	517	334,197	2,539,059	154	81,677	428	277,201	2,110,903	122	70,967
1,000 to 1,999 acres	116	152,730	1,213,023	30	30,959	105	132,381	1,099,483	39	45,076
2,000 acres or more	28	82,207	698,222	21	62,662	17	47,115	337,862	13	37,210
Other haylage, grass silage, and greenchop, excluding corn and sorghum silage (tons, green)	33,557	2,080,656	12,355,221	3,626	405,698	27,614	1,777,468	11,227,005	2,758	320,403
1 to 14 acres	9,635	73,745	251,747	969	5,311	7,410	54,673	267,500	485	3,008
15 to 24 acres	5,753	106,908	379,852	346	5,765	4,352	81,803	396,960	226	3,972
25 to 49 acres	7,062	239,127	965,616	561	16,918	5,834	199,515	1,025,618	471	14,538
50 to 99 acres	5,380	356,661	1,600,818	526	32,284	4,918	325,163	1,776,305	546	32,442
100 to 249 acres	4,294	619,017	3,470,716	723	97,638	3,882	554,662	3,515,972	650	85,033
250 to 499 acres	1,028	337,956	2,432,305	309	91,466	903	295,474	2,044,607	237	69,793
500 to 999 acres	320	209,131	1,756,125	144	84,849	257	165,093	1,343,058	108	59,800
1,000 to 1,999 acres	63	76,849	756,939	33	35,777	44	55,651	511,822	25	28,322
2,000 acres or more	22	61,262	741,103	15	35,690	14	45,434	345,163	10	23,495
OTHER SPECIFIED CROPS										
Land in vegetables (see text) [1]	69,172	4,356,880	(X)	29,885	3,068,485	54,391	3,433,269	(X)	23,149	2,359,667
0.1 to 0.9 acres	13,591	5,432	(X)	5,180	1,996	7,738	3,237	(X)	2,926	1,199
1.0 to 4.9 acres	27,862	56,608	(X)	10,651	18,878	18,742	40,087	(X)	6,661	12,606
5.0 to 14.9 acres	10,923	85,210	(X)	4,606	28,640	10,024	80,654	(X)	4,032	25,916
15 to 24 acres	2,946	54,705	(X)	1,433	20,623	3,548	66,177	(X)	1,634	24,913
25 to 49 acres	3,579	124,415	(X)	1,648	47,370	4,250	148,507	(X)	1,856	54,096
50 to 99 acres	3,092	212,376	(X)	1,473	88,074	3,670	251,705	(X)	1,749	108,242
100 to 249 acres	3,473	538,241	(X)	2,010	281,120	3,548	545,907	(X)	2,045	295,091
250 to 499 acres	1,787	615,642	(X)	1,266	396,480	1,539	528,843	(X)	1,121	359,247
500 to 749 acres	713	428,628	(X)	569	312,201	534	316,287	(X)	421	231,979
750 to 999 acres	343	294,296	(X)	285	225,389	245	208,247	(X)	207	161,466
1,000 acres or more	863	1,941,326	(X)	764	1,647,715	553	1,243,619	(X)	497	1,084,912
1,000 to 1,999 acres	563	774,012	(X)	487	615,785	340	454,067	(X)	301	378,124
2,000 to 2,999 acres	144	347,976	(X)	129	293,978	115	273,794	(X)	103	236,102
3,000 to 4,999 acres	94	352,713	(X)	89	309,599	58	218,649	(X)	53	189,393
5,000 acres or more	62	466,625	(X)	59	428,353	40	297,109	(X)	40	281,293
Land in orchards (see text)	115,935	5,039,476	(X)	61,189	3,981,316	113,649	5,330,439	(X)	64,907	4,374,125
0.1 to 0.9 acres	11,755	5,066	(X)	4,556	1,956	8,483	3,822	(X)	3,204	1,468
1.0 to 4.9 acres	41,020	88,981	(X)	18,720	39,514	36,917	81,298	(X)	17,290	37,296
5.0 to 14.9 acres	26,287	213,530	(X)	13,268	104,241	27,075	221,526	(X)	14,328	113,676
15 to 24 acres	10,756	200,142	(X)	6,369	112,992	11,719	218,418	(X)	7,523	135,219
25 to 49 acres	10,180	351,859	(X)	6,264	207,598	11,490	398,472	(X)	8,027	269,576
50 to 99 acres	6,939	474,586	(X)	4,632	304,323	8,052	550,451	(X)	6,058	402,472
100 to 249 acres	5,434	828,529	(X)	4,223	628,491	6,138	931,137	(X)	5,075	744,271
250 to 499 acres	2,026	696,787	(X)	1,748	582,269	2,253	772,374	(X)	1,976	653,747
500 to 749 acres	665	398,858	(X)	587	341,664	620	370,788	(X)	567	323,784
750 to 999 acres	265	228,247	(X)	248	208,113	316	272,933	(X)	297	247,934
1,000 acres or more	608	1,552,893	(X)	574	1,450,156	586	1,509,220	(X)	562	1,444,683
1,000 to 1,999 acres	385	517,116	(X)	360	469,745	366	490,940	(X)	346	449,879
2,000 to 2,999 acres	92	218,492	(X)	86	203,431	86	205,697	(X)	82	193,273
3,000 acres or more	131	817,285	(X)	128	776,980	134	812,584	(X)	134	801,532
Land in berries (see text)	25,017	261,733	(X)	11,510	176,568	(NA)	(NA)	(X)	(NA)	(NA)
0.1 to 0.9 acres	10,283	3,230	(X)	3,610	1,086	(NA)	(NA)	(X)	(NA)	(NA)
1.0 to 4.9 acres	9,135	17,386	(X)	4,126	7,691	(NA)	(NA)	(X)	(NA)	(NA)
5.0 to 14.9 acres	2,995	23,916	(X)	1,793	13,434	(NA)	(NA)	(X)	(NA)	(NA)
15 to 24 acres	879	16,316	(X)	602	10,260	(NA)	(NA)	(X)	(NA)	(NA)
25 to 49 acres	764	25,763	(X)	579	18,188	(NA)	(NA)	(X)	(NA)	(NA)
50 to 99 acres	468	31,591	(X)	375	23,941	(NA)	(NA)	(X)	(NA)	(NA)
100 acres or more	493	143,532	(X)	425	101,969	(NA)	(NA)	(X)	(NA)	(NA)

[1] 2002 data do not include potatoes, sweet potatoes, or ginseng.

Table 34. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002**

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007						2002 total harvested	
	Total harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
Vegetables harvested for sale (see text) [1]	69,172	4,682,588	11,468	2,059,160	62,495	2,623,427	54,391	3,698,744
0.1 to 0.9 acres	13,426	5,755	824	260	12,948	5,495	7,550	3,399
1.0 to 4.9 acres	27,752	57,780	1,961	2,146	27,211	55,635	18,692	40,476
5.0 to 14.9 acres	11,069	87,168	979	4,045	10,818	83,123	10,118	81,825
15.0 to 24.9 acres	2,990	55,646	532	7,513	2,679	48,133	3,578	66,947
25.0 to 49.9 acres	3,573	124,414	1,283	40,420	2,544	83,994	4,260	148,891
50.0 to 99.9 acres	3,093	212,379	1,580	99,969	1,777	112,411	3,684	252,531
100.0 to 249.9 acres	3,451	536,569	1,961	267,713	2,000	268,856	3,563	548,675
250.0 to 499.9 acres	1,791	615,956	1,076	304,242	1,100	311,713	1,530	527,071
500.0 to 749.9 acres	720	430,775	453	216,940	468	213,836	540	322,230
750.0 to 999.9 acres	360	309,554	233	151,255	248	158,300	259	219,524
1,000.0 acres or more	947	2,246,591	586	964,659	702	1,281,933	617	1,487,174
1,000.0 to 1,999.9 acres	591	814,667	379	368,863	432	445,804	364	485,452
2,000.0 to 2,999.9 acres	159	386,087	97	161,921	121	224,166	120	288,392
3,000.0 to 4,999.9 acres	123	458,158	65	176,681	89	281,477	82	309,456
5,000.0 acres or more	74	587,679	45	257,193	60	330,486	51	403,875
Artichokes (excluding Jerusalem) (see text)	118	9,687	-	-	118	9,687	93	7,789
Asparagus, bearing age (see text)	2,605	43,010	219	11,087	2,465	31,923	2,987	74,987
0.1 to 0.9 acres	1,408	388	27	5	1,395	383	1,304	401
1.0 to 4.9 acres	733	1,311	17	24	726	1,287	871	1,605
5.0 to 14.9 acres	158	1,368	42	357	127	1,010	219	1,817
15.0 to 24.9 acres	56	1,041	23	376	37	665	124	2,370
25.0 to 49.9 acres	65	2,343	34	1,139	35	1,204	123	4,199
50.0 to 99.9 acres	67	4,568	32	2,017	48	2,552	146	10,364
100.0 acres or more	118	31,991	44	7,169	97	24,822	200	54,231
Beans, green limas	1,020	42,529	260	37,450	772	5,079	1,077	51,773
Beans, snap	17,300	303,997	1,999	198,101	15,654	105,896	11,343	307,101
0.1 to 0.9 acres	12,347	2,907	566	106	11,944	2,801	6,433	1,752
1.0 to 4.9 acres	2,829	4,627	156	199	2,759	4,428	2,379	4,148
5.0 to 14.9 acres	434	3,345	33	316	408	3,029	547	4,262
15.0 to 24.9 acres	167	3,239	78	1,534	92	1,706	244	4,637
25.0 to 49.9 acres	369	12,949	253	8,875	122	4,074	424	14,882
50.0 to 99.9 acres	392	27,114	316	21,659	90	5,455	517	34,892
100.0 to 249.9 acres	479	72,095	392	56,380	124	15,716	505	74,861
250.0 to 499.9 acres	165	55,103	127	40,526	54	14,577	183	62,604
500.0 acres or more	118	122,618	78	68,508	61	54,111	111	105,064
Beets	2,744	8,412	117	5,275	2,651	3,138	2,123	9,092
Broccoli	3,087	130,603	94	6,399	3,030	124,204	2,493	141,533
0.1 to 0.9 acres	2,227	497	38	(D)	2,199	(D)	1,510	410
1.0 to 4.9 acres	471	863	10	9	465	854	509	921
5.0 to 14.9 acres	71	550	2	(D)	70	(D)	103	829
15.0 to 24.9 acres	37	685	3	51	35	634	39	731
25.0 to 49.9 acres	33	1,131	9	239	26	892	38	1,395
50.0 to 99.9 acres	40	2,994	5	354	36	2,640	57	3,701
100.0 to 249.9 acres	81	12,781	11	1,298	74	11,482	95	14,913
250.0 to 499.9 acres	52	17,950	4	800	50	17,150	65	20,958
500.0 to 749.9 acres	29	16,922	5	1,393	29	15,530	(NA)	(NA)
750.0 to 999.9 acres	8	6,981	3	1,305	8	5,676	(NA)	(NA)
1,000.0 acres or more	38	69,250	4	936	38	68,313	(NA)	(NA)
Brussels sprouts	483	3,874	16	924	476	2,950	193	3,100
Cabbage, Chinese	620	11,480	6	9	618	11,471	469	12,293
Cabbage, head	4,086	80,620	175	9,866	3,986	70,753	3,757	85,324
0.1 to 0.9 acres	2,480	603	48	11	2,450	592	1,808	516
1.0 to 4.9 acres	843	1,542	19	19	836	1,523	979	1,896
5.0 to 14.9 acres	238	1,806	16	88	230	1,718	315	2,505
15.0 to 24.9 acres	97	1,776	10	177	90	1,599	139	2,592
25.0 to 49.9 acres	116	3,937	16	534	105	3,403	157	5,248
50.0 to 99.9 acres	114	7,534	22	1,084	103	6,451	147	10,179
100.0 to 249.9 acres	101	15,304	27	3,586	80	11,718	130	19,477
250.0 to 499.9 acres	64	21,516	8	1,639	60	19,877	54	18,673
500.0 acres or more	33	26,601	9	2,729	32	23,872	28	24,240
Cabbage, mustard	53	66	1	(D)	52	(D)	29	160
Cantaloupes	9,148	84,290	18	34	9,140	84,256	7,478	105,262
0.1 to 0.9 acres	5,542	1,543	(NA)	(NA)	(NA)	(NA)	3,490	1,084
1.0 to 4.9 acres	2,637	4,784	(NA)	(NA)	(NA)	(NA)	2,620	5,016
5.0 to 14.9 acres	563	4,164	(NA)	(NA)	(NA)	(NA)	775	5,795
15.0 to 24.9 acres	102	1,843	(NA)	(NA)	(NA)	(NA)	160	2,913
25.0 to 49.9 acres	84	2,861	(NA)	(NA)	(NA)	(NA)	130	4,319
50.0 to 99.9 acres	63	4,165	(NA)	(NA)	(NA)	(NA)	91	6,134
100.0 to 249.9 acres	93	14,353	(NA)	(NA)	(NA)	(NA)	124	18,707
250.0 to 499.9 acres	34	11,235	(NA)	(NA)	(NA)	(NA)	49	16,259
500.0 acres or more	30	39,343	(NA)	(NA)	(NA)	(NA)	39	45,036
Carrots	2,543	90,292	202	24,931	2,393	65,362	1,792	107,013
0.1 to 0.9 acres	1,929	379	32	5	1,910	375	1,133	260
1.0 to 4.9 acres	245	377	7	13	241	365	213	363
5.0 to 14.9 acres	55	424	9	64	50	360	59	520
15.0 to 24.9 acres	35	660	14	266	23	394	47	913
25.0 to 49.9 acres	43	1,506	19	624	27	883	49	1,748
50.0 to 99.9 acres	56	3,930	31	2,069	29	1,862	67	4,599
100.0 to 249.9 acres	86	13,412	52	7,119	41	6,293	(NA)	(NA)
250.0 to 499.9 acres	57	20,163	27	8,120	41	12,043	(NA)	(NA)
500.0 acres or more	37	49,440	11	6,651	31	42,789	(NA)	(NA)
Cauliflower	1,136	39,515	49	2,019	1,104	37,496	1,032	44,163
0.1 to 0.9 acres	660	168	8	2	655	166	494	143
1.0 to 4.9 acres	257	463	6	12	255	452	256	484
5.0 to 14.9 acres	47	414	6	56	42	359	75	614
15.0 to 24.9 acres	19	360	3	55	17	305	32	576
25.0 to 49.9 acres	18	653	8	308	11	345	32	1,167
50.0 to 99.9 acres	39	2,702	12	759	30	1,943	39	2,692

See footnote(s) at end of table.

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Table 34. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007						2002 total harvested	
	Total harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
Cauliflower - Con.								
100.0 to 249.9 acres	45	7,422	3	394	44	7,028	(NA)	(NA)
250.0 to 499.9 acres	31	10,413	2	(D)	30	(D)	(NA)	(NA)
500.0 acres or more	20	16,920	1	(D)	20	(D)	(NA)	(NA)
Celery	326	29,907	30	1,606	311	28,301	303	28,241
Chicory	46	2,118	-	-	46	2,118	53	2,649
Collards	1,374	11,223	54	1,572	1,354	9,651	1,190	16,782
Cucumbers and pickles	11,202	151,759	750	95,380	10,614	56,380	7,563	166,124
0.1 to 0.9 acres	8,474	1,919	251	46	8,283	1,872	4,624	1,226
1.0 to 4.9 acres	1,721	2,754	70	106	1,692	2,648	1,613	2,756
5.0 to 14.9 acres	287	2,218	35	299	264	1,919	343	2,681
15.0 to 24.9 acres	118	2,235	53	981	70	1,254	165	3,097
25.0 to 49.9 acres	147	5,033	57	1,878	93	3,156	238	8,147
50.0 to 99.9 acres	151	10,328	88	5,762	73	4,566	207	14,125
100.0 to 249.9 acres	157	23,676	100	14,048	72	9,628	(NA)	(NA)
250.0 to 499.9 acres	80	26,790	46	14,793	41	11,997	(NA)	(NA)
500.0 acres or more	67	76,808	50	57,468	26	19,340	(NA)	(NA)
Daikon	139	624	2	(D)	138	(D)	177	1,125
Eggplant	2,904	6,038	25	228	2,892	5,810	2,213	6,401
Escarole/Endive	133	3,627	1	(D)	132	(D)	123	3,939
Garlic (see text)	2,277	26,172	128	14,285	2,188	11,887	1,855	32,398
Ginseng (see text)	225	674	169	569	59	105	588	1,433
Herbs, fresh cut	2,053	13,573	(X)	(X)	2,053	13,573	1,774	10,916
Honeydew melons	396	17,344	1	(D)	396	(D)	363	24,258
Horseradish (see text)	112	3,692	28	3,597	87	94	(NA)	(NA)
Kale	954	3,994	12	211	946	3,784	679	4,901
Lettuce, all	3,839	313,036	(X)	(X)	3,839	313,036	2,903	306,849
0.1 to 0.9 acres	2,737	663	(X)	(X)	(NA)	(NA)	1,734	430
1.0 to 4.9 acres	505	908	(X)	(X)	(NA)	(NA)	518	975
5.0 to 14.9 acres	131	1,110	(X)	(X)	(NA)	(NA)	138	1,178
15.0 to 24.9 acres	38	731	(X)	(X)	(NA)	(NA)	62	1,188
25.0 to 49.9 acres	75	2,503	(X)	(X)	(NA)	(NA)	76	2,601
50.0 to 99.9 acres	51	3,619	(X)	(X)	(NA)	(NA)	67	4,612
100.0 to 249.9 acres	82	13,321	(X)	(X)	(NA)	(NA)	95	15,256
250.0 to 499.9 acres	52	18,190	(X)	(X)	(NA)	(NA)	77	27,783
500.0 to 749.9 acres	53	31,698	(X)	(X)	(NA)	(NA)	38	23,700
750.0 to 999.9 acres	27	22,909	(X)	(X)	(NA)	(NA)	17	14,724
1,000.0 acres or more	88	217,384	(X)	(X)	(NA)	(NA)	81	214,404
Lettuce, head	1,158	166,838	(X)	(X)	1,158	166,838	830	188,700
0.1 to 0.9 acres	707	162	(X)	(X)	(NA)	(NA)	363	85
1.0 to 4.9 acres	116	192	(X)	(X)	(NA)	(NA)	103	167
5.0 to 14.9 acres	30	225	(X)	(X)	(NA)	(NA)	48	461
15.0 to 24.9 acres	15	284	(X)	(X)	(NA)	(NA)	24	483
25.0 to 49.9 acres	34	1,107	(X)	(X)	(NA)	(NA)	27	969
50.0 to 99.9 acres	36	2,454	(X)	(X)	(NA)	(NA)	47	3,389
100.0 to 249.9 acres	61	9,440	(X)	(X)	(NA)	(NA)	66	10,817
250.0 to 499.9 acres	53	18,336	(X)	(X)	(NA)	(NA)	51	17,933
500.0 to 749.9 acres	32	19,087	(X)	(X)	(NA)	(NA)	27	16,833
750.0 to 999.9 acres	15	12,695	(X)	(X)	(NA)	(NA)	16	14,095
1,000.0 acres or more	59	102,856	(X)	(X)	(NA)	(NA)	58	123,468
Lettuce, leaf	2,891	58,861	(X)	(X)	2,891	58,861	2,153	58,324
Lettuce, romaine	1,057	87,337	(X)	(X)	1,057	87,337	709	59,825
Mustard greens	871	8,323	32	1,310	848	7,013	871	13,917
Okra	2,555	2,444	92	81	2,506	2,363	2,200	3,069
Onions, dry	4,249	166,484	335	40,199	4,047	126,285	3,746	164,375
0.1 to 0.9 acres	2,720	609	51	7	2,681	602	1,885	468
1.0 to 4.9 acres	490	781	22	27	478	754	529	896
5.0 to 14.9 acres	137	1,087	16	132	125	955	199	1,737
15.0 to 24.9 acres	93	1,717	13	198	89	1,519	132	2,522
25.0 to 49.9 acres	175	6,119	34	1,075	151	5,045	239	8,343
50.0 to 99.9 acres	177	12,314	36	2,256	154	10,058	284	19,503
100.0 to 249.9 acres	276	43,728	91	10,269	227	33,459	311	47,971
250.0 to 499.9 acres	119	40,085	48	12,695	91	27,390	110	37,880
500.0 acres or more	62	60,045	24	13,541	51	46,504	57	45,055
Onions, green	1,558	5,704	30	68	1,540	5,635	1,165	6,202
Parsley	370	4,240	11	933	361	3,308	304	3,647
Peas, Chinese (Sugar, Snow)	863	8,859	86	4,915	796	3,944	435	6,936
Peas, green (excluding southern peas)	4,532	214,057	2,047	206,092	2,568	7,965	4,849	219,176
0.1 to 0.9 acres	1,818	431	46	(D)	1,789	(D)	1,591	403
1.0 to 4.9 acres	579	1,051	39	42	561	1,009	677	1,306
5.0 to 14.9 acres	131	1,085	30	316	103	769	226	1,882
15.0 to 24.9 acres	212	4,224	183	3,643	35	581	228	4,425
25.0 to 49.9 acres	705	25,453	684	24,482	31	972	915	32,403
50.0 to 99.9 acres	542	36,427	529	35,376	23	1,051	647	44,071
100.0 to 249.9 acres	382	56,722	374	54,673	20	2,048	412	60,958
250.0 to 499.9 acres	107	36,816	107	(D)	5	(D)	105	33,709
500.0 acres or more	56	51,849	55	(D)	1	(D)	48	40,021

See footnote(s) at end of table.

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Table 34. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007						2002 total harvested	
	Total harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
Peas, green southern (cowpeas) - blackeyed, crowder, etc	3,061	27,089	334	15,386	2,859	11,703	2,372	28,867
Peppers, Bell (excluding pimientos) (see text)	9,572	62,363	315	11,872	9,379	50,492	8,484	58,998
0.1 to 0.9 acres	7,113	1,628	(NA)	(NA)	(NA)	(NA)	5,769	1,506
1.0 to 4.9 acres	1,780	2,866	(NA)	(NA)	(NA)	(NA)	1,902	3,197
5.0 to 14.9 acres	301	2,262	(NA)	(NA)	(NA)	(NA)	383	2,873
15.0 to 24.9 acres	97	1,774	(NA)	(NA)	(NA)	(NA)	112	2,166
25.0 to 49.9 acres	81	2,697	(NA)	(NA)	(NA)	(NA)	123	4,130
50.0 to 99.9 acres	68	4,588	(NA)	(NA)	(NA)	(NA)	76	5,016
100.0 acres or more	132	46,549	(NA)	(NA)	(NA)	(NA)	119	40,111
Peppers, other than Bell (including chile) (see text)	6,124	37,372	466	23,278	5,780	14,093	4,748	42,666
Potatoes (see text)	15,014	1,131,963	1,739	599,604	13,855	532,359	9,408	1,266,087
0.1 to 0.9 acres	8,877	2,473	345	76	8,640	2,397	3,512	1,118
1.0 to 4.9 acres	3,136	5,296	143	158	3,091	5,138	2,165	3,730
5.0 to 14.9 acres	464	3,444	45	272	442	3,172	468	3,668
15.0 to 24.9 acres	148	2,816	17	309	134	2,507	189	3,604
25.0 to 49.9 acres	214	7,477	68	2,391	150	5,085	318	11,481
50.0 to 99.9 acres	325	22,097	137	8,406	216	13,690	458	32,338
100.0 to 249.9 acres	714	114,291	332	47,053	470	67,239	974	154,956
250.0 to 499.9 acres	525	180,042	258	73,110	354	106,931	651	226,838
500.0 to 749.9 acres	221	132,242	122	62,516	138	69,726	260	154,013
750.0 to 999.9 acres	116	99,114	74	53,139	65	45,975	134	114,558
1,000.0 acres or more	274	562,672	198	352,173	155	210,499	279	559,783
1,000.0 to 1,999.9 acres	185	249,205	130	137,776	114	111,430	192	260,275
2,000.0 to 2,999.9 acres	43	105,101	31	68,755	20	36,346	46	107,292
3,000.0 acres or more	46	208,366	37	145,642	21	62,724	41	192,216
Pumpkins	15,088	92,955	444	12,306	14,877	80,649	14,073	97,408
Radishes	818	14,599	18	264	805	14,335	626	17,056
Rhubarb	574	1,404	42	448	542	956	467	1,809
Spinach	1,202	44,071	112	14,226	1,121	29,846	1,109	49,859
Squash, all (see text)	11,821	54,454	397	6,706	11,601	47,748	11,035	71,236
0.1 to 0.9 acres	7,443	2,125	(NA)	(NA)	(NA)	(NA)	5,713	1,695
1.0 to 4.9 acres	3,085	5,557	(NA)	(NA)	(NA)	(NA)	3,536	6,683
5.0 to 14.9 acres	701	5,320	(NA)	(NA)	(NA)	(NA)	920	7,024
15.0 to 24.9 acres	167	3,091	(NA)	(NA)	(NA)	(NA)	257	4,797
25.0 to 49.9 acres	190	6,503	(NA)	(NA)	(NA)	(NA)	272	9,321
50.0 to 99.9 acres	124	8,238	(NA)	(NA)	(NA)	(NA)	185	12,099
100.0 acres or more	111	23,621	(NA)	(NA)	(NA)	(NA)	152	29,617
Squash, summer (see text)	9,170	34,094	229	2,933	9,029	31,160	(NA)	(NA)
Squash, winter (see text)	4,798	20,360	193	3,773	4,654	16,587	(NA)	(NA)
Sweet corn	28,241	622,946	3,670	361,886	25,409	261,060	22,473	692,819
0.1 to 0.9 acres	9,970	3,033	545	137	9,610	2,896	5,530	1,872
1.0 to 4.9 acres	10,123	20,273	549	674	9,918	19,600	7,964	16,611
5.0 to 14.9 acres	3,566	27,710	168	883	3,510	26,827	3,469	27,299
15.0 to 24.9 acres	963	17,754	154	2,605	840	15,149	1,129	20,996
25.0 to 49.9 acres	1,299	45,275	623	21,946	719	23,329	1,601	56,109
50.0 to 99.9 acres	1,103	75,627	741	49,962	418	25,665	1,261	85,729
100.0 acres or more	1,217	433,274	890	285,681	394	147,594	1,519	484,204
100.0 to 249.9 acres	789	117,173	585	85,350	244	31,823	1,024	151,038
250.0 to 499.9 acres	237	80,365	179	58,389	69	21,976	293	99,288
500.0 to 749.9 acres	74	43,619	54	30,603	26	13,016	70	41,191
750.0 to 999.9 acres	32	27,069	22	17,189	13	9,880	43	36,566
1,000.0 acres or more	85	165,049	50	94,150	42	70,899	89	156,121
Sweet potatoes (see text)	1,910	105,284	259	21,360	1,807	83,924	2,366	92,310
0.1 to 0.9 acres	789	225	31	(D)	770	(D)	884	253
1.0 to 4.9 acres	474	849	32	46	463	803	619	1,197
5.0 to 14.9 acres	169	1,330	22	142	153	1,188	254	2,205
15.0 to 24.9 acres	60	1,091	5	(D)	58	(D)	102	1,882
25.0 to 49.9 acres	81	2,810	29	686	66	2,124	140	5,010
50.0 to 99.9 acres	96	6,591	38	1,553	83	5,038	129	9,155
100.0 to 249.9 acres	113	17,205	51	5,159	98	12,046	142	20,574
250.0 to 499.9 acres	71	25,242	31	5,865	63	19,377	60	20,602
500.0 acres or more	57	49,942	20	7,862	53	42,081	36	31,432
Tomatoes in the open (see text)	25,809	442,225	1,761	319,549	24,630	122,675	19,539	448,500
0.1 to 0.9 acres	17,536	4,721	775	155	17,015	4,566	11,621	3,433
1.0 to 4.9 acres	6,251	10,467	296	328	6,150	10,138	5,563	9,685
5.0 to 14.9 acres	856	6,276	59	290	844	5,986	977	7,418
15.0 to 24.9 acres	182	3,304	19	305	170	2,999	231	4,302
25.0 to 49.9 acres	170	5,904	30	1,075	146	4,829	207	7,126
50.0 to 99.9 acres	133	9,207	63	4,236	80	4,972	175	12,034
100.0 acres or more	681	402,346	519	313,161	225	89,185	765	404,502
100.0 to 249.9 acres	240	38,738	165	25,985	93	12,753	313	51,147
250.0 to 499.9 acres	221	76,591	179	58,080	69	18,511	250	85,263
500.0 to 749.9 acres	88	53,361	65	38,447	27	14,915	84	49,544
750.0 to 999.9 acres	35	29,522	31	25,170	8	4,352	30	25,406
1,000.0 acres or more	97	204,135	79	165,480	28	38,654	88	193,143
Turnips	914	3,632	39	582	890	3,050	837	5,293
Turnip greens	836	9,365	58	2,361	792	7,005	860	10,546
Watercress	62	679	1	(D)	61	(D)	60	699
Watermelons	12,808	142,359	27	271	12,804	142,089	10,121	164,525
0.1 to 0.9 acres	6,373	1,892	(NA)	(NA)	(NA)	(NA)	3,381	1,106
1.0 to 4.9 acres	4,087	7,622	(NA)	(NA)	(NA)	(NA)	3,592	7,064
5.0 to 14.9 acres	1,045	8,024	(NA)	(NA)	(NA)	(NA)	1,369	10,907

See footnote(s) at end of table.

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Table 34. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007						2002 total harvested	
	Total harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
Watermelons - Con.								
15.0 to 24.9 acres	317	5,779	(NA)	(NA)	(NA)	(NA)	481	8,917
25.0 to 49.9 acres	353	11,758	(NA)	(NA)	(NA)	(NA)	509	17,170
50.0 to 99.9 acres	236	15,921	(NA)	(NA)	(NA)	(NA)	365	24,592
100.0 to 249.9 acres	271	39,424	(NA)	(NA)	(NA)	(NA)	311	45,639
250.0 to 499.9 acres	98	33,171	(NA)	(NA)	(NA)	(NA)	89	29,536
500.0 acres or more	28	18,768	(NA)	(NA)	(NA)	(NA)	24	19,594
Vegetables, other (see text)	6,846	47,563	381	1,683	6,668	45,880	2,982	31,819

[1] 2002 data do not include potatoes, sweet potatoes, or ginseng.

Table 35. **Specified Fruits and Nuts by Acres: 2007 and 2002**

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop		Total		Bearing age acres		Nonbearing age acres	
		Farms	Acres	Farms	Acres	Farms	Acres
Noncitrus fruit, all (see text)	2007	72,757	2,176,511	65,697	1,948,205	27,375	228,307
	2002	67,113	2,322,905	57,021	2,045,359	31,087	277,547
Apples	2007	25,591	398,770	21,716	360,195	9,740	38,575
	2002	26,853	464,025	21,084	401,706	12,344	62,319
2007 acres:							
0.1 to 0.9 acres		9,270	3,000	7,069	2,164	3,188	836
1.0 to 4.9 acres		9,059	18,091	7,659	13,869	3,398	4,223
5.0 to 14.9 acres		3,366	27,070	3,135	22,730	1,307	4,340
15.0 to 24.9 acres		1,131	21,154	1,108	18,849	433	2,305
25.0 to 49.9 acres		1,168	40,102	1,151	35,836	537	4,266
50.0 to 99.9 acres		791	54,158	788	49,514	398	4,644
100.0 acres or more		806	235,195	806	217,234	479	17,961
100.0 to 249.9 acres		561	83,996	561	76,869	325	7,127
250.0 to 499.9 acres		152	51,422	152	47,528	97	3,894
500.0 to 749.9 acres		52	31,107	52	28,873	31	2,234
750.0 to 999.9 acres		20	17,408	20	15,262	12	2,145
1,000.0 acres or more		21	51,263	21	48,702	14	2,561
2002 acres:							
0.1 to 0.9 acres		8,525	2,988	5,712	1,854	3,715	1,135
1.0 to 4.9 acres		9,249	18,749	6,938	12,453	4,252	6,296
5.0 to 14.9 acres		4,088	33,224	3,598	25,864	1,828	7,360
15.0 to 24.9 acres		1,526	28,416	1,433	23,225	719	5,191
25.0 to 49.9 acres		1,517	52,369	1,484	46,248	710	6,122
50.0 to 99.9 acres		1,012	69,795	992	62,165	521	7,630
100.0 acres or more		936	258,484	927	229,898	599	28,586
100.0 to 249.9 acres		647	97,071	644	85,930	406	11,141
250.0 to 499.9 acres		189	64,094	183	56,131	121	7,964
500.0 to 749.9 acres		50	30,170	50	25,971	41	4,198
750.0 to 999.9 acres		27	23,532	27	21,927	15	1,605
1,000.0 acres or more		23	43,617	23	39,938	16	3,679
Apricots	2007	3,141	13,750	2,458	12,830	952	920
	2002	2,698	18,191	2,015	16,478	1,008	1,713
Avocados	2007	8,245	82,647	7,670	72,747	2,855	9,900
	2002	6,251	75,570	5,680	66,430	2,388	9,140
2007 acres:							
0.1 to 0.9 acres		1,540	(D)	1,310	436	416	(D)
1.0 to 4.9 acres		3,784	8,179	3,505	6,720	1,328	1,459
5.0 to 14.9 acres		1,733	13,790	1,674	11,987	615	1,803
15.0 to 24.9 acres		539	(D)	533	(D)	230	1,525
25.0 to 49.9 acres		360	11,954	359	10,601	150	1,353
50.0 to 99.9 acres		161	(D)	161	(D)	65	1,000
100.0 acres or more		128	27,920	128	(D)	51	(D)
100.0 to 249.9 acres		95	13,297	95	(D)	31	(D)
250.0 to 499.9 acres		24	(D)	24	(D)	14	(D)
500.0 acres or more		9	(D)	9	(D)	6	1,182
2002 acres:							
0.1 to 0.9 acres		1,089	(D)	860	(D)	374	(D)
1.0 to 4.9 acres		2,680	5,804	2,425	4,568	1,033	1,236
5.0 to 14.9 acres		1,399	11,213	1,334	9,360	548	1,853
15.0 to 24.9 acres		461	(D)	453	(D)	189	(D)
25.0 to 49.9 acres		346	11,531	339	9,883	153	1,648
50.0 to 99.9 acres		149	10,313	143	9,096	49	1,216
100.0 acres or more		127	27,623	126	25,626	42	1,997
100.0 to 249.9 acres		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
250.0 to 499.9 acres		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
500.0 acres or more		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Bananas	2007	1,326	2,547	1,175	2,100	355	447
	2002	765	1,975	628	1,683	231	293
Cherries, sweet	2007	8,051	100,705	6,687	84,040	2,980	16,665
	2002	8,043	91,735	6,259	72,380	3,632	19,356
2007 acres:							
0.1 to 0.9 acres		3,202	750	2,197	511	1,198	238
1.0 to 4.9 acres		2,023	4,365	1,787	3,592	620	773
5.0 to 14.9 acres		1,332	11,211	1,249	9,483	458	1,729
15.0 to 24.9 acres		547	10,266	524	8,693	224	1,573
25.0 to 49.9 acres		480	16,389	471	14,191	226	2,198
50.0 to 99.9 acres		286	19,705	283	16,572	151	3,133
100.0 acres or more		181	38,020	176	30,998	103	7,022
100.0 to 249.9 acres		148	22,102	143	17,839	82	4,263
250.0 to 499.9 acres		26	8,959	26	7,267	16	1,692
500.0 acres or more		7	6,959	7	5,893	5	1,066
2002 acres:							
0.1 to 0.9 acres		2,942	736	1,810	448	1,310	288
1.0 to 4.9 acres		2,049	4,474	1,688	3,376	749	1,098
5.0 to 14.9 acres		1,542	12,841	1,348	9,567	750	3,275
15.0 to 24.9 acres		582	10,824	530	8,397	284	2,427
25.0 to 49.9 acres		529	18,267	494	14,489	295	3,778
50.0 to 99.9 acres		247	16,845	241	13,753	143	3,092
100.0 acres or more		152	27,749	148	22,352	101	5,398
100.0 to 249.9 acres		134	19,581	130	15,796	89	3,785
250.0 to 499.9 acres		15	5,244	15	(D)	11	(D)
500.0 acres or more		3	2,924	3	(D)	1	(D)
Cherries, tart	2007	3,028	49,561	2,309	37,412	1,264	12,149
	2002	2,955	47,138	2,190	38,419	1,330	8,719
2007 acres:							
0.1 to 0.9 acres		1,886	391	1,279	259	697	131
1.0 to 4.9 acres		417	730	333	566	144	164
5.0 to 14.9 acres		211	1,855	192	1,458	90	397
15.0 to 24.9 acres		122	2,316	117	1,966	53	351
25.0 to 49.9 acres		145	4,925	143	3,979	81	946
50.0 to 99.9 acres		133	9,282	132	7,569	96	1,713
100.0 acres or more		114	30,063	113	21,615	103	8,448
100.0 to 249.9 acres		83	12,976	82	9,768	72	3,209
250.0 to 499.9 acres		22	7,161	22	5,524	22	1,637
500.0 acres or more		9	9,926	9	6,323	9	3,602

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Table 35. **Specified Fruits and Nuts by Acres: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Acres	Farms	Acres
Noncitrus fruit, all (see text) - Con.						
Cherries, tart - Con.						
2002 acres:						
0.1 to 0.9 acres	1,758	392	1,097	229	750	163
1.0 to 4.9 acres	419	725	340	538	169	187
5.0 to 14.9 acres	231	2,066	223	1,818	79	248
15.0 to 24.9 acres	134	2,499	123	1,964	68	535
25.0 to 49.9 acres	165	5,633	162	4,635	83	998
50.0 to 99.9 acres	125	8,688	122	7,159	87	1,529
100.0 acres or more	123	27,134	123	22,074	94	5,060
100.0 to 249.9 acres	97	14,698	97	12,120	72	2,577
250.0 to 499.9 acres	17	5,467	17	4,497	14	970
500.0 acres or more	9	6,970	9	5,457	8	1,513
Coffee 2007	1,521	7,891	1,404	6,652	439	1,238
2002	1,202	7,986	1,123	6,568	375	1,418
Dates 2007	168	7,669	140	(D)	92	(D)
2002	209	7,585	187	5,710	104	1,874
Figs 2007	1,101	9,739	828	9,315	357	423
2002	812	14,274	627	13,772	258	502
Grapes 2007	25,892	1,051,407	22,947	973,638	8,509	77,769
2002	23,856	1,060,295	19,819	965,114	9,844	95,180
2007 acres:						
0.1 to 0.9 acres	6,009	1,683	4,555	1,196	1,917	488
1.0 to 4.9 acres	7,064	15,157	5,952	11,660	2,565	3,497
5.0 to 14.9 acres	4,710	39,631	4,432	33,838	1,571	5,793
15.0 to 24.9 acres	2,354	43,884	2,300	39,405	693	4,478
25.0 to 49.9 acres	2,244	78,266	2,219	72,072	635	6,194
50.0 to 99.9 acres	1,563	108,290	1,551	100,391	473	7,899
100.0 acres or more	1,948	764,495	1,938	715,076	655	49,419
100.0 to 249.9 acres	1,164	180,131	1,156	169,184	347	10,947
250.0 to 499.9 acres	453	154,287	452	145,602	160	8,685
500.0 acres or more	331	430,078	330	400,291	148	29,787
500.0 to 749.9 acres	137	83,503	136	77,751	56	5,751
750.0 to 999.9 acres	60	51,389	60	(D)	26	(D)
1,000.0 to 1,499.9 acres	63	76,128	63	(D)	31	(D)
1,500.0 acres or more	71	219,058	71	(D)	35	(D)
2002 acres:						
0.1 to 0.9 acres	5,641	1,542	3,801	969	2,264	574
1.0 to 4.9 acres	5,547	12,004	4,217	8,233	2,481	3,771
5.0 to 14.9 acres	4,315	36,617	3,797	28,319	1,857	8,298
15.0 to 24.9 acres	2,401	44,908	2,218	36,976	988	7,932
25.0 to 49.9 acres	2,305	80,453	2,196	69,542	896	10,911
50.0 to 99.9 acres	1,614	110,609	1,579	99,425	607	11,184
100.0 acres or more	2,033	774,163	2,011	721,652	751	52,511
100.0 to 249.9 acres	1,248	188,234	1,230	172,560	443	15,674
250.0 to 499.9 acres	435	149,925	431	138,872	161	11,053
500.0 acres or more	350	436,003	350	410,219	147	25,784
500.0 to 749.9 acres	145	87,141	145	(D)	52	(D)
750.0 to 999.9 acres	77	65,882	77	(D)	33	(D)
1,000.0 to 1,499.9 acres	59	(D)	59	(D)	28	(D)
1,500.0 acres or more	69	(D)	69	(D)	34	(D)
Guavas 2007	487	883	441	799	106	84
2002	308	1,213	239	959	95	254
Kiwifruit 2007	430	4,509	373	4,307	96	202
2002	474	4,984	425	4,594	129	390
Mangoes 2007	877	2,259	736	1,845	289	413
2002	623	1,938	464	1,600	267	338
Nectarines 2007	2,269	31,846	1,864	28,432	737	3,414
2002	2,261	45,645	1,845	39,159	901	6,486
Olives 2007	1,696	39,540	1,470	31,217	509	8,324
2002	1,549	39,591	1,352	36,526	503	3,064
Papayas 2007	586	2,501	520	1,926	188	575
2002	451	3,001	398	2,231	176	769
Passion fruit 2007	129	93	121	(D)	21	(D)
2002	66	53	43	32	25	21
Peaches, all (see text) 2007	13,582	149,237	11,102	126,226	5,094	23,014
2002	14,526	184,495	11,062	156,327	6,544	28,168
2007 acres:						
0.1 to 0.9 acres	6,351	1,765	4,597	(D)	2,287	(D)
1.0 to 4.9 acres	4,111	8,256	3,519	(D)	1,474	(D)
5.0 to 14.9 acres	1,589	12,672	1,488	10,667	572	2,005
15.0 to 24.9 acres	515	9,592	498	(D)	212	(D)
25.0 to 49.9 acres	453	15,417	444	13,230	223	2,187
50.0 to 99.9 acres	277	19,271	270	16,345	154	2,926
100.0 acres or more	286	82,265	286	69,946	172	12,320
100.0 to 249.9 acres	201	29,289	201	25,509	114	3,780
250.0 to 499.9 acres	50	16,684	50	14,411	34	2,273
500.0 to 749.9 acres	17	9,965	17	(D)	10	(D)
750.0 to 999.9 acres	3	2,551	3	(D)	2	(D)
1,000.0 acres or more	15	23,777	15	19,467	12	4,310
2002 acres:						
0.1 to 0.9 acres	6,253	1,790	3,921	1,057	2,807	733
1.0 to 4.9 acres	4,166	8,476	3,278	6,047	1,829	2,430
5.0 to 14.9 acres	1,990	16,144	1,811	12,985	827	3,159
15.0 to 24.9 acres	692	12,806	648	10,444	329	2,362
25.0 to 49.9 acres	607	21,046	601	18,259	289	2,787
50.0 to 99.9 acres	431	29,792	420	25,495	243	4,297
100.0 acres or more	387	94,442	383	82,041	220	12,401
100.0 to 249.9 acres	288	42,285	284	36,936	154	5,349
250.0 to 499.9 acres	69	22,690	69	19,593	45	3,097

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Table 35. **Specified Fruits and Nuts by Acres: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop		Total		Bearing age acres		Nonbearing age acres	
		Farms	Acres	Farms	Acres	Farms	Acres
Noncitrus fruit, all (see text) - Con.							
Peaches, all (see text) - Con.							
2002 acres - Con.							
100.0 acres or more - Con.							
500.0 to 749.9 acres		16	8,853	16	7,759	9	1,095
750.0 to 999.9 acres		6	5,108	6	4,648	5	460
1,000.0 acres or more		8	15,505	8	13,105	7	2,401
Pears, all	2007	9,878	68,216	7,882	62,995	3,100	5,224
	2002	10,809	80,801	7,884	71,483	4,506	9,318
2007 acres:							
0.1 to 0.9 acres		6,150	1,457	4,448	1,019	2,074	438
1.0 to 4.9 acres		2,095	3,805	1,848	3,153	567	655
5.0 to 14.9 acres		774	6,469	736	5,830	188	639
15.0 to 24.9 acres		272	5,034	266	4,646	69	388
25.0 to 49.9 acres		284	9,642	281	9,086	85	556
50.0 to 99.9 acres		185	12,427	185	11,672	68	755
100.0 acres or more		118	29,382	118	27,589	49	1,793
100.0 to 249.9 acres		88	12,418	88	11,646	36	772
250.0 to 499.9 acres		20	6,296	20	6,016	9	280
500.0 acres or more		10	10,669	10	9,927	4	742
2002 acres:							
0.1 to 0.9 acres		6,425	1,593	4,016	939	2,831	654
1.0 to 4.9 acres		2,237	4,288	1,803	3,230	864	1,058
5.0 to 14.9 acres		1,026	8,582	960	7,355	357	1,227
15.0 to 24.9 acres		378	7,012	376	6,329	128	683
25.0 to 49.9 acres		371	12,500	359	11,053	150	1,447
50.0 to 99.9 acres		235	15,753	235	14,438	106	1,315
100.0 acres or more		137	31,074	135	28,140	70	2,934
100.0 to 249.9 acres		112	16,475	110	14,867	56	1,608
250.0 to 499.9 acres		16	5,373	16	(D)	10	(D)
500.0 acres or more		9	9,227	9	(D)	4	(D)
Persimmons	2007	1,505	4,191	1,195	3,451	526	741
	2002	1,425	4,855	1,161	3,602	518	1,252
Plums and prunes	2007	6,987	109,319	5,623	97,901	2,294	11,420
	2002	7,300	148,839	5,476	130,054	3,166	18,784
2007 acres:							
0.1 to 0.9 acres		4,178	(D)	3,024	671	1,369	(D)
1.0 to 4.9 acres		1,152	2,130	995	1,711	367	419
5.0 to 14.9 acres		528	4,612	492	4,003	150	609
15.0 to 24.9 acres		307	5,826	299	5,303	83	523
25.0 to 49.9 acres		312	10,839	307	9,435	120	1,404
50.0 to 99.9 acres		248	17,307	247	(D)	94	(D)
100.0 acres or more		262	(D)	259	(D)	111	(D)
100.0 to 249.9 acres		197	(D)	194	(D)	77	(D)
250.0 to 499.9 acres		39	13,410	39	11,699	22	1,711
500.0 acres or more		26	24,317	26	21,846	12	2,471
2002 acres:							
0.1 to 0.9 acres		3,721	888	2,259	(D)	1,688	(D)
1.0 to 4.9 acres		1,225	2,378	980	1,700	531	678
5.0 to 14.9 acres		788	6,718	716	5,526	292	1,192
15.0 to 24.9 acres		364	6,882	347	5,865	133	1,016
25.0 to 49.9 acres		454	15,847	444	13,789	185	2,058
50.0 to 99.9 acres		370	25,578	356	21,930	166	3,648
100.0 acres or more		378	90,547	374	(D)	171	(D)
100.0 to 249.9 acres		279	(D)	277	(D)	128	(D)
250.0 to 499.9 acres		71	(D)	69	(D)	28	2,668
500.0 acres or more		28	24,598	28	22,329	15	2,269
Pluots (see text)	2007	308	4,332	258	3,843	97	489
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Pomegranates	2007	599	24,517	432	12,103	291	12,415
	2002	369	9,535	312	4,044	109	5,491
Other noncitrus fruit (see text)	2007	4,866	10,383	4,312	8,278	971	2,105
	2002	1,640	9,184	1,217	6,486	815	2,698
Citrus fruit, all	2007	15,658	1,005,806	14,934	944,312	3,738	61,495
	2002	17,727	1,279,324	16,750	1,198,212	4,675	81,112
2007 acres:							
0.1 to 0.9 acres		2,153	869	1,851	723	511	146
1.0 to 4.9 acres		4,269	9,307	4,056	8,309	940	998
5.0 to 14.9 acres		3,571	30,231	3,429	27,570	740	2,661
15.0 to 24.9 acres		1,523	28,752	1,487	26,405	337	2,347
25.0 to 49.9 acres		1,622	56,701	1,607	52,514	416	4,187
50.0 to 99.9 acres		1,082	73,984	1,069	68,065	294	5,919
100.0 to 249.9 acres		843	125,892	841	116,042	277	9,850
250.0 to 499.9 acres		297	102,461	296	95,013	102	7,449
500.0 to 749.9 acres		98	57,893	98	55,220	34	2,673
750.0 to 999.9 acres		37	31,642	37	29,597	14	2,046
1,000.0 acres or more		163	488,076	163	464,857	73	23,220
1,000.0 to 1,999.9 acres		100	133,267	100	125,260	50	8,008
2,000.0 to 2,999.9 acres		20	49,026	20	46,340	11	2,686
3,000.0 acres or more		43	305,783	43	293,257	12	12,526
2002 acres:							
0.1 to 0.9 acres		1,646	686	1,380	544	450	142
1.0 to 4.9 acres		4,239	9,549	3,888	8,064	1,198	1,484
5.0 to 14.9 acres		4,238	36,169	4,032	32,107	973	4,063
15.0 to 24.9 acres		2,007	38,136	1,935	34,290	476	3,846
25.0 to 49.9 acres		2,180	75,866	2,144	69,752	550	6,113
50.0 to 99.9 acres		1,490	102,665	1,453	94,060	403	8,605
100.0 to 249.9 acres		1,157	170,872	1,149	159,101	356	11,771
250.0 to 499.9 acres		409	139,385	409	133,081	131	6,304
500.0 to 749.9 acres		100	58,468	100	55,512	35	2,956
750.0 to 999.9 acres		69	59,137	69	55,841	23	3,297
1,000.0 acres or more		192	588,391	191	555,860	80	32,531
1,000.0 to 1,999.9 acres		106	142,794	105	132,735	42	10,059
2,000.0 to 2,999.9 acres		30	73,182	30	69,081	17	4,101
3,000.0 acres or more		56	372,416	56	354,045	21	18,371

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Table 35. **Specified Fruits and Nuts by Acres: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Acres	Farms	Acres
Citrus fruit, all - Con.						
Grapefruit 2007	2,923	102,578	2,751	96,675	519	5,903
2002	4,006	156,869	3,759	149,416	810	7,453
2007 acres:						
0.1 to 0.9 acres	743	201	644	175	131	26
1.0 to 4.9 acres	773	1,677	743	1,525	136	152
5.0 to 14.9 acres	751	6,093	724	5,639	112	454
15.0 to 24.9 acres	198	3,695	191	3,494	30	201
25.0 to 49.9 acres	187	6,354	181	5,831	45	523
50.0 to 99.9 acres	120	8,068	119	7,428	28	640
100.0 acres or more	151	76,490	149	72,583	37	3,907
100.0 to 249.9 acres	83	12,685	81	11,697	19	988
250.0 to 499.9 acres	33	11,233	33	10,667	6	565
500.0 to 749.9 acres	13	8,026	13	(D)	4	(D)
750.0 to 999.9 acres	5	4,304	5	(D)	3	(D)
1,000.0 acres or more	17	40,243	17	(D)	5	(D)
2002 acres:						
0.1 to 0.9 acres	791	246	652	199	210	48
1.0 to 4.9 acres	957	2,129	899	1,877	221	252
5.0 to 14.9 acres	1,094	8,895	1,060	8,359	167	536
15.0 to 24.9 acres	380	7,151	372	6,674	62	477
25.0 to 49.9 acres	344	11,562	340	10,902	60	660
50.0 to 99.9 acres	192	12,991	188	12,254	37	737
100.0 acres or more	248	113,895	248	109,152	53	4,744
100.0 to 249.9 acres	135	20,243	135	19,322	24	920
250.0 to 499.9 acres	62	20,578	62	19,576	17	1,002
500.0 to 749.9 acres	14	8,065	14	(D)	2	(D)
750.0 to 999.9 acres	14	11,926	14	(D)	3	(D)
1,000.0 acres or more	23	53,084	23	51,251	7	1,833
Kumquats 2007	154	183	129	164	38	19
2002	114	192	106	(D)	14	(D)
Lemons 2007	2,607	66,972	2,364	62,718	575	4,254
2002	2,142	80,898	1,969	73,275	540	7,622
2007 acres:						
0.1 to 0.9 acres	1,000	235	831	198	217	37
1.0 to 4.9 acres	559	1,135	525	991	107	144
5.0 to 14.9 acres	403	3,398	379	3,046	87	353
15.0 to 24.9 acres	198	3,778	188	3,346	47	431
25.0 to 49.9 acres	180	6,298	174	5,820	41	478
50.0 to 99.9 acres	127	9,045	127	8,380	36	665
100.0 acres or more	140	43,083	140	40,937	40	2,146
100.0 to 249.9 acres	95	13,735	95	12,874	28	861
250.0 to 499.9 acres	25	8,199	25	7,754	7	445
500.0 acres or more	20	21,149	20	20,310	5	839
2002 acres:						
0.1 to 0.9 acres	499	123	402	96	124	27
1.0 to 4.9 acres	459	1,002	420	844	118	158
5.0 to 14.9 acres	401	3,539	380	3,075	97	465
15.0 to 24.9 acres	200	3,824	186	3,343	50	481
25.0 to 49.9 acres	238	8,100	238	7,653	53	447
50.0 to 99.9 acres	158	11,007	158	10,495	38	513
100.0 acres or more	187	53,303	185	47,770	60	5,532
100.0 to 249.9 acres	129	19,303	127	17,622	41	1,681
250.0 to 499.9 acres	42	14,008	42	13,199	15	808
500.0 acres or more	16	19,992	16	16,949	4	3,043
Limes 2007	862	1,251	756	1,135	192	116
2002	633	1,368	557	1,258	147	110
Oranges, all 2007	12,116	785,856	11,612	742,625	2,611	43,230
2002	14,288	987,743	13,515	925,635	3,581	62,108
2007 acres:						
0.1 to 0.9 acres	1,702	570	1,477	486	340	84
1.0 to 4.9 acres	2,935	6,518	2,814	5,949	529	568
5.0 to 14.9 acres	2,922	24,636	2,815	22,577	572	2,060
15.0 to 24.9 acres	1,219	23,020	1,193	21,225	255	1,796
25.0 to 49.9 acres	1,329	46,365	1,318	43,018	327	3,348
50.0 to 99.9 acres	901	61,500	891	56,892	228	4,608
100.0 acres or more	1,108	623,246	1,104	592,479	360	30,767
100.0 to 249.9 acres	642	95,175	639	88,735	192	6,440
250.0 to 499.9 acres	241	83,506	240	77,101	79	6,405
500.0 acres or more	225	444,566	225	426,644	89	17,923
500.0 to 749.9 acres	65	38,551	65	36,897	25	1,654
750.0 to 999.9 acres	38	33,037	38	31,589	16	1,448
1,000.0 to 1,499.9 acres	47	54,102	47	51,659	22	2,443
1,500.0 acres or more	75	318,877	75	306,498	26	12,379
2002 acres:						
0.1 to 0.9 acres	1,489	573	1,264	457	399	116
1.0 to 4.9 acres	3,187	7,381	2,937	6,333	828	1,049
5.0 to 14.9 acres	3,532	29,809	3,354	26,654	775	3,154
15.0 to 24.9 acres	1,627	31,013	1,575	28,248	353	2,766
25.0 to 49.9 acres	1,778	61,630	1,747	56,884	436	4,745
50.0 to 99.9 acres	1,222	83,724	1,192	76,582	332	7,142
100.0 acres or more	1,453	773,612	1,446	730,476	458	43,136
100.0 to 249.9 acres	885	132,263	879	123,270	262	8,993
250.0 to 499.9 acres	292	99,448	292	94,319	95	5,129
500.0 acres or more	276	541,901	275	512,887	101	29,014
500.0 to 749.9 acres	83	49,364	83	47,770	27	1,594
750.0 to 999.9 acres	57	48,745	57	46,040	16	2,705
1,000.0 to 1,499.9 acres	49	59,624	48	55,298	19	4,326
1,500.0 acres or more	87	384,168	87	363,779	39	20,389
Valencia oranges 2007	6,537	354,288	6,295	335,131	1,160	19,157
2002	8,635	457,922	8,282	429,272	1,625	28,650
2007 acres:						
0.1 to 0.9 acres	956	330	830	294	161	36
1.0 to 4.9 acres	1,621	3,679	1,560	3,387	276	293
5.0 to 14.9 acres	1,744	14,975	1,711	14,004	263	971
15.0 to 24.9 acres	690	13,018	675	12,218	121	800
25.0 to 49.9 acres	663	22,876	661	21,687	124	1,189

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Table 35. **Specified Fruits and Nuts by Acres: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop		Total		Bearing age acres		Nonbearing age acres	
		Farms	Acres	Farms	Acres	Farms	Acres
Citrus fruit, all - Con.							
Oranges, all - Con.							
Valencia oranges - Con.							
2007 acres - Con.							
50.0 to 99.9 acres		395	26,057	392	24,591	89	1,466
100.0 acres or more		468	273,353	466	258,950	126	14,403
100.0 to 249.9 acres		255	39,457	254	37,354	56	2,102
250.0 to 499.9 acres		107	37,252	106	(D)	35	(D)
500.0 acres or more		106	196,645	106	(D)	35	(D)
500.0 to 749.9 acres		30	(D)	30	(D)	10	1,119
750.0 to 999.9 acres		20	(D)	20	(D)	6	(D)
1,000.0 to 1,499.9 acres		23	(D)	23	(D)	9	(D)
1,500.0 acres or more		33	133,489	33	126,998	10	6,491
2002 acres:							
0.1 to 0.9 acres		937	318	820	265	192	53
1.0 to 4.9 acres		2,141	5,094	2,035	4,614	392	480
5.0 to 14.9 acres		2,389	20,078	2,307	18,519	387	1,559
15.0 to 24.9 acres		1,012	18,996	990	17,793	175	1,204
25.0 to 49.9 acres		986	33,739	968	31,430	210	2,309
50.0 to 99.9 acres		555	37,708	548	35,218	118	2,490
100.0 acres or more		615	341,989	614	321,434	151	20,555
100.0 to 249.9 acres		370	54,793	370	52,176	86	2,617
250.0 to 499.9 acres		108	38,870	108	(D)	20	(D)
500.0 acres or more		137	248,327	136	(D)	45	(D)
500.0 to 749.9 acres		39	23,409	39	(D)	12	(D)
750.0 to 999.9 acres		28	23,727	27	(D)	10	(D)
1,000.0 to 1,499.9 acres		26	(D)	26	(D)	4	685
1,500.0 acres or more		44	(D)	44	(D)	19	(D)
Other oranges (see text)	2007	9,659	431,568	9,242	407,494	2,016	24,073
	2002	11,786	529,821	11,135	496,362	2,677	33,459
2007 acres:							
0.1 to 0.9 acres		1,540	463	1,354	402	281	62
1.0 to 4.9 acres		2,378	5,575	2,281	5,131	398	445
5.0 to 14.9 acres		2,391	20,056	2,296	18,397	462	1,659
15.0 to 24.9 acres		987	18,618	967	17,012	224	1,606
25.0 to 49.9 acres		1,038	36,111	1,026	33,459	260	2,652
50.0 to 99.9 acres		620	42,829	615	39,274	166	3,555
100.0 acres or more		705	307,915	703	293,821	225	14,094
100.0 to 249.9 acres		422	63,930	420	59,879	128	4,050
250.0 to 499.9 acres		153	50,699	153	46,659	55	4,040
500.0 acres or more		130	193,286	130	187,283	42	6,004
500.0 to 749.9 acres		50	29,718	50	28,586	14	1,132
750.0 to 999.9 acres		26	22,400	26	21,889	7	511
1,000.0 to 1,499.9 acres		23	27,322	23	25,870	13	1,452
1,500.0 acres or more		31	113,847	31	110,937	8	2,910
2002 acres:							
0.1 to 0.9 acres		1,410	504	1,186	395	374	109
1.0 to 4.9 acres		2,890	7,011	2,704	6,254	575	757
5.0 to 14.9 acres		3,084	26,093	2,948	23,723	595	2,370
15.0 to 24.9 acres		1,281	24,367	1,238	22,281	272	2,086
25.0 to 49.9 acres		1,388	47,937	1,356	43,948	350	3,989
50.0 to 99.9 acres		837	57,256	809	51,536	249	5,720
100.0 acres or more		896	366,654	894	348,226	262	18,429
100.0 to 249.9 acres		565	84,934	564	79,722	151	5,213
250.0 to 499.9 acres		176	60,902	175	56,825	58	4,077
500.0 acres or more		155	220,818	155	211,679	53	9,139
500.0 to 749.9 acres		59	35,216	59	33,554	19	1,661
750.0 to 999.9 acres		27	22,970	27	20,885	13	2,086
1,000.0 to 1,499.9 acres		28	32,249	28	30,962	10	1,287
1,500.0 acres or more		41	130,383	41	126,278	11	4,105
Tangelos	2007	800	9,694	737	8,932	140	762
	2002	961	14,382	906	13,641	187	740
Tangerines	2007	1,976	36,965	1,756	30,072	479	6,893
	2002	1,731	31,419	1,590	29,040	366	2,379
Temples	2007	116	1,211	114	1,198	12	13
	2002	345	3,678	344	(D)	16	(D)
Other citrus fruit (see text)	2007	407	1,097	359	792	134	305
	2002	461	2,624	360	2,046	175	579
Nuts, all (see text)	2007	39,480	1,857,179	34,776	1,553,492	13,268	303,687
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Almonds	2007	6,700	790,245	5,956	649,953	2,820	140,292
	2002	6,482	696,635	6,004	625,616	2,434	71,019
2007 acres:							
0.1 to 0.9 acres		466	98	321	69	171	29
1.0 to 4.9 acres		493	1,231	445	1,045	155	186
5.0 to 14.9 acres		1,063	9,716	907	7,801	356	1,916
15.0 to 24.9 acres		1,077	19,954	957	16,004	466	3,950
25.0 to 49.9 acres		1,095	38,702	970	30,066	470	8,636
50.0 to 99.9 acres		900	63,683	823	51,172	383	12,511
100.0 acres or more		1,606	656,860	1,533	543,795	819	113,065
100.0 to 249.9 acres		927	146,611	869	119,021	448	27,590
250.0 to 499.9 acres		389	137,479	377	113,289	211	24,191
500.0 to 749.9 acres		139	82,386	136	70,366	76	12,021
750.0 to 999.9 acres		51	43,630	51	38,534	26	5,096
1,000.0 acres or more		100	246,754	100	202,586	58	44,168
2002 acres:							
0.1 to 0.9 acres		236	(D)	164	(D)	81	(D)
1.0 to 4.9 acres		554	1,518	482	1,178	210	340
5.0 to 14.9 acres		1,062	(D)	947	(D)	318	(D)
15.0 to 24.9 acres		1,036	19,458	931	15,741	418	3,717
25.0 to 49.9 acres		1,068	38,200	1,026	33,210	403	4,990
50.0 to 99.9 acres		944	(D)	895	57,444	360	(D)
100.0 acres or more		1,582	561,990	1,559	509,900	644	52,090
100.0 to 249.9 acres		961	145,393	941	130,729	375	14,664
250.0 to 499.9 acres		374	128,534	372	116,580	161	11,954

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Table 35. **Specified Fruits and Nuts by Acres: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Acres	Farms	Acres
Nuts, all (see text) - Con.						
Almonds - Con.						
2002 acres - Con.						
100.0 acres or more - Con.						
500.0 to 749.9 acres	126	74,394	125	67,148	53	7,246
750.0 to 999.9 acres	51	44,063	51	40,935	21	3,127
1,000.0 acres or more	70	169,606	70	154,507	34	15,099
Chestnuts (see text) 2007	1,200	3,335	845	2,072	538	1,262
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Hazelnuts (Filberts) 2007	1,557	34,465	1,218	31,903	522	2,562
2002	1,231	33,801	1,042	31,753	385	2,049
Macadamia nuts 2007	1,150	17,811	1,042	16,732	234	1,079
2002	1,059	18,682	979	17,962	238	720
Pecans, all (see text) 2007	21,856	581,809	19,248	506,181	6,560	75,628
2002	22,371	545,344	16,980	408,079	10,670	137,265
2007 acres:						
0.1 to 0.9 acres	2,107	710	1,484	492	801	218
1.0 to 4.9 acres	6,708	15,582	5,754	12,371	1,942	3,211
5.0 to 14.9 acres	6,288	49,923	5,608	40,576	1,909	9,347
15.0 to 24.9 acres	2,357	43,548	2,182	36,557	646	6,992
25.0 to 49.9 acres	2,011	67,322	1,920	58,571	527	8,751
50.0 to 99.9 acres	1,283	84,035	1,232	73,391	338	10,644
100.0 acres or more	1,102	320,689	1,068	284,224	397	36,465
100.0 to 249.9 acres	758	107,453	733	93,016	277	14,437
250.0 to 499.9 acres	198	65,494	194	56,744	73	8,750
500.0 to 749.9 acres	76	45,012	71	38,810	25	6,202
750.0 to 999.9 acres	21	17,485	21	15,562	8	1,923
1,000.0 acres or more	49	85,245	49	80,093	14	5,153
2002 acres:						
0.1 to 0.9 acres	2,062	731	1,262	429	987	303
1.0 to 4.9 acres	7,110	16,603	5,290	10,655	3,238	5,948
5.0 to 14.9 acres	6,623	53,270	4,922	33,327	3,338	19,943
15.0 to 24.9 acres	2,370	43,762	1,891	29,125	1,109	14,636
25.0 to 49.9 acres	2,080	69,559	1,699	45,780	1,043	23,780
50.0 to 99.9 acres	1,195	78,248	1,039	54,044	578	24,204
100.0 acres or more	931	283,170	877	234,718	377	48,452
100.0 to 249.9 acres	606	88,686	566	68,817	250	19,869
250.0 to 499.9 acres	198	66,640	188	53,215	78	13,425
500.0 to 749.9 acres	71	42,658	69	36,598	26	6,060
750.0 to 999.9 acres	18	15,610	18	13,401	9	2,208
1,000.0 acres or more	38	69,577	36	62,687	14	6,890
Pecans, improved (see text) 2007	12,869	308,634	11,142	266,081	3,962	42,553
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Pecans, native and seedlings (see text) 2007	11,180	273,175	9,955	240,100	3,008	33,075
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Pistachios 2007	1,306	154,103	1,070	117,044	498	37,059
2002	1,320	126,569	1,097	95,040	483	31,529
2007 acres:						
0.1 to 0.9 acres	104	34	72	(D)	33	(D)
1.0 to 4.9 acres	205	457	154	310	80	147
5.0 to 14.9 acres	233	1,992	198	1,596	74	395
15.0 to 24.9 acres	153	2,933	134	2,534	37	399
25.0 to 49.9 acres	194	7,036	160	(D)	73	(D)
50.0 to 99.9 acres	152	10,658	125	7,659	76	2,998
100.0 acres or more	265	130,994	227	99,620	125	31,374
100.0 to 249.9 acres	146	(D)	123	(D)	62	6,192
250.0 to 499.9 acres	63	(D)	54	(D)	34	7,713
500.0 to 749.9 acres	22	13,263	17	7,625	13	5,638
750.0 to 999.9 acres	9	7,862	8	6,665	3	1,197
1,000.0 acres or more	25	65,130	25	54,496	13	10,634
2002 acres:						
0.1 to 0.9 acres	74	28	55	(D)	26	(D)
1.0 to 4.9 acres	250	575	199	(D)	103	(D)
5.0 to 14.9 acres	254	2,235	188	1,520	112	715
15.0 to 24.9 acres	190	3,654	164	3,033	44	621
25.0 to 49.9 acres	213	7,778	184	6,179	65	1,599
50.0 to 99.9 acres	135	9,359	121	7,592	47	1,767
100.0 acres or more	204	102,941	186	(D)	86	(D)
100.0 to 249.9 acres	121	(D)	113	(D)	41	(D)
250.0 to 499.9 acres	42	14,199	34	9,615	24	4,584
500.0 to 749.9 acres	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
750.0 to 999.9 acres	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1,000.0 acres or more	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Walnuts, English 2007	7,161	267,751	6,385	225,106	2,421	42,644
2002	7,025	292,691	6,291	244,907	2,574	47,784
2007 acres:						
0.1 to 0.9 acres	1,228	314	904	224	397	90
1.0 to 4.9 acres	1,758	3,938	1,571	3,335	462	603
5.0 to 14.9 acres	1,479	12,222	1,369	10,344	499	1,878
15.0 to 24.9 acres	737	13,810	685	11,676	229	2,133
25.0 to 49.9 acres	764	26,747	710	22,455	271	4,292
50.0 to 99.9 acres	553	38,512	522	32,092	227	6,421
100.0 acres or more	642	172,209	624	144,981	336	27,228
100.0 to 249.9 acres	438	66,209	423	54,763	227	11,446
250.0 to 499.9 acres	148	49,533	146	43,171	75	6,362
500.0 to 749.9 acres	36	22,152	35	18,798	22	3,354
750.0 to 999.9 acres	6	5,115	6	4,060	4	1,055
1,000.0 acres or more	14	29,200	14	24,189	8	5,011
2002 acres:						
0.1 to 0.9 acres	681	218	505	150	225	68
1.0 to 4.9 acres	1,670	3,991	1,426	3,137	544	854
5.0 to 14.9 acres	1,617	13,854	1,483	11,546	511	2,308
15.0 to 24.9 acres	816	15,230	747	12,671	281	2,559

--continued

Table 35. **Specified Fruits and Nuts by Acres: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Acres	Farms	Acres
Nuts, all (see text) - Con.						
Walnuts, English - Con.						
2002 acres - Con.						
25.0 to 49.9 acres	891	30,963	831	26,005	348	4,958
50.0 to 99.9 acres	669	45,709	639	38,606	287	7,104
100.0 acres or more	681	182,725	660	152,792	378	29,933
100.0 to 249.9 acres	480	72,168	464	60,756	252	11,412
250.0 to 499.9 acres	145	48,764	140	40,608	84	8,156
500.0 to 749.9 acres	30	17,271	30	15,068	20	2,203
750.0 to 999.9 acres	6	5,103	6	4,724	6	379
1,000.0 acres or more	20	39,419	20	31,636	16	7,784
Other nuts (see text) 2007	1,302	7,661	887	4,500	666	3,161
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

Table 36. **Berries: 2007 and 2002**

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007						2002 acres harvested	
	Total acres		Acres harvested		Acres not harvested			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
Blackberries and dewberries	5,694	14,874	4,471	10,728	1,873	4,146	3,565	10,210
Blueberries, tame	9,991	77,150	7,516	60,353	3,790	16,797	6,428	52,002
0.1 to 0.9 acres	4,279	1,283	3,022	864	1,473	418	(NA)	(NA)
1.0 to 4.9 acres	3,735	6,960	2,759	4,701	1,470	2,259	(NA)	(NA)
5.0 to 14.9 acres	1,079	8,560	915	6,339	421	2,221	(NA)	(NA)
15.0 to 24.9 acres	305	5,549	276	4,328	126	1,220	(NA)	(NA)
25.0 to 49.9 acres	277	9,322	242	6,920	129	2,403	(NA)	(NA)
50.0 to 99.9 acres	160	10,392	150	8,514	73	1,877	(NA)	(NA)
100.0 acres or more	156	35,085	152	28,686	98	6,399	(NA)	(NA)
Blueberries, wild	907	45,763	728	23,492	582	22,271	665	23,851
Boysenberries	304	1,068	270	823	61	245	320	1,097
Cranberries	1,134	41,310	1,088	38,597	385	2,712	1,099	40,685
Currants	323	382	276	253	74	129	103	294
Loganberries	97	93	89	77	11	16	129	(D)
Raspberries, all	6,588	21,554	5,719	19,363	1,405	2,191	4,521	19,888
Strawberries	8,638	58,718	7,807	55,601	1,976	3,117	6,799	55,866
0.1 to 0.9 acres	4,377	1,190	3,814	995	815	195	2,821	843
1.0 to 4.9 acres	2,879	5,665	2,633	4,767	769	899	2,485	5,011
5.0 to 14.9 acres	855	6,621	837	5,741	305	880	864	6,586
15.0 to 24.9 acres	165	3,004	163	2,764	41	240	174	3,251
25.0 to 49.9 acres	148	4,914	146	4,536	27	379	201	6,758
50.0 to 99.9 acres	95	6,643	95	6,475	11	168	126	8,799
100.0 acres or more	119	30,681	119	30,323	8	357	128	24,618
Other berries	856	828	691	503	227	325	353	(D)

Table 37. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Crops		Under glass or other protection		In the open		Value of sales	
		Farms	Square feet	Farms	Acres	Farms	Dollars
Aquatic plants	2007	364	1,712,080	423	1,128	651	35,193,380
	2002	621	3,546,388	581	1,259	(NA)	(NA)
Bulbs, corms, rhizomes, and tubers-dry	2007	247	2,111,759	717	6,060	896	90,304,021
	2002	576	4,043,848	1,097	9,300	(NA)	(NA)
Cuttings, seedlings, liners, and plugs (see text)	2007	1,066	29,975,544	612	4,089	1,447	440,932,591
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Floriculture crops - bedding/garden plants, cut flowers and cut florist greens, foliage plants, potted flowering plants, and other floriculture and bedding crops, total	2007	18,670	819,940,649	13,154	54,196	26,137	6,466,885,753
	2002	21,728	973,658,415	14,579	68,214	(NA)	(NA)
Bedding/garden plants	2007	14,747	361,050,691	7,120	18,647	18,337	3,763,633,057
	2002	16,849	386,963,439	7,574	21,484	(NA)	(NA)
Cut flowers and cut florist greens	2007	1,316	174,339,910	4,343	25,698	5,056	711,369,050
	2002	1,754	230,313,795	4,821	33,079	(NA)	(NA)
Foliage plants, indoor	2007	2,099	139,863,389	883	4,846	2,593	733,423,833
	2002	3,237	183,251,147	1,618	8,231	(NA)	(NA)
Potted flowering plants	2007	5,006	142,637,616	1,969	4,211	6,257	1,239,520,013
	2002	6,806	173,130,034	2,625	5,419	(NA)	(NA)
Other floriculture and bedding crops	2007	172	2,049,043	182	794	301	18,939,800
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Flower seeds	2007	191	319,577	320	9,709	491	35,995,358
	2002	340	1,187,990	392	8,256	(NA)	(NA)
Greenhouse fruits and berries (see text)	2007	249	(D)	(X)	(X)	244	11,422,793
	2002	(NA)	(NA)	(X)	(X)	(NA)	(NA)
Total greenhouse vegetables and fresh cut herbs (see text)	2007	4,075	61,765,935	(X)	(X)	4,056	553,034,688
	2002	3,416	64,364,430	(X)	(X)	(NA)	(NA)
2007 farms by area:							
1 to 999 square feet		1,223	474,448	(X)	(X)	1,213	4,546,195
1,000 to 1,999 square feet		648	892,411	(X)	(X)	645	10,180,513
2,000 to 2,999 square feet		579	1,398,906	(X)	(X)	578	12,781,997
3,000 to 3,999 square feet		449	1,449,212	(X)	(X)	447	10,927,213
4,000 to 5,999 square feet		397	1,867,511	(X)	(X)	394	15,135,670
6,000 to 9,999 square feet		326	2,380,424	(X)	(X)	326	27,713,090
10,000 or more square feet		453	53,303,023	(X)	(X)	453	471,750,010
10,000 to 19,999 square feet		221	2,841,320	(X)	(X)	221	22,917,726
20,000 to 39,999 square feet		113	2,899,874	(X)	(X)	113	24,690,521
40,000 or more square feet		119	47,561,829	(X)	(X)	119	424,141,763
Greenhouse tomatoes (see text)	2007	2,926	43,949,871	(X)	(X)	2,919	393,783,610
	2002	(NA)	(NA)	(X)	(X)	(NA)	(NA)
Other greenhouse vegetables and fresh cut herbs (see text)	2007	2,032	17,816,064	(X)	(X)	2,015	159,251,078
	2002	(NA)	(NA)	(X)	(X)	(NA)	(NA)
Mushrooms (see text)	2007	462	45,308,740	(X)	(X)	460	985,295,349
	2002	462	48,339,412	(X)	(X)	(NA)	(NA)
2007 farms by area:							
1 to 999 square feet		197	39,737	(X)	(X)	195	772,263
1,000 to 1,999 square feet		31	38,330	(X)	(X)	31	419,778
2,000 to 4,999 square feet		52	165,921	(X)	(X)	52	2,919,535
5,000 to 9,999 square feet		23	150,692	(X)	(X)	23	3,720,091
10,000 to 19,999 square feet		20	284,337	(X)	(X)	20	6,005,622
20,000 to 49,999 square feet		33	1,107,882	(X)	(X)	33	38,122,884
50,000 to 99,999 square feet		27	2,073,157	(X)	(X)	27	46,801,948
100,000 to 199,999 square feet		30	4,349,647	(X)	(X)	30	104,418,008
200,000 to 499,999 square feet		29	8,528,122	(X)	(X)	29	207,358,389
500,000 to 999,999 square feet		11	6,736,549	(X)	(X)	11	266,868,374
1,000,000 or more square feet		9	21,834,366	(X)	(X)	9	307,888,457
Mushroom spawn (see text)	2007	16	(X)	(X)	(X)	16	33,919,494
	2002	(NA)	(X)	(X)	(X)	(NA)	(NA)
Nursery stock	2007	4,590	221,813,698	20,906	446,496	22,130	6,568,562,723
	2002	4,956	187,765,579	23,272	463,631	(NA)	(NA)
Other nursery crops	2007	228	1,431,170	543	3,628	693	48,475,835
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Sod harvested	2007	(X)	(X)	1,881	409,440	1,878	1,353,422,529
	2002	(X)	(X)	2,124	386,504	(NA)	(NA)
2007 farms by area:							
0 to 14.9 acres		(X)	(X)	369	2,177	367	10,160,738
15.0 to 49.9 acres		(X)	(X)	352	10,202	352	34,233,766
50.0 to 99.9 acres		(X)	(X)	290	19,580	289	60,388,713
100.0 to 249.9 acres		(X)	(X)	402	63,136	402	227,818,120
250.0 to 399.9 acres		(X)	(X)	185	56,689	185	183,182,984
400.0 to 749.9 acres		(X)	(X)	168	86,102	168	305,368,450
750 acres or more		(X)	(X)	115	171,556	115	532,269,758
Tobacco plants sold for transplant	2007	438	3,964,653	7	3	442	9,289,259
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Vegetable seeds	2007	361	837,940	805	45,309	1,097	99,694,490
	2002	542	1,864,522	1,231	56,939	(NA)	(NA)
Vegetable transplants	2007	1,135	20,247,905	290	1,233	1,313	121,929,991
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

Table 38. **Woodland Crops: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Crop	Acres in production		Harvested		Irrigated	
	Farms	Acres	Farms	Trees cut	Farms	Acres
Cut Christmas trees 2007	17,367	343,374	12,255	17,415,971	1,531	13,912
2002	21,904	446,996	13,849	20,808,065	(NA)	(NA)
2007 farms by acres in production:						
1 to 2 acres	4,241	6,051	2,521	200,049	432	546
3 to 4 acres	2,669	9,168	1,744	319,391	260	702
5 to 9 acres	3,880	23,830	2,822	819,780	341	1,521
10 to 19 acres	3,180	39,584	2,312	1,201,239	215	1,557
20 to 49 acres	2,242	63,879	1,736	1,870,187	163	2,529
50 to 99 acres	637	41,672	610	1,659,067	58	1,105
100 acres or more	518	159,190	510	11,346,258	62	5,952
2002 farms by acres in production:						
1 to 2 acres	4,508	6,773	2,406	277,487	(NA)	(NA)
3 to 4 acres	3,308	11,352	2,049	382,535	(NA)	(NA)
5 to 9 acres	5,148	31,545	3,250	1,120,047	(NA)	(NA)
10 to 19 acres	4,087	50,237	2,607	1,569,276	(NA)	(NA)
20 to 49 acres	3,292	93,543	2,067	2,507,069	(NA)	(NA)
50 to 99 acres	875	57,082	785	2,302,856	(NA)	(NA)
100 acres or more	686	196,464	685	12,648,795	(NA)	(NA)

Crop	Acres in production		Harvested		Irrigated	
	Farms	Acres	Farms	Acres	Farms	Acres
Short-rotation woody crops 2007	4,717	228,335	1,769	31,007	668	(D)
2002	6,285	288,686	1,940	31,920	(NA)	(NA)
2007 farms by acres in production:						
1 to 9 acres	1,948	7,052	751	1,572	433	1,098
10 to 49 acres	1,926	43,191	696	7,310	178	2,484
50 to 99 acres	484	32,844	185	5,313	35	1,151
100 to 249 acres	270	38,571	90	5,409	12	468
250 to 499 acres	56	18,050	24	2,479	6	1,700
500 acres or more	33	88,627	23	8,924	4	(D)
500 to 749 acres	16	9,489	12	1,212	2	(D)
750 to 999 acres	2	(D)	1	(D)	-	-
1,000 to 1,999 acre	5	7,486	2	(D)	-	-
2,000 to 2,999 acres	5	12,185	4	2,870	-	-
3,000 to 4,999 acres	2	(D)	1	(D)	-	-
5,000 to 9,999 acres	1	(D)	1	(D)	1	(D)
10,000 acres or more	2	(D)	2	(D)	1	(D)
2002 farms by acres in production:						
1 to 9 acres	2,892	9,193	910	1,928	(NA)	(NA)
10 to 49 acres	2,335	50,016	726	6,985	(NA)	(NA)
50 to 99 acres	570	38,393	139	4,562	(NA)	(NA)
100 to 249 acres	353	51,041	108	6,446	(NA)	(NA)
250 to 499 acres	92	31,320	33	2,836	(NA)	(NA)
500 acres or more	43	108,723	24	9,163	(NA)	(NA)
500 to 749 acres	19	12,158	10	(D)	(NA)	(NA)
750 to 999 acres	4	3,565	2	(D)	(NA)	(NA)
1,000 to 1,999 acre	10	12,186	4	(D)	(NA)	(NA)
2,000 to 2,999 acres	3	7,090	2	(D)	(NA)	(NA)
3,000 to 4,999 acres	4	15,662	3	785	(NA)	(NA)
5,000 to 9,999 acres	-	-	-	-	(NA)	(NA)
10,000 acres or more	3	58,062	3	(D)	(NA)	(NA)

Crop	Taps set		Syrup produced	
	Farms	Number	Farms	Gallons
Maple syrup 2007	8,121	8,369,856	8,121	1,582,101
2002	8,068	8,230,772	8,068	1,651,552
2007 farms by number of taps:				
1 to 99 taps	2,568	87,977	2,568	16,495
100 to 499 taps	2,629	617,018	2,629	98,749
500 to 999 taps	1,083	724,334	1,083	115,795
1,000 to 1,999 taps	848	1,090,285	848	191,944
2,000 to 2,999 taps	372	855,480	372	151,683
3,000 to 4,999 taps	302	1,084,031	302	207,224
5,000 to 9,999 taps	193	1,236,157	193	250,038
10,000 taps or more	126	2,674,574	126	550,173
2002 farms by number of taps:				
1 to 99 taps	1,836	67,287	1,836	14,851
100 to 499 taps	2,920	728,751	2,920	139,656
500 to 999 taps	1,230	824,040	1,230	160,409
1,000 to 1,999 taps	1,089	1,382,581	1,089	275,678
2,000 to 2,999 taps	412	935,869	412	187,129
3,000 to 4,999 taps	288	1,031,686	288	206,181
5,000 to 9,999 taps	190	1,260,415	190	254,872
10,000 taps or more	103	2,000,143	103	412,776

Table 39. **Grain Storage Capacity: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Grain storage capacity	2007		2002	
	Farms	Bushels	Farms	Bushels
Grain storage capacity	309,365	11,333,050,084	346,977	9,889,959,099
Average capacity per farm	(X)	36,633	(X)	28,503
Capacity by bushels:				
1 to 4,999 bushels	72,996	149,803,989	93,028	190,308,785
5,000 to 9,999 bushels	43,349	295,027,844	53,101	359,773,084
10,000 to 19,999 bushels	55,442	744,898,776	65,279	875,539,678
20,000 to 29,999 bushels	32,981	768,701,110	37,589	872,530,478
30,000 to 49,999 bushels	37,909	1,405,588,877	39,900	1,474,577,373
50,000 to 99,999 bushels	38,030	2,541,879,171	36,797	2,430,725,447
100,000 to 249,999 bushels	23,385	3,314,953,337	18,278	2,527,922,601
250,000 bushels or more	5,273	2,112,196,980	3,005	1,158,581,653
Capacity by land in farms:				
1 to 9 acres	3,257	32,563,500	2,521	20,035,612
10 to 49 acres	14,843	129,324,385	15,020	107,729,277
50 to 69 acres	6,857	53,152,595	7,584	50,268,431
70 to 99 acres	12,851	98,210,781	14,738	93,939,991
100 to 139 acres	15,516	129,745,208	18,096	137,209,303
140 to 179 acres	17,507	179,008,687	21,278	192,650,253
180 to 219 acres	13,476	154,730,047	16,336	162,338,496
220 to 259 acres	13,328	175,613,703	16,159	193,402,035
260 to 499 acres	57,544	1,074,963,797	68,008	1,112,229,998
500 to 999 acres	62,463	2,163,369,530	71,528	2,095,584,100
1,000 to 1,999 acres	49,081	2,930,335,005	54,108	2,634,988,733
2,000 to 4,999 acres	32,503	3,007,664,783	32,128	2,252,287,675
5,000 acres or more	10,139	1,204,368,063	9,473	837,295,195
Capacity by harvested cropland:				
0 to 9 acres	25,816	381,175,623	28,832	363,252,688
10 to 49 acres	25,012	140,828,684	29,737	156,772,444
50 to 69 acres	11,647	77,291,724	14,352	84,272,234
70 to 99 acres	15,514	123,039,399	18,270	132,741,413
100 to 139 acres	18,950	180,756,105	23,044	206,880,939
140 to 179 acres	17,015	206,745,649	20,697	230,293,970
180 to 219 acres	14,326	197,260,598	17,401	223,990,701
220 to 259 acres	12,550	199,562,959	15,189	224,863,416
260 to 499 acres	52,081	1,199,717,846	61,097	1,269,096,863
500 to 999 acres	55,755	2,320,758,867	61,993	2,280,377,608
1,000 to 1,999 acres	39,732	2,978,897,311	40,154	2,570,808,912
2,000 to 4,999 acres	18,723	2,611,685,021	14,830	1,761,621,362
5,000 acres or more	2,244	715,330,298	1,381	384,986,549
Capacity by North American Industry Classification System (NAICS):				
Crop production (111)	205,765	9,315,779,238	213,605	7,661,802,857
Animal production (112)	103,600	2,017,270,846	133,372	2,228,156,242

Table 40. **Farms by Concentration of Market Value of Agricultural Products Sold: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	All farms	Fewest number of farms accounting for-			
		10 percent of sales	25 percent of sales	50 percent of sales	75 percent of sales
Farms ..... number	2,204,792	449	4,009	32,886	125,478
..... percent	100.0	(Z)	0.2	1.5	5.7
Land in farms ..... acres	922,095,840	2,570,166	15,595,983	94,130,514	278,050,330
Average size of farm ..... acres	418	5,724	3,890	2,862	2,216
Estimated market value of land and buildings ..... farms	2,204,792	449	4,009	32,886	125,478
..... $1,000	1,744,295,252	11,387,156	54,313,028	225,251,966	557,369,994
Average per farm ..... dollars	791,138	25,361,148	13,547,775	6,849,479	4,441,974
Average per acre ..... dollars	1,892	4,431	3,483	2,393	2,005
Estimated market value of all machinery and equipment $1,000	194,783,471	1,834,776	7,367,608	26,770,244	65,115,735
..... percent	100.0	0.9	3.8	13.7	33.4
Land in farms according to use:					
Total cropland ..... acres	406,424,909	1,593,058	8,057,286	55,923,629	165,723,561
Harvested cropland ..... acres	309,607,601	1,363,376	7,185,932	50,621,350	148,367,899
Pastureland, excluding woodland pastured ..... acres	444,603,270	662,556	6,344,176	34,163,280	102,325,305
Market value of agricultural products sold (see text) $1,000	297,220,491	29,754,134	74,305,946	148,611,621	222,915,735
Average per farm ..... dollars	134,807	66,267,560	18,534,783	4,518,994	1,776,532
Grains, oilseeds, dry beans, and dry peas ..... farms	479,467	123	1,201	16,291	78,108
..... $1,000	77,215,262	161,904	1,212,472	15,401,679	45,961,097
Tobacco ..... farms	16,228	-	18	372	1,634
..... $1,000	1,268,114	-	38,439	270,540	678,009
Cotton and cottonseed ..... farms	18,591	10	117	1,804	7,209
..... $1,000	4,898,608	(D)	334,098	1,607,727	3,789,796
Vegetables, melons, potatoes, and sweet potatoes ..... farms	69,100	53	606	3,492	8,432
..... $1,000	14,683,058	1,986,857	7,151,286	11,583,953	13,317,853
Fruits, tree nuts, and berries ..... farms	112,690	54	630	3,255	8,662
..... $1,000	18,625,459	1,868,401	6,194,254	11,162,758	14,533,412
Nursery, greenhouse, floriculture, and sod (see text) ..... farms	50,784	49	503	2,309	5,909
..... $1,000	16,632,734	2,149,156	7,465,016	12,000,054	14,413,792
Cut Christmas trees and short-rotation woody crops ..... farms	13,374	-	13	92	317
..... $1,000	384,594	-	49,590	133,571	202,887
Other crops and hay (see text) ..... farms	434,502	83	653	6,444	25,335
..... $1,000	9,950,098	382,986	998,345	3,270,997	5,765,422
Cattle and calves ..... farms	798,290	257	1,864	14,414	53,772
..... $1,000	61,209,970	17,021,241	25,410,990	34,987,323	43,767,158
Milk and other dairy products from cows ..... farms	69,763	26	895	4,786	14,417
..... $1,000	31,848,029	1,113,637	10,148,341	19,510,391	25,162,840
Hogs and pigs ..... farms	74,789	36	360	4,701	14,336
..... $1,000	18,056,981	1,762,187	4,719,253	12,011,627	16,674,228
Sheep, goats, and their products ..... farms	121,171	3	34	476	2,418
..... $1,000	704,855	(D)	63,826	155,322	268,572
Horses, ponies, mules, burros, and donkeys ..... farms	114,317	27	99	713	2,421
..... $1,000	2,061,862	382,742	618,206	956,676	1,209,347
Poultry and eggs ..... farms	148,911	45	584	7,311	21,189
..... $1,000	37,065,947	2,557,931	9,168,079	24,171,845	35,267,586
Aquaculture (see text) ..... farms	6,409	-	25	252	843
..... $1,000	1,415,271	-	276,327	743,612	1,081,472
Other animals and other animal products (see text) ..... farms	43,226	16	77	382	1,166
..... $1,000	1,199,649	211,584	457,425	643,546	822,265
Value of organically produced commodities (see text) ..... farms	18,211	32	157	486	1,315
..... $1,000	1,709,111	166,897	483,246	836,051	1,163,921
Value of landlord's share of total sales (see text) ..... farms	97,706	4	156	3,754	22,815
..... $1,000	6,429,386	(D)	106,780	1,175,074	3,999,925
Total farm production expenses ..... farms	2,204,792	449	4,009	32,886	125,478
..... $1,000	241,113,666	25,196,163	59,183,405	114,755,630	169,644,590
Selected farm production expenses:					
Fertilizer, lime, and soil conditioners ..... farms	1,148,218	267	2,713	25,149	103,660
..... $1,000	18,107,194	355,789	1,308,207	4,514,634	10,241,525
Chemicals ..... farms	918,604	309	2,842	25,479	99,597
..... $1,000	10,074,914	333,852	1,241,640	3,416,672	6,565,482
Livestock and poultry purchased or leased (see text) ..... farms	490,819	324	2,268	18,667	59,425
..... $1,000	38,003,682	11,588,819	18,764,456	27,430,160	33,644,485
Feed purchased ..... farms	1,135,968	332	2,472	20,636	69,292
..... $1,000	49,095,106	6,489,443	15,304,874	30,685,041	40,931,636
Gasoline, fuels, and oils ..... farms	2,148,806	447	4,002	32,809	125,184
..... $1,000	12,912,179	373,571	1,286,132	3,532,934	6,711,449
Utilities (see text) ..... farms	1,102,530	424	3,859	31,204	115,197
..... $1,000	5,917,615	367,958	1,166,233	2,456,583	3,739,504
Hired farm labor ..... farms	482,186	438	3,840	27,904	93,006
..... $1,000	21,877,661	1,926,317	7,077,048	12,919,448	17,297,475
Interest expense ..... farms	667,454	279	2,804	24,339	89,708
..... $1,000	10,880,731	267,964	1,040,497	2,898,746	5,341,434
Government payments ..... farms	838,391	101	1,409	18,374	83,594
..... $1,000	7,983,922	4,405	81,306	980,207	3,095,056
Inventory of selected livestock:					
Cattle and calves ..... farms	963,669	257	1,892	15,030	56,076
..... number	96,347,858	8,285,089	16,459,849	28,701,943	43,986,808
Milk cows ..... farms	69,890	26	894	4,745	14,279
..... number	9,266,574	281,469	2,734,921	5,301,894	6,946,167
Hogs and pigs ..... farms	75,442	34	352	4,594	13,808
..... number	67,786,318	6,901,768	17,277,838	42,690,366	60,683,841

Table 41. **Commodities Raised and Delivered Under Production Contracts: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Commodity	2007		2002	
	Farms	Number	Farms	Number
Broilers and other meat-type chickens	17,001	8,600,795,123	20,778	8,330,584,759
Eggs, chicken (dozens)	3,331	1,823,376,451	3,408	1,981,167,784
Pullets for laying flock replacement	1,563	116,811,593	1,622	118,198,365
Turkeys	2,195	200,125,309	2,102	180,238,549
Custom fed cattle shipped directly for slaughter (see text)	1,485	8,826,814	(NA)	(NA)
Hogs and pigs	8,991	89,601,632	10,370	79,402,887
Other cattle, livestock, poultry, or aquaculture (see text)	4,641	(X)	(NA)	(X)
Grains and oilseeds	506	(X)	2,295	(X)
Vegetables, melons, and potatoes (see text)	2,033	(X)	2,099	(X)
Other crops (see text)	14	(X)	114	(X)
Value of commodities (see text) ($1,000)	40,496	48,847,998	46,955	31,589,927
Payments received (see text) ($1,000)	40,496	7,603,734	46,955	6,002,025

Table 42. **Value of Land and Buildings: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Value of land and buildings	2007		2002 [1]	
	Farms	Value ($1,000)	Farms	Value ($1,000)
Estimated market value of land and buildings ....farms	2,204,792	(X)	2,128,739	(X)
$1,000	(X)	1,744,295,252	(X)	1,144,905,925
Average per farm .... dollars	(X)	791,138	(X)	537,833
Average per acre .... dollars	(X)	1,892	(X)	1,213
Farms by value group:				
$1 to $49,999	223,182	5,389,974	250,117	6,271,328
$50,000 to $99,999	212,783	15,332,567	277,144	20,049,745
$100,000 to $199,999	374,783	53,279,856	455,928	64,359,299
$200,000 to $499,999	631,939	198,135,165	597,519	182,556,908
$500,000 to $999,999	371,783	255,120,688	280,285	191,490,295
$1,000,000 to $1,999,999	206,282	279,370,915	155,315	211,338,983
$2,000,000 to $4,999,999	132,549	397,786,859	90,558	266,427,412
$5,000,000 to $9,999,999	36,072	242,067,138	17,887	117,466,757
$10,000,000 or more	15,419	297,812,088	3,986	84,945,199

[1] 2002 data are based on a sample of farms.

Table 43. **Value of Machinery and Equipment on Operation: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Value of machinery and equipment	2007		2002 [1]	
	Farms	Value ($1,000)	Farms	Value ($1,000)
Estimated market value of machinery and equipment	2,204,513	194,783,471	2,052,348	136,624,880
Average per farm .... dollars	(X)	88,357	(X)	66,570
By value group:				
$1 to $4,999	195,820	525,370	348,038	776,067
$5,000 to $9,999	217,460	1,489,642	279,061	1,879,501
$10,000 to $19,999	351,088	4,777,255	347,224	4,668,284
$20,000 to $29,999	279,609	6,531,269	231,428	5,375,772
$30,000 to $49,999	318,680	11,881,082	234,070	8,683,985
$50,000 to $69,999	215,497	12,086,691	147,047	8,270,393
$70,000 to $99,999	151,271	12,244,548	112,297	9,172,969
$100,000 to $199,999	232,001	30,552,240	180,503	24,171,380
$200,000 to $499,999	175,152	51,192,883	132,284	38,591,548
$500,000 to $999,999	48,725	31,708,088	31,563	20,501,991
$1,000,000 or more	19,210	31,794,404	8,833	14,532,989

[1] 2002 data are based on a sample of farms.

Table 44. **Selected Machinery and Equipment on Operation: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Selected machinery and equipment	2007						2002 [1]			
	Total		Manufactured 2003 to 2007		Manufactured prior to 2003		Total		Manufactured 1998 to 2002	
	Farms	Number	Farms	Number	Farms	Number	Farms	Number	Farms	Number
Trucks, including pickups (see text)	1,783,324	3,512,538	586,671	731,562	1,496,339	2,780,976	(NA)	(NA)	(NA)	(NA)
Tractors, all	1,844,647	4,389,812	385,317	530,102	1,664,161	3,859,710	1,901,787	4,592,545	297,605	435,218
2 or 3	687,004	1,609,191	70,658	156,572	614,822	1,441,428	705,550	1,658,293	56,647	126,537
4 or more	355,311	1,978,289	12,301	71,172	307,733	1,676,676	369,081	2,107,096	13,533	81,256
Less than 40 horsepower (PTO)	910,937	1,280,039	127,288	142,117	807,659	1,137,922	983,294	1,415,807	99,961	121,715
40 to 99 horsepower (PTO)	1,238,101	1,998,508	212,259	250,743	1,098,874	1,747,765	1,252,337	2,066,720	152,256	190,945
100 horsepower (PTO) or more	555,941	1,111,265	91,469	137,242	516,702	974,023	564,066	1,110,018	80,870	122,558
Grain and bean combines, self-propelled	295,490	346,935	37,491	41,420	262,538	305,515	353,539	409,442	37,756	41,314
Cotton pickers and strippers, self-propelled	12,500	18,162	3,346	4,238	9,716	13,924	15,736	23,336	3,368	4,473
Forage harvesters, self-propelled	60,133	64,191	7,794	8,381	52,926	55,810	60,613	67,610	7,183	7,870
Hay balers	593,543	727,501	82,405	87,948	530,680	639,553	632,655	766,457	74,594	79,475

[1] 2002 data are based on a sample of farms.

Table 45. **Fertilizers and Chemicals: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item		2007	2002 [1]
Any fertilizer, manure, or chemicals used [2]	farms	1,195,772	(NA)
Manure used	farms	307,073	347,585
	acres treated	22,096,315	22,749,251
Any fertilizer or chemical expense [2 3]	farms	1,288,360	(NA)
	$1,000	28,182,108	(NA)
Commercial fertilizer, lime, and soil conditioners used [2]	farms	1,022,036	(NA)
	acres treated	265,995,497	248,060,293
Commercial fertilizer, lime, and soil conditioners expenses	farms	1,148,218	1,189,850
	$1,000	18,107,194	9,751,460
Chemical expenses	farms	918,604	947,279
	$1,000	10,074,914	7,608,921

Item		2007	2002 [1]
Chemicals used to control-			
Insects	farms	354,357	357,274
	acres treated	90,947,822	65,697,023
Weeds, grass, or brush	farms	703,884	708,252
	acres treated	226,295,783	193,968,317
Nematodes	farms	34,992	35,877
	acres treated	7,560,158	5,936,346
Diseases in crops and orchards	farms	97,333	92,334
	acres treated	22,693,212	12,392,352
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate	farms	44,638	44,725
	acres treated	12,125,799	10,874,350

[1] 2002 data are based on a sample of farms.
[2] 2002 farm count data are not comparable due to calculation change.
[3] 2002 expense data are not comparable due to calculation change.

Table 46. **Selected Characteristics of Farms by North American Industry Classification System: 2007**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code (see text)	Farms	Land in farms (acres)	Harvested cropland (acres)	Estimated market value of selected capital assets, average per farm (dollars)		Market value of agricultural products sold ($1,000)		
				Land and buildings	Machinery and equipment	Total	Crops	Livestock, poultry, and their products
Total	2,204,792	922,095,840	309,607,601	791,138	88,357	297,220,491	143,657,928	153,562,563
Crop production (111)	1,051,889	416,961,540	244,213,836	951,279	108,515	141,921,405	135,806,093	6,115,312
Oilseed and grain farming (1111)	338,237	266,831,616	194,191,397	1,595,687	203,486	74,559,692	69,851,934	4,707,758
Soybean farming (11111)	62,923	22,094,100	17,599,156	884,065	115,621	5,637,504	5,532,934	104,570
Oilseed (except soybean) farming (11112)	515	458,591	306,033	839,339	172,383	62,238	61,081	1,157
Dry pea and bean farming (11113)	526	382,071	269,759	888,101	198,237	79,297	78,454	844
Wheat farming (11114)	35,232	55,992,672	29,062,744	1,227,996	182,956	6,157,944	5,821,678	336,267
Corn farming (11115)	161,874	103,071,231	86,627,715	1,795,895	217,033	39,675,674	38,524,804	1,150,870
Rice farming (11116)	3,853	4,233,156	3,396,230	2,514,837	368,087	1,936,574	1,915,447	21,127
Other grain farming (11119)	73,314	80,599,795	56,929,760	1,903,182	250,461	21,010,459	17,917,536	3,092,923
Vegetable and melon farming (11121)	40,589	9,272,945	6,018,702	1,095,695	129,380	14,975,322	14,850,087	125,235
Potato farming (111211)	2,182	2,577,795	1,992,430	3,199,194	561,943	2,885,906	2,854,320	31,586
Other vegetable (except potato) and melon farming (111219)	38,407	6,695,150	4,026,272	976,190	104,804	12,089,416	11,995,767	93,649
Fruit and tree nut farming (1113)	98,281	12,141,683	5,339,755	1,201,461	68,256	18,351,629	18,225,583	126,046
Orange groves (11131)	8,771	1,535,483	800,921	1,625,749	62,929	2,423,976	2,382,844	41,131
Citrus (except orange) groves (11132)	3,429	402,617	205,522	1,600,802	57,077	783,426	778,099	5,326
Noncitrus fruit and tree nut farming (11133)	86,081	10,203,583	4,333,312	1,142,322	69,244	15,144,228	15,064,639	79,589
Apple orchards (111331)	11,550	2,078,125	488,273	721,439	69,708	2,259,839	2,251,555	8,284
Grape vineyards (111332)	17,036	2,067,987	1,061,070	1,875,518	83,655	3,890,152	3,883,341	6,811
Strawberry farming (111333)	1,503	149,972	55,461	1,540,283	108,952	1,185,736	1,182,263	3,473
Berry (except strawberry) farming (111334)	8,535	870,154	220,530	634,856	71,044	1,211,820	1,209,450	2,370
Tree nut farming (111335)	22,821	3,239,199	1,652,915	1,221,225	71,598	3,655,251	3,626,067	29,184
Fruit and tree nut combination farming (111336)	995	292,842	106,488	1,653,450	112,333	301,611	286,946	14,666
Other noncitrus fruit farming (111339)	23,641	1,505,304	748,575	879,827	51,369	2,639,819	2,625,018	14,801
Greenhouse, nursery, and floriculture production (1114)	54,889	3,974,530	1,698,564	691,851	83,403	16,967,123	16,930,975	36,147
Food crops grown under cover (11141)	2,044	85,809	18,712	648,219	136,926	1,552,287	1,550,756	1,531
Nursery and floriculture production (11142)	52,845	3,888,721	1,679,852	693,539	81,332	15,414,835	15,380,219	34,616
Nursery and tree production (111421)	34,532	3,287,008	1,505,323	762,441	85,393	8,901,860	8,875,417	26,443
Floriculture production (111422)	18,313	601,713	174,529	563,615	73,674	6,512,975	6,504,801	8,173
Other crop farming (1119)	519,893	124,740,766	36,965,418	500,853	55,350	17,067,639	15,947,514	1,120,126
Tobacco farming (11191)	9,626	2,518,697	1,219,827	832,175	110,057	1,147,173	1,077,481	69,692
Cotton farming (11192)	9,968	13,081,671	9,778,279	2,134,284	350,001	4,357,082	4,300,124	56,958
Sugarcane farming (11193)	614	1,299,318	969,321	4,842,911	602,944	885,028	881,698	3,330
Hay farming (11194)	254,042	49,923,443	18,606,436	485,030	54,244	6,488,172	5,807,594	680,578
All other crop farming (11199)	245,643	57,917,637	6,391,555	427,097	41,019	4,190,184	3,880,617	309,568
Animal production (112)	1,152,903	505,134,300	65,393,765	645,029	69,965	155,299,086	7,851,835	147,447,251
Cattle ranching and farming (1121)	744,858	413,261,549	55,185,767	736,094	76,882	92,538,429	5,109,567	87,428,862
Beef cattle ranching and farming, including feedlots (11211)	687,540	391,990,769	41,893,929	687,997	64,670	57,784,399	3,895,789	53,888,610
Beef cattle ranching and farming (112111)	656,475	376,170,540	36,675,357	679,268	60,874	27,535,096	2,626,582	24,908,514
Cattle feedlots (112112)	31,065	15,820,229	5,218,572	872,449	144,889	30,249,303	1,269,207	28,980,096
Dairy cattle and milk production (11212)	57,318	21,270,780	13,291,838	1,313,027	223,368	34,754,031	1,213,778	33,540,252
Hog and pig farming (1122)	30,546	6,949,176	4,747,504	913,782	133,465	18,127,114	1,614,030	16,513,083
Poultry and egg production (1123)	64,570	7,040,000	2,140,320	612,600	92,204	37,797,542	547,736	37,249,806
Chicken egg production (11231)	35,651	2,259,774	477,371	393,850	59,930	7,546,997	104,546	7,442,452
Broilers and other meat-type chicken production (11232)	17,888	3,370,828	1,209,528	1,049,601	147,794	22,400,358	306,268	22,094,090
Turkey production (11233)	3,405	836,551	396,096	1,094,102	159,271	4,643,075	127,009	4,516,067
Poultry hatcheries (11234)	775	69,558	9,985	599,637	427,882	2,777,612	1,790	2,775,822
Other poultry production (11239)	6,851	503,289	47,340	372,064	43,676	429,499	8,124	421,375
Sheep and goat farming (1124)	67,254	11,963,667	429,300	311,679	31,163	554,107	21,374	532,732
Sheep farming (11241)	30,974	8,971,952	324,835	404,673	33,461	435,107	18,396	416,711
Goat farming (11242)	36,280	2,991,715	104,465	232,286	29,201	119,000	2,979	116,021
Animal aquaculture (1125)	4,777	2,451,244	70,954	806,737	124,020	1,407,750	18,384	1,389,366
Other animal production (1129)	240,898	63,468,664	2,819,920	427,928	44,322	4,874,144	540,743	4,333,401
Apiculture (11291)	7,979	503,609	92,280	258,977	49,717	263,268	19,827	243,440
Horse and other equine production (11292)	168,694	22,370,495	675,383	354,493	41,205	2,088,845	17,332	2,071,512
Fur-bearing animal and rabbit production (11293)	2,252	89,224	16,894	263,603	47,179	154,325	2,744	151,581
All other animal production (11299)	61,973	40,505,336	2,035,363	655,547	52,015	2,367,706	500,839	1,866,867

Table 47. **Institutional, Research, Experimental, and American Indian Reservation Farms: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Characteristics		2007
Farms	number	3,551
Land in farms	acres	48,655,363
Average size of farm	acres	13,702
Estimated value of land and buildings	$1,000	17,192,567
Average per farm	dollars	4,841,613
Average per acre	dollars	353
Estimated market value of all machinery and equipment	$1,000	668,161
Land in farms according to use:		
Total cropland	farms	2,360
	acres	1,036,935
Harvested cropland	farms	1,901
	acres	609,785
Cropland used only for pasture or grazing	farms	457
	acres	172,160
Other cropland	farms	937
	acres	254,990
Total woodland	farms	1,037
	acres	3,943,334
Woodland pastured	farms	284
	acres	2,746,461
Woodland not pastured	farms	905
	acres	1,196,873
Permanent pasture and rangeland, other than cropland and woodland pastured (see text)	farms	1,402
	acres	41,400,020
Land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc.	farms	2,154
	acres	2,275,074
Irrigated land	farms	1,171
	acres	332,363
Market value of agricultural products sold (see text)	$1,000	942,481
Average per farm	dollars	265,413
Crops, including nursery and greenhouse crops	$1,000	320,964
Livestock, poultry, and their products	$1,000	621,516
Total farm production expenses	$1,000	855,051
Average per farm	dollars	240,792
Government payments	farms	723
	$1,000	14,250
Average per farm	dollars	19,710
Income from farm-related sources (see text)	farms	859
	$1,000	93,213
Average per farm	dollars	108,513
Tenure of operator:		
Full owners		2,717
Part owners		441
Tenants		393
Farms by North American Industry Classification System:		
Oilseed and grain farming (1111)		475
Vegetable and melon farming (1112)		130
Fruit and tree nut farming (1113)		172
Greenhouse, nursery, and floriculture production (1114)		338
Other crop farming (1119)		613
Tobacco farming (11191)		5
Cotton farming (11192)		20
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)		588
Beef cattle ranching and farming (112111)		421
Cattle feedlots (112112)		38
Dairy cattle and milk production (11212)		105
Hog and pig farming (1122)		58
Poultry and egg production (1123)		45
Sheep and goat farming (1124)		37
Animal aquaculture and other animal production (1125,1129)		1,119

Table 48. **Organic Agriculture: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item		2007
VALUE OF SALES OF ORGANICALLY PRODUCED COMMODITIES		
Total organic product sales (see text)	farms	18,211
	$1,000	1,709,111
Average per farm	dollars	93,850
By value of sales:		
$1 to $4,999	farms	8,285
	$1,000	12,665
$5,000 to $9,999	farms	1,935
	$1,000	13,391
$10,000 to $24,999	farms	2,318
	$1,000	36,792
$25,000 to $49,999	farms	1,515
	$1,000	53,691
$50,000 or more	farms	4,158
	$1,000	1,592,573
Crops, including nursery and greenhouse crops	farms	14,968
	$1,000	1,121,774
Less than $50,000	farms	12,295
	$1,000	101,343
$50,000 or more	farms	2,673
	$1,000	1,020,432
Livestock and poultry	farms	2,496
	$1,000	109,943
Less than $50,000	farms	2,245
	$1,000	14,605
$50,000 or more	farms	251
	$1,000	95,338
Livestock and poultry products	farms	3,191
	$1,000	477,394
Less than $50,000	farms	1,927
	$1,000	11,401
$50,000 or more	farms	1,264
	$1,000	465,993
LAND USED FOR ORGANIC PRODUCTION		
Total acres used for organic production (see text)	farms	20,437
	acres	2,577,418
By number of organic acres:		
1 to 9 acres	farms	9,251
	acres	29,178
10 to 49 acres	farms	4,994
	acres	115,198
50 to 179 acres	farms	3,498
	acres	347,775
180 to 499 acres	farms	1,808
	acres	527,865
500 acres or more	farms	886
	acres	1,557,402

Item		2007
LAND USED FOR ORGANIC PRODUCTION - Con.		
Total acres used for organic production (see text) - Con.		
Acres from which organic crops were harvested	farms	16,778
	acres	1,288,088
Acres of organic pastureland	farms	7,268
	acres	975,380
Acres being converted to organic production	farms	11,901
	acres	616,358
PRINCIPAL OPERATOR CHARACTERISTICS FOR FARMS WITH ORGANIC PRODUCTION		
Sex of operator:		
Male		15,912
Female		4,525
Primary occupation:		
Farming		12,260
Other		8,177
Place of residence:		
On farm operated		17,246
Not on farm operated		3,191
Days worked off farm:		
None		6,989
Any		13,448
1 to 49 days		2,528
50 to 99 days		1,504
100 to 199 days		2,480
200 days or more		6,936
Years on present farm:		
2 years or less		1,040
3 or 4 years		1,882
5 to 9 years		4,530
10 years or more		12,985
Average years on present farm		16.9
Age group:		
Under 25 years		109
25 to 34 years		1,436
35 to 44 years		2,985
45 to 49 years		2,920
50 to 54 years		3,546
55 to 59 years		3,560
60 to 64 years		2,564
65 to 69 years		1,529
70 years and over		1,788
Average age		53.2

Table 49. **Selected Operator Characteristics for Principal, Second, and Third Operator: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	All operators [1]	Principal operator	Second operator	Third operator
Operators ..... number	3,281,534	2,204,792	931,670	145,072
Sex of operator:				
Male	2,296,342	1,898,583	310,592	87,167
Female	985,192	306,209	621,078	57,905
Primary occupation:				
Farming	1,399,791	993,881	342,053	63,857
Other	1,881,743	1,210,911	589,617	81,215
Place of residence:				
On farm operated	2,492,416	1,693,362	717,626	81,428
Not on farm operated	789,118	511,430	214,044	63,644
Days worked off farm:				
None	1,117,957	777,747	291,341	48,869
Any	2,163,577	1,427,045	640,329	96,203
1 to 49 days	363,896	238,479	107,562	17,855
50 to 99 days	180,903	115,578	55,387	9,938
100 to 199 days	304,961	196,687	94,540	13,734
200 days or more	1,313,817	876,301	382,840	54,676
Years on present farm:				
2 years or less	162,978	84,883	58,685	19,410
3 or 4 years	239,893	138,858	83,004	18,031
5 to 9 years	592,955	359,545	200,046	33,364
10 years or more	2,285,708	1,621,506	589,935	74,267
Age group:				
Under 25 years	54,197	11,878	20,650	21,669
25 to 34 years	209,385	106,735	79,166	23,484
35 to 44 years	468,740	268,818	173,049	26,873
45 to 54 years	877,500	565,401	280,847	31,252
55 to 64 years	848,277	596,306	229,937	22,034
65 to 74 years	533,436	412,182	108,791	12,463
75 years and over	289,999	243,472	39,230	7,297
Average age	54.9	57.1	51.4	44.6
Number of persons living in household	6,828,202	5,797,906	791,256	239,040

[1] Data were collected for a maximum of three operators per farm.

Table 50. **Women Principal Operators - Selected Farm Characteristics: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	Principal operator 2007	Principal operator 2002
FARMS AND LAND IN FARMS		
Farms ..... number	306,209	237,819
Land in farms ..... acres	64,264,566	59,383,557
FARMS BY SIZE		
1 to 9 acres	56,526	36,068
10 to 49 acres	107,352	83,423
50 to 179 acres	86,991	71,272
180 to 499 acres	36,354	30,452
500 acres or more	18,986	16,604
OWNED AND RENTED LAND IN FARMS		
Owned land in farms ..... farms	292,529	226,820
acres	50,101,842	46,977,149
Rented or leased land in farms ..... farms	45,757	38,086
acres	14,162,724	12,406,408
TENURE		
Full owners ..... farms	260,452	199,733
acres	39,349,544	37,223,473
Part owners ..... farms	32,077	27,087
acres	20,659,890	18,069,305
Tenants ..... farms	13,680	10,999
acres	4,255,132	4,090,779
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS		
Total ..... farms	306,209	237,819
$1,000	11,669,972	7,826,683
Market value of agricultural products sold ..... farms	306,209	237,819
$1,000	11,158,210	7,504,002
Crops, including nursery and greenhouse crops ..... farms	88,242	65,880
$1,000	4,547,958	2,990,097
Livestock, poultry, and their products ..... farms	131,276	110,262
$1,000	6,610,252	4,513,905
Government payments ..... farms	87,083	60,349
$1,000	511,763	322,681
FARMS BY ECONOMIC CLASS		
Less than $1,000	104,739	72,763
$1,000 to $2,499	47,480	44,092
$2,500 to $4,999	39,662	32,410
$5,000 to $9,999	37,970	29,810
$10,000 to $24,999	34,466	26,351
$25,000 to $49,999	16,292	12,123
$50,000 or more	25,600	20,270
COMMODITY CREDIT CORPORATION (CCC) LOANS AND FEDERAL FARM PROGRAM PAYMENTS		
CCC loans ..... farms	1,485	3,057
$1,000	71,967	62,462
Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs [1] ..... farms	54,082	35,884
$1,000	283,779	177,145
Other Federal farm program payments ..... farms	55,783	31,550
$1,000	227,984	145,536
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS)		
Oilseed and grain farming (1111)	16,345	15,376
Vegetable and melon farming (1112)	6,758	3,384
Fruit and tree nut farming (1113)	13,876	10,983
Greenhouse, nursery, and floriculture production (1114)	10,332	10,663
Other crop farming (1119)	83,827	55,546
Tobacco farming (11191)	498	2,855
Cotton farming (11192)	461	594
Sugarcane farming, hay farming, and all other crop farming (11193, 11194, 11199)	82,868	52,097
Beef cattle ranching and farming (112111)	69,327	56,757
Cattle feedlots (112112)	2,126	3,819
Dairy cattle and milk production (11212)	3,363	3,418
Hog and pig farming (1122)	2,723	2,246
Poultry and egg production (1123)	12,363	6,716
Sheep and goat farming (1124)	17,551	9,808
Animal aquaculture and other animal production (1125, 1129)	67,618	59,103
OTHER FARM CHARACTERISTICS		
Farms by-		
Type of organization:		
Family or individual	265,157	215,558
Partnerships	21,729	11,684
Corporations	12,785	7,653
Other - cooperative, estate or trust, institutional, etc	6,538	2,924
Number of operators:		
1 operator	175,407	137,147
2 operators	107,965	84,216
3 operators	17,957	11,994
4 operators	3,215	3,061
5 or more operators	1,665	1,401
Number of women operators:		
1 woman operator	279,996	217,961
2 women operators	22,783	17,282
3 women operators	2,761	2,087
4 women operators	431	355
5 or more women operators	238	134
Farms reporting-		
Internet access	168,280	123,556
High-speed internet access	98,892	(NA)
Principal operator is a hired manager ..... farms	6,394	5,505
acres	6,474,953	2,948,686
Farms by number of households sharing in net income of farm:		
1 household	254,800	194,640
2 households	38,080	27,163
3 households	7,747	6,099
4 households	3,416	2,424
5 or more households	2,166	1,988
Farms by share of principal operator's total household income from farming:		
Less than 25 percent	246,586	162,290
25 to 49 percent	20,981	23,569
50 to 74 percent	19,298	20,145
75 to 99 percent	11,162	10,646
100 percent	8,182	15,664

[1] 2002 data do not include farms with land in Farmable Wetlands or Conservation Reserve Enhancement Programs.

Table 51. **Women Operators - Selected Operator Characteristics: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	All operators [1]		Principal operator	
	2007	2002	2007	2002
Operators ..... number	985,192	822,383	306,209	237,819
Primary occupation:				
Farming	341,538	374,244	121,799	124,759
Other	643,654	448,139	184,410	113,060
Place of residence:				
On farm operated	796,072	685,472	232,683	188,015
Not on farm operated	189,120	136,911	73,526	49,804
Days worked off farm:				
None	338,395	373,292	124,779	126,196
Any	646,797	449,091	181,430	111,623
1 to 49 days	107,340	48,526	29,224	12,534
50 to 99 days	56,190	30,668	14,722	7,710
100 to 199 days	100,654	74,660	28,104	19,345
200 days or more	382,613	295,237	109,380	72,034
Years on present farm:				
2 years or less	58,427	48,889	15,832	13,092
3 or 4 years	85,552	85,899	26,063	24,295
5 to 9 years	207,057	185,667	63,554	53,136
10 years or more	634,156	501,928	200,760	147,296
Age group:				
Under 25 years	16,632	16,448	1,800	1,800
25 to 34 years	62,182	56,898	11,286	9,312
35 to 44 years	157,193	179,222	35,444	40,286
45 to 54 years	283,098	241,194	77,016	64,077
Age group - Con.				
55 to 64 years	251,231	181,501	77,155	51,904
65 to 74 years	137,246	94,545	53,179	36,372
75 years and over	77,610	52,575	50,329	34,068
Average age of -				
All operators	54.0	51.9	(X)	(X)
Principal operator	(X)	(X)	58.8	56.7
Second operator	52.2	50.3	(X)	(X)
Third operator	47.9	45.2	(X)	(X)
Spanish, Hispanic, or Latino origin (see text)	21,670	16,605	6,777	5,132
Race:				
American Indian or Alaska Native	22,845	8,483	10,103	2,418
Asian	6,690	4,238	2,033	1,283
Black or African American	9,148	6,739	4,429	2,894
Native Hawaiian or Other Pacific Islander	894	634	267	210
White	935,256	797,947	287,092	229,587
More than one race reported	10,359	4,342	2,285	1,427
Number of persons living in household of-				
Principal operator	(X)	(X)	707,254	535,731
Second operator	265,027	214,021	(X)	(X)
Third operator	71,302	42,251	(X)	(X)

[1] Data were collected for a maximum of three operators per farm.

Table 52. Spanish, Hispanic, or Latino Origin Principal Operators - Selected Farm Characteristics: 2007 and 2002

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	2007	2002
FARMS AND LAND IN FARMS		
Farms ..... number	55,570	50,592
Land in farms ..... acres	17,054,007	20,770,712
FARMS BY SIZE		
1 to 9 acres	12,139	8,390
10 to 49 acres	19,687	16,061
50 to 179 acres	12,169	13,088
180 to 499 acres	6,215	7,047
500 acres or more	5,360	6,006
OWNED AND RENTED LAND IN FARMS		
Owned land in farms ..... farms	51,680	46,755
acres	10,960,899	13,942,460
Rented or leased land in farms ..... farms	12,774	13,942
acres	6,093,108	6,828,252
TENURE		
Full owners ..... farms	42,796	36,650
acres	7,621,925	10,346,135
Part owners ..... farms	8,884	10,105
acres	7,787,437	8,446,641
Tenants ..... farms	3,890	3,837
acres	1,644,645	1,977,936
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS		
Total ..... farms	55,570	50,592
$1,000	6,730,853	4,736,943
Market value of agricultural products sold ..... farms	55,570	50,592
$1,000	6,648,073	4,669,572
Crops, including nursery and greenhouse crops ..... farms	21,744	20,724
$1,000	4,066,957	3,072,961
Livestock, poultry, and their products ..... farms	24,561	24,047
$1,000	2,581,116	1,596,611
Government payments ..... farms	8,562	8,569
$1,000	82,780	67,370
FARMS BY ECONOMIC CLASS		
Less than $1,000	17,078	12,591
$1,000 to $2,499	7,481	7,818
$2,500 to $4,999	6,549	6,208
$5,000 to $9,999	6,172	5,857
$10,000 to $24,999	6,505	6,447
$25,000 to $49,999	3,756	3,557
$50,000 or more	8,029	8,114
COMMODITY CREDIT CORPORATION (CCC) LOANS AND FEDERAL FARM PROGRAM PAYMENTS		
CCC loans ..... farms	388	1,035
$1,000	31,727	32,474
Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs [1] ..... farms	2,605	2,722
$1,000	13,502	13,507
Other Federal farm program payments ..... farms	7,281	6,539
$1,000	69,278	53,863

Characteristics	2007	2002
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS)		
Oilseed and grain farming (1111)	1,842	3,365
Vegetable and melon farming (1112)	1,385	1,532
Fruit and tree nut farming (1113)	8,871	7,739
Greenhouse, nursery, and floriculture production (1114)	2,341	2,236
Other crop farming (1119)	9,219	8,101
Tobacco farming (11191)	62	298
Cotton farming (11192)	319	477
Sugarcane farming, hay farming, and all other crop farming (11193, 11194, 11199)	8,838	7,326
Beef cattle ranching and farming (112111)	19,185	17,756
Cattle feedlots (112112)	494	903
Dairy cattle and milk production (11212)	581	982
Hog and pig farming (1122)	478	552
Poultry and egg production (1123)	1,831	744
Sheep and goat farming (1124)	2,676	1,587
Animal aquaculture and other animal production (1125, 1129)	6,667	5,095
OTHER FARM CHARACTERISTICS		
Farms by-		
Type of organization:		
Family or individual	48,150	45,692
Partnerships	4,506	2,866
Corporations	2,240	1,659
Other - cooperative, estate or trust, institutional, etc	674	375
Number of operators:		
1 operator	33,710	33,169
2 operators	18,108	14,331
3 operators	2,818	2,068
4 operators	599	589
5 or more operators	335	435
Number of women operators:		
1 woman operator	20,713	15,742
2 women operators	1,170	994
3 women operators	119	146
4 women operators	28	43
5 or more women operators	17	16
Farms reporting-		
Internet access	24,641	21,113
High-speed internet access	14,983	(NA)
Principal operator is a hired manager ..... farms	2,930	2,781
acres	2,703,672	5,037,926
Farms by number of households sharing in net income of farm:		
1 household	41,928	35,814
2 households	9,888	8,165
3 households	1,880	1,827
4 households	1,034	1,126
5 or more households	840	879
Farms by share of principal operator's total household income from farming:		
Less than 25 percent	44,836	33,307
25 to 49 percent	3,394	4,444
50 to 74 percent	3,494	4,024
75 to 99 percent	2,157	2,280
100 percent	1,689	3,756

[1] 2002 data do not include farms with land in Farmable Wetlands or Conservation Reserve Enhancement Programs.

Table 53. **Spanish, Hispanic, or Latino Origin Operators - Selected Operator Characteristics: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	All operators [1]		Principal operator	
	2007	2002	2007	2002
Operators ..... number	82,462	72,349	55,570	50,592
Sex of operator:				
Male	60,792	55,744	48,793	45,460
Female	21,670	16,605	6,777	5,132
Primary occupation:				
Farming	36,153	40,094	24,933	29,233
Other	46,309	32,255	30,637	21,359
Place of residence:				
On farm operated	53,779	49,313	37,019	35,247
Not on farm operated	28,683	23,036	18,551	15,345
Days worked off farm:				
None	21,843	32,349	14,763	22,647
Any	60,619	40,000	40,807	27,945
1 to 49 days	12,069	5,343	7,758	3,541
50 to 99 days	7,125	3,403	4,785	2,298
100 to 199 days	9,403	5,572	6,393	3,815
200 days or more	32,022	25,682	21,871	18,291
Years on present farm:				
2 years or less	6,174	5,037	3,339	2,723
3 or 4 years	8,994	8,200	5,358	4,770
5 to 9 years	19,809	17,024	12,314	11,126
10 years or more	47,485	42,088	34,559	31,973
Age group:				
Under 25 years	1,650	1,554	298	340
25 to 34 years	5,826	5,189	2,700	2,557
Age group - Con.				
35 to 44 years	14,205	14,884	8,211	9,055
45 to 54 years	22,707	19,974	14,995	13,947
55 to 64 years	19,784	15,444	14,332	11,803
65 to 74 years	12,046	9,906	9,660	8,222
75 years and over	6,244	5,398	5,374	4,668
Average age of -				
All operators	53.4	52.6	(X)	(X)
Principal operator	(X)	(X)	56.0	55.0
Second operator	49.5	48.4	(X)	(X)
Third operator	42.3	41.1	(X)	(X)
Spanish, Hispanic, or Latino origin (see text)	82,462	72,349	55,570	50,592
Race:				
American Indian or Alaska Native	2,766	2,626	1,697	1,606
Asian	1,006	943	604	596
Black or African American	806	1,166	597	890
Native Hawaiian or Other Pacific Islander	317	232	204	141
White	76,475	66,589	51,869	46,878
More than one race reported	1,092	793	599	481
Number of persons living in household of-				
Principal operator	(X)	(X)	159,471	145,328
Second operator	23,037	22,086	(X)	(X)
Third operator	9,782	8,458	(X)	(X)

[1] Data were collected for a maximum of three operators per farm.

Table 54. **Selected Farm Characteristics by Race of Principal Operator: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	All principal operators		Principal operator reporting - One race					
			American Indian or Alaska Native		Asian		Black or African American	
	2007	2002	2007	2002	2007	2002	2007	2002
FARMS AND LAND IN FARMS								
Farms ..... number	2,204,792	2,128,982	34,706	15,494	11,214	8,375	30,599	29,090
Land in farms ..... acres	922,095,840	938,279,056	49,680,678	51,716,448	1,389,766	990,317	3,182,313	3,355,791
FARMS BY SIZE								
1 to 9 acres	232,849	179,346	13,108	1,535	3,970	3,033	3,849	2,626
10 to 49 acres	620,283	563,772	8,312	4,582	3,880	2,862	11,722	10,607
50 to 179 acres	660,530	658,705	6,740	4,626	2,067	1,500	11,184	11,398
180 to 499 acres	368,368	388,617	3,471	2,380	776	601	3,064	3,557
500 acres or more	322,762	338,542	3,075	2,371	521	379	780	902
OWNED AND RENTED LAND IN FARMS								
Owned land in farms ..... farms	2,064,225	1,979,140	32,914	14,200	9,379	6,816	28,037	26,488
acres	571,303,487	584,963,623	44,272,038	46,342,963	933,981	643,113	2,138,272	2,196,264
Rented or leased land in farms ..... farms	682,759	700,846	6,736	5,051	2,992	2,440	9,477	9,896
acres	350,792,353	353,315,433	5,408,640	5,373,485	455,785	347,204	1,044,041	1,159,527
TENURE								
Full owners ..... farms	1,522,033	1,428,136	27,970	10,443	8,222	5,935	21,122	19,194
acres	343,952,327	356,767,305	39,806,741	41,551,397	722,257	495,849	1,661,577	1,650,583
Part owners ..... farms	542,192	551,004	4,944	3,757	1,157	881	6,915	7,294
acres	496,344,290	495,012,197	8,170,722	8,795,586	505,847	337,222	1,244,462	1,410,676
Tenants ..... farms	140,567	149,842	1,792	1,294	1,835	1,559	2,562	2,602
acres	81,799,223	86,499,554	1,703,215	1,369,465	161,662	157,246	276,274	294,532
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS								
Total ..... farms	2,204,792	2,128,982	34,706	15,494	11,214	8,375	30,599	29,090
$1,000	305,204,413	207,192,033	1,440,188	769,520	3,687,674	2,268,309	652,971	525,359
Market value of agricultural products sold ..... farms	2,204,792	2,128,982	34,706	15,494	11,214	8,375	30,599	29,090
$1,000	297,220,491	200,646,355	1,399,725	743,522	3,673,944	2,261,692	615,377	506,881
Crops, including nursery and greenhouse crops ..... farms	986,080	944,656	10,273	4,224	7,815	6,694	9,143	8,351
$1,000	143,657,928	95,151,954	564,470	362,194	2,345,950	2,007,907	299,738	233,710
Livestock, poultry, and their products ..... farms	1,080,312	1,094,608	19,260	9,099	2,660	1,198	14,994	15,839
$1,000	153,562,563	105,494,401	835,256	381,328	1,327,994	253,785	315,639	273,171
Government payments ..... farms	838,391	707,596	4,504	2,981	1,215	586	8,225	5,344
$1,000	7,983,922	6,545,678	40,462	25,998	13,730	6,616	37,595	18,477
FARMS BY ECONOMIC CLASS								
Less than $1,000	499,880	430,953	14,202	4,555	1,547	907	9,765	8,635
$1,000 to $2,499	270,712	307,368	5,169	2,409	981	794	5,351	6,359
$2,500 to $4,999	246,309	243,026	4,103	1,844	987	605	4,623	4,539
$5,000 to $9,999	254,834	246,624	3,712	1,896	1,171	838	4,381	3,947
$10,000 to $24,999	274,274	272,333	3,301	1,945	1,572	1,194	3,519	2,953
$25,000 to $49,999	163,500	163,521	1,537	1,006	1,071	858	1,409	1,225
$50,000 or more	495,283	465,157	2,682	1,839	3,885	3,179	1,551	1,432
COMMODITY CREDIT CORPORATION (CCC) LOANS AND FEDERAL FARM PROGRAM PAYMENTS								
CCC loans ..... farms	50,572	106,120	130	187	49	90	306	757
$1,000	4,445,758	3,833,308	7,785	4,753	3,521	4,297	6,326	7,583
Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs [1] ..... farms	346,227	268,830	1,144	852	380	184	2,584	1,988
$1,000	1,756,226	1,387,956	8,647	6,611	2,224	879	5,878	4,239
Other Federal farm program payments ..... farms	687,434	531,316	3,995	2,360	1,034	426	6,931	3,693
$1,000	6,227,696	5,157,722	31,815	19,387	11,506	5,737	31,717	14,238
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS)								
Oilseed and grain farming (1111)	338,237	349,023	957	794	305	209	2,398	2,767
Vegetable and melon farming (1112)	40,589	34,624	2,981	207	1,374	1,203	1,727	1,377
Fruit and tree nut farming (1113)	98,281	95,680	1,304	815	4,163	3,422	836	703
Greenhouse, nursery, and floriculture production (1114)	54,889	64,366	364	308	1,472	1,589	320	288
Other crop farming (1119)	519,893	442,932	4,421	2,409	935	587	6,405	4,854
Tobacco farming (11191)	9,626	37,013	33	103	3	8	227	925
Cotton farming (11192)	9,968	14,476	39	60	26	17	191	408
Sugarcane farming, hay farming, and all other crop farming (11193, 11194, 11199)	500,299	391,443	4,349	2,246	906	562	5,987	3,521
Beef cattle ranching and farming (112111)	656,475	664,431	13,251	6,735	1,105	560	14,102	15,000
Cattle feedlots (112112)	31,065	55,472	268	348	40	36	192	474
Dairy cattle and milk production (112112)	57,318	72,537	210	184	34	31	165	231
Hog and pig farming (1122)	30,546	33,655	330	228	80	75	666	1,179
Poultry and egg production (1123)	64,570	44,219	875	375	928	265	726	405
Sheep and goat farming (1124)	67,254	43,891	4,468	455	211	87	746	288
Animal aquaculture and other animal production (1125, 1129)	245,675	228,152	5,277	2,636	567	311	2,316	1,524

See footnote(s) at end of table.

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Table 54. **Selected Farm Characteristics by Race of Principal Operator: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	Principal operator reporting-					
	One race				More than one race	
	Native Hawaiian or Other Pacific Islander		White			
	2007	2002	2007	2002	2007	2002
FARMS AND LAND IN FARMS						
Farms ..... number	1,356	983	2,114,325	2,067,379	12,592	7,661
Land in farms ..... acres	405,006	266,757	863,819,828	879,993,532	3,618,249	1,956,211
FARMS BY SIZE						
1 to 9 acres	535	365	209,508	170,534	1,879	1,253
10 to 49 acres	457	328	591,781	542,948	4,131	2,445
50 to 179 acres	184	169	636,752	638,707	3,603	2,305
180 to 499 acres	103	69	359,149	381,022	1,805	988
500 acres or more	77	52	317,135	334,168	1,174	670
OWNED AND RENTED LAND IN FARMS						
Owned land in farms ..... farms	1,083	760	1,980,982	1,923,871	11,830	7,005
acres	196,960	116,285	521,622,214	534,480,132	2,140,022	1,184,866
Rented or leased land in farms ..... farms	419	344	659,608	680,873	3,527	2,242
acres	208,046	150,472	342,197,614	345,513,400	1,478,227	771,345
TENURE						
Full owners ..... farms	937	639	1,454,717	1,386,506	9,065	5,419
acres	107,345	99,288	300,373,783	312,225,942	1,280,624	744,246
Part owners ..... farms	146	121	526,265	537,365	2,765	1,586
acres	244,013	81,767	484,173,586	483,391,385	2,005,660	995,561
Tenants ..... farms	273	223	133,343	143,508	762	656
acres	53,648	85,702	79,272,459	84,376,205	331,965	216,404
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS						
Total ..... farms	1,356	983	2,114,325	2,067,379	12,592	7,661
$1,000	102,355	56,892	298,582,723	203,273,157	738,502	298,796
Market value of agricultural products sold ..... farms	1,356	983	2,114,325	2,067,379	12,592	7,661
$1,000	101,543	56,473	290,711,305	196,787,507	718,597	290,280
Crops, including nursery and greenhouse crops ..... farms	651	512	953,563	921,946	4,635	2,929
$1,000	74,498	43,307	140,022,605	92,368,594	350,668	136,242
Livestock, poultry, and their products ..... farms	545	372	1,035,960	1,064,010	6,893	4,090
$1,000	27,044	13,166	150,688,701	104,418,913	367,929	154,038
Government payments ..... farms	123	66	821,705	697,201	2,619	1,418
$1,000	812	420	7,871,418	6,485,650	19,905	8,516
FARMS BY ECONOMIC CLASS						
Less than $1,000	343	226	470,379	414,665	3,644	1,965
$1,000 to $2,499	237	165	257,260	296,371	1,714	1,270
$2,500 to $4,999	175	118	234,846	234,863	1,575	1,057
$5,000 to $9,999	153	126	243,870	238,816	1,547	1,001
$10,000 to $24,999	198	142	263,909	265,091	1,775	1,008
$25,000 to $49,999	85	69	158,595	159,837	803	526
$50,000 or more	165	137	485,466	457,736	1,534	834
COMMODITY CREDIT CORPORATION (CCC) LOANS AND FEDERAL FARM PROGRAM PAYMENTS						
CCC loans ..... farms	7	4	50,006	104,958	74	124
$1,000	364	48	4,420,934	3,813,448	6,829	3,178
Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs [1] ..... farms	40	13	341,202	265,328	877	465
$1,000	163	61	1,734,407	1,373,953	4,907	2,212
Other Federal farm program payments ..... farms	104	60	673,115	523,695	2,255	1,082
$1,000	649	359	6,137,011	5,111,697	14,998	6,304
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS)						
Oilseed and grain farming (1111)	32	36	333,863	344,753	682	464
Vegetable and melon farming (1112)	85	47	34,130	31,619	292	171
Fruit and tree nut farming (1113)	335	269	90,742	89,642	901	829
Greenhouse, nursery, and floriculture production (1114)	118	113	52,249	61,683	366	385
Other crop farming (1119)	148	94	505,509	433,798	2,475	1,190
Tobacco farming (11191)	-	-	9,306	35,901	57	76
Cotton farming (11192)	2	-	9,656	13,945	54	46
Sugarcane farming, hay farming, and all other crop farming (11193, 11194, 11199)	146	94	486,547	383,952	2,364	1,068
Beef cattle ranching and farming (112111)	326	195	623,174	639,273	4,517	2,668
Cattle feedlots (112112)	14	4	30,402	54,449	149	161
Dairy cattle and milk production (11212)	5	12	56,764	71,968	140	111
Hog and pig farming (1122)	32	22	29,267	32,044	171	107
Poultry and egg production (1123)	36	32	61,476	42,901	529	241
Sheep and goat farming (1124)	83	48	61,212	42,782	534	231
Animal aquaculture and other animal production (1125, 1129)	142	111	235,537	222,467	1,836	1,103

See footnote(s) at end of table.

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Table 54. **Selected Farm Characteristics by Race of Principal Operator: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	All principal operators		Principal operator reporting - One race					
			American Indian or Alaska Native		Asian		Black or African American	
	2007	2002	2007	2002	2007	2002	2007	2002
OTHER FARM CHARACTERISTICS								
Farms by-								
Type of organization:								
Family or individual	1,906,335	1,909,598	32,051	14,166	8,833	6,498	27,120	27,567
Partnerships	174,247	129,593	1,494	590	1,097	772	2,476	1,051
Corporations	96,074	73,752	511	266	1,125	1,025	635	241
Other - cooperative, estate or trust, institutional, etc	28,136	16,039	650	472	159	80	368	231
Number of operators:								
1 operator	1,273,122	1,325,855	18,280	8,385	6,100	4,948	21,814	22,384
2 operators	786,598	681,435	13,382	5,947	4,093	2,679	6,869	5,424
3 operators	112,285	84,917	2,440	749	741	503	1,610	870
4 operators	22,529	24,819	357	271	169	119	187	196
5 or more operators	10,258	11,956	247	142	111	126	119	216
Number of women operators:								
1 woman operator	894,347	745,369	18,388	7,110	4,959	3,049	9,398	6,670
2 women operators	45,408	40,423	1,572	496	303	220	479	412
3 women operators	5,439	5,125	233	76	36	46	83	75
4 women operators	1,017	944	32	14	14	4	10	20
5 or more women operators	546	393	22	6	9	2	15	17
Farms reporting-								
Internet access	1,246,723	1,056,875	14,729	8,092	5,339	3,756	10,516	8,443
High-speed internet access	726,700	(NA)	7,871	(NA)	3,674	(NA)	5,655	(NA)
Principal operator is a hired manager ....farms	59,759	55,372	884	540	801	632	918	1,046
acres	120,672,499	103,135,293	34,434,025	29,448,030	231,180	153,087	179,418	204,697
Farms by number of households sharing in net income of farm:								
1 household	1,733,827	1,647,030	26,276	11,817	7,529	5,072	23,236	21,239
2 households	356,707	313,574	5,946	2,101	2,272	1,623	5,521	4,829
3 households	66,438	62,987	1,268	551	574	450	1,015	1,001
4 households	30,004	28,846	648	272	421	298	521	570
5 or more households	17,816	21,173	568	213	418	300	306	405
Farms by share of principal operator's total household income from farming:								
Less than 25 percent	1,583,710	1,308,886	29,112	11,200	7,169	4,611	27,051	22,830
25 to 49 percent	174,800	212,788	2,031	1,419	1,031	855	1,488	2,424
50 to 74 percent	187,421	213,656	1,919	1,165	1,263	980	1,122	1,699
75 to 99 percent	147,092	146,828	1,002	728	1,001	643	615	875
100 percent	111,769	191,452	642	982	750	1,286	323	1,262

See footnote(s) at end of table.

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Table 54. **Selected Farm Characteristics by Race of Principal Operator: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	Principal operator reporting-					
	One race				More than one race	
	Native Hawaiian or Other Pacific Islander		White			
	2007	2002	2007	2002	2007	2002
OTHER FARM CHARACTERISTICS						
Farms by-						
Type of organization:						
Family or individual	1,182	890	1,826,072	1,853,355	11,077	7,122
Partnerships	98	44	168,117	126,817	965	319
Corporations	63	36	93,360	72,028	380	156
Other - cooperative, estate or trust, institutional, etc	13	13	26,776	15,179	170	64
Number of operators:						
1 operator	754	494	1,219,552	1,285,433	6,622	4,211
2 operators	500	409	756,773	664,078	4,981	2,898
3 operators	80	51	106,673	82,357	741	387
4 operators	12	14	21,640	24,098	164	121
5 or more operators	10	15	9,687	11,413	84	44
Number of women operators:						
1 woman operator	613	494	854,865	724,463	6,124	3,583
2 women operators	41	34	42,643	39,023	370	238
3 women operators	4	3	5,039	4,890	44	35
4 women operators	-	-	946	904	15	2
5 or more women operators	-	1	494	367	6	-
Farms reporting-						
Internet access	710	544	1,208,411	1,032,096	7,018	3,944
High-speed internet access	481	(NA)	705,211	(NA)	3,808	(NA)
Principal operator is a hired manager ... farms	74	76	56,759	52,919	323	159
acres	151,223	117,222	85,179,151	73,013,990	497,502	198,267
Farms by number of households sharing in net income of farm:						
1 household	1,029	704	1,665,820	1,602,168	9,937	6,030
2 households	242	140	340,651	303,832	2,075	1,049
3 households	35	28	63,203	60,729	343	228
4 households	26	17	28,229	27,578	159	111
5 or more households	24	18	16,422	20,153	78	84
Farms by share of principal operator's total household income from farming:						
Less than 25 percent	1,079	724	1,509,241	1,319,412	10,058	5,481
25 to 49 percent	105	74	169,298	207,282	847	734
50 to 74 percent	91	64	182,233	209,153	793	595
75 to 99 percent	45	37	143,901	144,167	528	378
100 percent	36	84	109,652	187,365	366	473

[1] 2002 data do not include farms with land in Farmable Wetlands or Conservation Reserve Enhancement Programs.

Table 55. **Selected Farm Characteristics by Race: 2007**

[Data were collected for a maximum of three operators per farm. For meaning of abbreviations and symbols, see introductory text]

Characteristics	Any operator reporting race as -					Any operator reporting ethnicity as Spanish, Hispanic, or Latino origin
	American Indian or Alaska Native alone or in combination with other races	Asian alone or in combination with other races	Black or African American alone or in combination with other races	Native Hawaiian or Other Pacific Islander alone or in combination with other races	White alone or in combination with other races	
FARMS AND LAND IN FARMS						
Farms ..... number	61,472	15,360	32,938	3,210	2,137,088	66,671
Land in farms ..... acres	58,163,401	2,322,805	3,826,403	816,698	872,537,716	24,600,997
FARMS BY SIZE						
1 to 9 acres	16,198	5,088	4,265	1,111	213,036	14,088
10 to 49 acres	17,105	5,382	12,484	1,051	599,692	23,254
50 to 179 acres	14,838	2,977	11,803	569	643,199	14,810
180 to 499 acres	7,474	1,131	3,369	272	362,097	7,516
500 acres or more	5,857	782	1,017	207	319,064	7,003
OWNED AND RENTED LAND IN FARMS						
Owned land in farms ..... farms	58,459	13,167	30,222	2,695	2,002,394	62,034
acres	49,512,617	1,519,176	2,555,302	431,112	527,504,935	16,375,332
Rented or leased land in farms ..... farms	13,717	3,961	10,056	910	665,584	15,621
acres	8,650,784	803,629	1,271,101	385,586	345,032,781	8,225,665
TENURE						
Full owners ..... farms	47,755	11,399	22,882	2,300	1,471,504	51,050
acres	42,916,318	1,135,868	1,952,699	243,126	304,476,813	10,425,013
Part owners ..... farms	10,704	1,768	7,340	395	530,890	10,984
acres	12,880,085	973,434	1,510,725	446,859	488,184,647	11,865,084
Tenants ..... farms	3,013	2,193	2,716	515	134,694	4,637
acres	2,366,998	213,503	362,979	126,713	79,876,256	2,310,900
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS						
Total ..... farms	61,472	15,360	32,938	3,210	2,137,088	66,671
$1,000	3,255,575	4,253,454	1,015,470	410,478	300,305,779	12,773,746
Market value of agricultural products sold ..... farms	61,472	15,360	32,938	3,210	2,137,088	66,671
$1,000	3,165,858	4,233,768	972,038	406,852	292,401,775	12,658,742
Crops, including nursery and greenhouse crops ..... farms	19,209	9,976	10,082	1,518	961,439	26,819
$1,000	1,455,080	2,755,940	474,280	316,529	141,032,720	7,488,049
Livestock, poultry, and their products ..... farms	34,010	4,291	16,122	1,263	1,048,184	29,881
$1,000	1,710,778	1,477,827	497,757	90,323	151,369,055	5,170,693
Government payments ..... farms	10,981	1,918	8,778	433	826,116	10,675
$1,000	89,717	19,687	43,433	3,625	7,904,004	115,005
FARMS BY ECONOMIC CLASS						
Less than $1,000	21,949	2,628	10,404	880	477,434	19,881
$1,000 to $2,499	8,945	1,531	5,679	483	260,374	8,742
$2,500 to $4,999	7,548	1,449	4,895	405	237,624	7,696
$5,000 to $9,999	6,981	1,644	4,631	375	246,687	7,178
$10,000 to $24,999	6,870	2,104	3,816	433	266,872	7,676
$25,000 to $49,999	3,184	1,348	1,551	209	159,981	4,408
$50,000 or more	5,995	4,656	1,962	425	488,116	11,090
COMMODITY CREDIT CORPORATION (CCC) LOANS AND FEDERAL FARM PROGRAM PAYMENTS						
CCC loans ..... farms	352	81	348	23	50,130	522
$1,000	27,109	6,407	9,886	1,080	4,430,944	48,476
Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs ..... farms	3,880	646	2,818	154	342,640	3,311
$1,000	22,571	3,632	6,744	805	1,741,537	18,204
Other Federal farm program payments ..... farms	9,112	1,610	7,377	355	676,875	9,084
$1,000	67,146	16,055	36,688	2,820	6,162,467	96,801
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS)						
Oilseed and grain farming (1111)	2,451	498	2,581	103	334,880	2,327
Vegetable and melon farming (1112)	3,459	1,544	1,826	141	34,717	1,746
Fruit and tree nut farming (1113)	2,655	5,106	1,008	738	92,416	10,769
Greenhouse, nursery, and floriculture production (1114)	957	1,853	423	274	52,914	2,972
Other crop farming (1119)	10,204	1,576	6,931	454	509,839	10,974
Tobacco farming (11191)	117	12	248	2	9,382	91
Cotton farming (11192)	124	40	213	3	9,746	384
Sugarcane farming, hay farming, and all other crop farming (11193, 11194, 11199)	9,963	1,524	6,470	449	490,711	10,499
Beef cattle ranching and farming (112111)	23,085	1,916	14,749	809	631,399	21,894
Cattle feedlots (112112)	555	90	205	26	30,652	608
Dairy cattle and milk production (11212)	523	80	183	27	56,972	833
Hog and pig farming (1122)	636	135	708	67	29,585	650
Poultry and egg production (1123)	2,066	1,102	842	89	62,512	2,347
Sheep and goat farming (1124)	5,579	366	827	147	62,167	3,207
Animal aquaculture and other animal production (1125, 1129)	9,302	1,094	2,655	335	239,035	8,344

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Table 55. **Selected Farm Characteristics by Race: 2007** - Con.

[Data were collected for a maximum of three operators per farm. For meaning of abbreviations and symbols, see introductory text]

Characteristics	Any operator reporting race as -					Any operator reporting ethnicity as Spanish, Hispanic, or Latino origin
	American Indian or Alaska Native alone or in combination with other races	Asian alone or in combination with other races	Black or African American alone or in combination with other races	Native Hawaiian or Other Pacific Islander alone or in combination with other races	White alone or in combination with other races	
OTHER FARM CHARACTERISTICS						
Farms by-						
Type of organization:						
Family or individual	55,302	12,219	28,946	2,731	1,845,823	56,498
Partnerships	3,776	1,447	2,763	245	169,959	5,879
Corporations	1,394	1,459	809	189	94,204	3,430
Other - cooperative, estate or trust, institutional, etc.	1,000	235	420	45	27,102	864
Number of operators:						
1 operator	23,857	6,780	22,268	1,174	1,225,877	33,710
2 operators	30,697	6,872	8,050	1,626	770,440	26,207
3 operators	5,538	1,289	2,182	337	108,862	5,087
4 operators	878	255	269	41	22,013	1,046
5 or more operators	502	164	169	32	9,896	621
Number of women operators:						
1 woman operator	37,197	8,008	10,776	1,876	869,917	28,758
2 women operators	2,709	519	622	124	43,530	1,869
3 women operators	367	54	113	21	5,154	217
4 women operators	65	19	18	-	975	45
5 or more women operators	41	17	17	2	505	40
Farms reporting-						
Internet access	31,018	8,060	11,877	1,859	1,222,096	32,648
High-speed internet access	16,848	5,478	6,530	1,251	712,798	20,189
Principal operator is a hired manager ....farms	1,465	1,051	1,059	164	57,374	3,857
acres	35,147,642	415,569	313,556	177,727	86,567,574	5,252,703
Farms by number of households sharing in net income of farm:						
1 household	46,783	10,735	24,969	2,486	1,683,587	50,079
2 households	10,790	2,930	5,944	522	344,514	11,948
3 households	2,139	721	1,124	96	63,836	2,406
4 households	997	498	559	64	28,532	1,240
5 or more households	763	476	342	42	16,619	998
Farms by share of principal operator's total household income from farming:						
Less than 25 percent	50,696	10,404	28,938	2,554	1,527,704	53,096
25 to 49 percent	3,804	1,283	1,628	229	170,745	4,170
50 to 74 percent	3,565	1,547	1,261	209	183,618	4,300
75 to 99 percent	2,075	1,225	705	124	144,734	2,869
100 percent	1,332	901	406	94	110,287	2,236

Table 56. **Selected Principal Operator Characteristics by Race: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Characteristics	All principal operators		American Indian or Alaska Native		Asian		Black or African American	
	2007	2002	2007	2002	2007	2002	2007	2002
Operators ....number	2,204,792	2,128,982	34,706	15,494	11,214	8,375	30,599	29,090
Sex of operator:								
Male	1,898,583	1,891,163	24,603	13,076	9,181	7,092	26,170	26,196
Female	306,209	237,819	10,103	2,418	2,033	1,283	4,429	2,894
Primary occupation:								
Farming	993,881	1,224,246	17,682	8,369	6,398	5,398	13,588	16,173
Other	1,210,911	904,736	17,024	7,125	4,816	2,977	17,011	12,917
Place of residence:								
On farm operated	1,693,362	1,680,160	27,954	12,634	7,125	5,203	19,620	19,473
Not on farm operated	511,430	448,822	6,752	2,860	4,089	3,172	10,979	9,617
Days worked off farm:								
None	777,747	962,200	12,674	5,815	3,219	4,419	10,402	14,145
Any	1,427,045	1,166,782	22,032	9,679	7,995	3,956	20,197	14,945
1 to 49 days	238,479	122,248	3,364	833	1,602	642	3,324	1,767
50 to 99 days	115,578	66,306	2,275	534	894	352	2,339	1,121
100 to 199 days	196,687	145,880	3,417	1,231	1,182	535	3,494	1,981
200 days or more	876,301	832,348	12,976	7,081	4,317	2,427	11,040	10,076
Years on present farm:								
2 years or less	84,883	74,754	1,451	822	820	456	1,338	1,058
3 or 4 years	138,858	143,599	2,399	1,450	1,238	736	2,019	2,033
5 to 9 years	359,545	374,756	5,997	3,676	2,285	1,856	5,299	5,469
10 years or more	1,621,506	1,535,873	24,859	9,546	6,871	5,327	21,943	20,530
Age group:								
Under 25 years	11,878	16,962	227	166	77	70	158	213
25 to 34 years	106,735	106,097	1,975	940	439	299	722	668
35 to 44 years	268,818	366,306	4,645	2,974	1,511	1,422	2,528	2,953
45 to 54 years	565,401	572,664	8,860	4,877	3,076	2,714	6,477	7,017
55 to 64 years	596,306	509,123	8,586	3,881	3,288	1,857	9,487	7,682
65 to 74 years	412,182	354,430	6,651	1,879	1,637	1,079	6,854	6,449
75 years and over	243,472	203,400	3,762	777	1,186	934	4,373	4,108
Average age	57.1	55.3	56.6	52.6	56.4	55.2	60.3	59.4
Number of persons living in household	5,797,906	5,717,302	102,031	43,752	35,329	26,872	75,466	73,995

Characteristics	Native Hawaiian or Other Pacific Islander		White		More than one race reported	
	2007	2002	2007	2002	2007	2002
Operators ....number	1,356	983	2,114,325	2,067,379	12,592	7,661
Sex of operator:						
Male	1,089	773	1,827,233	1,837,792	10,307	6,234
Female	267	210	287,092	229,587	2,285	1,427
Primary occupation:						
Farming	631	530	949,809	1,189,636	5,773	4,140
Other	725	453	1,164,516	877,743	6,819	3,521
Place of residence:						
On farm operated	930	673	1,627,466	1,635,864	10,267	6,313
Not on farm operated	426	310	486,859	431,515	2,325	1,348
Days worked off farm:						
None	345	426	746,846	934,285	4,261	3,110
Any	1,011	557	1,367,479	1,133,094	8,331	4,551
1 to 49 days	135	54	228,676	118,510	1,378	442
50 to 99 days	116	39	109,232	64,013	722	247
100 to 199 days	182	90	187,147	141,332	1,265	711
200 days or more	578	374	842,424	809,239	4,966	3,151
Years on present farm:						
2 years or less	88	65	80,598	72,024	588	329
3 or 4 years	164	119	132,144	138,602	894	659
5 to 9 years	304	227	343,293	361,860	2,367	1,668
10 years or more	800	572	1,558,290	1,494,893	8,743	5,005
Age group:						
Under 25 years	7	5	11,353	16,474	56	34
25 to 34 years	41	64	103,022	103,783	536	343
35 to 44 years	200	139	258,495	357,501	1,439	1,317
45 to 54 years	397	328	543,382	555,378	3,209	2,350
55 to 64 years	391	261	570,877	493,547	3,677	1,895
65 to 74 years	210	133	394,369	343,726	2,461	1,164
75 years and over	110	53	232,827	196,970	1,214	558
Average age	55.7	53.6	57.1	55.3	57.3	54.7
Number of persons living in household	4,094	3,008	5,548,092	5,548,756	32,894	20,919

Table 57. **Selected Operator Characteristics by Race: 2007**

[Data were collected for a maximum of three operators per farm. For meaning of abbreviations and symbols, see introductory text]

Characteristics	American Indian or Alaska Native only	American Indian or Alaska Native alone or in combination with other races	Asian only	Asian alone or in combination with other races	Black or African American only	Black or African American alone or in combination with other races
Operators ..... number	55,889	77,437	18,289	20,417	39,697	41,024
Sex of operator:						
Male	33,044	45,294	11,599	12,922	30,549	31,436
Female	22,845	32,143	6,690	7,495	9,148	9,588
Primary occupation:						
Farming	27,158	35,651	9,718	10,656	16,990	17,547
Other	28,731	41,786	8,571	9,761	22,707	23,477
Place of residence:						
On farm operated	44,160	61,172	11,735	13,295	24,809	25,787
Not on farm operated	11,729	16,265	6,554	7,122	14,888	15,237
Days worked off farm:						
None	19,805	26,832	5,174	5,833	13,040	13,446
Any	36,084	50,605	13,115	14,584	26,657	27,578
1 to 49 days	5,945	8,637	2,643	2,897	4,558	4,754
50 to 99 days	3,977	5,283	1,507	1,669	3,340	3,426
100 to 199 days	5,761	8,003	2,031	2,243	4,589	4,730
200 days or more	20,401	28,682	6,934	7,775	14,170	14,668
Years on present farm:						
2 years or less	3,216	4,449	1,550	1,689	2,232	2,309
3 or 4 years	4,463	6,243	2,262	2,475	3,106	3,229
5 to 9 years	10,606	15,217	3,961	4,438	7,442	7,768
10 years or more	37,604	51,528	10,516	11,815	26,917	27,718
Age group:						
Under 25 years	1,510	1,963	329	414	580	630
25 to 34 years	4,359	5,689	1,124	1,278	1,334	1,452
35 to 44 years	8,803	11,823	2,816	3,141	3,882	4,057
45 to 54 years	14,534	20,257	5,154	5,765	8,818	9,185
55 to 64 years	12,835	18,807	4,984	5,481	12,019	12,332
65 to 74 years	8,914	12,487	2,327	2,622	8,138	8,358
75 years and over	4,934	6,411	1,555	1,716	4,926	5,010
Average age of -						
All operators	53.8	54.0	54.2	54.0	58.5	58.3
Principal operator	56.6	56.7	56.4	56.5	60.3	60.2
Second operator	50.9	51.5	51.6	51.3	53.8	53.6
Third operator	41.6	42.1	45.2	43.9	48.0	47.3
Number of persons living in household of -						
Principal operator	102,031	129,901	35,329	38,709	75,466	77,548
Second operator	12,095	19,031	5,005	5,614	8,319	8,695
Third operator	4,918	6,511	1,698	1,978	2,907	3,059

Characteristics	Native Hawaiian or Pacific Islander only	Native Hawaiian or Pacific Islander alone or in combination with other races	White only	White alone or in combination with other races
Operators ..... number	2,359	3,695	3,140,754	3,164,285
Sex of operator:				
Male	1,465	2,312	2,205,498	2,219,067
Female	894	1,383	935,256	945,218
Primary occupation:				
Farming	1,055	1,626	1,335,085	1,344,396
Other	1,304	2,069	1,805,669	1,819,889
Place of residence:				
On farm operated	1,636	2,608	2,390,874	2,409,323
Not on farm operated	723	1,087	749,880	754,962
Days worked off farm:				
None	641	1,023	1,071,369	1,078,979
Any	1,718	2,672	2,069,385	2,085,306
1 to 49 days	281	437	347,410	350,336
50 to 99 days	192	289	170,391	171,811
100 to 199 days	327	480	289,718	292,129
200 days or more	918	1,466	1,261,866	1,271,030
Years on present farm:				
2 years or less	193	266	154,378	155,712
3 or 4 years	301	438	227,656	229,689
5 to 9 years	610	900	565,079	570,084
10 years or more	1,255	2,091	2,193,641	2,208,800
Age group:				
Under 25 years	54	98	51,156	51,688
25 to 34 years	125	206	200,891	202,370
35 to 44 years	406	587	449,409	452,685
45 to 54 years	701	1,078	841,704	848,006
55 to 64 years	627	1,002	811,121	817,554
65 to 74 years	297	490	509,740	513,611
75 years and over	149	234	276,733	278,371
Average age of -				
All operators	53.1	53.3	54.9	54.9
Principal operator	55.7	56.6	57.1	57.1
Second operator	50.9	50.4	51.3	51.3
Third operator	42.2	41.1	44.7	44.7
Number of persons living in household of -				
Principal operator	4,094	6,247	5,548,092	5,579,479
Second operator	556	969	757,614	764,915
Third operator	215	391	227,356	229,161

Table 58. **Summary by Size of Farm: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
FARMS AND LAND IN FARMS						
Farms ..... number	2,204,792	232,849	620,283	153,862	192,043	175,146
percent	100.0	10.6	28.1	7.0	8.7	7.9
Land in farms ..... acres	922,095,840	1,080,019	15,918,542	8,930,361	15,783,304	20,313,722
Average size of farm ..... acres	418	5	26	58	82	116
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS						
Total ..... farms	2,204,792	232,849	620,283	153,862	192,043	175,146
$1,000	305,204,413	6,866,537	21,412,065	7,472,937	10,142,372	10,593,526
Average per farm ..... dollars	138,428	29,489	34,520	48,569	52,813	60,484
Farms by economic class:						
Less than $1,000 (see text)	499,880	92,363	228,425	38,094	37,894	34,320
$1,000 to $2,499	270,712	45,872	125,853	25,951	26,834	17,526
$2,500 to $4,999	246,309	31,287	90,719	26,009	31,704	23,616
$5,000 to $9,999	254,834	23,447	71,126	25,238	33,457	29,821
$10,000 to $24,999	274,274	19,532	50,629	20,240	31,016	31,800
$25,000 to $49,999	163,500	7,829	20,018	7,603	15,505	17,685
$50,000 to $99,999	129,124	4,054	11,932	3,168	5,631	9,459
$100,000 to $249,999	149,049	3,798	8,635	3,414	4,734	5,098
$250,000 to $499,999	96,251	1,926	4,230	1,468	2,040	2,421
$500,000 to $999,999	63,567	1,481	3,864	1,105	1,360	1,525
$1,000,000 or more	57,292	1,260	4,852	1,572	1,868	1,875
$1,000,000 to $2,499,999	41,863	956	3,534	1,136	1,322	1,324
$2,500,000 to $4,999,999	9,845	179	921	264	346	337
$5,000,000 or more	5,584	125	397	172	200	214
Total sales ..... farms	2,204,792	232,849	620,283	153,862	192,043	175,146
$1,000	297,220,491	6,845,798	21,227,336	7,376,730	9,962,585	10,392,597
Grains, oilseeds, dry beans, and dry peas ..... farms	479,467	6,254	44,403	18,136	30,897	31,519
$1,000	77,215,262	25,138	281,539	200,843	509,913	711,220
Sales of $50,000 or more ..... farms	235,343	80	146	122	804	3,477
$1,000	73,535,966	9,924	15,445	9,716	53,469	226,779
Corn ..... farms	347,540	3,761	27,036	12,069	22,064	23,534
$1,000	39,909,600	15,574	160,704	110,723	294,502	408,194
Sales of $50,000 or more ..... farms	151,428	54	81	50	414	1,365
$1,000	36,859,125	5,703	8,432	3,770	28,188	90,680
Wheat ..... farms	159,527	358	4,884	2,820	5,503	6,191
$1,000	10,623,640	392	15,669	13,442	31,174	43,375
Sales of $50,000 or more ..... farms	47,250	-	1	3	10	25
$1,000	8,944,760	-	(D)	(D)	544	1,623
Soybeans ..... farms	285,089	2,499	19,168	8,541	15,855	17,540
$1,000	20,283,986	8,949	97,116	68,720	168,666	236,413
Sales of $50,000 or more ..... farms	109,269	20	26	14	17	132
$1,000	17,191,360	2,005	2,696	1,317	1,192	8,093
Sorghum ..... farms	27,142	62	478	279	474	567
$1,000	1,651,798	53	1,466	1,578	3,275	4,781
Sales of $50,000 or more ..... farms	8,972	-	-	-	-	1
$1,000	1,348,798	-	-	-	-	(D)
Barley ..... farms	18,326	42	544	311	590	707
$1,000	701,047	19	1,023	740	2,243	2,862
Sales of $50,000 or more ..... farms	3,973	-	-	-	-	-
$1,000	526,415	-	-	-	-	-
Rice ..... farms	6,085	10	108	87	100	125
$1,000	2,020,231	32	2,095	2,864	3,798	7,543
Sales of $50,000 or more ..... farms	5,184	-	1	14	28	63
$1,000	1,995,322	-	(D)	966	(D)	5,959
Other grains, oilseeds, dry beans, and dry peas ..... farms	55,228	337	2,727	1,649	2,964	3,401
$1,000	2,024,959	118	3,466	2,775	6,256	8,051
Sales of $50,000 or more ..... farms	10,062	-	-	3	5	11
$1,000	1,698,514	-	-	162	458	836
Tobacco ..... farms	16,228	907	2,366	1,214	1,672	1,654
$1,000	1,268,114	9,286	47,348	27,792	46,981	55,118
Sales of $50,000 or more ..... farms	4,495	8	196	93	184	243
$1,000	1,076,035	475	19,146	9,135	23,016	32,558
Cotton and cottonseed ..... farms	18,591	72	532	259	375	480
$1,000	4,898,608	142	4,213	3,422	7,944	12,882
Sales of $50,000 or more ..... farms	13,232	-	5	4	33	58
$1,000	4,784,510	-	295	248	2,421	4,843
Vegetables, melons, potatoes, and sweet potatoes ..... farms	69,100	15,324	21,119	4,478	4,656	3,880
$1,000	14,683,058	128,527	408,066	132,017	194,592	233,555
Sales of $50,000 or more ..... farms	13,824	269	1,580	572	698	731
$1,000	14,167,307	36,945	234,709	92,313	154,917	199,970
Fruits, tree nuts, and berries ..... farms	112,690	31,168	41,266	6,978	7,070	5,685
$1,000	18,625,459	282,559	1,564,846	575,243	738,511	851,059
Sales of $50,000 or more ..... farms	28,824	558	9,104	2,683	2,964	2,461
$1,000	17,681,378	46,579	1,110,718	523,628	691,642	815,901
Nursery, greenhouse, floriculture, and sod (see text) ..... farms	50,784	20,186	16,709	2,811	2,406	2,048
$1,000	16,632,734	1,742,458	3,666,908	1,174,753	1,026,499	997,278
Sales of $50,000 or more ..... farms	17,039	5,065	5,526	1,058	946	855
$1,000	16,227,627	1,577,222	3,526,538	1,153,376	1,007,491	980,795
Cut Christmas trees and short-rotation woody crops ..... farms	13,374	2,272	5,206	1,188	1,316	998
$1,000	384,594	8,440	43,767	17,855	24,509	21,409
Sales of $50,000 or more ..... farms	1,088	15	144	80	143	126
$1,000	306,465	1,407	14,024	8,976	15,909	14,089

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
FARMS AND LAND IN FARMS							
Farms ....number	139,479	87,502	68,313	212,553	149,713	92,656	80,393
percent	6.3	4.0	3.1	9.6	6.8	4.2	3.6
Land in farms ....acres	21,954,090	17,283,570	16,258,454	75,892,077	104,140,461	127,595,277	496,945,963
Average size of farm ....acres	157	198	238	357	696	1,377	6,181
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS							
Total ....farms	139,479	87,502	68,313	212,553	149,713	92,656	80,393
$1,000	9,955,356	8,299,422	8,056,538	35,798,682	50,863,929	53,890,697	81,852,352
Average per farm ....dollars	71,375	94,848	117,936	168,422	339,743	581,621	1,018,153
Farms by economic class:							
Less than $1,000 (see text)	21,409	11,422	7,067	16,675	7,208	2,790	2,213
$1,000 to $2,499	10,581	5,425	3,243	6,334	2,156	639	298
$2,500 to $4,999	16,325	7,720	4,749	9,718	3,090	934	438
$5,000 to $9,999	23,381	12,586	8,820	19,040	5,560	1,551	807
$10,000 to $24,999	27,265	18,079	14,196	38,657	16,048	4,485	2,327
$25,000 to $49,999	16,187	11,255	9,252	29,660	17,358	7,434	3,714
$50,000 to $99,999	13,361	10,244	9,171	28,300	17,839	9,502	6,463
$100,000 to $249,999	5,996	6,294	7,409	41,621	32,580	15,219	14,251
$250,000 to $499,999	2,137	1,965	2,066	12,472	31,286	20,379	13,861
$500,000 to $999,999	1,328	1,212	1,167	4,952	9,608	20,629	15,336
$1,000,000 or more	1,509	1,300	1,173	5,124	6,980	9,094	20,685
$1,000,000 to $2,499,999	1,062	911	822	3,594	5,003	6,827	15,372
$2,500,000 to $4,999,999	261	255	212	970	1,207	1,446	3,447
$5,000,000 or more	186	134	139	560	770	821	1,866
Total sales ....farms	139,479	87,502	68,313	212,553	149,713	92,656	80,393
$1,000	9,700,376	8,116,422	7,870,430	34,865,082	49,447,851	52,135,313	79,279,971
Grains, oilseeds, dry beans, and dry peas ....farms	32,353	22,464	20,783	82,108	80,755	60,754	49,041
$1,000	1,048,257	898,615	1,039,389	6,703,393	14,154,746	20,382,076	31,260,132
Sales of $50,000 or more ....farms	8,281	7,794	9,117	47,677	62,330	52,432	43,083
$1,000	599,354	627,045	824,947	6,039,377	13,786,817	20,205,501	31,137,592
Corn ....farms	23,856	17,454	16,165	63,966	63,248	44,641	29,746
$1,000	592,865	503,126	585,784	3,795,990	8,002,494	10,998,221	14,441,423
Sales of $50,000 or more ....farms	3,066	3,245	4,505	30,344	46,298	37,231	24,775
$1,000	219,292	238,612	354,543	3,099,951	7,640,018	10,834,739	14,335,197
Wheat ....farms	7,867	5,258	5,236	25,010	30,733	31,131	34,536
$1,000	74,599	54,272	61,986	438,421	1,009,330	2,084,191	6,796,791
Sales of $50,000 or more ....farms	71	75	106	1,450	6,128	14,009	25,372
$1,000	4,775	5,393	7,997	111,898	549,979	1,689,382	6,572,697
Soybeans ....farms	18,884	14,176	13,304	55,055	56,970	40,449	22,648
$1,000	342,785	303,060	344,189	2,140,167	4,372,236	5,832,465	6,369,219
Sales of $50,000 or more ....farms	402	699	1,369	16,839	37,145	33,016	19,590
$1,000	25,316	42,999	86,136	1,223,197	3,865,155	5,642,616	6,290,640
Sorghum ....farms	912	582	697	3,593	5,377	6,451	7,670
$1,000	9,019	6,922	9,630	66,756	181,957	398,292	968,070
Sales of $50,000 or more ....farms	8	18	27	276	1,155	2,764	4,723
$1,000	(D)	1,272	1,935	19,760	102,395	319,230	903,689
Barley ....farms	728	652	641	2,427	2,881	3,425	5,378
$1,000	4,073	3,816	4,827	32,161	73,359	151,549	424,376
Sales of $50,000 or more ....farms	4	5	13	150	428	965	2,408
$1,000	227	641	834	12,520	41,981	105,402	364,810
Rice ....farms	168	166	159	844	1,300	1,516	1,502
$1,000	13,443	16,634	22,037	153,171	322,929	516,163	959,523
Sales of $50,000 or more ....farms	102	106	127	695	1,177	1,428	1,443
$1,000	11,570	14,686	20,950	148,618	319,184	513,303	957,667
Other grains, oilseeds, dry beans, and dry peas ....farms	3,215	2,504	2,277	8,614	8,414	8,284	10,842
$1,000	11,474	10,787	10,937	76,726	192,442	401,195	1,300,731
Sales of $50,000 or more ....farms	27	18	30	332	1,172	2,696	5,768
$1,000	1,964	1,474	1,999	28,210	124,471	323,269	1,215,671
Tobacco .... farms	1,183	1,009	716	2,287	1,726	1,029	465
$1,000	50,055	42,295	37,296	162,610	259,265	282,604	247,466
Sales of $50,000 or more ....farms	210	195	185	869	1,079	823	410
$1,000	34,550	28,193	27,583	134,310	243,640	277,373	246,055
Cotton and cottonseed ....farms	613	385	377	2,034	3,826	4,902	4,736
$1,000	20,926	13,932	18,617	159,958	565,606	1,337,081	2,753,887
Sales of $50,000 or more ....farms	128	92	141	1,085	2,916	4,331	4,439
$1,000	11,074	7,974	14,038	135,390	541,562	1,320,664	2,746,002
Vegetables, melons, potatoes, and sweet potatoes ....farms	2,557	1,696	1,320	4,466	4,136	2,986	2,482
$1,000	171,353	178,352	185,572	965,727	1,941,826	3,001,903	7,141,568
Sales of $50,000 or more ....farms	570	465	431	1,784	2,416	2,209	2,099
$1,000	149,520	164,251	174,724	927,495	1,911,595	2,986,980	7,133,889
Fruits, tree nuts, and berries ....farms	3,795	2,496	1,920	5,330	3,428	1,977	1,577
$1,000	824,696	625,360	663,754	2,427,378	2,645,773	2,328,323	5,097,956
Sales of $50,000 or more ....farms	1,781	1,261	996	2,833	1,956	1,181	1,046
$1,000	803,330	610,190	653,873	2,395,699	2,624,491	2,315,986	5,089,341
Nursery, greenhouse, floriculture, and sod (see text) ....farms	1,289	860	595	1,774	1,162	555	389
$1,000	741,581	630,577	558,721	2,202,962	1,940,469	1,154,237	796,292
Sales of $50,000 or more ....farms	569	421	303	977	709	350	260
$1,000	732,354	624,622	554,700	2,191,146	1,934,024	1,151,091	794,266
Cut Christmas trees and short-rotation woody crops ....farms	553	390	261	631	326	149	84
$1,000	14,572	15,351	7,955	42,557	64,247	30,366	93,566
Sales of $50,000 or more ....farms	87	78	35	164	112	62	42
$1,000	11,266	12,590	5,888	37,764	62,020	29,255	93,277

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.						
Total - Con.						
Total sales - Con.						
Other crops and hay (see text) ..... farms	434,502	11,565	113,632	35,899	45,407	41,059
$1,000	9,950,098	20,466	310,120	156,537	249,815	285,503
Sales of $50,000 or more ..... farms	27,831	27	86	117	348	660
$1,000	7,529,077	4,331	9,993	10,350	34,499	54,371
Cattle and calves ..... farms	798,290	38,626	150,791	52,095	71,132	71,605
$1,000	61,209,970	470,074	1,824,688	773,729	1,376,818	1,554,893
Sales of $50,000 or more ..... farms	119,983	1,190	2,996	1,108	1,942	2,502
$1,000	53,786,091	313,146	1,146,086	446,015	840,529	907,540
Milk and other dairy products from cows ..... farms	69,763	2,008	6,320	2,976	5,073	5,935
$1,000	31,848,029	129,607	1,199,158	638,993	1,133,776	1,494,595
Sales of $50,000 or more ..... farms	50,792	365	1,678	1,366	2,724	3,739
$1,000	31,558,210	114,150	1,153,441	616,800	1,095,920	1,453,603
Hogs and pigs ..... farms	74,789	11,861	19,643	4,210	5,200	4,588
$1,000	18,056,981	1,233,719	2,359,660	636,384	757,823	713,847
Sales of $50,000 or more ..... farms	19,956	1,529	2,133	545	720	786
$1,000	17,829,977	1,206,894	2,321,619	627,449	741,803	698,572
Sheep, goats, and their products ..... farms	121,171	27,159	43,765	7,652	8,195	6,877
$1,000	704,855	50,097	103,815	20,931	35,695	25,198
Sales of $50,000 or more ..... farms	1,825	91	129	46	72	60
$1,000	415,640	15,735	30,700	5,356	16,249	7,156
Horses, ponies, mules, burros, and donkeys ..... farms	114,317	21,439	46,873	8,260	8,703	6,566
$1,000	2,061,862	145,535	390,716	100,495	86,858	171,303
Sales of $50,000 or more ..... farms	3,638	348	1,170	265	271	281
$1,000	1,559,047	53,140	190,852	65,964	49,429	143,943
Poultry and eggs ..... farms	148,911	26,847	55,310	11,184	12,902	10,945
$1,000	37,065,947	2,180,464	8,577,134	2,826,178	3,616,619	3,150,565
Sales of $50,000 or more ..... farms	26,267	1,739	7,278	2,226	2,671	2,528
$1,000	36,932,463	2,154,124	8,531,135	2,816,018	3,605,316	3,140,685
Aquaculture (see text) ..... farms	6,409	1,741	1,708	381	377	370
$1,000	1,415,271	176,987	218,234	43,300	64,264	80,362
Sales of $50,000 or more ..... farms	2,449	499	550	117	131	149
$1,000	1,376,454	164,088	208,114	41,313	62,337	78,524
Other animals and other animal products (see text) ..... farms	43,226	11,706	15,331	2,692	3,017	2,530
$1,000	1,199,649	242,300	227,124	48,261	91,967	33,808
Sales of $50,000 or more ..... farms	2,294	663	583	114	97	89
$1,000	1,066,659	202,110	187,538	41,666	84,518	27,634
Value of-						
Government payments ..... farms	838,391	13,028	114,668	44,939	71,515	68,426
$1,000	7,983,922	20,739	184,729	96,207	179,787	200,929
Landlord's share of total sales (see text) ..... farms	97,706	941	4,547	1,962	3,195	3,737
$1,000	6,429,386	6,379	27,040	14,760	29,610	42,461
Agricultural products sold directly to individuals for human consumption (see text) ..... farms	136,817	29,248	49,216	9,839	10,782	9,411
$1,000	1,211,270	91,576	256,386	81,172	99,661	103,548
FARM PRODUCTION EXPENSES						
Total farm production expenses ..... farms	2,204,792	232,849	620,283	153,862	192,043	175,146
$1,000	241,113,666	6,548,653	20,357,143	6,520,369	8,750,931	9,019,675
Average per farm ..... dollars	109,359	28,124	32,819	42,378	45,568	51,498
Fertilizer, lime, and soil conditioners purchased ..... farms	1,148,218	88,888	250,762	70,795	92,970	89,510
$1,000	18,107,194	83,644	379,594	167,001	277,421	339,316
Farms with expenses of-						
$1 to $4,999	734,931	86,292	239,731	64,452	79,890	70,001
$5,000 to $24,999	249,546	2,316	9,927	5,898	12,450	18,525
$25,000 to $49,999	74,633	172	697	272	435	682
$50,000 or more	89,108	108	407	173	195	302
Chemicals purchased ..... farms	918,604	66,771	190,277	51,796	69,827	67,111
$1,000	10,074,914	46,734	223,388	92,824	140,246	172,118
Farms with expenses of-						
$1 to $4,999	666,084	65,375	181,167	48,487	64,936	60,833
$5,000 to $24,999	162,785	1,232	8,295	2,788	4,038	5,191
$25,000 to $49,999	46,594	105	521	363	581	687
$50,000 or more	43,141	59	294	158	272	400
Seeds, plants, vines, and trees ..... farms	775,893	52,829	136,574	40,021	56,349	55,408
$1,000	11,740,521	266,345	655,662	203,093	250,935	276,298
Farms with expenses of-						
$1 to $999	302,164	39,974	103,342	25,053	30,063	26,054
$1,000 to $4,999	192,154	7,272	25,649	12,769	22,331	21,922
$5,000 to $24,999	173,462	3,494	4,891	1,615	3,333	6,787
$25,000 to $49,999	56,320	979	934	240	263	297
$50,000 or more	51,793	1,110	1,758	344	359	348

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.							
Total - Con.							
Total sales - Con.							
Other crops and hay (see text) ....farms	31,062	20,938	16,013	48,029	32,573	20,521	17,804
$1,000	278,783	222,906	204,376	939,093	1,439,473	1,838,641	4,004,386
Sales of $50,000 or more ....farms	867	754	774	4,364	6,458	6,152	7,224
$1,000	78,178	71,381	81,358	528,114	1,152,319	1,657,720	3,846,464
Cattle and calves ....farms	58,020	41,556	33,717	108,997	76,468	46,288	48,995
$1,000	2,072,026	1,623,568	1,525,900	7,585,803	12,617,786	11,552,788	18,231,898
Sales of $50,000 or more ....farms	3,030	2,754	2,799	16,317	24,794	23,741	36,810
$1,000	1,454,195	1,128,905	1,076,220	5,993,422	11,526,691	11,025,774	17,927,568
Milk and other dairy products from cows ....farms	5,646	4,908	4,545	16,552	10,251	3,896	1,653
$1,000	1,504,386	1,347,758	1,340,882	6,154,795	7,067,174	5,066,748	4,770,159
Sales of $50,000 or more ....farms	4,172	3,936	3,832	14,691	9,433	3,558	1,298
$1,000	1,475,213	1,328,255	1,325,027	6,115,278	7,051,951	5,062,047	4,766,524
Hogs and pigs ....farms	3,330	2,485	2,044	7,441	7,056	4,582	2,349
$1,000	574,863	525,918	581,741	2,147,037	2,904,186	2,684,574	2,937,229
Sales of $50,000 or more ....farms	717	684	677	3,229	4,331	3,174	1,431
$1,000	562,804	514,818	572,996	2,111,679	2,872,343	2,668,478	2,930,521
Sheep, goats, and their products ....farms	4,813	2,952	2,186	6,790	4,619	2,705	3,458
$1,000	49,686	16,554	12,625	50,016	78,479	54,071	207,688
Sales of $50,000 or more ....farms	69	47	36	138	186	159	792
$1,000	35,753	7,270	4,804	22,896	55,088	36,659	177,973
Horses, ponies, mules, burros, and donkeys ....farms	4,371	2,736	1,835	4,939	3,153	1,994	3,448
$1,000	77,081	71,803	44,706	214,271	307,439	288,229	163,425
Sales of $50,000 or more ....farms	203	141	116	315	228	115	185
$1,000	58,614	59,998	36,713	190,654	291,193	277,345	141,202
Poultry and eggs ....farms	6,874	4,638	3,308	8,610	4,678	2,062	1,553
$1,000	2,197,342	1,850,990	1,583,335	4,828,817	3,194,839	1,867,774	1,191,889
Sales of $50,000 or more ....farms	1,618	1,272	1,037	3,002	1,792	728	376
$1,000	2,191,811	1,846,782	1,580,481	4,820,603	3,190,307	1,865,458	1,189,742
Aquaculture (see text) ....farms	261	194	103	414	369	256	235
$1,000	45,043	32,554	50,632	163,053	147,197	158,918	234,727
Sales of $50,000 or more ....farms	108	85	49	222	207	161	171
$1,000	43,436	31,189	50,160	160,926	145,348	157,311	233,708
Other animals and other animal products (see text) ....farms	1,640	983	711	2,011	1,108	675	822
$1,000	29,726	19,888	14,930	117,613	119,346	106,981	147,705
Sales of $50,000 or more ....farms	70	56	31	127	113	101	250
$1,000	25,344	17,090	12,064	110,501	113,275	102,388	142,532
Value of-							
Government payments ....farms	69,059	43,449	38,129	134,321	109,732	72,637	58,488
$1,000	254,980	183,000	186,108	933,600	1,416,078	1,755,384	2,572,381
Landlord's share of total sales (see text) ....farms	4,004	3,308	3,042	14,939	21,382	19,949	16,700
$1,000	58,718	55,853	65,457	458,042	1,204,908	1,933,727	2,532,431
Agricultural products sold directly to individuals for human consumption (see text) ....farms	5,974	3,813	2,820	7,748	4,201	2,116	1,649
$1,000	88,251	57,431	43,509	166,825	108,933	64,746	49,232
FARM PRODUCTION EXPENSES							
Total farm production expenses ....farms	139,479	87,502	68,313	212,553	149,713	92,656	80,393
$1,000	8,310,155	6,810,449	6,414,208	27,833,908	39,059,348	40,438,779	61,050,050
Average per farm ....dollars	59,580	77,832	93,894	130,950	260,895	436,440	759,395
Fertilizer, lime, and soil conditioners purchased ....farms	73,979	51,437	42,411	142,534	112,316	73,775	58,841
$1,000	381,007	324,047	350,049	1,828,152	3,163,004	4,195,223	6,618,736
Farms with expenses of-							
$1 to $4,999	49,989	31,225	22,222	54,520	22,375	8,351	5,883
$5,000 to $24,999	22,715	18,837	18,209	68,686	42,936	17,338	11,709
$25,000 to $49,999	911	1,065	1,540	15,670	28,831	15,655	8,703
$50,000 or more	364	310	440	3,658	18,174	32,431	32,546
Chemicals purchased ....farms	58,730	40,342	34,352	119,327	99,053	67,082	53,936
$1,000	186,640	161,035	168,851	899,009	1,642,214	2,288,599	4,053,256
Farms with expenses of-							
$1 to $4,999	50,807	32,899	25,928	72,509	36,153	15,040	11,950
$5,000 to $24,999	6,824	6,506	7,474	41,150	45,457	22,113	11,717
$25,000 to $49,999	696	544	526	3,502	12,398	17,459	9,212
$50,000 or more	403	393	424	2,166	5,045	12,470	21,057
Seeds, plants, vines, and trees ....farms	49,588	34,963	29,998	107,649	93,672	65,389	53,453
$1,000	258,866	220,545	216,705	1,151,325	1,949,101	2,531,309	3,760,337
Farms with expenses of-							
$1 to $999	18,733	11,704	8,259	21,542	9,983	4,202	3,255
$1,000 to $4,999	19,075	12,215	9,966	28,530	16,040	8,313	8,072
$5,000 to $24,999	11,241	10,583	11,310	52,637	38,898	15,895	12,778
$25,000 to $49,999	245	225	248	3,915	24,047	17,647	7,280
$50,000 or more	294	236	215	1,025	4,704	19,332	22,068

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Livestock and poultry purchased or leased (see text) ..... farms	490,819	50,067	119,777	28,806	36,738	35,109
$1,000	38,003,682	1,236,494	3,098,586	849,803	1,228,926	1,192,899
Farms with expenses of-						
$1 to $4,999	306,414	41,090	94,267	21,032	25,680	23,752
$5,000 to $24,999	97,441	5,379	14,888	4,527	6,618	6,786
$25,000 to $99,999	42,768	1,886	5,102	1,493	2,246	2,464
$100,000 to $249,999	24,183	996	3,609	1,220	1,434	1,381
$250,000 or more	20,013	716	1,911	534	760	726
Breeding livestock purchased or leased (see text) ..... farms	278,572	18,686	52,644	15,096	20,517	20,821
$1,000	3,599,873	87,641	295,039	90,309	155,614	143,254
Other livestock and poultry purchased or leased (see text) ..... farms	279,155	37,466	81,756	17,485	20,948	18,742
$1,000	34,403,809	1,148,853	2,803,547	759,495	1,073,312	1,049,645
Feed purchased ..... farms	1,135,968	144,894	336,819	76,080	91,235	83,492
$1,000	49,095,106	1,845,235	6,651,951	2,265,656	3,055,859	2,907,273
Farms with expenses of-						
$1 to $4,999	766,606	114,652	267,113	58,589	68,512	59,942
$5,000 to $24,999	245,328	24,643	53,850	12,566	15,996	16,397
$25,000 to $99,999	66,394	2,786	6,539	2,082	3,205	3,645
$100,000 to $249,999	23,472	1,249	3,131	891	1,122	1,151
$250,000 or more	34,168	1,564	6,186	1,952	2,400	2,357
Gasoline, fuels, and oils ..... farms	2,148,806	220,352	601,517	150,203	187,537	171,331
$1,000	12,912,179	351,982	993,438	306,972	419,007	453,292
Farms with expenses of-						
$1 to $4,999	1,704,545	207,558	569,947	140,283	173,811	154,598
$5,000 to $24,999	336,324	11,181	27,054	8,533	11,993	14,735
$25,000 to $49,999	64,765	1,009	2,857	878	1,125	1,344
$50,000 or more	43,172	604	1,659	509	608	654
Utilities (see text) ..... farms	1,102,530	99,087	242,824	63,042	83,150	80,774
$1,000	5,917,615	229,271	595,695	178,546	231,300	236,407
Farms with expenses of-						
$1 to $999	506,560	62,272	153,721	39,440	50,826	46,285
$1,000 to $4,999	402,839	28,656	68,829	17,827	24,894	26,497
$5,000 to $24,999	157,818	7,164	17,147	4,811	6,300	6,768
$25,000 to $49,999	19,269	573	1,960	594	684	802
$50,000 or more	16,044	422	1,167	370	446	422
Supplies, repairs, and maintenance ..... farms	1,992,234	196,891	548,885	138,381	172,583	158,890
$1,000	15,896,723	463,207	1,421,123	429,922	586,910	633,733
Farms with expenses of-						
$1 to $4,999	1,478,317	179,349	493,923	121,875	149,798	131,842
$5,000 to $24,999	389,971	15,639	49,229	14,670	20,451	24,162
$25,000 to $49,999	73,014	1,208	3,520	1,129	1,490	1,869
$50,000 or more	50,932	695	2,213	707	844	1,017
Hired farm labor ..... farms	482,186	32,031	82,876	23,330	30,013	30,989
$1,000	21,877,661	740,684	2,047,913	685,089	800,492	834,713
Farms with expenses of-						
$1 to $4,999	262,262	21,117	56,049	16,217	21,605	21,659
$5,000 to $24,999	108,122	5,814	15,054	3,815	4,533	5,116
$25,000 to $99,999	75,938	3,542	8,084	2,235	2,611	2,783
$100,000 to $249,999	21,237	1,019	2,139	641	732	880
$250,000 or more	14,627	539	1,550	422	532	551
Contract labor ..... farms	182,701	15,619	40,521	9,996	11,805	11,737
$1,000	4,514,166	93,155	354,835	117,434	130,655	152,388
Farms with expenses of-						
$1 to $999	49,657	5,975	14,369	3,526	4,352	3,805
$1,000 to $4,999	66,104	6,085	13,911	3,404	4,195	4,616
$5,000 to $24,999	45,949	2,970	9,164	2,009	2,097	2,177
$25,000 to $49,999	9,730	338	1,903	546	546	499
$50,000 or more	11,261	251	1,174	511	615	640
Customwork and custom hauling ..... farms	362,475	12,819	54,839	18,080	27,084	27,664
$1,000	4,091,038	34,030	160,948	67,533	107,179	121,108
Farms with expenses of-						
$1 to $999	119,768	8,619	33,869	9,527	12,679	11,354
$1,000 to $4,999	131,318	3,199	16,071	6,659	11,022	11,970
$5,000 to $24,999	83,762	793	4,085	1,589	2,876	3,701
$25,000 to $49,999	14,558	112	427	135	274	374
$50,000 or more	13,069	96	387	170	233	265
Cash rent for land, buildings, and grazing fees ..... farms	490,372	13,547	43,591	17,629	25,317	30,108
$1,000	13,274,530	38,864	133,237	63,376	101,759	147,459
Farms with expenses of-						
$1 to $4,999	238,363	12,060	39,059	14,969	20,410	23,454
$5,000 to $9,999	59,281	674	2,293	1,632	2,796	3,223
$10,000 to $24,999	76,679	542	1,483	745	1,718	2,817
$25,000 or more	116,049	271	756	283	393	614

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
FARM PRODUCTION EXPENSES - Con.							
Total farm production expenses - Con.							
Livestock and poultry purchased or leased (see text) ....farms	27,134	19,650	16,162	54,220	43,055	28,453	31,648
$1,000	1,322,556	1,070,660	982,437	4,563,837	7,734,620	6,698,913	8,023,952
Farms with expenses of-							
$1 to $4,999	17,377	11,824	9,298	28,150	17,235	9,326	7,383
$5,000 to $24,999	6,031	4,574	3,963	14,112	12,012	8,113	10,438
$25,000 to $99,999	1,990	1,761	1,537	6,316	6,715	4,959	6,299
$100,000 to $249,999	1,087	909	807	3,273	3,664	2,720	3,083
$250,000 or more	649	582	557	2,369	3,429	3,335	4,445
Breeding livestock purchased or leased (see text) ....farms	17,174	12,861	10,695	37,023	29,149	19,602	24,304
$1,000	162,539	119,689	113,900	435,756	612,923	446,981	936,228
Other livestock and poultry purchased or leased (see text) ....farms	13,331	9,370	7,529	24,685	20,480	13,592	13,771
$1,000	1,160,016	950,971	868,537	4,128,080	7,121,697	6,251,932	7,087,724
Feed purchased ....farms	63,234	43,391	33,893	105,932	72,231	42,404	42,363
$1,000	2,411,895	2,008,218	1,797,074	6,742,850	7,289,190	5,630,555	6,489,351
Farms with expenses of-							
$1 to $4,999	42,946	27,353	20,022	54,541	29,231	14,010	9,695
$5,000 to $24,999	14,211	10,654	8,919	31,219	24,354	15,902	16,617
$25,000 to $99,999	3,369	3,046	2,855	12,042	10,026	6,596	10,203
$100,000 to $249,999	957	881	820	3,647	4,141	2,547	2,935
$250,000 or more	1,751	1,457	1,277	4,483	4,479	3,349	2,913
Gasoline, fuels, and oils ....farms	136,232	85,925	67,223	209,125	147,765	91,825	79,771
$1,000	422,162	332,077	306,621	1,403,979	1,984,589	2,268,395	3,669,665
Farms with expenses of-							
$1 to $4,999	118,140	70,165	51,574	131,622	55,658	19,722	11,467
$5,000 to $24,999	16,323	14,232	14,189	69,472	74,044	43,351	31,217
$25,000 to $49,999	1,126	960	942	5,444	12,778	18,861	17,441
$50,000 or more	643	568	518	2,587	5,285	9,891	19,646
Utilities (see text) ....farms	68,144	47,697	39,626	134,180	107,557	71,780	64,669
$1,000	208,777	172,573	162,044	657,634	840,117	864,833	1,540,419
Farms with expenses of-							
$1 to $999	35,188	22,442	16,651	45,045	22,027	8,267	4,396
$1,000 to $4,999	25,509	18,891	16,674	62,033	54,188	34,083	24,758
$5,000 to $24,999	6,377	5,430	5,344	23,245	25,827	23,189	26,216
$25,000 to $49,999	672	605	600	2,323	3,073	3,151	4,232
$50,000 or more	398	329	357	1,534	2,442	3,090	5,067
Supplies, repairs, and maintenance ....farms	126,542	80,373	63,182	197,495	141,913	89,138	77,961
$1,000	609,832	474,858	437,846	1,912,162	2,446,448	2,494,141	3,986,542
Farms with expenses of-							
$1 to $4,999	100,468	59,085	43,567	113,848	52,105	19,950	12,507
$5,000 to $24,999	23,124	18,549	16,848	69,531	66,989	40,973	29,806
$25,000 to $49,999	1,972	1,793	1,927	9,320	14,781	17,466	16,539
$50,000 or more	978	946	840	4,796	8,038	10,749	19,109
Hired farm labor ....farms	25,686	19,493	16,768	62,817	59,720	47,850	50,613
$1,000	753,109	632,597	616,508	2,507,767	3,220,156	3,280,221	5,758,412
Farms with expenses of-							
$1 to $4,999	17,718	12,694	10,509	35,390	26,319	14,152	8,833
$5,000 to $24,999	4,416	3,756	3,604	15,332	17,099	15,406	14,177
$25,000 to $99,999	2,292	1,989	1,698	8,217	11,124	12,916	18,447
$100,000 to $249,999	743	579	539	2,128	3,026	3,141	5,670
$250,000 or more	517	475	418	1,750	2,152	2,235	3,486
Contract labor ....farms	9,677	7,091	5,772	20,320	18,336	14,429	17,398
$1,000	154,244	107,243	106,175	470,178	579,747	697,315	1,550,796
Farms with expenses of-							
$1 to $999	3,081	2,002	1,518	4,737	2,928	1,760	1,604
$1,000 to $4,999	3,879	2,903	2,318	8,034	6,783	4,918	5,058
$5,000 to $24,999	1,794	1,481	1,324	5,180	5,896	5,109	6,748
$25,000 to $49,999	388	285	235	975	1,107	1,197	1,711
$50,000 or more	535	420	377	1,394	1,622	1,445	2,277
Customwork and custom hauling ....farms	25,462	17,797	15,792	55,310	45,492	31,582	30,554
$1,000	130,805	111,675	113,722	521,060	687,378	722,230	1,313,371
Farms with expenses of-							
$1 to $999	8,698	5,468	4,325	12,240	7,103	3,421	2,465
$1,000 to $4,999	11,311	7,847	6,767	22,620	16,405	9,662	7,785
$5,000 to $24,999	4,711	3,861	4,124	16,948	16,532	12,647	11,895
$25,000 to $49,999	430	350	330	2,048	3,076	3,131	3,871
$50,000 or more	312	271	246	1,454	2,376	2,721	4,538
Cash rent for land, buildings, and grazing fees ....farms	27,435	22,888	20,443	83,595	84,676	62,680	58,463
$1,000	163,529	149,964	184,348	1,061,765	2,320,145	3,297,928	5,612,157
Farms with expenses of-							
$1 to $4,999	19,459	15,520	12,842	41,254	23,652	9,588	6,096
$5,000 to $9,999	3,437	3,105	2,917	13,273	12,801	7,626	5,504
$10,000 to $24,999	3,656	3,232	3,226	16,481	18,379	12,962	11,438
$25,000 or more	883	1,031	1,458	12,587	29,844	32,504	35,425

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Rent and lease expenses for machinery, equipment, and farm share of vehicles ..... farms	109,199	5,565	15,142	4,543	5,998	6,055
$1,000	1,385,219	21,875	60,029	17,964	21,944	27,802
Farms with expenses of-						
$1 to $999	39,280	3,447	9,162	2,599	3,395	3,081
$1,000 to $4,999	31,997	1,385	3,978	1,286	1,744	1,960
$5,000 to $24,999	26,656	619	1,620	551	720	857
$25,000 to $49,999	5,778	50	214	57	79	95
$50,000 or more	5,488	64	168	50	60	62
Interest expense ..... farms	667,454	39,688	130,554	35,794	48,587	46,315
$1,000	10,880,731	280,741	999,732	296,511	403,745	423,551
Farms with expenses of-						
$1 to $4,999	289,876	23,721	75,006	20,216	27,111	25,107
$5,000 to $24,999	275,988	13,994	48,805	13,459	18,693	18,224
$25,000 to $99,999	87,574	1,899	6,296	1,949	2,546	2,712
$100,000 or more	14,016	74	447	170	237	272
Secured by real estate ..... farms	519,095	32,310	109,469	29,178	39,015	36,145
$1,000	7,185,334	217,975	789,379	231,767	308,168	318,698
Farms with expenses of-						
$1 to $999	58,501	7,845	18,456	4,084	5,192	4,581
$1,000 to $4,999	171,356	11,293	43,934	12,110	16,194	14,368
$5,000 to $24,999	225,304	11,703	42,020	11,384	15,616	15,031
$25,000 to $49,999	39,515	1,204	3,765	1,105	1,379	1,483
$50,000 or more	24,419	265	1,294	495	634	682
Not secured by real estate ..... farms	413,327	21,930	67,535	19,308	27,211	27,236
$1,000	3,695,397	62,766	210,353	64,744	95,577	104,853
Farms with expenses of-						
$1 to $999	122,808	11,653	34,620	9,025	12,093	10,973
$1,000 to $4,999	153,159	7,508	24,563	7,689	11,219	11,982
$5,000 to $24,999	106,610	2,469	7,358	2,289	3,508	3,827
$25,000 to $49,999	18,841	189	594	180	227	283
$50,000 or more	11,909	111	400	125	164	171
Property taxes paid ..... farms	1,995,808	197,302	563,685	139,249	174,766	158,887
$1,000	6,223,048	323,287	954,575	259,769	334,402	344,738
Farms with expenses of-						
$1 to $4,999	1,717,819	185,317	530,318	129,738	162,725	145,704
$5,000 to $9,999	172,489	9,108	25,302	7,087	8,844	9,468
$10,000 to $24,999	80,800	2,525	6,910	1,990	2,650	3,077
$25,000 or more	24,700	352	1,155	434	547	638
All other production expenses (see text) ..... farms	1,115,703	88,748	233,789	61,905	82,360	79,832
$1,000	17,119,339	493,105	1,626,438	518,874	660,152	756,578
Farms with expenses of-						
$1 to $4,999	765,840	75,016	197,603	52,173	70,070	66,292
$5,000 to $24,999	234,512	10,408	24,868	6,323	8,163	9,324
$25,000 to $49,999	55,174	1,599	4,772	1,335	1,676	1,713
$50,000 to $99,999	32,742	1,017	3,603	1,055	1,259	1,221
$100,000 or more	27,435	708	2,943	1,019	1,192	1,282
Production expenses paid by landlords [1] ..... farms	67,427	499	2,005	898	1,595	2,003
$1,000	1,556,963	2,540	7,649	3,247	7,678	11,027
Depreciation expenses claimed (see text) ..... farms	963,340	60,789	191,667	55,971	74,593	72,823
$1,000	20,185,540	436,149	1,561,596	514,978	722,604	770,050
NET CASH FARM INCOME (SEE TEXT)						
Net cash farm income of operations (see text) ..... farms	2,204,792	232,849	620,283	153,862	192,043	175,146
$1,000	74,581,098	668,379	2,296,782	1,328,995	1,873,363	2,068,787
Average per farm ..... dollars	33,827	2,870	3,703	8,638	9,755	11,812
Farms with net gains [2] ..... number	1,037,041	67,711	193,705	61,215	86,519	82,364
Average net gain ..... dollars	89,479	31,411	32,674	37,018	34,592	38,637
Gain of-						
Less than $1,000	102,871	13,910	40,557	9,919	11,668	8,481
$1,000 to $4,999	221,477	21,745	66,185	20,812	28,240	23,542
$5,000 to $9,999	128,828	9,750	27,145	9,941	14,667	14,416
$10,000 to $24,999	170,636	10,586	26,484	9,704	15,994	16,937
$25,000 to $49,999	119,233	4,869	13,424	4,202	7,036	8,969
$50,000 or more	293,996	6,851	19,910	6,637	8,914	10,019
Farms with net losses ..... number	1,167,751	165,138	426,578	92,647	105,524	92,782
Average net loss ..... dollars	15,596	8,832	9,453	10,115	10,609	12,001
Loss of-						
Less than $1,000	134,307	21,289	56,485	12,280	13,057	10,698
$1,000 to $4,999	426,570	69,679	174,790	36,616	40,682	33,940
$5,000 to $9,999	247,156	36,697	92,745	20,097	23,459	20,315
$10,000 to $24,999	225,863	27,095	73,692	16,897	20,240	18,998
$25,000 to $49,999	76,927	7,235	19,883	4,486	5,417	5,932
$50,000 or more	56,928	3,143	8,983	2,271	2,669	2,899

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
FARM PRODUCTION EXPENSES - Con.							
Total farm production expenses - Con.							
Rent and lease expenses for machinery, equipment, and farm share of vehicles ....farms	5,680	4,145	3,614	14,594	15,391	13,525	14,947
$1,000	30,171	19,573	23,860	113,138	186,115	265,013	597,736
Farms with expenses of-							
$1 to $999	2,719	1,824	1,489	4,842	3,402	1,875	1,445
$1,000 to $4,999	1,859	1,432	1,282	5,058	5,031	3,768	3,214
$5,000 to $24,999	934	759	710	3,824	5,159	5,224	5,679
$25,000 to $49,999	81	72	77	517	1,096	1,437	2,003
$50,000 or more	87	58	56	353	703	1,221	2,606
Interest expense ....farms	40,671	28,492	24,346	88,138	78,212	55,974	50,683
$1,000	384,848	301,388	277,868	1,266,900	1,649,463	1,784,796	2,811,189
Farms with expenses of-							
$1 to $4,999	21,157	14,073	11,056	34,968	21,150	9,749	6,562
$5,000 to $24,999	16,771	11,952	11,040	41,692	38,913	24,869	17,576
$25,000 to $99,999	2,497	2,258	2,042	10,377	16,429	18,573	19,996
$100,000 or more	246	209	208	1,101	1,720	2,783	6,549
Secured by real estate ....farms	31,001	21,522	18,359	65,325	57,475	41,789	37,507
$1,000	280,597	218,933	196,441	866,864	1,048,179	1,064,851	1,643,482
Farms with expenses of-							
$1 to $999	3,489	2,268	1,723	5,224	2,984	1,556	1,099
$1,000 to $4,999	12,292	7,940	6,383	20,657	13,778	7,487	4,920
$5,000 to $24,999	13,307	9,586	8,693	31,875	29,760	20,579	15,750
$25,000 to $49,999	1,342	1,190	1,101	5,018	7,276	7,259	7,393
$50,000 or more	571	538	459	2,551	3,677	4,908	8,345
Not secured by real estate ....farms	24,904	17,896	15,691	58,815	54,886	40,651	37,264
$1,000	104,251	82,455	81,427	400,036	601,284	719,945	1,167,707
Farms with expenses of-							
$1 to $999	8,798	5,901	4,341	13,066	7,150	3,067	2,121
$1,000 to $4,999	11,442	8,403	7,572	26,402	19,499	9,955	6,925
$5,000 to $24,999	4,204	3,200	3,371	17,155	23,757	19,791	15,681
$25,000 to $49,999	297	256	262	1,496	3,155	5,339	6,563
$50,000 or more	163	136	145	696	1,325	2,499	5,974
Property taxes paid ....farms	126,620	79,812	62,746	195,311	137,628	85,554	74,248
$1,000	294,803	213,916	187,561	710,109	755,782	705,015	1,139,091
Farms with expenses of-							
$1 to $4,999	114,747	70,369	54,046	156,634	92,685	46,107	29,429
$5,000 to $9,999	8,642	6,726	6,261	27,317	26,752	19,612	17,370
$10,000 to $24,999	2,614	2,230	1,988	9,272	15,155	14,946	17,443
$25,000 or more	617	487	451	2,088	3,036	4,889	10,006
All other production expenses (see text) ....farms	66,658	47,688	39,901	141,395	118,603	81,027	73,797
$1,000	596,912	510,082	482,539	2,024,043	2,611,281	2,714,296	4,125,040
Farms with expenses of-							
$1 to $4,999	53,802	36,483	28,990	88,540	54,089	25,819	16,963
$5,000 to $24,999	9,448	8,222	8,169	40,723	46,926	33,660	28,278
$25,000 to $49,999	1,420	1,294	1,231	5,991	9,723	12,121	12,299
$50,000 to $99,999	994	851	744	3,158	4,380	5,586	8,874
$100,000 or more	994	838	767	2,983	3,485	3,841	7,383
Production expenses paid by landlords [1] ....farms	2,280	1,885	1,890	10,194	15,953	15,534	12,691
$1,000	14,240	13,130	15,874	118,225	297,405	469,461	596,487
Depreciation expenses claimed (see text) ....farms	61,508	43,425	36,147	124,786	104,049	72,004	65,578
$1,000	700,592	577,110	549,426	2,381,159	3,243,861	3,503,174	5,224,842
NET CASH FARM INCOME (SEE TEXT)							
Net cash farm income of operations (see text) ....farms	139,479	87,502	68,313	212,553	149,713	92,656	80,393
$1,000	2,090,594	1,820,546	1,941,653	9,174,528	13,196,558	14,925,839	23,195,074
Average per farm ....dollars	14,989	20,806	28,423	43,163	88,146	161,089	288,521
Farms with net gains [2] ....number	74,086	48,329	40,582	139,284	108,973	72,243	62,030
Average net gain ....dollars	40,206	50,852	60,786	78,568	137,521	227,863	412,734
Gain of-							
Less than $1,000	6,019	3,144	2,028	4,697	1,626	557	265
$1,000 to $4,999	18,775	9,470	6,725	16,482	6,147	2,139	1,215
$5,000 to $9,999	12,466	7,477	5,917	16,439	6,935	2,272	1,403
$10,000 to $24,999	15,935	11,039	9,155	28,041	15,951	6,730	4,080
$25,000 to $49,999	10,420	7,770	7,086	24,474	16,493	8,727	5,763
$50,000 or more	10,471	9,429	9,671	49,151	61,821	51,818	49,304
Farms with net losses ....number	65,393	39,173	27,731	73,269	40,740	20,413	18,363
Average net loss ....dollars	13,581	16,264	18,938	24,140	43,926	75,230	131,069
Loss of-							
Less than $1,000	7,044	3,630	2,281	4,902	1,723	580	338
$1,000 to $4,999	22,243	12,211	8,079	18,019	6,699	2,273	1,339
$5,000 to $9,999	14,568	8,478	5,962	14,690	6,443	2,316	1,386
$10,000 to $24,999	14,449	9,493	7,041	19,378	10,767	4,622	3,191
$25,000 to $49,999	4,529	3,333	2,722	9,190	7,021	3,879	3,300
$50,000 or more	2,560	2,028	1,646	7,090	8,087	6,743	8,809

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
NET CASH FARM INCOME (SEE TEXT) - Con.						
Net cash farm income of operators (see text) ... farms	2,204,792	232,849	620,283	153,862	192,043	175,146
$1,000	64,197,836	408,251	1,091,037	893,889	1,357,850	1,551,231
Average per farm ... dollars	29,117	1,753	1,759	5,810	7,071	8,857
Operators reporting net gains [2] ... farms	1,025,783	67,421	192,480	60,729	85,918	81,744
Average net gain ... dollars	81,061	27,706	26,805	30,435	29,002	32,820
Gain of-						
Less than $1,000	103,330	13,934	40,621	9,962	11,699	8,526
$1,000 to $4,999	222,713	21,815	66,300	20,814	28,370	23,642
$5,000 to $9,999	129,906	9,799	27,167	9,977	14,730	14,482
$10,000 to $24,999	173,780	10,742	27,170	9,792	16,146	17,036
$25,000 to $49,999	122,964	5,122	14,393	4,453	7,195	9,075
$50,000 or more	273,090	6,009	16,829	5,731	7,778	8,983
Operators reporting net losses ... farms	1,179,009	165,428	427,803	93,133	106,125	93,402
Average net loss ... dollars	16,075	8,824	9,510	10,248	10,685	12,115
Loss of-						
Less than $1,000	135,011	21,356	56,659	12,328	13,121	10,753
$1,000 to $4,999	428,133	69,746	174,973	36,729	40,837	34,073
$5,000 to $9,999	248,731	36,742	93,035	20,194	23,561	20,464
$10,000 to $24,999	228,206	27,172	73,935	16,974	20,385	19,122
$25,000 to $49,999	78,919	7,260	20,075	4,546	5,489	6,018
$50,000 or more	60,009	3,152	9,126	2,362	2,732	2,972
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)						
Total ... farms	50,572	359	1,554	622	1,209	1,448
$1,000	4,445,758	5,174	7,059	2,357	6,586	11,142
INCOME FROM FARM-RELATED SOURCES						
Total income from farm-related sources, gross before taxes and expenses (see text) ... farms	693,187	32,615	121,434	39,372	52,367	52,558
$1,000	10,489,874	350,485	1,241,860	376,427	481,922	494,467
Customwork and other agricultural services ... farms	121,874	3,795	13,045	4,382	6,143	6,702
$1,000	1,875,665	29,536	98,627	38,274	58,733	60,775
Gross cash rent or share payments ... farms	241,923	14,514	57,349	18,783	22,641	21,247
$1,000	2,883,897	104,797	466,559	156,564	185,083	188,247
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ... farms	47,603	1,349	7,890	3,272	4,648	5,197
$1,000	594,944	2,616	29,236	19,800	34,796	46,488
Agri-tourism and recreational services (see text) ... farms	23,350	1,030	3,212	925	1,280	1,314
$1,000	566,834	17,434	71,776	26,878	31,537	30,957
Patronage dividends and refunds from cooperatives ... farms	288,196	4,990	22,844	9,135	15,577	17,471
$1,000	854,995	6,993	43,589	13,861	24,449	22,515
Crop and livestock insurance payments received (see text) ... farms	82,001	636	2,873	1,191	2,229	2,568
$1,000	1,676,727	4,215	23,798	10,324	15,049	21,252
Amount from state and local government agricultural program payments (see text) ... farms	34,410	932	4,238	1,822	2,589	2,917
$1,000	145,413	1,820	7,881	3,835	5,303	7,657
Other farm-related income sources (see text) ... farms	118,939	9,338	28,950	7,952	9,569	9,487
$1,000	1,891,400	183,075	500,394	106,891	126,972	116,578
LAND USE						
Total cropland ... farms	1,685,339	124,326	418,196	118,679	155,401	142,060
acres	406,424,909	461,101	7,404,961	4,139,041	7,519,795	9,446,800
Harvested cropland ... farms	1,328,004	91,191	298,858	88,505	117,021	109,554
acres	309,607,601	291,828	4,296,973	2,451,606	4,500,846	5,775,871
Farms by acres harvested:						
1 to 49 acres	700,266	91,191	298,858	72,603	78,121	58,623
50 to 99 acres	179,055	-	-	15,902	38,900	32,798
100 to 199 acres	141,875	-	-	-	-	18,133
200 to 499 acres	143,776	-	-	-	-	-
500 to 999 acres	82,211	-	-	-	-	-
1,000 to 1,999 acres	53,728	-	-	-	-	-
2,000 acres or more	27,093	-	-	-	-	-
Cropland-						
For pasture or grazing only ... farms	404,753	35,644	105,858	27,863	35,335	36,074
acres	35,771,154	124,477	1,422,640	715,805	1,196,881	1,785,322
On which all crops failed or were abandoned ... farms	89,587	2,435	17,997	5,657	7,530	7,078
acres	7,405,898	6,146	177,812	87,086	148,381	165,168
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ... farms	360,225	10,250	86,889	28,572	39,742	33,006
acres	37,968,749	36,622	1,450,383	844,866	1,598,040	1,632,146
In cultivated summer fallow ... farms	67,960	942	6,934	2,796	4,016	3,945
acres	15,671,507	2,028	57,153	39,678	75,647	88,293

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
NET CASH FARM INCOME (SEE TEXT) - Con.							
Net cash farm income of operators (see text) ....farms	139,479	87,502	68,313	212,553	149,713	92,656	80,393
$1,000	1,728,285	1,460,534	1,677,990	8,096,178	11,812,635	13,230,759	20,889,197
Average per farm ....dollars	12,391	16,691	24,563	38,090	78,902	142,794	259,838
Operators reporting net gains [2] ....farms	73,500	47,785	40,173	137,558	107,131	70,650	60,694
Average net gain ....dollars	35,871	44,373	55,308	72,323	128,439	210,822	387,496
Gain of-							
Less than $1,000	6,052	3,148	2,052	4,770	1,672	600	294
$1,000 to $4,999	18,881	9,538	6,771	16,724	6,321	2,279	1,258
$5,000 to $9,999	12,549	7,537	5,982	16,624	7,203	2,398	1,458
$10,000 to $24,999	16,012	11,168	9,315	28,656	16,529	6,964	4,250
$25,000 to $49,999	10,394	7,716	7,117	24,982	17,308	9,229	5,980
$50,000 or more	9,612	8,678	8,936	45,802	58,098	49,180	47,454
Operators reporting net losses ....farms	65,979	39,717	28,140	74,995	42,582	22,006	19,699
Average net loss ....dollars	13,765	16,613	19,328	24,701	45,727	75,607	133,483
Loss of-							
Less than $1,000	7,109	3,669	2,300	4,968	1,771	614	363
$1,000 to $4,999	22,354	12,288	8,164	18,315	6,847	2,389	1,418
$5,000 to $9,999	14,662	8,612	5,996	14,980	6,638	2,406	1,441
$10,000 to $24,999	14,635	9,630	7,178	19,848	11,154	4,851	3,322
$25,000 to $49,999	4,590	3,405	2,797	9,499	7,487	4,222	3,531
$50,000 or more	2,629	2,113	1,705	7,385	8,685	7,524	9,624
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)							
Total ....farms	1,833	1,484	1,602	8,232	12,228	11,731	8,270
$1,000	23,745	22,658	33,025	266,167	779,969	1,368,996	1,918,881
INCOME FROM FARM-RELATED SOURCES							
Total income from farm-related sources, gross before taxes and expenses (see text) ....farms	46,679	32,219	27,573	97,440	82,242	57,486	51,202
$1,000	445,393	331,573	299,323	1,209,754	1,391,977	1,473,921	2,392,772
Customwork and other agricultural services ....farms	6,181	4,818	4,349	18,507	21,117	17,753	15,082
$1,000	59,032	49,789	50,008	228,800	324,942	381,978	495,173
Gross cash rent or share payments ....farms	17,737	11,099	8,805	27,551	19,308	11,768	11,121
$1,000	188,609	126,102	103,081	373,684	326,078	235,206	429,887
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ....farms	4,096	3,023	2,464	7,375	4,464	2,237	1,588
$1,000	41,855	34,842	30,285	108,469	88,405	63,175	94,977
Agri-tourism and recreational services (see text) ....farms	1,184	909	745	3,003	2,903	2,389	4,456
$1,000	19,050	13,538	15,354	52,367	57,498	55,459	174,985
Patronage dividends and refunds from cooperatives ....farms	18,724	13,833	13,016	51,956	50,007	37,808	32,835
$1,000	28,489	21,344	25,800	102,499	152,986	180,185	232,283
Crop and livestock insurance payments received (see text) ....farms	3,070	2,415	2,546	12,779	16,540	16,778	18,376
$1,000	24,849	18,676	23,205	132,302	245,811	389,877	767,370
Amount from state and local government agricultural program payments (see text) ....farms	2,662	2,069	1,691	6,297	4,737	2,506	1,950
$1,000	7,646	7,298	5,230	25,385	30,532	22,261	20,565
Other farm-related income sources (see text) ....farms	7,171	4,934	3,940	12,944	9,924	6,975	7,755
$1,000	75,864	59,985	46,358	186,248	165,725	145,780	177,532
LAND USE							
Total cropland ....farms	116,158	74,052	58,860	186,886	135,201	85,064	70,456
acres	10,978,926	8,377,382	8,243,318	41,657,809	64,369,172	83,768,629	160,057,975
Harvested cropland ....farms	88,133	60,334	48,977	159,319	121,080	78,927	66,105
acres	6,590,706	5,588,532	5,730,418	30,444,392	51,556,447	69,844,694	122,535,288
Farms by acres harvested:							
1 to 49 acres	33,906	19,272	12,013	24,148	7,712	2,346	1,473
50 to 99 acres	24,524	15,660	11,323	26,008	9,278	2,874	1,788
100 to 199 acres	29,703	21,354	14,104	35,456	14,820	5,065	3,240
200 to 499 acres	-	4,048	11,537	73,707	35,075	11,321	8,088
500 to 999 acres	-	-	-	-	54,195	19,021	8,995
1,000 to 1,999 acres	-	-	-	-	-	38,300	15,428
2,000 acres or more	-	-	-	-	-	-	27,093
Cropland-							
For pasture or grazing only ....farms	28,190	18,707	14,284	43,731	28,120	16,302	14,645
acres	1,818,492	1,357,702	1,163,013	4,795,934	5,007,716	4,693,648	11,689,524
On which all crops failed or were abandoned ....farms	5,827	3,686	3,041	10,755	9,060	7,491	9,030
acres	193,842	134,355	123,906	630,557	908,284	1,342,405	3,487,956
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ....farms	29,542	15,846	12,479	39,432	27,796	18,594	18,077
acres	2,244,907	1,216,027	1,137,119	5,230,707	5,790,887	5,646,626	11,140,419
In cultivated summer fallow ....farms	3,822	2,320	2,067	8,194	8,579	8,926	15,419
acres	130,979	80,766	88,862	556,219	1,105,838	2,241,256	11,204,788

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
LAND USE - Con.							
Total woodland	farms	843,294	22,209	207,071	75,351	98,155	94,183
	acres	75,098,603	60,150	2,321,327	1,764,516	3,199,743	4,329,395
Woodland pastured	farms	370,297	10,852	86,645	30,271	39,702	40,886
	acres	28,609,690	28,892	754,510	493,389	874,168	1,253,607
Woodland not pastured	farms	596,123	12,557	139,784	54,144	71,278	67,539
	acres	46,488,913	31,258	1,566,817	1,271,127	2,325,575	3,075,788
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text)	farms	1,132,606	84,815	301,090	78,150	98,664	95,512
	acres	408,832,116	334,505	4,489,967	2,286,118	3,838,331	5,170,508
Land in house lots, ponds, roads, wasteland, etc.	farms	1,126,272	107,974	307,426	77,359	100,513	90,041
	acres	31,740,212	224,263	1,702,287	740,686	1,225,435	1,367,019
Irrigated land	farms	301,028	60,926	81,444	13,514	15,180	12,908
	acres	56,599,305	174,275	1,015,333	368,738	590,571	680,824
Harvested cropland	farms	256,105	48,032	64,160	11,451	12,941	11,103
	acres	51,537,104	125,912	748,503	289,154	469,344	550,921
Pastureland and other land	farms	72,585	14,853	24,596	3,517	4,084	3,329
	acres	5,062,201	48,363	266,830	79,584	121,227	129,903
CONSERVATION PRACTICES AND CROP INSURANCE							
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text)	farms	346,231	4,503	59,814	22,973	35,039	30,096
	acres	38,547,450	23,384	1,105,346	732,963	1,497,391	1,587,611
Land enrolled in crop insurance programs (see text)	farms	349,408	5,596	24,061	8,843	15,945	17,038
	acres	222,267,817	21,438	481,488	348,212	888,739	1,319,420
ORGANIC AGRICULTURE							
Land used for organic production (see text)	farms	20,437	4,410	6,125	1,239	1,444	1,335
	acres	2,577,418	12,492	67,814	31,980	53,477	74,040
Total organic product sales (see text)	farms	18,211	3,998	5,419	1,057	1,255	1,179
	$1,000	1,709,111	46,673	149,887	65,645	61,898	78,802
VALUE OF LAND AND BUILDINGS							
Estimated market value of land and buildings	farms	2,204,792	232,849	620,283	153,862	192,043	175,146
	$1,000	1,744,295,252	44,027,341	154,327,190	49,269,298	68,028,474	75,018,357
Average per farm	dollars	791,138	189,081	248,801	320,217	354,236	428,319
Average per acre	dollars	1,892	40,765	9,695	5,517	4,310	3,693
Farms by value group:							
$1 to $49,999		223,182	82,369	103,884	10,335	10,357	6,116
$50,000 to $99,999		212,783	31,446	103,798	21,770	22,214	11,824
$100,000 to $199,999		374,783	42,390	150,205	40,384	45,839	35,824
$200,000 to $499,999		631,939	51,722	182,247	52,880	74,673	73,614
$500,000 to $999,999		371,783	21,102	63,029	22,209	29,231	33,854
$1,000,000 to $1,999,999		206,282	3,231	13,836	4,854	7,884	11,462
$2,000,000 to $4,999,999		132,549	561	2,878	1,221	1,511	2,088
$5,000,000 to $9,999,999		36,072	22	367	169	277	236
$10,000,000 or more		15,419	6	39	40	57	128
VALUE OF MACHINERY AND EQUIPMENT							
Estimated market value of all machinery and equipment	farms	2,204,513	232,777	620,210	153,842	192,026	175,130
	$1,000	194,783,471	7,091,096	22,022,724	6,665,176	9,143,364	9,365,163
Farms by value group:							
$1 to $4,999		195,820	45,910	78,089	13,518	15,121	13,506
$5,000 to $9,999		217,460	38,632	87,671	17,743	20,319	16,060
$10,000 to $19,999		351,088	50,353	134,159	30,288	35,670	29,227
$20,000 to $49,999		598,289	61,462	196,201	51,744	64,542	56,481
$50,000 to $99,999		366,768	23,348	81,899	25,987	35,184	35,655
$100,000 to $199,999		232,001	8,516	28,920	10,052	14,403	16,577
$200,000 to $499,999		175,152	4,226	12,054	4,016	5,999	6,662
$500,000 or more		67,935	330	1,217	494	788	962
SELECTED MACHINERY AND EQUIPMENT							
Trucks, including pickups (see text)	farms	1,783,324	172,365	476,765	119,838	151,172	138,380
	number	3,512,538	232,050	670,907	180,459	234,467	225,755
Tractors	farms	1,844,647	139,528	504,813	133,181	167,309	154,530
	number	4,389,812	193,190	799,006	246,704	332,025	335,884
Less than 40 horsepower (PTO)	farms	910,937	94,830	292,270	68,983	82,452	73,824
	number	1,280,039	115,139	377,923	95,575	116,221	106,371
40 to 99 horsepower (PTO)	farms	1,238,101	56,654	289,164	91,972	121,091	116,822
	number	1,998,508	66,942	365,383	128,512	176,974	182,655
100 horsepower (PTO) or more	farms	555,941	9,381	45,592	17,964	30,254	34,788
	number	1,111,265	11,109	55,700	22,617	38,830	46,858
Grain and bean combines, self-propelled	farms	295,490	1,550	12,907	6,610	12,497	14,079
	number	346,935	1,693	13,883	7,131	13,620	15,403

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
LAND USE - Con.							
Total woodland ....farms	67,591	46,710	35,123	99,120	55,762	26,434	15,585
acres	4,077,964	3,458,424	3,031,011	11,728,309	10,967,951	8,481,332	21,678,481
Woodland pastured ....farms	30,486	21,479	16,414	47,634	26,532	11,867	7,529
acres	1,225,888	1,016,364	911,621	3,677,180	3,679,753	3,008,049	11,686,269
Woodland not pastured ....farms	48,416	33,875	25,539	71,913	40,865	19,566	10,647
acres	2,852,076	2,442,060	2,119,390	8,051,129	7,288,198	5,473,283	9,992,212
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ....farms	75,416	49,784	39,397	121,300	82,518	50,550	55,410
acres	5,526,958	4,418,558	4,054,219	18,655,128	24,610,917	31,192,869	304,254,038
Land in house lots, ponds, roads, wasteland, etc. ....farms	71,918	46,572	37,177	115,275	80,417	49,561	42,039
acres	1,370,242	1,029,206	929,906	3,850,831	4,192,421	4,152,447	10,955,469
Irrigated land ....farms	11,013	7,042	5,954	22,281	24,072	21,330	25,364
acres	834,371	635,717	681,808	3,816,440	7,842,051	12,144,224	27,814,953
Harvested cropland ....farms	9,564	6,176	5,346	20,465	22,604	20,328	23,935
acres	699,928	529,753	586,546	3,411,085	7,299,078	11,491,302	25,335,578
Pastureland and other land ....farms	2,765	1,793	1,443	4,629	4,088	3,096	4,392
acres	134,443	105,964	95,262	405,355	542,973	652,922	2,479,375
CONSERVATION PRACTICES AND CROP INSURANCE							
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ....farms	30,711	16,705	13,981	47,313	36,799	25,759	22,538
acres	2,413,996	1,315,299	1,307,265	6,046,702	6,567,157	6,098,563	9,851,773
Land enrolled in crop insurance programs (see text) ....farms	20,273	14,140	14,210	60,808	66,608	53,923	47,963
acres	2,145,650	1,797,555	2,199,014	14,824,160	33,010,294	52,253,651	112,978,196
ORGANIC AGRICULTURE							
Land used for organic production (see text) ....farms	976	708	490	1,645	969	538	558
acres	83,336	74,375	66,511	350,829	331,293	320,741	1,110,530
Total organic product sales (see text) ....farms	841	621	434	1,492	896	500	519
$1,000	77,055	55,779	66,500	271,551	271,872	192,100	371,349
VALUE OF LAND AND BUILDINGS							
Estimated market value of land and buildings ....farms	139,479	87,502	68,313	212,553	149,713	92,656	80,393
$1,000	67,043,870	52,796,772	46,965,543	199,231,807	248,481,934	267,907,421	471,197,245
Average per farm ....dollars	480,674	603,378	687,505	937,328	1,659,722	2,891,420	5,861,173
Average per acre ....dollars	3,054	3,055	2,889	2,625	2,386	2,100	948
Farms by value group:							
$1 to $49,999	5,093	1,658	1,131	1,874	315	39	11
$50,000 to $99,999	9,444	3,281	2,024	5,107	1,608	251	16
$100,000 to $199,999	24,162	9,893	6,021	14,011	4,600	1,222	232
$200,000 to $499,999	56,024	34,203	24,203	55,226	19,228	6,067	1,852
$500,000 to $999,999	32,055	26,062	22,221	66,208	36,170	13,518	6,124
$1,000,000 to $1,999,999	10,287	9,854	10,145	53,393	43,099	23,252	14,985
$2,000,000 to $4,999,999	2,045	2,224	2,267	14,961	40,623	33,764	28,406
$5,000,000 to $9,999,999	244	219	202	1,344	3,187	12,913	16,892
$10,000,000 or more	125	108	99	429	883	1,630	11,875
VALUE OF MACHINERY AND EQUIPMENT							
Estimated market value of all machinery and equipment ....farms	139,459	87,500	68,308	212,527	149,700	92,651	80,383
$1,000	8,467,752	6,332,000	5,741,409	23,771,118	28,559,440	29,172,335	38,451,892
Farms by value group:							
$1 to $4,999	9,813	4,502	3,126	7,297	3,094	1,079	765
$5,000 to $9,999	11,720	5,998	3,954	9,147	3,947	1,339	930
$10,000 to $19,999	21,255	11,133	7,653	18,609	7,904	2,904	1,933
$20,000 to $49,999	42,960	25,285	18,616	46,436	20,326	8,279	5,957
$50,000 to $99,999	30,167	21,115	16,586	50,499	26,590	11,108	8,630
$100,000 to $199,999	15,756	12,825	11,761	46,365	36,046	17,357	13,423
$200,000 to $499,999	6,828	5,701	5,628	28,551	40,371	31,976	23,140
$500,000 or more	960	941	984	5,623	11,422	18,609	25,605
SELECTED MACHINERY AND EQUIPMENT							
Trucks, including pickups (see text) ....farms	111,855	72,311	57,812	184,170	135,838	86,608	76,210
number	191,894	131,681	110,705	404,811	389,997	331,297	408,515
Tractors ....farms	122,098	78,490	61,733	192,290	135,600	83,960	71,115
number	286,460	203,753	170,680	599,744	507,341	365,283	349,742
Less than 40 horsepower (PTO) ....farms	55,406	35,345	26,777	78,691	50,392	28,470	23,497
number	80,896	53,106	40,696	122,678	82,184	48,387	40,863
40 to 99 horsepower (PTO) ....farms	92,482	61,935	48,943	151,761	102,292	58,179	46,806
number	152,660	109,908	89,741	294,142	207,111	120,923	103,557
100 horsepower (PTO) or more ....farms	37,493	27,165	25,566	101,855	96,784	69,335	59,764
number	52,904	40,739	40,243	182,924	218,046	195,973	205,322
Grain and bean combines, self-propelled ....farms	15,919	12,097	11,860	52,136	63,832	51,335	40,668
number	17,501	13,320	13,124	57,741	72,390	61,524	59,605

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
SELECTED MACHINERY AND EQUIPMENT - Con.						
Cotton pickers and strippers, self-propelled ..... farms	12,500	22	187	122	159	209
number	18,162	28	215	146	184	242
Forage harvesters, self-propelled ..... farms	60,133	1,196	7,442	2,464	3,673	3,942
number	64,191	1,206	7,514	2,485	3,708	4,024
Hay balers ..... farms	593,543	12,701	105,056	41,222	58,062	58,988
number	727,501	14,074	119,340	48,947	70,090	72,461
FERTILIZERS AND CHEMICALS						
Commercial fertilizer, lime, and soil conditioners ..... farms	1,022,036	68,268	205,699	60,312	80,726	79,146
acres treated	265,995,497	225,146	3,020,113	1,770,333	3,324,555	4,463,147
Manure ..... farms	307,073	17,849	62,441	17,924	24,577	24,615
acres treated	22,096,315	55,332	701,737	372,462	666,067	859,544
Acres treated with chemicals to control-						
Insects ..... farms	354,357	26,437	65,872	16,401	21,155	20,619
acres	90,947,822	74,260	917,088	464,221	826,252	1,092,398
Weeds, grass, or brush ..... farms	703,884	39,910	126,332	36,172	51,035	50,219
acres	226,295,783	129,719	1,787,890	1,041,345	2,074,769	2,795,504
Nematodes ..... farms	34,992	2,412	5,795	1,505	1,953	2,026
acres	7,560,158	7,404	81,515	39,485	78,215	110,089
Diseases in crops and orchards ..... farms	97,333	11,350	22,594	5,115	5,572	4,911
acres	22,693,212	29,416	271,821	127,318	197,795	239,321
Chemicals used to control growth, thin fruit, ripen, or defoliate ..... farms	44,638	3,971	8,965	2,170	2,373	2,317
acres treated	12,125,799	10,784	113,883	51,590	79,251	96,227
TENURE						
Full owners ..... farms	1,522,033	208,074	531,068	120,846	148,425	125,664
Part owners ..... farms	542,192	8,985	61,087	24,825	33,527	39,104
Tenants ..... farms	140,567	15,790	28,128	8,191	10,091	10,378
OWNED AND RENTED LAND						
Land owned ..... farms	2,072,101	217,449	593,591	146,193	182,661	165,501
acres	646,247,118	3,084,747	22,813,902	10,926,986	17,558,985	21,406,570
Owned land in farms ..... farms	2,064,225	217,059	592,155	145,671	181,952	164,768
acres	571,303,487	989,839	14,260,897	7,693,836	13,506,449	16,792,695
Land rented or leased from others ..... farms	689,102	25,325	90,802	33,470	44,163	50,044
acres	355,918,954	151,622	1,899,180	1,325,238	2,394,754	3,697,937
Rented or leased land in farms ..... farms	682,759	24,775	89,215	33,016	43,618	49,482
acres	350,792,353	90,180	1,657,645	1,236,525	2,276,855	3,521,027
Land rented or leased to others ..... farms	314,140	22,183	81,726	25,858	30,365	28,356
acres	80,070,232	2,156,350	8,794,540	3,321,863	4,170,435	4,790,785
NUMBER OF OPERATORS						
Total operators ..... number	3,337,450	359,169	933,915	226,107	281,432	257,145
Farms by number of operators:						
1 operator	1,273,122	123,417	346,964	92,572	117,009	107,243
2 operators	786,598	97,221	243,436	53,314	64,662	57,454
3 operators	112,285	9,442	23,477	6,281	8,087	8,214
4 operators	22,529	1,921	4,571	1,127	1,600	1,522
5 or more operators	10,258	848	1,835	568	685	713
Total women operators ..... number	1,008,943	142,852	328,778	70,226	84,864	73,887
Farms by number of women operators:						
1 operator	894,347	124,980	294,502	63,156	76,005	66,088
2 operators	45,408	7,280	14,074	2,822	3,490	3,091
3 operators	5,439	763	1,439	310	441	403
4 operators	1,017	126	268	66	85	74
5 or more operators	546	84	114	41	36	17
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male	1,898,583	176,323	512,931	132,204	166,049	153,212
Female	306,209	56,526	107,352	21,658	25,994	21,934
Primary occupation:						
Farming	993,881	76,144	199,185	55,241	72,735	72,011
Other	1,210,911	156,705	421,098	98,621	119,308	103,135
Place of residence:						
On farm operated	1,693,362	192,924	499,023	117,144	142,174	128,547
Not on farm operated	511,430	39,925	121,260	36,718	49,869	46,599
Days worked off farm:						
None	777,747	58,821	167,735	46,940	61,837	60,606
Any	1,427,045	174,028	452,548	106,922	130,206	114,540
1 to 49 days	238,479	27,362	71,683	16,948	21,193	18,159
50 to 99 days	115,578	13,661	33,823	8,399	10,093	9,172
100 to 199 days	196,687	21,677	56,761	14,454	17,507	16,390
200 days or more	876,301	111,328	290,281	67,121	81,413	70,819
Years on present farm:						
2 years or less	84,883	14,978	32,114	6,339	7,219	6,036
3 or 4 years	138,858	24,185	54,159	10,649	12,247	9,172
5 to 9 years	359,545	55,408	134,460	27,579	31,193	25,534

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
SELECTED MACHINERY AND EQUIPMENT - Con.							
Cotton pickers and strippers, self-propelled ....farms	239	170	165	1,055	2,610	3,818	3,744
number	311	208	191	1,313	3,348	5,465	6,511
Forage harvesters, self-propelled ....farms	3,773	2,734	2,555	10,139	8,986	6,152	7,077
number	3,852	2,832	2,643	10,784	9,803	6,882	8,458
Hay balers ....farms	47,516	34,089	27,226	86,862	57,910	33,178	30,733
number	59,261	43,077	34,662	111,958	74,068	41,290	38,273
FERTILIZERS AND CHEMICALS							
Commercial fertilizer, lime, and soil conditioners ....farms	67,124	47,087	39,345	135,060	108,962	72,550	57,757
acres treated	5,264,863	4,532,819	4,702,582	25,612,855	44,075,083	60,441,451	108,562,550
Manure ....farms	20,276	15,447	13,077	44,712	33,420	19,284	13,451
acres treated	897,436	821,454	820,855	3,928,924	4,580,731	3,933,461	4,458,312
Acres treated with chemicals to control-							
Insects ....farms	18,498	13,545	12,005	47,641	48,513	36,367	27,304
acres	1,325,184	1,159,833	1,239,631	7,460,313	14,966,797	22,306,024	39,115,821
Weeds, grass, or brush ....farms	45,776	31,859	28,022	100,402	86,788	60,088	47,281
acres	3,630,726	3,100,576	3,397,003	19,887,915	38,190,728	54,809,852	95,449,756
Nematodes ....farms	1,862	1,415	1,224	5,122	5,335	3,786	2,557
acres	128,144	114,907	124,657	720,644	1,417,417	1,898,222	2,839,459
Diseases in crops and orchards ....farms	3,815	2,687	2,287	8,626	10,512	10,201	9,663
acres	264,571	221,511	229,591	1,279,864	2,782,005	5,033,148	12,016,851
Chemicals used to control growth, thin fruit, ripen, or defoliate ....farms	1,821	1,243	1,135	4,110	5,124	5,705	5,704
acres treated	111,770	86,121	92,993	515,039	1,333,686	2,965,768	6,668,687
TENURE							
Full owners ....farms	97,521	54,034	39,817	103,952	51,173	22,863	18,596
Part owners ....farms	32,667	27,457	23,811	92,101	84,445	60,639	53,544
Tenants ....farms	9,291	6,011	4,685	16,500	14,095	9,154	8,253
OWNED AND RENTED LAND							
Land owned ....farms	131,041	81,903	63,959	197,144	136,381	83,870	72,408
acres	22,644,839	16,476,996	14,726,790	62,245,812	70,868,362	71,764,094	311,729,035
Owned land in farms ....farms	130,188	81,491	63,628	196,053	135,618	83,502	72,140
acres	17,868,617	13,364,690	12,335,904	52,833,878	61,130,862	64,795,914	295,729,906
Land rented or leased from others ....farms	42,404	33,710	28,703	109,345	99,021	70,088	62,027
acres	4,260,483	4,016,949	4,013,071	23,561,098	43,646,725	63,561,941	203,389,956
Rented or leased land in farms ....farms	41,958	33,468	28,496	108,601	98,540	69,793	61,797
acres	4,085,473	3,918,880	3,922,550	23,058,199	43,009,599	62,799,363	201,216,057
Land rented or leased to others ....farms	22,602	14,052	10,909	33,348	21,852	12,547	10,342
acres	4,951,232	3,210,375	2,481,407	9,914,833	10,374,626	7,730,758	18,173,028
NUMBER OF OPERATORS							
Total operators ....number	204,036	129,987	101,211	320,381	229,946	148,644	145,477
Farms by number of operators:							
1 operator	86,561	53,201	41,804	127,736	88,564	51,408	36,643
2 operators	44,415	28,377	21,701	67,941	47,323	30,825	29,929
3 operators	6,662	4,640	3,845	13,281	10,703	7,891	9,762
4 operators	1,227	869	700	2,454	2,176	1,743	2,619
5 or more operators	614	415	263	1,141	947	789	1,440
Total women operators ....number	56,937	34,948	26,197	79,293	50,253	29,971	30,737
Farms by number of women operators:							
1 operator	50,620	31,009	23,212	69,639	43,935	26,103	25,098
2 operators	2,433	1,456	1,192	3,646	2,402	1,413	2,109
3 operators	356	220	156	507	307	217	320
4 operators	63	46	16	108	60	42	63
5 or more operators	26	29	13	62	48	38	38
PRINCIPAL OPERATOR CHARACTERISTICS							
Sex of operator:							
Male	122,074	78,045	61,186	192,783	139,437	87,916	76,423
Female	17,405	9,457	7,127	19,770	10,276	4,740	3,970
Primary occupation:							
Farming	61,049	42,539	35,459	125,581	108,603	76,054	69,280
Other	78,430	44,963	32,854	86,972	41,110	16,602	11,113
Place of residence:							
On farm operated	97,304	64,401	49,916	155,862	112,754	71,296	62,017
Not on farm operated	42,175	23,101	18,397	56,691	36,959	21,360	18,376
Days worked off farm:							
None	50,842	32,841	26,995	91,630	74,609	53,663	51,228
Any	88,637	54,661	41,318	120,923	75,104	38,993	29,165
1 to 49 days	14,738	8,792	6,631	20,367	15,538	9,682	7,386
50 to 99 days	6,985	4,770	3,443	10,956	7,613	3,929	2,734
100 to 199 days	12,737	8,171	6,544	19,236	12,717	6,075	4,418
200 days or more	54,177	32,928	24,700	70,364	39,236	19,307	14,627
Years on present farm:							
2 years or less	4,321	2,513	1,686	4,656	2,632	1,316	1,073
3 or 4 years	7,062	3,732	2,707	7,453	3,983	1,945	1,564
5 to 9 years	19,340	11,180	7,759	22,496	12,685	6,544	5,367

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
PRINCIPAL OPERATOR CHARACTERISTICS - Con.						
Years on present farm - Con.						
10 years or more	1,621,506	138,278	399,550	109,295	141,384	134,404
Average years on present farm	21.6	15.6	17.3	20.1	21.3	22.8
Age group:						
Under 25 years	11,878	2,068	3,299	884	1,006	939
25 to 34 years	106,735	14,438	31,577	7,181	9,254	7,773
35 to 44 years	268,818	36,913	87,895	17,922	21,161	18,179
45 to 49 years	256,694	32,080	78,644	16,918	20,147	17,829
50 to 54 years	308,707	35,771	89,878	20,642	24,984	22,370
55 to 59 years	312,577	33,249	89,349	21,662	26,345	23,915
60 to 64 years	283,729	27,071	78,952	20,890	25,630	23,387
65 to 69 years	235,152	20,455	62,512	17,270	21,773	20,467
70 years and over	420,502	30,804	98,177	30,493	41,743	40,287
Average age	57.1	54.2	55.8	57.5	58.1	58.7
Spanish, Hispanic, or Latino origin (see text)	55,570	12,139	19,687	3,112	3,538	3,099
Race:						
American Indian or Alaska Native	34,706	13,108	8,312	1,509	1,881	1,691
Asian	11,214	3,970	3,880	627	612	493
Black or African American	30,599	3,849	11,722	3,285	3,322	2,945
Native Hawaiian or Other Pacific Islander	1,356	535	457	39	52	51
White	2,114,325	209,508	591,781	147,491	185,123	169,020
More than one race reported	12,592	1,879	4,131	911	1,053	946
Farms by number of persons living in operator's household:						
1 person	275,842	26,288	71,499	20,032	25,611	24,172
2 people	1,108,995	102,905	302,742	78,914	99,896	91,605
3 people	330,188	39,367	99,455	22,574	26,934	24,853
4 people	285,919	35,990	87,142	19,149	23,329	20,385
5 or more people	203,848	28,299	59,445	13,193	16,273	14,131
Percent of operator's total household income from farming:						
Less than 25 percent	1,583,710	205,413	550,624	130,660	156,348	135,508
25 to 49 percent	174,800	9,287	25,389	9,094	14,705	15,763
50 to 74 percent	187,421	9,282	23,116	7,194	10,818	12,017
75 to 99 percent	147,092	4,760	12,042	4,002	6,017	6,876
100 percent	111,769	4,107	9,112	2,912	4,155	4,982
Operator is a hired manager ... farms	59,759	5,394	11,843	2,983	3,426	3,550
acres	120,672,499	22,953	298,909	172,994	280,401	411,066
Farms with-						
Internet access	1,246,723	143,100	356,917	80,379	96,415	86,159
High-speed internet access	726,700	90,534	204,251	44,459	52,367	46,707
Farms by number of households sharing in net income of farm:						
1 household	1,733,827	196,876	519,455	125,271	154,105	139,030
2 households	356,707	27,606	80,665	22,834	30,057	28,615
3 households	66,438	4,205	11,084	3,361	4,521	4,519
4 households	30,004	2,437	5,756	1,553	2,169	1,931
5 households or more	17,816	1,725	3,323	843	1,191	1,051
FARMS BY TYPE OF ORGANIZATION						
Family or individual ... farms	1,906,335	210,585	563,287	138,500	172,264	155,276
acres	574,150,050	982,316	14,434,649	8,038,187	14,156,450	18,007,449
Partnership ... farms	174,247	11,553	33,023	9,401	12,425	12,499
acres	161,416,999	52,132	874,562	546,609	1,023,327	1,452,343
Registered under state law ... farms	89,739	5,132	14,533	4,071	5,590	5,363
acres	114,284,815	22,568	387,068	237,118	460,183	622,715
Corporation ... farms	96,074	8,505	17,663	4,247	4,843	4,903
acres	125,319,810	36,682	442,370	245,702	397,717	567,147
Family held ... farms	85,837	7,245	15,233	3,666	4,140	4,266
acres	114,264,200	31,333	381,991	212,165	339,970	493,488
More than 10 stockholders ... farms	2,041	121	230	77	99	91
10 or less stockholders ... farms	83,796	7,124	15,003	3,589	4,041	4,175
Other than family held ... farms	10,237	1,260	2,430	581	703	637
acres	11,055,610	5,349	60,379	33,537	57,747	73,659
More than 10 stockholders ... farms	907	68	182	35	56	39
10 or less stockholders ... farms	9,330	1,192	2,248	546	647	598
Other-cooperative, estate or trust, institutional, etc ... farms	28,136	2,206	6,310	1,714	2,511	2,468
acres	61,208,981	8,889	166,961	99,863	205,810	286,783
HIRED FARM LABOR						
Hired farm labor ... farms	482,186	32,031	82,876	23,330	30,013	30,989
workers	2,636,509	126,305	366,754	113,576	139,392	145,219
Workers by days worked:						
150 days or more ... farms	201,292	10,670	25,341	6,698	8,305	9,229
workers	911,439	37,717	98,123	30,286	35,729	39,392
Less than 150 days ... farms	384,051	26,571	69,844	19,998	25,854	26,308
workers	1,725,070	88,588	268,631	83,290	103,663	105,827

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
PRINCIPAL OPERATOR CHARACTERISTICS - Con.							
Years on present farm - Con.							
10 years or more	108,756	70,077	56,161	177,948	130,413	82,851	72,389
Average years on present farm	23.8	24.7	25.7	26.7	28.3	28.9	28.8
Age group:							
Under 25 years	658	415	335	1,090	656	358	170
25 to 34 years	6,264	3,731	2,898	9,495	6,910	4,234	2,980
35 to 44 years	13,816	8,895	6,689	21,163	15,800	10,967	9,418
45 to 49 years	13,670	8,710	6,886	22,314	17,119	11,980	10,397
50 to 54 years	16,991	11,036	8,776	27,572	22,102	15,014	13,571
55 to 59 years	18,446	12,105	9,240	29,407	21,792	14,271	12,796
60 to 64 years	18,327	11,602	9,047	27,474	19,432	11,656	10,261
65 to 69 years	16,635	10,485	8,034	24,855	16,264	8,886	7,516
70 years and over	34,672	20,523	16,408	49,183	29,638	15,290	13,284
Average age	59.3	58.9	59.1	58.7	57.6	56.4	56.7
Spanish, Hispanic, or Latino origin (see text)	2,420	1,571	1,120	3,524	2,443	1,509	1,408
Race:							
American Indian or Alaska Native	1,659	813	670	1,988	1,285	732	1,058
Asian	335	237	136	403	285	137	99
Black or African American	1,632	1,087	597	1,380	505	170	105
Native Hawaiian or Other Pacific Islander	42	22	13	68	32	19	26
White	135,118	84,894	66,547	207,708	147,004	91,293	78,838
More than one race reported	693	449	350	1,006	602	305	267
Farms by number of persons living in operator's household:							
1 person	20,404	12,143	9,754	29,095	18,375	10,098	8,371
2 people	73,764	46,251	36,113	111,498	77,644	46,976	40,687
3 people	19,118	12,256	9,244	29,766	21,498	13,497	11,626
4 people	15,421	10,075	7,630	24,243	18,784	12,561	11,210
5 or more people	10,772	6,777	5,572	17,951	13,412	9,524	8,499
Percent of operator's total household income from farming:							
Less than 25 percent	100,543	58,428	41,802	109,742	53,844	23,237	17,561
25 to 49 percent	15,201	10,160	9,043	29,816	19,162	9,905	7,275
50 to 74 percent	12,171	9,209	8,292	32,842	29,151	18,675	14,654
75 to 99 percent	6,703	5,490	5,229	22,859	27,554	22,986	22,574
100 percent	4,861	4,215	3,947	17,294	20,002	17,853	18,329
Operator is a hired manager ....farms	2,990	2,146	1,671	6,641	6,697	5,493	6,925
acres	470,388	425,343	398,853	2,407,563	4,742,736	7,691,456	103,349,837
Farms with-							
Internet access	68,216	44,660	35,504	116,807	93,043	64,923	60,600
High-speed internet access	38,148	24,450	19,703	65,935	56,131	42,149	41,866
Farms by number of households sharing in net income of farm:							
1 household	108,084	67,297	51,627	156,100	105,979	62,155	47,848
2 households	24,515	15,760	12,873	42,315	31,052	20,574	19,841
3 households	4,051	2,642	2,269	8,454	7,702	5,955	7,675
4 households	1,843	1,175	989	3,676	3,074	2,389	3,012
5 households or more	986	628	555	2,008	1,906	1,583	2,017
FARMS BY TYPE OF ORGANIZATION							
Family or individual ....farms	121,879	75,789	58,673	177,816	117,791	66,379	48,096
acres	19,181,065	14,968,583	13,961,254	63,341,308	81,547,642	90,747,322	234,783,825
Partnership ....farms	11,151	7,315	5,999	21,117	17,956	13,706	18,102
acres	1,757,852	1,445,673	1,429,990	7,605,244	12,605,256	19,204,619	113,419,392
Registered under state law ....farms	4,982	3,541	2,944	11,034	10,679	8,850	13,020
acres	784,566	700,254	702,403	3,993,936	7,558,314	12,469,566	86,346,124
Corporation ....farms	4,102	3,082	2,566	10,341	11,829	11,328	12,665
acres	646,207	609,823	611,552	3,779,499	8,492,775	15,954,054	93,536,282
Family held ....farms	3,516	2,678	2,271	9,287	10,995	10,673	11,867
acres	554,416	529,816	541,259	3,404,203	7,903,656	15,028,953	84,842,950
More than 10 stockholders ....farms	89	55	48	217	282	217	515
10 or less stockholders ....farms	3,427	2,623	2,223	9,070	10,713	10,456	11,352
Other than family held ....farms	586	404	295	1,054	834	655	798
acres	91,791	80,007	70,293	375,296	589,119	925,101	8,693,332
More than 10 stockholders ....farms	43	48	42	95	97	81	121
10 or less stockholders ....farms	543	356	253	959	737	574	677
Other-cooperative, estate or trust, institutional, etc ....farms	2,347	1,316	1,075	3,279	2,137	1,243	1,530
acres	368,966	259,491	255,658	1,166,026	1,494,788	1,689,282	55,206,464
HIRED FARM LABOR							
Hired farm labor ....farms	25,686	19,493	16,768	62,817	59,720	47,850	50,613
workers	123,749	96,487	87,458	333,947	356,579	310,924	436,119
Workers by days worked:							
150 days or more ....farms	7,879	6,676	5,991	25,543	29,285	28,385	37,290
workers	33,795	27,587	29,074	110,064	135,166	126,625	207,881
Less than 150 days ....farms	21,647	16,017	13,628	49,452	45,105	34,771	34,856
workers	89,954	68,900	58,384	223,883	221,413	184,299	228,238

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
HIRED FARM LABOR - Con.						
Migrant farm labor on farms with hired labor (see text) ..... farms	38,784	2,589	6,734	2,022	2,596	2,641
Migrant farm labor on farms reporting only contract labor (see text) ..... farms	8,488	1,076	2,930	652	581	530
FARMS BY SIZE						
1 to 9 acres	232,849	232,849	-	-	-	-
10 to 49 acres	620,283	-	620,283	-	-	-
50 to 69 acres	153,862	-	-	153,862	-	-
70 to 99 acres	192,043	-	-	-	192,043	-
100 to 139 acres	175,146	-	-	-	-	175,146
140 to 179 acres	139,479	-	-	-	-	-
180 to 219 acres	87,502	-	-	-	-	-
220 to 259 acres	68,313	-	-	-	-	-
260 to 499 acres	212,553	-	-	-	-	-
500 to 999 acres	149,713	-	-	-	-	-
1,000 to 1,999 acres	92,656	-	-	-	-	-
2,000 acres or more	80,393	-	-	-	-	-
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)						
Oilseed and grain farming (1111)	338,237	4,667	34,446	12,987	22,263	21,826
Vegetable and melon farming (1112)	40,589	11,369	14,476	2,619	2,483	1,916
Fruit and tree nut farming (1113)	98,281	30,224	38,562	5,992	5,853	4,424
Greenhouse, nursery, and floriculture production (1114)	54,889	21,018	19,774	3,299	2,965	2,296
Other crop farming (1119)	519,893	14,282	162,913	50,201	64,277	52,731
Tobacco farming (11191)	9,626	874	1,978	747	893	1,008
Cotton farming (11192)	9,968	63	452	205	291	383
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	500,299	13,345	160,483	49,249	63,093	51,340
Beef cattle ranching and farming (112111)	656,475	46,553	169,124	50,498	64,244	60,575
Cattle feedlots (112112)	31,065	3,350	7,679	2,034	2,614	2,470
Dairy cattle and milk production (11212)	57,318	1,662	4,760	2,312	4,046	4,842
Hog and pig farming (1122)	30,546	7,410	9,144	1,533	1,817	1,494
Poultry and egg production (1123)	64,570	13,456	25,860	4,674	4,972	4,081
Sheep and goat farming (1124)	67,254	20,810	29,379	4,070	3,804	2,813
Animal aquaculture and other animal production (1125, 1129)	245,675	58,048	104,166	13,643	12,705	15,678
FARM TYPOLOGY (SEE TEXT)						
Small family farms:						
Limited resource farms ..... farms	308,837	46,082	104,855	25,705	31,464	27,596
acres	42,419,764	197,662	2,698,225	1,492,607	2,580,290	3,195,903
Retirement farms ..... farms	456,093	39,748	131,999	37,298	48,323	45,165
acres	89,580,775	189,285	3,498,587	2,166,266	3,978,042	5,245,478
Residential/lifestyle farms ..... farms	801,844	106,855	285,574	64,656	77,781	66,612
acres	121,143,585	512,493	7,226,853	3,749,054	6,385,668	7,713,753
Farming occupation/lower sales ..... farms	258,899	26,627	63,641	15,724	20,667	21,079
acres	87,190,445	122,299	1,599,894	912,094	1,702,756	2,451,064
Farming occupation/higher sales ..... farms	100,126	1,700	4,056	1,958	2,995	3,413
acres	104,081,344	7,003	112,206	115,548	247,362	397,624
Large family farms ..... farms	86,551	1,622	3,631	1,271	1,767	2,145
acres	123,024,138	7,091	95,640	74,103	146,350	249,975
Very large family farms ..... farms	101,265	2,103	7,220	2,302	2,774	2,888
acres	211,224,012	9,674	193,720	133,403	228,747	335,496
Non-family farms ..... farms	91,177	8,112	19,307	4,948	6,272	6,248
acres	143,431,777	34,512	493,417	287,286	514,089	724,429
LIVESTOCK						
Cattle and calves inventory ..... farms	963,669	61,735	216,709	66,778	87,490	84,624
number	96,347,858	883,253	3,877,359	1,816,409	2,995,712	3,646,775
Farms with-						
1 to 9	233,078	45,135	112,670	18,986	18,738	12,849
10 to 49	415,493	14,030	96,974	42,913	58,494	54,443
50 to 99	135,117	1,326	4,153	3,653	8,102	13,501
100 to 199	91,193	713	1,406	676	1,406	2,858
200 to 499	59,234	380	895	313	422	624
500 or more	29,554	151	611	237	328	349
Cows and heifers that had calved ..... farms	818,992	40,808	168,416	56,992	75,663	74,994
number	42,101,375	370,071	1,851,680	938,536	1,497,913	1,873,808
Beef cows ..... farms	764,984	39,191	163,988	54,805	71,611	70,213
number	32,834,801	328,179	1,489,594	744,039	1,156,112	1,434,983
Farms with-						
1 to 9	246,863	31,296	110,554	24,180	25,056	18,342
10 to 49	360,845	7,158	52,049	29,720	44,903	48,238
50 to 99	84,253	486	1,050	718	1,442	3,203
100 to 199	43,575	165	212	146	156	340
200 to 499	23,635	68	104	36	44	76
500 or more	5,813	18	19	5	10	14

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
HIRED FARM LABOR - Con.							
Migrant farm labor on farms with hired labor (see text) ....farms	2,003	1,590	1,405	4,856	4,709	3,711	3,928
Migrant farm labor on farms reporting only contract labor (see text) ....farms	430	311	227	727	504	285	235
FARMS BY SIZE							
1 to 9 acres	-	-	-	-	-	-	-
10 to 49 acres	-	-	-	-	-	-	-
50 to 69 acres	-	-	-	-	-	-	-
70 to 99 acres	-	-	-	-	-	-	-
100 to 139 acres	-	-	-	-	-	-	-
140 to 179 acres	139,479	-	-	-	-	-	-
180 to 219 acres	-	87,502	-	-	-	-	-
220 to 259 acres	-	-	68,313	-	-	-	-
260 to 499 acres	-	-	-	212,553	-	-	-
500 to 999 acres	-	-	-	-	149,713	-	-
1,000 to 1,999 acres	-	-	-	-	-	92,656	-
2,000 acres or more	-	-	-	-	-	-	80,393
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)							
Oilseed and grain farming (1111)	22,875	15,159	13,985	55,289	56,678	44,392	33,670
Vegetable and melon farming (1112)	1,222	727	547	1,696	1,439	1,098	997
Fruit and tree nut farming (1113)	2,948	1,911	1,368	3,498	1,926	908	667
Greenhouse, nursery, and floriculture production (1114)	1,296	827	582	1,490	850	307	185
Other crop farming (1119)	42,942	23,037	16,865	46,005	25,051	13,042	8,547
Tobacco farming (11191)	698	581	370	1,168	752	398	159
Cotton farming (11192)	445	240	226	1,172	2,041	2,416	2,034
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	41,799	22,216	16,269	43,665	22,258	10,228	6,354
Beef cattle ranching and farming (112111)	45,644	30,949	23,471	69,475	42,299	23,479	30,164
Cattle feedlots (112112)	1,804	1,236	1,047	3,200	2,537	1,611	1,483
Dairy cattle and milk production (11212)	4,831	4,247	4,033	14,505	8,405	2,801	874
Hog and pig farming (1122)	1,070	827	683	2,446	2,363	1,334	425
Poultry and egg production (1123)	2,375	1,719	1,272	3,372	1,850	692	247
Sheep and goat farming (1124)	1,686	912	566	1,314	768	389	743
Animal aquaculture and other animal production (1125, 1129)	10,786	5,951	3,894	10,263	5,547	2,603	2,391
FARM TYPOLOGY (SEE TEXT)							
Small family farms:							
Limited resource farms ....farms	20,432	11,526	8,207	20,223	8,171	2,866	1,710
acres	3,209,617	2,273,770	1,952,948	7,049,109	5,497,090	3,858,370	8,414,173
Retirement farms ....farms	35,806	21,831	16,346	45,543	21,907	8,006	4,121
acres	5,634,550	4,308,501	3,890,179	16,036,744	14,857,446	10,746,320	19,029,377
Residential/lifestyle farms ....farms	50,204	29,666	21,760	57,869	25,752	9,544	5,571
acres	7,898,895	5,855,563	5,173,325	20,307,119	17,325,136	12,797,179	26,198,547
Farming occupation/lower sales ....farms	19,354	13,073	10,772	32,552	19,145	9,496	6,769
acres	3,051,277	2,584,135	2,563,770	11,541,864	13,092,460	12,934,125	34,634,707
Farming occupation/higher sales ....farms	3,885	3,940	4,561	26,936	24,580	11,525	10,577
acres	615,994	783,285	1,088,143	10,055,726	16,814,487	15,694,686	58,149,280
Large family farms ....farms	1,875	1,776	1,842	10,733	27,500	19,732	12,657
acres	296,471	352,389	440,272	4,084,814	20,147,021	26,571,212	70,558,800
Very large family farms ....farms	2,372	2,114	2,024	8,494	13,679	24,606	30,689
acres	374,696	418,555	482,337	3,145,111	10,072,762	35,392,415	160,437,096
Non-family farms ....farms	5,551	3,576	2,801	10,203	8,979	6,881	8,299
acres	872,590	707,372	667,480	3,671,590	6,334,059	9,600,970	119,523,983
LIVESTOCK							
Cattle and calves inventory ....farms	66,141	46,661	36,936	117,146	80,473	48,461	50,515
number	3,880,957	3,207,730	2,886,724	13,331,731	16,752,538	14,874,197	28,194,473
Farms with-							
1 to 9	7,740	4,186	2,478	5,659	2,707	1,201	729
10 to 49	38,197	24,056	16,800	40,256	18,012	7,610	3,708
50 to 99	14,642	12,323	10,866	34,162	18,637	8,739	5,013
100 to 199	4,340	4,759	5,387	26,257	21,595	12,311	9,485
200 to 499	844	988	1,086	8,919	15,427	12,822	16,514
500 or more	378	349	319	1,893	4,095	5,778	15,066
Cows and heifers that had calved ....farms	59,164	42,076	33,482	106,135	72,105	43,096	46,061
number	1,835,368	1,539,410	1,400,643	5,978,709	6,515,672	5,604,353	12,695,212
Beef cows ....farms	54,529	38,098	29,733	92,800	64,392	40,407	45,217
number	1,365,676	1,121,250	989,790	4,130,467	4,460,547	4,200,938	11,413,226
Farms with-							
1 to 9	11,352	6,438	3,913	9,136	4,098	1,613	885
10 to 49	37,766	25,820	19,832	52,510	26,073	11,186	5,590
50 to 99	4,687	5,110	5,162	23,804	19,641	11,456	7,494
100 to 199	611	599	746	6,480	11,637	10,736	11,747
200 to 499	99	120	74	806	2,782	5,027	14,399
500 or more	14	11	6	64	161	389	5,102

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
LIVESTOCK - Con.						
Cattle and calves inventory - Con.						
Cows and heifers that had calved - Con.						
Milk cows ..... farms	69,890	2,248	6,804	3,088	5,152	5,931
number	9,266,574	41,892	362,086	194,497	341,801	438,825
Farms with-						
1 to 9	14,426	1,700	4,603	1,370	1,627	1,344
10 to 49	19,912	314	1,200	1,155	2,401	3,023
50 to 99	18,986	147	429	358	810	1,104
100 to 199	8,975	45	182	55	96	213
200 to 499	4,307	30	194	59	79	101
500 or more	3,284	12	196	91	139	146
Other cattle (see text) ..... farms	788,633	42,947	158,443	51,105	69,480	69,490
number	54,246,483	513,182	2,025,679	877,873	1,497,799	1,772,967
Cattle and calves sold ..... farms	798,290	38,626	150,791	52,095	71,132	71,605
number	74,071,936	693,242	2,679,648	1,151,217	1,914,992	2,211,318
$1,000	61,209,970	470,074	1,824,688	773,729	1,376,818	1,554,893
Calves weighing less than 500 pounds ..... farms	414,324	14,861	70,837	28,078	39,041	41,098
number	13,695,252	288,776	1,026,510	411,139	589,007	785,883
Cattle, including calves weighing 500 pounds or more ..... farms	681,126	30,393	118,624	41,749	58,520	60,082
number	60,376,684	404,466	1,653,138	740,078	1,325,985	1,425,435
Cattle on feed (see text) ..... farms	76,396	4,466	11,688	3,747	5,581	5,802
number	27,595,928	124,288	504,574	206,537	521,083	434,564
Hogs and pigs inventory ..... farms	75,442	12,086	20,803	4,330	5,258	4,666
number	67,786,318	4,659,044	8,520,764	2,618,422	2,849,439	2,649,054
Farms with-						
1 to 24	45,047	9,281	16,721	3,250	3,729	3,074
25 to 49	4,292	681	1,041	260	341	331
50 to 99	3,182	426	543	170	262	231
100 to 199	2,590	201	290	90	169	215
200 to 499	4,524	330	377	111	194	221
500 or more	15,807	1,167	1,831	449	563	594
Used or to be used for breeding ..... farms	32,867	5,354	8,682	1,879	2,343	2,165
number	6,290,610	466,022	1,103,878	275,378	333,665	232,926
Other hogs and pigs ..... farms	66,441	10,035	17,689	3,677	4,484	4,130
number	61,495,708	4,193,022	7,416,886	2,343,044	2,515,774	2,416,128
Hogs and pigs sold ..... farms	74,789	11,861	19,643	4,210	5,200	4,588
number	206,807,181	14,254,081	31,647,880	9,898,141	10,340,779	9,012,030
$1,000	18,056,981	1,233,719	2,359,660	636,384	757,823	713,847
Sheep and lambs inventory ..... farms	83,134	19,858	27,424	4,912	5,447	4,656
number	5,819,162	375,293	636,617	150,755	204,987	191,269
Ewes 1 year old or older ..... farms	68,222	14,690	22,154	4,106	4,615	3,987
number	3,516,409	197,949	380,701	92,333	122,442	125,165
Sheep and lambs sold ..... farms	53,268	10,261	16,731	3,130	3,743	3,193
number	4,579,608	189,629	502,937	118,868	187,989	135,149
Horses and ponies inventory ..... farms	575,942	81,474	210,546	41,348	46,321	38,407
number	4,028,827	453,902	1,356,066	287,085	331,387	277,995
Owned ..... farms	501,528	75,897	189,014	36,055	39,620	31,803
number	3,224,964	390,190	1,094,279	225,017	259,471	210,739
Horses and ponies sold ..... farms	133,472	23,926	54,740	9,570	10,189	7,851
number	506,503	62,065	168,287	33,854	39,406	33,420
Owned ..... farms	106,050	20,199	43,619	7,619	7,992	5,919
number	400,845	50,957	130,939	26,390	30,744	25,346
Goats, all inventory ..... farms	144,466	32,685	59,196	9,992	9,975	8,092
number	3,140,529	423,732	877,434	173,528	208,903	166,048
Goats sold ..... farms	61,748	13,785	24,847	4,207	4,175	3,441
number	1,387,576	172,530	376,387	79,461	90,099	83,393
POULTRY						
Layers inventory (see text) ..... farms	145,615	29,948	57,559	10,629	11,950	9,869
number	349,772,508	11,762,827	64,394,821	17,179,800	33,238,315	30,909,642
Farms with-						
1 to 399	140,844	29,517	56,184	10,222	11,468	9,428
400 to 3,199	785	137	208	72	84	62
3,200 to 9,999	626	76	223	44	71	75
10,000 to 19,999	1,373	98	449	126	163	133
20,000 to 49,999	1,292	57	380	130	120	116
50,000 to 99,999	261	31	47	9	15	20
100,000 or more	434	32	68	26	29	35
Pullets for laying flock replacement inventory ..... farms	22,514	4,844	8,695	1,622	1,815	1,530
number	105,876,529	4,602,598	21,086,732	5,615,849	10,760,893	7,784,541
Layers sold ..... farms	24,971	5,620	9,976	1,718	2,000	1,637
number	194,955,057	8,686,522	34,380,530	10,933,594	18,475,177	19,286,485
Pullets for laying flock replacement sold (see text) ..... farms	4,169	825	1,473	283	381	314
number	161,354,686	10,178,415	37,041,141	9,871,709	17,328,334	10,881,774

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
LIVESTOCK - Con.							
Cattle and calves inventory - Con.							
Cows and heifers that had calved - Con.							
Milk cows ....farms	5,599	4,787	4,467	16,164	10,067	3,864	1,719
number	469,692	418,160	410,853	1,848,242	2,055,125	1,403,415	1,281,986
Farms with-							
1 to 9	803	495	349	949	505	280	401
10 to 49	2,706	2,065	1,571	3,878	1,163	335	101
50 to 99	1,522	1,625	1,877	7,226	3,122	613	153
100 to 199	327	382	436	2,936	3,107	948	248
200 to 499	89	104	138	688	1,550	1,015	260
500 or more	152	116	96	487	620	673	556
Other cattle (see text) ....farms	55,544	39,884	32,300	104,252	73,082	44,625	47,481
number	2,045,589	1,668,320	1,486,081	7,353,022	10,236,866	9,269,844	15,499,261
Cattle and calves sold ....farms	58,020	41,556	33,717	108,997	76,468	46,288	48,995
number	2,748,752	2,217,946	1,944,823	9,296,758	14,212,897	12,991,071	22,009,272
$1,000	2,072,026	1,623,568	1,525,900	7,585,803	12,617,786	11,552,788	18,231,898
Calves weighing less than 500 pounds ....farms	33,121	24,266	19,580	61,653	39,253	21,224	21,312
number	793,558	606,092	506,368	1,948,357	2,110,616	1,647,396	2,981,550
Cattle, including calves weighing 500 pounds or more ....farms	49,376	35,846	29,608	97,550	69,933	43,192	46,253
number	1,955,194	1,611,854	1,438,455	7,348,401	12,102,281	11,343,675	19,027,722
Cattle on feed (see text) ....farms	4,998	3,625	3,210	11,726	10,192	6,546	4,815
number	883,354	663,440	635,293	3,644,425	7,375,443	6,490,184	6,112,743
Hogs and pigs inventory ....farms	3,348	2,520	1,993	7,157	6,691	4,330	2,260
number	2,019,888	2,141,560	2,069,725	7,818,719	10,950,497	9,839,854	11,649,352
Farms with-							
1 to 24	1,982	1,351	892	2,374	1,242	621	530
25 to 49	241	155	166	484	322	156	114
50 to 99	210	127	146	458	335	187	87
100 to 199	167	152	97	502	409	207	91
200 to 499	222	198	207	858	1,073	542	191
500 or more	526	537	485	2,481	3,310	2,617	1,247
Used or to be used for breeding ....farms	1,534	1,217	930	3,284	2,718	1,655	1,106
number	156,955	160,952	237,584	584,211	717,577	699,506	1,321,956
Other hogs and pigs ....farms	2,943	2,237	1,815	6,659	6,429	4,190	2,153
number	1,862,933	1,980,608	1,832,141	7,234,508	10,232,920	9,140,348	10,327,396
Hogs and pigs sold ....farms	3,330	2,485	2,044	7,441	7,056	4,582	2,349
number	6,691,000	6,532,352	6,478,753	23,288,231	29,981,059	27,960,105	30,722,770
$1,000	574,863	525,918	581,741	2,147,037	2,904,186	2,684,574	2,937,229
Sheep and lambs inventory ....farms	3,393	2,089	1,619	5,039	3,628	2,214	2,855
number	219,048	145,694	100,131	438,983	547,526	520,210	2,288,649
Ewes 1 year old or older ....farms	2,933	1,846	1,426	4,494	3,290	2,010	2,671
number	129,841	78,613	67,422	249,531	301,972	288,300	1,482,140
Sheep and lambs sold ....farms	2,365	1,579	1,176	3,889	2,884	1,823	2,494
number	308,571	112,564	71,153	427,939	593,132	421,460	1,510,217
Horses and ponies inventory ....farms	26,253	16,867	12,185	35,903	24,163	16,458	26,017
number	190,230	124,885	88,790	272,331	192,546	136,034	317,576
Owned ....farms	21,670	13,839	10,020	28,852	19,457	13,306	21,995
number	145,926	95,556	68,599	211,567	149,513	108,916	265,191
Horses and ponies sold ....farms	5,255	3,209	2,224	5,981	3,855	2,441	4,231
number	24,393	15,358	11,431	37,047	27,141	17,835	36,266
Owned ....farms	3,995	2,442	1,657	4,449	2,930	1,872	3,357
number	18,329	12,044	8,305	29,557	21,668	15,145	31,421
Goats, all inventory ....farms	5,192	3,271	2,284	6,110	3,636	1,887	2,146
number	126,369	93,375	65,253	191,085	165,947	128,266	520,589
Goats sold ....farms	2,259	1,368	966	2,819	1,748	948	1,185
number	66,952	46,963	31,111	96,512	81,534	58,019	204,615
POULTRY							
Layers inventory (see text) ....farms	6,198	3,952	2,658	6,595	3,392	1,508	1,357
number	21,029,515	17,055,633	18,600,073	55,915,227	36,399,213	22,472,798	20,814,644
Farms with-							
1 to 399	5,911	3,723	2,486	6,104	3,153	1,409	1,239
400 to 3,199	44	24	15	70	24	13	32
3,200 to 9,999	36	29	12	26	13	5	16
10,000 to 19,999	82	62	55	125	47	14	19
20,000 to 49,999	91	78	57	136	81	25	21
50,000 to 99,999	11	14	10	56	25	13	10
100,000 or more	23	22	23	78	49	29	20
Pullets for laying flock replacement inventory ....farms	990	573	447	1,074	471	241	212
number	5,649,596	5,430,132	4,536,277	17,950,318	9,982,558	7,113,628	5,363,407
Layers sold ....farms	936	665	408	1,095	519	218	179
number	16,699,638	10,221,905	11,299,763	28,826,391	17,136,134	10,330,288	8,678,630
Pullets for laying flock replacement sold (see text) ....farms	178	123	92	273	127	63	37
number	12,509,562	5,895,559	5,263,154	24,592,682	13,327,239	10,044,289	4,420,828

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
POULTRY - Con.						
Broilers and other meat-type chickens sold ..... farms	27,091	3,147	8,367	2,266	2,710	2,485
..... number	8,914,828,122	346,371,313	2,061,562,585	796,995,617	975,085,489	847,203,152
Farms with-						
1 to 1,999	9,743	2,128	3,582	672	839	747
2,000 to 59,999	618	61	172	82	86	63
60,000 to 99,999	623	108	246	38	69	37
100,000 or more	16,107	850	4,367	1,474	1,716	1,638
Turkeys inventory (see text) ..... farms	17,226	3,679	6,716	1,092	1,282	1,019
..... number	107,173,804	4,243,943	18,605,053	4,711,574	8,152,656	7,936,219
Turkeys sold (see text) ..... farms	8,284	1,493	2,896	525	632	552
..... number	295,793,159	10,894,043	53,983,168	14,796,635	25,957,221	22,540,694
CROPS HARVESTED						
Barley for grain ..... farms	19,848	45	597	350	654	841
..... acres	3,521,957	137	6,119	4,650	11,536	16,671
..... bushels	207,089,232	8,247	385,624	302,140	776,008	1,120,779
Irrigated ..... farms	4,241	18	212	63	162	178
..... acres	741,475	61	3,013	1,571	4,788	6,002
Farms by acres harvested:						
1 to 24 acres	5,742	45	545	298	516	642
25 to 99 acres	5,405	-	52	52	138	180
100 to 249 acres	4,469	-	-	-	-	19
250 to 499 acres	2,552	-	-	-	-	-
500 acres or more	1,680	-	-	-	-	-
Corn for grain ..... farms	347,760	3,020	25,312	11,839	22,261	24,062
..... acres	86,248,542	13,103	369,854	276,092	703,183	1,001,764
..... bushels	12,738,519,330	1,588,348	43,792,419	33,430,287	91,715,156	130,049,768
Irrigated ..... farms	38,911	139	811	331	717	827
..... acres	13,156,769	411	10,558	8,921	26,461	42,109
Farms by acres harvested:						
1 to 24 acres	68,008	3,020	20,877	7,038	9,915	8,169
25 to 99 acres	101,672	-	4,435	4,801	12,346	14,193
100 to 249 acres	78,166	-	-	-	-	1,700
250 to 499 acres	50,807	-	-	-	-	-
500 acres or more	49,107	-	-	-	-	-
Corn for silage or greenchop ..... farms	84,317	173	2,749	2,408	4,795	6,165
..... acres	5,979,661	604	30,592	37,329	86,294	137,065
..... tons	104,224,795	10,163	508,409	652,340	1,467,974	2,252,855
Irrigated ..... farms	9,664	52	439	168	335	413
..... acres	1,497,288	208	7,616	5,275	12,986	19,933
Farms by acres harvested:						
1 to 24 acres	34,207	173	2,516	1,988	3,678	4,186
25 to 99 acres	34,878	-	233	420	1,117	1,885
100 to 249 acres	10,855	-	-	-	-	94
250 to 499 acres	2,859	-	-	-	-	-
500 acres or more	1,518	-	-	-	-	-
Cotton, all ..... farms	18,605	72	533	259	373	482
..... acres	10,493,238	355	10,075	9,076	18,715	30,521
..... bales	18,898,128	586	15,531	13,491	29,709	47,192
Irrigated ..... farms	8,776	27	121	45	102	152
..... acres	4,035,610	120	2,278	1,447	4,851	9,596
Farms by acres harvested:						
1 to 24 acres	961	72	384	82	72	48
25 to 99 acres	3,043	-	149	177	301	330
100 to 249 acres	3,886	-	-	-	-	104
250 to 499 acres	3,738	-	-	-	-	-
500 acres or more	6,977	-	-	-	-	-
Dry edible beans, excluding limas ..... farms	6,236	123	197	83	139	148
..... acres	1,455,549	164	1,606	1,600	3,608	5,097
..... cwt	25,353,900	1,620	30,111	32,952	78,618	92,987
Irrigated ..... farms	2,456	104	118	39	65	62
..... acres	353,503	127	781	821	1,704	2,248
Farms by acres harvested:						
1 to 24 acres	818	123	177	60	81	60
25 to 99 acres	1,709	-	20	23	58	82
100 to 249 acres	1,856	-	-	-	-	6
250 to 499 acres	1,066	-	-	-	-	-
500 acres or more	787	-	-	-	-	-
Oats for grain ..... farms	42,558	161	2,353	1,635	3,162	3,904
..... acres	1,509,149	431	17,528	15,701	33,794	51,229
..... bushels	89,508,669	26,711	984,664	844,219	1,906,906	2,974,954
Irrigated ..... farms	1,620	34	184	39	87	76
..... acres	78,214	105	2,217	688	1,843	2,104
Farms by acres harvested:						
1 to 24 acres	27,044	161	2,283	1,529	2,944	3,519
25 to 99 acres	12,167	-	70	106	218	368
100 to 249 acres	2,643	-	-	-	-	17
250 to 499 acres	552	-	-	-	-	-
500 acres or more	152	-	-	-	-	-
Peanuts for nuts ..... farms	6,182	48	240	117	191	201
..... acres	1,200,564	120	2,300	2,145	5,061	6,573
..... pounds	3,703,138,887	80,846	5,176,371	4,818,190	12,013,663	15,012,787
Irrigated ..... farms	2,381	24	50	14	25	27
..... acres	418,789	71	391	145	616	865

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
POULTRY - Con.							
Broilers and other meat-type chickens sold ....farms	1,484	1,119	858	2,470	1,401	537	247
....number	545,258,057	518,823,115	403,695,276	1,175,158,918	722,558,984	392,114,305	130,001,311
Farms with-							
1 to 1,999	411	256	155	523	263	96	71
2,000 to 59,999	32	21	16	26	22	3	34
60,000 to 99,999	37	26	10	30	13	5	4
100,000 or more	1,004	816	677	1,891	1,103	433	138
Turkeys inventory (see text) ....farms	708	492	326	923	541	237	211
....number	5,822,193	5,164,379	3,911,780	13,626,134	15,100,650	8,674,145	11,225,078
Turkeys sold (see text) ....farms	354	272	202	616	384	181	177
....number	17,457,976	14,761,929	11,817,586	38,248,660	38,409,819	19,706,510	27,218,918
CROPS HARVESTED							
Barley for grain ....farms	850	782	780	2,873	3,092	3,542	5,442
....acres	24,320	20,488	25,350	156,584	325,230	714,749	2,216,123
....bushels	1,552,259	1,393,210	1,776,863	10,976,585	22,581,538	44,886,145	121,329,834
Irrigated ....farms	180	156	163	664	833	697	915
....acres	8,516	7,329	10,058	60,766	123,117	166,825	349,429
Farms by acres harvested:							
1 to 24 acres	564	522	474	1,176	565	239	156
25 to 99 acres	234	229	250	1,241	1,310	897	822
100 to 249 acres	52	31	53	379	931	1,380	1,624
250 to 499 acres	-	-	3	77	252	771	1,449
500 acres or more	-	-	-	-	34	255	1,391
Corn for grain ....farms	24,349	18,026	16,817	65,657	63,445	44,087	28,885
....acres	1,397,464	1,223,759	1,417,193	8,841,431	17,689,772	23,461,950	29,852,977
....bushels	191,539,413	166,700,143	196,203,476	1,263,201,943	2,634,405,762	3,542,473,797	4,443,418,818
Irrigated ....farms	1,303	830	972	5,197	8,687	9,263	9,834
....acres	101,747	59,010	85,829	660,846	1,981,833	3,445,363	6,733,681
Farms by acres harvested:							
1 to 24 acres	5,530	3,327	2,344	5,090	1,825	577	296
25 to 99 acres	15,607	10,511	8,031	19,580	7,476	2,919	1,773
100 to 249 acres	3,212	4,188	6,342	34,317	18,743	6,151	3,513
250 to 499 acres	-	-	100	6,670	29,119	10,803	4,115
500 acres or more	-	-	-	-	6,282	23,637	19,188
Corn for silage or greenchop ....farms	6,179	5,276	4,975	19,673	15,612	9,276	7,036
....acres	173,992	175,192	181,128	996,019	1,312,797	1,198,555	1,650,094
....tons	2,800,620	2,753,557	2,942,028	16,261,361	22,775,153	21,608,139	30,192,196
Irrigated ....farms	419	335	350	1,491	1,818	1,622	2,222
....acres	25,578	23,837	26,941	158,661	271,165	307,799	637,289
Farms by acres harvested:							
1 to 24 acres	3,562	2,688	2,319	6,936	3,908	1,680	573
25 to 99 acres	2,423	2,288	2,358	10,178	7,198	4,063	2,715
100 to 249 acres	194	300	294	2,284	3,488	2,117	2,084
250 to 499 acres	-	-	4	275	862	946	772
500 acres or more	-	-	-	-	156	470	892
Cotton, all ....farms	613	385	377	2,036	3,827	4,906	4,742
....acres	49,396	33,609	40,632	348,421	1,233,066	3,000,041	5,719,331
....bales	80,791	51,994	68,840	604,207	2,151,780	5,301,477	10,532,530
Irrigated ....farms	238	106	153	820	1,771	2,574	2,667
....acres	19,097	7,603	14,102	125,388	460,844	1,149,608	2,240,676
Farms by acres harvested:							
1 to 24 acres	59	51	30	64	45	23	31
25 to 99 acres	346	175	169	538	446	279	133
100 to 249 acres	208	159	169	925	1,206	709	406
250 to 499 acres	-	-	9	509	1,327	1,229	664
500 acres or more	-	-	-	-	803	2,666	3,508
Dry edible beans, excluding limas ....farms	153	158	148	743	1,146	1,354	1,844
....acres	6,687	6,998	8,745	58,517	157,874	307,786	896,867
....cwt	122,438	135,251	170,284	1,153,107	2,923,383	5,190,899	15,422,250
Irrigated ....farms	76	69	64	370	528	401	560
....acres	3,140	2,739	3,706	27,835	63,935	69,020	177,447
Farms by acres harvested:							
1 to 24 acres	35	50	20	87	73	28	24
25 to 99 acres	105	97	111	430	366	252	165
100 to 249 acres	13	11	17	219	572	577	441
250 to 499 acres	-	-	-	7	130	399	530
500 acres or more	-	-	-	-	5	98	684
Oats for grain ....farms	3,514	2,741	2,563	8,775	6,237	3,952	3,561
....acres	56,071	52,884	53,175	239,318	270,337	298,343	420,338
....bushels	3,142,672	3,085,988	3,208,484	14,189,055	16,439,663	17,957,263	24,748,090
Irrigated ....farms	63	62	72	228	232	204	339
....acres	1,399	1,408	2,513	7,577	11,649	16,842	29,869
Farms by acres harvested:							
1 to 24 acres	2,970	2,126	1,884	5,355	2,639	1,103	531
25 to 99 acres	527	578	649	3,156	3,015	1,898	1,582
100 to 249 acres	17	37	29	250	510	747	1,036
250 to 499 acres	-	-	1	14	66	160	311
500 acres or more	-	-	-	-	7	44	101
Peanuts for nuts ....farms	222	210	227	907	1,440	1,340	1,039
....acres	9,726	12,803	13,133	76,957	222,284	328,818	520,644
....pounds	24,505,468	29,602,063	42,626,880	223,894,219	665,966,660	1,024,520,727	1,654,921,013
Irrigated ....farms	54	30	76	297	580	624	580
....acres	1,860	1,289	4,511	23,635	67,751	110,524	207,131

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
CROPS HARVESTED - Con.						
Peanuts for nuts - Con.						
Farms by acres harvested:						
1 to 24 acres	915	48	220	82	115	101
25 to 99 acres	1,909	-	20	35	76	94
100 to 249 acres	1,886	-	-	-	-	6
250 to 499 acres	920	-	-	-	-	-
500 acres or more	552	-	-	-	-	-
Rice ... farms	6,084	10	108	87	100	125
acres	2,758,792	49	2,754	3,976	4,921	10,028
cwt	198,538,690	3,173	200,865	282,750	349,144	660,797
Irrigated ... farms	6,084	10	108	87	100	125
acres	2,758,792	49	2,754	3,976	4,921	10,028
Farms by acres harvested:						
1 to 24 acres	132	10	49	10	18	6
25 to 99 acres	915	-	59	77	82	69
100 to 249 acres	1,459	-	-	-	-	50
250 to 499 acres	1,616	-	-	-	-	-
500 acres or more	1,962	-	-	-	-	-
Sorghum for grain ... farms	26,242	59	433	243	439	537
acres	6,769,834	256	7,784	7,133	15,581	21,063
bushels	482,452,865	14,923	383,383	411,725	927,481	1,310,202
Irrigated ... farms	4,483	16	67	18	54	55
acres	845,214	57	1,447	810	2,395	2,763
Farms by acres harvested:						
1 to 24 acres	2,609	59	308	113	174	182
25 to 99 acres	8,335	-	125	130	265	317
100 to 249 acres	7,302	-	-	-	-	38
250 to 499 acres	4,377	-	-	-	-	-
500 acres or more	3,619	-	-	-	-	-
Soybeans for beans ... farms	279,110	1,909	17,555	7,976	15,229	17,006
acres	63,915,821	9,234	300,424	223,770	544,412	768,337
bushels	2,582,423,697	353,767	10,575,202	7,957,726	20,494,546	29,062,166
Irrigated ... farms	20,333	27	241	145	321	398
acres	5,237,075	101	4,221	3,270	11,167	18,327
Farms by acres harvested:						
1 to 24 acres	38,458	1,909	13,689	3,689	4,710	3,855
25 to 99 acres	90,935	-	3,866	4,287	10,519	12,207
100 to 249 acres	70,698	-	-	-	-	944
250 to 499 acres	44,381	-	-	-	-	-
500 acres or more	34,638	-	-	-	-	-
Sugarbeets for sugar ... farms	4,022	5	52	21	52	67
acres	1,253,817	21	1,156	868	2,008	3,273
tons	31,937,325	520	31,345	22,437	51,805	83,419
Irrigated ... farms	1,595	3	20	8	20	32
acres	394,675	(D)	405	(D)	526	1,346
Sugarcane for sugar ... farms	692	15	50	11	24	14
acres	846,666	22	899	405	1,032	1,087
tons	31,127,405	535	29,034	14,258	35,494	37,169
Irrigated ... farms	219	11	11	3	6	5
acres	435,205	14	108	137	301	455
Sunflower seed, all ... farms	6,403	7	88	30	36	48
acres	2,000,153	8	469	239	1,010	1,094
pounds	2,820,962,445	4,588	309,919	140,524	912,758	1,222,682
Irrigated ... farms	608	2	16	3	5	3
acres	102,219	(D)	51	(D)	68	34
Farms by acres harvested:						
1 to 24 acres	502	7	85	27	22	35
25 to 99 acres	1,153	-	3	3	14	9
100 to 249 acres	2,110	-	-	-	-	4
250 to 499 acres	1,494	-	-	-	-	-
500 acres or more	1,144	-	-	-	-	-
Tobacco ... farms	16,234	908	2,367	1,211	1,677	1,653
acres	359,846	2,673	13,787	8,637	12,918	16,538
pounds	778,301,825	5,588,546	28,279,475	17,356,621	26,777,885	33,091,622
Irrigated ... farms	2,572	66	252	130	162	209
acres	71,578	193	1,865	1,426	1,715	3,059
Farms by acres harvested:						
0.1 to 0.9 acres	235	36	85	24	22	17
1.0 to 1.9 acres	1,493	235	442	134	168	164
2.0 to 2.9 acres	1,827	215	408	170	255	233
3.0 to 4.9 acres	2,772	242	519	275	371	329
5.0 to 9.9 acres	3,459	180	443	349	514	454
10.0 to 24.9 acres	3,129	-	397	204	259	309
25.0 acres or more	3,319	-	73	55	88	147
Wheat for grain, all ... farms	160,810	363	4,997	2,859	5,592	6,263
acres	50,932,969	1,651	75,159	62,964	156,242	209,213
bushels	1,993,648,378	74,855	3,141,566	2,737,871	6,362,308	8,810,969
Irrigated ... farms	15,213	41	310	159	280	336
acres	3,364,079	179	4,916	4,494	9,522	13,971
Farms by acres harvested:						
1 to 24 acres	26,703	363	4,068	1,855	3,121	3,125
25 to 99 acres	49,409	-	929	1,004	2,471	2,752
100 to 249 acres	34,703	-	-	-	-	386
250 to 499 acres	21,167	-	-	-	-	-
500 acres or more	28,828	-	-	-	-	-

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
CROPS HARVESTED - Con.							
Peanuts for nuts - Con.							
Farms by acres harvested:							
1 to 24 acres	70	34	68	94	50	19	14
25 to 99 acres	129	136	121	530	458	210	100
100 to 249 acres	23	40	38	252	698	573	256
250 to 499 acres	-	-	-	31	198	417	274
500 acres or more	-	-	-	-	36	121	395
Rice ....farms	168	165	159	844	1,300	1,516	1,502
acres	16,857	20,114	26,005	188,050	422,331	721,421	1,342,286
cwt	1,175,019	1,504,337	1,935,312	13,968,773	31,264,784	51,314,899	95,878,837
Irrigated ....farms	168	165	159	844	1,300	1,516	1,502
acres	16,857	20,114	26,005	188,050	422,331	721,421	1,342,286
Farms by acres harvested:							
1 to 24 acres	2	1	1	8	18	6	3
25 to 99 acres	85	72	36	159	119	99	58
100 to 249 acres	81	92	106	288	401	276	165
250 to 499 acres	-	-	16	389	472	473	266
500 acres or more	-	-	-	-	290	662	1,010
Sorghum for grain ....farms	864	548	650	3,425	5,227	6,308	7,509
acres	42,029	31,931	40,524	293,730	753,682	1,637,870	3,918,251
bushels	2,648,522	1,995,267	2,596,339	19,670,278	53,771,428	117,479,674	281,243,643
Irrigated ....farms	99	68	76	411	796	1,210	1,613
acres	4,955	4,267	5,532	34,793	104,383	233,726	450,086
Farms by acres harvested:							
1 to 24 acres	244	114	155	500	392	220	148
25 to 99 acres	531	347	381	1,918	2,019	1,439	863
100 to 249 acres	89	87	112	842	1,985	2,259	1,890
250 to 499 acres	-	-	2	165	675	1,526	2,009
500 acres or more	-	-	-	-	156	864	2,599
Soybeans for beans ....farms	18,464	14,041	13,176	54,850	56,578	40,041	22,285
acres	1,075,594	973,676	1,076,303	6,716,021	13,545,417	18,169,172	20,513,461
bushels	42,588,543	38,319,746	43,270,043	272,167,260	561,044,928	746,923,390	809,666,380
Irrigated ....farms	566	400	472	2,670	4,959	5,542	4,592
acres	33,366	22,234	32,686	243,304	799,137	1,528,626	2,540,636
Farms by acres harvested:							
1 to 24 acres	2,864	1,803	1,297	3,066	1,112	320	144
25 to 99 acres	13,864	9,298	7,216	18,729	7,604	2,431	914
100 to 249 acres	1,736	2,940	4,614	30,517	21,447	6,198	2,302
250 to 499 acres	-	-	49	2,538	24,731	13,771	3,292
500 acres or more	-	-	-	-	1,684	17,321	15,633
Sugarbeets for sugar ....farms	77	68	80	449	813	1,104	1,234
acres	4,612	4,796	5,596	42,879	131,981	314,476	742,151
tons	124,472	117,665	141,496	1,107,546	3,464,485	8,007,442	18,784,693
Irrigated ....farms	37	27	48	237	383	364	416
acres	2,270	1,667	2,936	21,906	63,001	95,846	204,414
Sugarcane for sugar ....farms	15	12	11	32	116	181	211
acres	1,101	1,083	1,930	7,517	49,727	135,164	646,699
tons	45,239	38,027	75,506	244,315	1,724,075	4,706,342	24,177,411
Irrigated ....farms	5	7	11	13	28	37	82
acres	509	594	1,930	3,019	8,443	18,802	400,893
Sunflower seed, all ....farms	82	49	60	394	781	1,662	3,166
acres	3,963	2,373	3,064	30,253	103,069	347,845	1,506,766
pounds	4,892,784	2,704,068	2,297,109	41,255,689	143,984,735	494,290,116	2,128,947,473
Irrigated ....farms	8	6	2	47	78	156	282
acres	464	216	(D)	3,137	8,295	22,018	67,897
Farms by acres harvested:							
1 to 24 acres	29	17	22	80	72	63	43
25 to 99 acres	42	26	29	195	276	308	248
100 to 249 acres	11	6	7	111	340	769	862
250 to 499 acres	-	-	2	8	85	441	958
500 acres or more	-	-	-	-	8	81	1,055
Tobacco ....farms	1,183	1,009	716	2,290	1,726	1,029	465
acres	13,456	13,845	11,496	47,413	74,380	76,416	68,288
pounds	26,281,575	26,925,555	23,160,171	100,257,059	162,220,630	172,368,025	155,994,661
Irrigated ....farms	167	154	134	447	398	296	157
acres	2,116	2,601	2,398	9,966	15,398	16,456	14,385
Farms by acres harvested:							
0.1 to 0.9 acres	13	10	7	11	5	4	1
1.0 to 1.9 acres	109	75	41	85	28	10	2
2.0 to 2.9 acres	137	110	59	173	47	15	5
3.0 to 4.9 acres	264	186	117	321	113	30	5
5.0 to 9.9 acres	292	266	189	477	215	60	20
10.0 to 24.9 acres	237	220	169	665	438	189	42
25.0 acres or more	131	142	134	558	880	721	390
Wheat for grain, all ....farms	7,955	5,332	5,295	25,260	30,977	31,271	34,646
acres	394,532	253,561	313,590	2,184,464	4,945,624	10,121,393	32,214,576
bushels	15,002,562	10,808,209	12,437,316	87,451,447	195,838,804	397,313,972	1,253,668,499
Irrigated ....farms	423	321	317	1,754	2,850	3,373	5,049
acres	23,757	17,144	20,802	156,821	391,594	698,552	2,022,327
Farms by acres harvested:							
1 to 24 acres	2,689	1,888	1,475	4,445	2,465	889	320
25 to 99 acres	4,235	2,857	2,855	12,883	11,241	5,720	2,462
100 to 249 acres	1,031	587	953	6,528	10,677	9,445	5,096
250 to 499 acres	-	-	12	1,404	5,326	8,120	6,305
500 acres or more	-	-	-	-	1,268	7,097	20,463

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
CROPS HARVESTED - Con.						
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ..... farms	869,534	20,507	193,682	66,075	87,916	84,253
acres	61,455,483	87,369	2,685,322	1,545,208	2,581,742	3,175,736
tons, dry	155,393,762	215,907	5,348,515	3,071,080	5,183,222	6,512,489
Irrigated ..... farms	86,007	5,804	19,976	4,135	5,364	4,467
acres	10,264,753	24,257	273,812	108,538	189,743	198,242
Farms by acres harvested:						
1 to 24 acres	367,533	20,507	167,936	39,400	41,881	29,734
25 to 99 acres	345,273	-	25,746	26,675	46,035	50,813
100 to 249 acres	111,368	-	-	-	-	3,706
250 to 499 acres	30,370	-	-	-	-	-
500 acres or more	14,990	-	-	-	-	-
Alfalfa hay ..... farms	290,726	8,852	51,700	15,518	23,050	22,015
acres	20,244,497	36,746	619,461	308,449	562,844	663,626
tons, dry	65,349,074	96,324	1,535,002	797,659	1,472,589	1,760,492
Irrigated ..... farms	56,390	3,754	11,922	2,390	3,250	2,772
acres	6,556,652	16,037	168,208	65,867	120,298	126,729
Other tame hay ..... farms	496,740	8,519	109,600	40,990	53,912	53,822
acres	26,763,972	36,527	1,508,572	925,780	1,512,507	1,915,718
tons, dry	54,347,673	92,685	2,895,470	1,735,350	2,804,206	3,577,141
Irrigated ..... farms	24,348	1,479	6,072	1,321	1,716	1,406
acres	1,699,864	5,938	69,619	26,253	45,192	42,014
Field and grass seed crops, all ..... farms	6,038	120	581	209	338	313
acres	1,178,726	497	8,612	5,418	11,523	12,143
Irrigated ..... farms	1,457	42	128	35	60	63
acres	323,441	152	1,865	918	2,167	2,396
Land in vegetables (see text) ..... farms	69,172	15,372	21,217	4,518	4,687	3,898
acres	4,356,880	26,160	95,526	37,317	49,406	58,535
Irrigated ..... farms	29,885	7,622	8,450	1,621	1,665	1,354
acres	3,068,485	11,637	37,744	14,917	20,771	26,801
Farms by acres harvested:						
0.1 to 4.9 acres	41,453	14,120	14,989	2,788	2,798	2,076
5.0 to 24.9 acres	13,869	1,252	5,714	1,270	1,237	1,092
25.0 to 99.9 acres	6,671	-	514	460	652	602
100.0 to 249.9 acres	3,473	-	-	-	-	128
250.0 acres or more	3,706	-	-	-	-	-
Snap beans ..... farms	17,300	4,036	6,149	1,271	1,253	1,029
acres	303,997	1,362	4,534	1,754	1,959	3,071
Harvested for processing ..... farms	1,999	157	352	61	72	79
acres	198,101	53	639	310	578	899
Peas, green ..... farms	4,532	676	925	209	220	187
acres	214,057	256	1,052	820	1,003	1,916
Harvested for processing ..... farms	2,047	21	53	24	24	51
acres	206,092	12	372	488	667	1,661
Potatoes ..... farms	15,014	2,820	4,823	1,055	1,161	935
acres	1,131,963	1,326	4,671	2,181	2,765	4,835
Harvested for processing ..... farms	1,739	107	227	68	50	59
acres	599,604	96	429	416	507	1,222
Farms by acres harvested:						
0.1 to 4.9 acres	12,013	2,786	4,675	987	1,075	816
5.0 to 24.9 acres	612	34	125	46	59	69
25.0 to 99.9 acres	539	-	23	22	27	35
100.0 to 249.9 acres	714	-	-	-	-	15
250.0 acres or more	1,136	-	-	-	-	-
Sweet corn ..... farms	28,241	6,132	8,624	1,963	2,174	1,793
acres	622,946	6,409	23,229	8,990	14,262	16,292
Harvested for processing ..... farms	3,670	238	526	132	163	176
acres	361,886	130	1,165	807	2,971	4,203
Sweet potatoes ..... farms	1,910	315	574	134	145	114
acres	105,284	262	1,982	863	1,230	1,573
Harvested for processing ..... farms	259	18	38	15	9	10
acres	21,360	7	266	120	265	155
Tomatoes in the open ..... farms	25,809	6,459	9,633	1,927	1,914	1,541
acres	442,225	3,044	8,417	2,751	3,468	3,385
Harvested for processing ..... farms	1,761	306	470	83	96	79
acres	319,549	157	864	98	528	247
Land in orchards ..... farms	115,935	32,604	42,267	6,960	7,049	5,640
acres	5,039,476	84,262	468,203	158,622	213,627	226,058
Irrigated ..... farms	61,189	18,987	22,708	3,292	3,182	2,548
acres	3,981,316	49,842	307,202	107,017	143,782	159,122
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres	52,775	26,778	15,766	2,314	2,216	1,713
5.0 to 24.9 acres	37,043	5,826	21,146	1,894	1,813	1,377
25.0 to 99.9 acres	17,119	-	5,355	2,752	3,020	1,468
100.0 to 249.9 acres	5,434	-	-	-	-	1,082
250.0 acres or more	3,564	-	-	-	-	-
Apples ..... farms	25,591	5,696	9,936	1,958	2,065	1,639
bearing and nonbearing acres	398,770	7,136	38,470	16,867	23,191	25,911
Grapes ..... farms	25,892	5,590	10,575	1,904	1,881	1,372
bearing and nonbearing acres	1,051,407	11,229	100,330	35,867	50,856	47,858
Peaches, all ..... farms	13,582	2,676	5,169	999	1,077	925
bearing and nonbearing acres	149,237	2,358	12,538	4,666	6,876	7,178

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
CROPS HARVESTED - Con.							
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ....farms	64,864	45,622	36,060	111,679	74,295	43,732	40,849
acres	3,060,248	2,544,110	2,329,612	9,563,725	9,537,187	8,229,216	16,116,008
tons, dry	6,598,810	5,586,106	5,292,470	23,478,551	26,257,933	23,808,111	44,040,567
Irrigated ....farms	4,112	2,694	2,313	8,895	8,762	7,340	12,145
acres	246,869	177,325	177,210	937,682	1,412,956	1,674,377	4,843,742
Farms by acres harvested:							
1 to 24 acres	17,810	10,350	6,956	17,287	9,550	4,295	1,827
25 to 99 acres	40,738	28,404	21,377	55,889	27,921	13,696	7,979
100 to 249 acres	6,316	6,868	7,617	34,157	26,581	14,468	11,655
250 to 499 acres	-	-	110	4,346	8,669	7,821	9,424
500 acres or more	-	-	-	-	1,574	3,452	9,964
Alfalfa hay ....farms	19,248	13,965	11,896	42,249	34,077	23,529	24,627
acres	716,227	589,961	562,311	2,575,263	3,085,536	3,211,494	7,312,579
tons, dry	2,004,824	1,653,958	1,635,206	8,018,015	10,661,684	11,493,336	24,219,985
Irrigated ....farms	2,618	1,668	1,530	5,985	6,262	5,335	8,904
acres	162,056	114,065	116,011	623,516	961,212	1,135,156	2,947,497
Other tame hay ....farms	39,496	28,229	21,869	64,100	38,357	20,196	17,650
acres	1,728,647	1,447,800	1,289,823	4,865,905	4,215,800	2,983,557	4,333,336
tons, dry	3,268,993	2,769,671	2,479,733	9,692,180	8,942,509	6,509,074	9,580,661
Irrigated ....farms	1,226	846	685	2,477	2,198	1,835	3,087
acres	46,269	34,956	36,658	156,181	212,668	250,122	773,994
Field and grass seed crops, all ....farms	345	270	203	958	1,088	850	763
acres	17,924	15,664	13,906	96,145	199,530	289,888	507,476
Irrigated ....farms	50	44	51	199	303	239	243
acres	2,626	2,738	3,679	23,485	56,609	76,212	150,594
Land in vegetables (see text) ....farms	2,565	1,700	1,300	4,411	4,093	2,948	2,463
acres	51,991	51,625	52,486	282,320	602,560	886,553	2,162,400
Irrigated ....farms	920	635	491	1,846	2,036	1,639	1,606
acres	24,532	26,038	26,943	156,135	395,294	619,795	1,707,878
Farms by acres harvested:							
0.1 to 4.9 acres	1,245	758	495	1,232	574	254	124
5.0 to 24.9 acres	718	401	300	901	565	255	164
25.0 to 99.9 acres	451	375	318	1,291	1,143	572	293
100.0 to 249.9 acres	151	166	166	692	1,024	708	438
250.0 acres or more	-	-	21	295	787	1,159	1,444
Snap beans ....farms	591	369	278	832	648	478	366
acres	2,516	3,374	3,800	22,109	49,608	74,723	135,188
Harvested for processing ....farms	63	56	49	222	334	314	240
acres	1,413	1,944	2,259	12,808	34,577	49,445	93,177
Peas, green ....farms	134	113	108	496	612	470	382
acres	1,918	2,310	2,760	16,899	39,582	48,721	96,819
Harvested for processing ....farms	57	59	68	376	527	436	351
acres	1,637	2,164	2,664	16,363	38,133	47,119	94,813
Potatoes ....farms	597	327	276	818	758	676	768
acres	5,464	3,952	5,335	46,381	126,626	225,485	702,943
Harvested for processing ....farms	56	21	30	139	261	302	419
acres	1,897	1,400	2,180	15,584	61,090	102,183	412,601
Farms by acres harvested:							
0.1 to 4.9 acres	496	256	191	426	174	66	65
5.0 to 24.9 acres	42	33	41	70	57	17	19
25.0 to 99.9 acres	40	26	25	115	114	75	37
100.0 to 249.9 acres	19	12	13	159	226	171	99
250.0 acres or more	-	-	6	48	187	347	548
Sweet corn ....farms	1,191	740	589	1,952	1,521	923	639
acres	14,100	12,207	11,636	58,004	91,224	128,656	237,938
Harvested for processing ....farms	141	129	135	557	657	488	328
acres	5,342	4,910	5,835	32,598	63,506	86,386	154,033
Sweet potatoes ....farms	72	41	56	150	159	88	62
acres	1,302	1,836	2,351	10,253	26,636	25,344	31,653
Harvested for processing ....farms	13	6	8	28	51	36	27
acres	760	345	497	1,853	4,993	5,809	6,291
Tomatoes in the open ....farms	886	548	372	1,079	677	419	354
acres	2,832	2,940	2,587	21,391	68,545	84,942	237,924
Harvested for processing ....farms	26	30	26	99	192	180	174
acres	597	527	511	9,584	51,654	64,818	189,965
Land in orchards ....farms	3,983	2,583	1,962	5,586	3,560	2,084	1,657
acres	212,737	173,881	160,707	620,536	677,615	596,011	1,447,219
Irrigated ....farms	1,802	1,176	893	2,656	1,815	1,123	1,007
acres	155,653	125,782	119,967	479,062	537,618	505,853	1,290,416
Farms by bearing and nonbearing acres:							
0.1 to 4.9 acres	1,096	594	419	1,029	457	241	152
5.0 to 24.9 acres	970	644	471	1,358	859	433	252
25.0 to 99.9 acres	844	550	402	1,158	756	482	332
100.0 to 249.9 acres	1,073	795	620	836	457	306	265
250.0 acres or more	-	-	50	1,205	1,031	622	656
Apples ....farms	1,037	633	448	1,098	620	275	186
bearing and nonbearing acres	23,245	20,422	17,253	58,480	65,292	41,143	61,360
Grapes ....farms	955	618	431	1,169	702	389	306
bearing and nonbearing acres	52,648	40,357	34,854	130,875	142,512	133,555	270,467
Peaches, all ....farms	573	353	262	773	437	187	151
bearing and nonbearing acres	6,376	7,881	6,861	21,483	21,151	17,578	34,292

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres
CROPS HARVESTED - Con.						
Land in orchards - Con.						
Citrus fruit, all ..... farms	15,658	5,740	5,929	756	612	536
bearing and nonbearing acres	1,005,806	14,480	83,835	27,334	30,856	37,130
Almonds ..... farms	6,700	878	2,603	354	420	316
bearing and nonbearing acres	790,245	3,061	48,682	14,869	24,259	24,727
Pecans ..... farms	21,856	3,633	6,764	1,331	1,528	1,429
bearing and nonbearing acres	581,809	10,133	52,432	16,783	23,197	29,631
Walnuts, English ..... farms	7,161	1,991	2,611	444	367	309
bearing and nonbearing acres	267,751	5,369	30,292	10,674	13,764	13,716
Land in berries (see text) ..... farms	25,017	5,193	9,879	1,942	2,042	1,652
acres	261,733	5,721	32,257	11,579	14,742	17,206

See footnote(s) at end of table.

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Table 58. **Summary by Size of Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 or more acres
CROPS HARVESTED - Con.							
Land in orchards - Con.							
Citrus fruit, all .....farms	343	231	183	520	307	221	280
bearing and nonbearing acres	31,040	24,016	23,290	88,303	79,859	108,516	457,149
Almonds .....farms	256	187	161	530	482	278	235
bearing and nonbearing acres	24,895	23,262	23,632	97,932	140,631	99,838	264,457
Pecans .....farms	1,115	741	622	1,988	1,269	809	627
bearing and nonbearing acres	24,252	20,706	18,698	80,248	88,869	79,211	137,649
Walnuts, English .....farms	227	164	134	376	251	169	118
bearing and nonbearing acres	13,287	10,261	10,489	41,546	36,237	36,354	45,765
Land in berries (see text) .....farms	996	608	453	1,117	635	306	194
acres	12,835	11,128	11,638	38,163	37,273	26,228	42,965

[1] Landlord production expenses are included with total farm production expenses.
[2] Farms with a zero net cash income are included as farms with net gains of less than $1,000.

Table 59. **Summary by Market Value of Agricultural Products Sold: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
FARMS AND LAND IN FARMS						
Farms ..... number	2,204,792	55,509	60,777	93,373	147,500	125,456
percent	100.0	2.5	2.8	4.2	6.7	5.7
Land in farms ..... acres	922,095,840	143,960,530	119,419,781	140,739,342	147,572,303	78,154,582
Average size of farm ..... acres	418	2,593	1,965	1,507	1,000	623
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS						
Total ..... farms	2,204,792	55,509	60,777	93,373	147,500	125,456
$1,000	305,204,413	177,385,675	44,029,662	34,776,956	25,383,985	9,455,072
Average per farm ..... dollars	138,428	3,195,620	724,446	372,452	172,095	75,366
Farms by economic class:						
Less than $1,000 (see text)	499,880	-	-	-	-	-
$1,000 to $2,499	270,712	-	-	-	-	-
$2,500 to $4,999	246,309	-	-	-	-	-
$5,000 to $9,999	254,834	-	-	-	-	-
$10,000 to $24,999	274,274	-	-	-	-	-
$25,000 to $49,999	163,500	-	-	-	-	-
$50,000 to $99,999	129,124	-	-	-	-	116,901
$100,000 to $249,999	149,049	-	-	-	140,069	8,550
$250,000 to $499,999	96,251	-	-	88,808	7,426	5
$500,000 to $999,999	63,567	-	58,997	4,563	5	-
$1,000,000 or more	57,292	55,509	1,780	2	-	-
$1,000,000 to $2,499,999	41,863	40,080	1,780	2	-	-
$2,500,000 to $4,999,999	9,845	9,845	-	-	-	-
$5,000,000 or more	5,584	5,584	-	-	-	-
Total sales ..... farms	2,204,792	55,509	60,777	93,373	147,500	125,456
$1,000	297,220,491	175,799,795	42,690,783	33,409,883	24,212,940	8,961,255
Grains, oilseeds, dry beans, and dry peas ..... farms	479,467	29,995	41,363	66,333	94,078	66,235
$1,000	77,215,262	24,729,729	18,961,617	16,541,895	11,057,167	3,509,113
Sales of $50,000 or more ..... farms	235,343	26,128	36,831	56,655	74,079	41,650
$1,000	73,535,966	24,652,345	18,872,909	16,359,898	10,702,705	2,948,110
Corn ..... farms	347,540	24,804	33,761	53,557	73,840	49,763
$1,000	39,909,600	13,722,922	9,650,149	8,302,204	5,448,046	1,684,307
Sales of $50,000 or more ..... farms	151,428	20,906	28,543	42,501	48,440	11,038
$1,000	36,859,125	13,641,772	9,539,909	8,077,802	4,897,698	701,944
Wheat ..... farms	159,527	13,719	19,024	27,894	35,130	22,061
$1,000	10,623,640	3,206,750	2,649,526	2,318,485	1,585,370	500,003
Sales of $50,000 or more ..... farms	47,250	8,966	11,071	13,072	11,010	3,131
$1,000	8,944,760	3,103,123	2,479,511	2,014,914	1,138,198	209,013
Soybeans ..... farms	285,089	19,208	28,887	46,026	62,497	42,709
$1,000	20,283,986	5,415,418	4,962,990	4,633,498	3,305,478	1,135,701
Sales of $50,000 or more ..... farms	109,269	15,886	24,011	34,973	30,875	3,524
$1,000	17,191,360	5,337,850	4,842,481	4,357,083	2,433,528	220,417
Sorghum ..... farms	27,142	2,680	3,633	5,029	6,310	3,808
$1,000	1,651,798	482,898	406,856	370,001	263,309	81,322
Sales of $50,000 or more ..... farms	8,972	1,787	2,267	2,644	1,958	316
$1,000	1,348,798	464,520	376,059	317,502	170,361	20,356
Barley ..... farms	18,326	1,683	2,605	3,933	4,475	2,113
$1,000	701,047	216,244	177,219	163,550	101,781	24,672
Sales of $50,000 or more ..... farms	3,973	917	1,206	1,188	577	85
$1,000	526,415	203,684	152,148	117,193	47,870	5,520
Rice ..... farms	6,085	1,175	1,435	1,477	1,087	457
$1,000	2,020,231	939,809	560,715	349,084	135,112	25,402
Sales of $50,000 or more ..... farms	5,184	1,144	1,395	1,418	951	276
$1,000	1,995,322	938,920	559,471	347,064	130,603	19,265
Other grains, oilseeds, dry beans, and dry peas ..... farms	55,228	4,193	5,943	8,826	11,424	6,966
$1,000	2,024,959	745,688	554,162	405,074	218,070	57,707
Sales of $50,000 or more ..... farms	10,062	2,362	3,012	3,059	1,460	169
$1,000	1,698,514	721,351	516,025	334,736	115,974	10,428
Tobacco ..... farms	16,228	679	823	1,278	2,818	2,351
$1,000	1,268,114	391,876	253,660	220,181	201,442	96,150
Sales of $50,000 or more ..... farms	4,495	586	695	1,011	1,416	787
$1,000	1,076,035	389,616	250,634	213,834	169,257	52,693
Cotton and cottonseed ..... farms	18,591	3,154	3,577	3,704	3,736	1,578
$1,000	4,898,608	2,357,881	1,305,848	746,618	373,073	70,971
Sales of $50,000 or more ..... farms	13,232	2,982	3,370	3,333	2,852	695
$1,000	4,784,510	2,352,866	1,300,461	736,484	347,522	47,177
Vegetables, melons, potatoes, and sweet potatoes ..... farms	69,100	4,908	3,160	3,760	5,591	5,542
$1,000	14,683,058	12,324,415	925,450	524,052	364,176	197,222
Sales of $50,000 or more ..... farms	13,824	4,379	2,391	2,386	2,697	1,971
$1,000	14,167,307	12,313,584	909,617	498,158	314,860	131,089
Fruits, tree nuts, and berries ..... farms	112,690	4,711	3,555	5,385	10,416	11,202
$1,000	18,625,459	12,460,332	1,923,528	1,482,742	1,283,549	631,941
Sales of $50,000 or more ..... farms	28,824	4,236	3,116	4,609	8,433	8,430
$1,000	17,681,378	12,451,336	1,916,816	1,471,149	1,255,700	586,377
Nursery, greenhouse, floriculture, and sod (see text) ..... farms	50,784	3,330	2,381	3,192	6,531	5,161
$1,000	16,632,734	12,997,739	1,347,208	875,024	795,561	277,829
Sales of $50,000 or more ..... farms	17,039	3,145	2,155	2,771	5,355	3,613
$1,000	16,227,627	12,994,752	1,343,399	867,592	775,325	246,558
Cut Christmas trees and short-rotation woody crops ..... farms	13,374	149	147	245	651	784
$1,000	384,594	157,692	41,475	34,623	52,048	32,069
Sales of $50,000 or more ..... farms	1,088	104	89	126	368	401
$1,000	306,465	156,915	40,726	32,945	48,837	27,043

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
FARMS AND LAND IN FARMS						
Farms ....number	154,732	248,285	218,531	200,302	211,494	688,833
percent	7.0	11.3	9.9	9.1	9.6	31.2
Land in farms ....acres	59,786,339	65,839,387	27,622,945	17,486,373	13,691,539	107,822,719
Average size of farm ....acres	386	265	126	87	65	157
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS						
Total ....farms	154,732	248,285	218,531	200,302	211,494	688,833
$1,000	5,802,447	4,211,240	1,671,563	787,670	403,263	1,296,879
Average per farm ....dollars	37,500	16,961	7,649	3,932	1,907	1,883
Farms by economic class:						
Less than $1,000 (see text)	-	-	-	-	-	499,880
$1,000 to $2,499	-	-	-	-	199,125	71,587
$2,500 to $4,999	-	-	-	187,545	8,259	50,505
$5,000 to $9,999	-	-	204,851	10,210	2,806	36,967
$10,000 to $24,999	-	235,593	12,676	2,193	1,067	22,745
$25,000 to $49,999	144,398	12,033	843	301	198	5,727
$50,000 to $99,999	10,139	626	152	45	35	1,226
$100,000 to $249,999	191	33	8	7	4	187
$250,000 to $499,999	3	-	1	1	-	7
$500,000 to $999,999	1	-	-	-	-	1
$1,000,000 or more	-	-	-	-	-	1
$1,000,000 to $2,499,999	-	-	-	-	-	1
$2,500,000 to $4,999,999	-	-	-	-	-	-
$5,000,000 or more	-	-	-	-	-	-
Total sales ....farms	154,732	248,285	218,531	200,302	211,494	688,833
$1,000	5,480,497	3,959,823	1,552,543	718,027	350,588	84,357
Grains, oilseeds, dry beans, and dry peas ....farms	58,128	54,236	30,772	19,346	12,448	6,533
$1,000	1,527,458	645,369	167,067	55,235	17,588	3,025
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Corn ....farms	40,685	33,520	17,437	10,247	6,137	3,789
$1,000	713,136	282,186	73,180	24,606	7,348	1,516
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Wheat ....farms	17,342	13,397	5,720	2,867	1,709	664
$1,000	226,485	102,876	24,215	7,335	2,250	345
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Soybeans ....farms	33,601	26,181	12,566	7,233	4,632	1,549
$1,000	512,423	229,055	61,212	20,427	6,914	869
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Sorghum ....farms	2,588	1,774	701	318	185	116
$1,000	31,545	12,215	2,773	640	192	48
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Barley ....farms	1,441	1,101	471	296	129	79
$1,000	11,428	4,375	1,186	456	108	28
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Rice ....farms	270	138	32	11	3	-
$1,000	7,838	2,076	154	38	4	-
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Other grains, oilseeds, dry beans, and dry peas ....farms	5,844	5,387	2,948	1,788	1,128	781
$1,000	24,603	12,584	4,347	1,733	772	219
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Tobacco .... farms	2,676	3,059	1,535	720	238	51
$1,000	58,735	34,266	8,969	2,402	399	34
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Cotton and cottonseed ....farms	1,136	888	433	222	121	42
$1,000	28,912	11,578	2,777	729	196	24
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Vegetables, melons, potatoes, and sweet potatoes ....farms	7,551	12,404	9,822	7,691	5,580	3,091
$1,000	150,397	124,102	46,066	19,295	6,691	1,193
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Fruits, tree nuts, and berries ....farms	15,160	22,297	14,964	12,041	8,211	4,748
$1,000	425,339	282,448	85,591	36,099	11,576	2,314
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Nursery, greenhouse, floriculture, and sod (see text) ....farms	6,377	9,095	5,834	4,457	3,170	1,256
$1,000	173,440	114,114	33,110	13,600	4,465	644
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Cut Christmas trees and short-rotation woody crops ....farms	1,243	2,087	1,908	1,821	1,764	2,575
$1,000	26,231	22,015	10,129	5,038	2,313	962
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.						
Total - Con.						
Total sales - Con.						
Other crops and hay (see text) ..... farms	434,502	11,092	12,390	18,448	30,257	28,643
$1,000	9,950,098	4,164,306	1,461,395	1,124,121	1,039,140	594,228
Sales of $50,000 or more ..... farms	27,831	5,280	4,929	5,771	7,177	4,674
$1,000	7,529,077	4,094,879	1,373,070	977,145	775,207	308,776
Cattle and calves ..... farms	798,290	23,796	25,772	44,421	73,815	64,246
$1,000	61,209,970	38,034,160	5,123,708	5,140,331	4,950,680	2,723,746
Sales of $50,000 or more ..... farms	119,983	17,074	15,072	22,922	34,147	30,768
$1,000	53,786,091	37,896,093	4,889,886	4,686,607	4,238,984	2,074,521
Milk and other dairy products from cows ..... farms	69,763	6,792	6,472	13,448	21,328	7,746
$1,000	31,848,029	21,369,356	3,374,395	3,672,241	2,839,493	418,879
Sales of $50,000 or more ..... farms	50,792	6,715	6,334	13,057	19,717	4,969
$1,000	31,558,210	21,368,148	3,372,499	3,665,716	2,805,528	346,319
Hogs and pigs ..... farms	74,789	7,694	5,994	5,938	6,574	4,394
$1,000	18,056,981	14,221,695	2,320,351	936,846	386,106	91,382
Sales of $50,000 or more ..... farms	19,956	7,158	5,101	4,078	2,876	743
$1,000	17,829,977	14,217,026	2,309,210	911,817	341,396	50,529
Sheep, goats, and their products ..... farms	121,171	911	1,321	2,375	4,946	4,855
$1,000	704,855	186,565	75,763	77,675	101,066	56,635
Sales of $50,000 or more ..... farms	1,825	162	228	357	680	398
$1,000	415,640	182,568	69,497	64,339	72,484	26,753
Horses, ponies, mules, burros, and donkeys ..... farms	114,317	1,158	1,122	1,868	4,303	4,757
$1,000	2,061,862	1,042,139	161,720	117,732	169,929	125,243
Sales of $50,000 or more ..... farms	3,638	290	286	394	1,121	1,547
$1,000	1,559,047	1,036,718	156,934	109,386	153,830	102,179
Poultry and eggs ..... farms	148,911	12,280	7,962	6,261	6,592	5,285
$1,000	37,065,947	29,796,162	5,101,597	1,658,951	360,703	42,066
Sales of $50,000 or more ..... farms	26,267	12,022	7,297	4,515	2,008	425
$1,000	36,932,463	29,795,291	5,100,158	1,655,632	351,853	29,529
Aquaculture (see text) ..... farms	6,409	389	406	591	868	614
$1,000	1,415,271	867,446	200,050	160,132	118,946	35,697
Sales of $50,000 or more ..... farms	2,449	350	345	506	757	491
$1,000	1,376,454	866,839	199,169	158,813	117,451	34,183
Other animals and other animal products (see text) ..... farms	43,226	574	518	858	1,936	2,173
$1,000	1,199,649	698,301	113,015	96,721	119,861	58,085
Sales of $50,000 or more ..... farms	2,294	214	206	323	814	737
$1,000	1,066,659	696,061	111,567	94,455	114,906	49,669
Value of-						
Government payments ..... farms	838,391	32,899	43,597	72,099	108,309	79,540
$1,000	7,983,922	1,585,880	1,338,879	1,367,072	1,171,045	493,817
Landlord's share of total sales (see text) ..... farms	97,706	7,883	12,893	19,413	21,607	11,769
$1,000	6,429,386	2,026,351	1,767,053	1,477,816	824,669	207,734
Agricultural products sold directly to individuals for human consumption (see text) ..... farms	136,817	1,277	1,659	3,141	6,781	8,004
$1,000	1,211,270	241,768	131,436	150,773	182,032	133,554
FARM PRODUCTION EXPENSES						
Total farm production expenses ..... farms	2,204,792	55,509	60,777	93,373	147,500	125,456
$1,000	241,113,666	134,974,291	31,430,276	25,046,756	18,849,550	7,593,937
Average per farm ..... dollars	109,359	2,431,575	517,141	268,244	127,794	60,531
Fertilizer, lime, and soil conditioners purchased ..... farms	1,148,218	43,372	52,201	83,063	127,981	102,606
$1,000	18,107,194	6,257,901	3,554,988	3,274,958	2,447,360	957,531
Farms with expenses of-						
$1 to $4,999	734,931	4,208	4,373	8,162	25,836	38,683
$5,000 to $24,999	249,546	6,884	9,717	25,302	67,005	57,900
$25,000 to $49,999	74,633	5,377	9,775	24,836	27,210	5,190
$50,000 or more	89,108	26,903	28,336	24,763	7,930	833
Chemicals purchased ..... farms	918,604	43,250	48,905	76,552	115,440	89,391
$1,000	10,074,914	4,414,501	1,933,129	1,656,854	1,172,231	398,271
Farms with expenses of-						
$1 to $4,999	666,084	7,754	7,847	15,454	45,485	61,886
$5,000 to $24,999	162,785	8,877	13,952	36,755	60,109	26,421
$25,000 to $49,999	46,594	6,266	13,169	17,577	8,112	882
$50,000 or more	43,141	20,353	13,937	6,766	1,734	202
Seeds, plants, vines, and trees ..... farms	775,893	39,342	47,751	75,349	111,599	81,204
$1,000	11,740,521	5,031,371	2,217,140	1,985,142	1,430,463	488,711
Farms with expenses of-						
$1 to $999	302,164	1,396	1,468	2,528	7,895	12,703
$1,000 to $4,999	192,154	2,908	3,501	8,338	26,059	31,075
$5,000 to $24,999	173,462	7,252	11,949	31,065	64,028	35,961
$25,000 to $49,999	56,320	5,993	12,455	24,433	11,533	1,155
$50,000 or more	51,793	21,793	18,378	8,985	2,084	310

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.						
Total - Con.						
Total sales - Con.						
Other crops and hay (see text) ....farms	37,782	64,239	60,575	58,293	60,792	51,991
$1,000	516,553	520,629	268,304	153,392	82,936	25,093
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Cattle and calves ....farms	84,365	144,294	122,509	98,311	88,783	27,978
$1,000	2,148,442	1,866,151	750,652	314,667	139,175	18,258
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Milk and other dairy products from cows ....farms	4,887	4,364	2,773	1,795	124	34
$1,000	113,140	42,255	12,850	5,290	116	13
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Hogs and pigs ....farms	4,544	7,114	7,246	7,670	8,942	8,679
$1,000	39,037	27,630	14,462	9,728	6,775	2,968
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Sheep, goats, and their products ....farms	6,866	13,263	14,011	16,504	24,680	31,439
$1,000	48,597	58,190	36,623	28,631	24,380	10,731
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Horses, ponies, mules, burros, and donkeys ....farms	7,700	15,635	18,638	20,031	25,697	13,408
$1,000	133,070	141,148	81,677	49,994	32,799	6,411
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Poultry and eggs ....farms	7,335	14,161	15,341	17,243	23,816	32,635
$1,000	25,536	23,842	16,415	14,308	15,308	11,059
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Aquaculture (see text) ....farms	629	859	602	513	624	314
$1,000	17,919	10,085	2,875	1,327	717	79
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Other animals and other animal products (see text) ....farms	3,441	6,192	5,882	6,034	7,463	8,155
$1,000	47,691	36,001	14,976	8,293	5,155	1,549
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Value of-						
Government payments ....farms	76,995	84,486	50,222	33,540	25,359	231,345
$1,000	321,950	251,418	119,020	69,643	52,675	1,212,522
Landlord's share of total sales (see text) ....farms	8,718	7,473	3,789	2,197	1,373	591
$1,000	81,132	33,664	7,765	2,356	739	106
Agricultural products sold directly to individuals for human consumption (see text) ....farms	12,301	22,323	20,861	21,022	23,118	16,330
$1,000	123,477	121,245	60,959	37,957	22,451	5,617
FARM PRODUCTION EXPENSES						
Total farm production expenses ....farms	154,732	248,285	218,531	200,302	211,494	688,833
$1,000	5,308,530	4,896,704	2,691,301	1,897,129	1,644,701	6,780,491
Average per farm .... dollars	34,308	19,722	12,315	9,471	7,777	9,843
Fertilizer, lime, and soil conditioners purchased ....farms	117,982	167,950	125,359	97,773	82,215	147,716
$1,000	604,504	462,477	204,678	107,682	66,575	168,540
Farms with expenses of-						
$1 to $4,999	73,112	142,642	119,118	95,577	81,098	142,122
$5,000 to $24,999	43,407	24,853	6,095	2,131	1,081	5,171
$25,000 to $49,999	1,241	404	132	59	33	376
$50,000 or more	222	51	14	6	3	47
Chemicals purchased ....farms	94,939	122,578	84,786	64,817	55,876	122,070
$1,000	209,752	126,411	46,942	25,337	17,711	73,775
Farms with expenses of-						
$1 to $4,999	84,928	119,105	83,982	64,441	55,590	119,612
$5,000 to $24,999	9,693	3,307	755	359	271	2,286
$25,000 to $49,999	228	137	46	17	14	146
$50,000 or more	90	29	3	-	1	26
Seeds, plants, vines, and trees ....farms	81,853	98,540	67,187	49,561	41,955	81,552
$1,000	252,785	154,484	60,913	32,191	20,652	66,669
Farms with expenses of-						
$1 to $999	24,728	53,036	50,514	42,371	37,927	67,598
$1,000 to $4,999	42,910	40,583	15,300	6,514	3,590	11,376
$5,000 to $24,999	13,763	4,690	1,281	611	398	2,464
$25,000 to $49,999	315	187	80	54	32	83
$50,000 or more	137	44	12	11	8	31

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Livestock and poultry purchased or leased (see text) ..... farms	490,819	30,436	25,500	32,807	44,365	36,294
$1,000	38,003,682	30,099,656	3,265,983	1,927,361	1,114,542	509,069
Farms with expenses of-						
$1 to $4,999	306,414	1,286	3,058	7,711	16,134	16,839
$5,000 to $24,999	97,441	2,104	3,852	8,342	15,007	12,364
$25,000 to $99,999	42,768	3,214	8,557	9,181	10,793	6,828
$100,000 to $249,999	24,183	9,492	5,494	6,512	2,373	260
$250,000 or more	20,013	14,340	4,539	1,061	58	3
Breeding livestock purchased or leased (see text) ..... farms	278,572	9,853	10,809	18,726	29,912	24,941
$1,000	3,599,873	1,538,379	340,970	381,968	416,549	260,377
Other livestock and poultry purchased or leased (see text) ..... farms	279,155	25,326	18,711	19,325	21,286	16,640
$1,000	34,403,809	28,561,277	2,925,014	1,545,393	697,993	248,692
Feed purchased ..... farms	1,135,968	33,823	30,967	45,382	70,465	60,944
$1,000	49,095,106	35,452,554	5,067,307	2,785,603	1,852,560	727,536
Farms with expenses of-						
$1 to $4,999	766,606	1,209	3,384	7,717	18,307	24,414
$5,000 to $24,999	245,328	1,847	4,761	11,364	26,427	28,670
$25,000 to $99,999	66,394	2,695	6,523	16,173	23,216	7,596
$100,000 to $249,999	23,472	3,857	7,626	9,047	2,380	238
$250,000 or more	34,168	24,215	8,673	1,081	135	26
Gasoline, fuels, and oils ..... farms	2,148,806	55,370	60,638	93,057	146,663	124,111
$1,000	12,912,179	4,563,702	1,924,472	1,779,640	1,506,440	683,974
Farms with expenses of-						
$1 to $4,999	1,704,545	2,867	4,574	10,232	42,108	73,420
$5,000 to $24,999	336,324	12,528	25,638	60,605	95,322	48,923
$25,000 to $49,999	64,765	14,136	20,156	17,867	7,821	1,504
$50,000 or more	43,172	25,839	10,270	4,353	1,412	264
Utilities (see text) ..... farms	1,102,530	52,163	54,978	81,675	121,581	92,267
$1,000	5,917,615	2,905,528	757,039	648,108	553,032	252,192
Farms with expenses of-						
$1 to $999	506,560	553	1,463	4,574	17,385	26,242
$1,000 to $4,999	402,839	5,477	15,582	35,980	70,222	54,680
$5,000 to $24,999	157,818	24,641	31,033	37,202	32,089	10,755
$25,000 to $49,999	19,269	9,569	4,511	2,831	1,411	465
$50,000 or more	16,044	11,923	2,389	1,088	474	125
Supplies, repairs, and maintenance ..... farms	1,992,234	55,489	60,759	93,348	141,230	115,962
$1,000	15,896,723	5,989,631	2,055,829	2,005,065	1,712,966	778,621
Farms with expenses of-						
$1 to $4,999	1,478,317	2,869	5,210	11,125	38,167	60,781
$5,000 to $24,999	389,971	14,541	24,457	53,476	88,215	52,065
$25,000 to $49,999	73,014	11,351	18,220	22,033	12,550	2,536
$50,000 or more	50,932	26,728	12,872	6,714	2,298	580
Hired farm labor ..... farms	482,186	44,953	42,365	54,969	66,394	41,295
$1,000	21,877,661	14,604,933	2,486,484	1,777,228	1,295,614	478,109
Farms with expenses of-						
$1 to $4,999	262,262	3,362	6,993	15,129	27,790	23,279
$5,000 to $24,999	108,122	7,093	11,792	19,096	22,561	12,766
$25,000 to $99,999	75,938	13,367	16,386	16,595	14,180	4,765
$100,000 to $249,999	21,237	9,068	5,444	3,700	1,665	434
$250,000 or more	14,627	12,063	1,750	449	198	51
Contract labor ..... farms	182,701	15,018	11,500	14,739	20,756	16,520
$1,000	4,514,166	2,977,408	388,800	310,910	301,479	148,894
Farms with expenses of-						
$1 to $999	49,657	588	759	1,387	2,606	2,787
$1,000 to $4,999	66,104	2,449	2,914	4,517	7,112	6,337
$5,000 to $24,999	45,949	4,781	4,453	5,586	7,504	5,891
$25,000 to $49,999	9,730	1,938	1,411	1,541	2,098	1,166
$50,000 or more	11,261	5,262	1,963	1,708	1,436	339
Customwork and custom hauling ..... farms	362,475	23,547	24,005	37,450	54,942	38,621
$1,000	4,091,038	2,109,034	511,360	491,919	434,605	188,735
Farms with expenses of-						
$1 to $999	119,768	722	1,400	2,987	7,285	8,410
$1,000 to $4,999	131,318	3,292	5,832	11,952	22,749	18,164
$5,000 to $24,999	83,762	7,738	10,873	17,375	21,668	11,270
$25,000 to $49,999	14,558	3,927	3,410	3,450	2,532	645
$50,000 or more	13,069	7,868	2,490	1,686	708	132
Cash rent for land, buildings, and grazing fees ..... farms	490,372	34,358	41,233	63,963	86,028	55,768
$1,000	13,274,530	5,199,960	2,754,112	2,411,337	1,638,210	539,697
Farms with expenses of-						
$1 to $4,999	238,363	2,322	3,447	8,947	23,014	25,747
$5,000 to $9,999	59,281	1,800	2,972	7,050	14,618	12,551
$10,000 to $24,999	76,679	4,261	7,015	15,040	26,107	13,622
$25,000 or more	116,049	25,975	27,799	32,926	22,289	3,848

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Livestock and poultry purchased or leased (see text) ....farms	42,475	63,857	51,036	44,012	46,538	73,499
$1,000	349,526	277,770	133,349	87,301	67,551	171,573
Farms with expenses of-						
$1 to $4,999	24,060	44,966	43,127	40,102	43,818	65,313
$5,000 to $24,999	14,992	18,249	7,869	3,893	2,696	8,073
$25,000 to $99,999	3,396	637	34	16	24	88
$100,000 to $249,999	26	4	3	1	-	18
$250,000 or more	1	1	3	-	-	7
Breeding livestock purchased or leased (see text) ....farms	29,487	42,814	30,897	23,506	21,685	35,942
$1,000	209,714	177,670	78,794	52,058	39,246	104,148
Other livestock and poultry purchased or leased (see text) ....farms	18,957	29,437	26,581	26,278	30,619	45,995
$1,000	139,813	100,099	54,556	35,243	28,305	67,424
Feed purchased ....farms	82,732	146,478	128,898	116,441	127,828	292,010
$1,000	613,900	680,584	415,535	299,511	279,003	921,012
Farms with expenses of-						
$1 to $4,999	43,959	101,480	105,210	101,676	115,395	243,855
$5,000 to $24,999	34,950	42,884	22,988	14,240	12,040	45,157
$25,000 to $99,999	3,707	2,064	669	511	378	2,862
$100,000 to $249,999	109	46	19	13	15	122
$250,000 or more	7	4	12	1	-	14
Gasoline, fuels, and oils ....farms	152,777	244,678	214,831	196,012	205,451	655,218
$1,000	500,778	474,202	280,823	198,871	166,522	832,754
Farms with expenses of-						
$1 to $4,999	122,285	225,168	206,567	190,771	201,437	625,116
$5,000 to $24,999	29,862	19,364	8,051	5,111	3,855	27,065
$25,000 to $49,999	576	138	198	105	139	2,125
$50,000 or more	54	8	15	25	20	912
Utilities (see text) ....farms	102,001	143,495	105,891	86,388	80,462	181,629
$1,000	187,622	181,764	101,506	73,180	60,743	196,901
Farms with expenses of-						
$1 to $999	45,037	84,887	73,783	63,938	62,502	126,196
$1,000 to $4,999	50,283	53,471	29,945	21,064	16,878	49,257
$5,000 to $24,999	6,397	5,097	2,142	1,372	1,068	6,022
$25,000 to $49,999	275	35	18	11	14	129
$50,000 or more	9	5	3	3	-	25
Supplies, repairs, and maintenance ....farms	140,533	223,021	199,950	180,650	187,943	593,349
$1,000	598,862	612,149	391,175	288,190	253,849	1,210,386
Farms with expenses of-						
$1 to $4,999	101,604	191,206	182,828	168,977	178,335	537,215
$5,000 to $24,999	37,336	30,607	16,565	11,313	9,268	52,128
$25,000 to $49,999	1,299	981	460	294	276	3,014
$50,000 or more	294	227	97	66	64	992
Hired farm labor ....farms	42,479	54,055	36,326	26,762	22,381	50,207
$1,000	314,778	291,448	134,335	88,129	66,957	339,646
Farms with expenses of-						
$1 to $4,999	29,185	42,897	31,345	23,472	19,885	38,925
$5,000 to $24,999	10,306	8,495	3,871	2,529	1,942	7,671
$25,000 to $99,999	2,728	2,424	1,006	725	523	3,239
$100,000 to $249,999	234	216	92	29	24	331
$250,000 or more	26	23	12	7	7	41
Contract labor ....farms	18,474	24,291	15,641	11,486	9,499	24,777
$1,000	105,654	95,220	41,662	25,205	18,998	99,936
Farms with expenses of-						
$1 to $999	4,029	7,747	6,801	6,000	5,578	11,375
$1,000 to $4,999	8,008	11,460	6,975	4,411	3,092	8,829
$5,000 to $24,999	5,870	4,622	1,694	973	752	3,823
$25,000 to $49,999	451	344	120	76	61	524
$50,000 or more	116	118	51	26	16	226
Customwork and custom hauling ....farms	39,143	47,390	31,352	21,733	16,066	28,226
$1,000	124,785	98,904	42,637	23,078	15,263	50,718
Farms with expenses of-						
$1 to $999	12,540	21,582	19,128	15,011	12,258	18,445
$1,000 to $4,999	19,470	21,576	10,942	6,119	3,465	7,757
$5,000 to $24,999	6,862	4,052	1,222	579	306	1,817
$25,000 to $49,999	211	135	40	21	30	157
$50,000 or more	60	45	20	3	7	50
Cash rent for land, buildings, and grazing fees ....farms	52,111	57,518	32,395	19,739	14,118	33,141
$1,000	281,252	182,454	68,207	36,163	24,335	138,804
Farms with expenses of-						
$1 to $4,999	35,620	49,682	30,099	18,628	13,290	27,567
$5,000 to $9,999	10,045	5,182	1,417	645	462	2,539
$10,000 to $24,999	5,349	1,994	668	339	257	2,027
$25,000 or more	1,097	660	211	127	109	1,008

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Rent and lease expenses for machinery, equipment, and farm share of vehicles ..... farms	109,199	14,001	11,989	15,070	16,560	9,496
$1,000	1,385,219	795,097	208,217	161,079	103,732	34,573
Farms with expenses of-						
$1 to $999	39,280	884	1,363	2,694	4,659	3,632
$1,000 to $4,999	31,997	2,336	3,153	4,972	6,139	3,616
$5,000 to $24,999	26,656	4,974	5,034	5,672	4,909	2,125
$25,000 to $49,999	5,778	2,125	1,458	1,184	656	111
$50,000 or more	5,488	3,682	981	548	197	12
Interest expense ..... farms	667,454	40,735	42,755	62,295	85,457	58,355
$1,000	10,880,731	3,700,929	1,480,844	1,380,671	1,182,941	562,425
Farms with expenses of-						
$1 to $4,999	289,876	2,828	4,731	10,706	25,653	25,588
$5,000 to $24,999	275,988	9,464	16,797	32,053	47,218	28,425
$25,000 to $99,999	87,574	18,636	19,095	18,642	12,155	4,196
$100,000 or more	14,016	9,807	2,132	894	431	146
Secured by real estate ..... farms	519,095	31,879	32,793	46,598	61,528	41,841
$1,000	7,185,334	2,144,842	897,251	853,653	777,689	401,895
Farms with expenses of-						
$1 to $999	58,501	702	974	1,795	3,650	3,830
$1,000 to $4,999	171,356	2,488	4,229	8,482	16,569	14,297
$5,000 to $24,999	225,304	10,008	15,440	25,722	33,795	20,729
$25,000 to $49,999	39,515	7,120	7,412	7,754	5,766	2,308
$50,000 or more	24,419	11,561	4,738	2,845	1,748	677
Not secured by real estate ..... farms	413,327	27,329	30,261	44,882	60,850	40,048
$1,000	3,695,397	1,556,088	583,593	527,018	405,253	160,531
Farms with expenses of-						
$1 to $999	122,808	1,016	1,488	3,323	8,020	8,884
$1,000 to $4,999	153,159	3,551	5,594	11,762	24,834	20,419
$5,000 to $24,999	106,610	8,592	15,007	24,704	26,068	10,425
$25,000 to $49,999	18,841	5,621	5,939	4,223	1,718	292
$50,000 or more	11,909	8,549	2,233	870	210	28
Property taxes paid ..... farms	1,995,808	52,243	56,933	86,576	134,333	114,603
$1,000	6,223,048	1,162,967	548,563	605,156	654,552	390,554
Farms with expenses of-						
$1 to $4,999	1,717,819	16,968	25,329	45,437	89,994	93,249
$5,000 to $9,999	172,489	10,667	13,914	23,005	30,872	16,115
$10,000 to $24,999	80,800	13,267	13,285	15,461	11,874	4,585
$25,000 or more	24,700	11,341	4,405	2,673	1,593	654
All other production expenses (see text) ..... farms	1,115,703	55,417	60,687	93,234	146,404	89,124
$1,000	17,119,339	9,709,119	2,276,010	1,845,725	1,448,821	455,046
Farms with expenses of-						
$1 to $4,999	765,840	2,117	6,536	19,193	61,902	62,138
$5,000 to $24,999	234,512	10,840	23,400	49,863	73,561	24,953
$25,000 to $49,999	55,174	8,840	15,340	17,610	8,362	1,532
$50,000 to $99,999	32,742	12,153	11,746	5,241	2,111	375
$100,000 or more	27,435	21,467	3,665	1,327	468	126
Production expenses paid by landlords [1] ..... farms	67,427	7,987	11,128	14,946	14,977	7,044
$1,000	1,556,963	496,353	411,161	354,611	200,779	53,155
Depreciation expenses claimed (see text) ..... farms	963,340	48,922	52,743	78,819	111,744	82,831
$1,000	20,185,540	7,069,426	3,020,470	2,866,631	2,456,320	1,120,735
NET CASH FARM INCOME (SEE TEXT)						
Net cash farm income of operations (see text) ..... farms	2,204,792	55,509	60,777	93,373	147,500	125,456
$1,000	74,581,098	44,318,423	13,815,637	10,991,718	7,843,202	2,620,108
Average per farm ..... dollars	33,827	798,401	227,317	117,718	53,174	20,885
Farms with net gains [2] ..... number	1,037,041	51,005	55,347	83,046	126,257	100,418
Average net gain ..... dollars	89,479	914,738	268,111	146,294	73,561	36,287
Gain of-						
Less than $1,000	102,871	14	34	145	464	972
$1,000 to $4,999	221,477	60	217	576	2,112	4,164
$5,000 to $9,999	128,828	93	210	780	2,944	6,147
$10,000 to $24,999	170,636	307	861	2,594	11,306	24,143
$25,000 to $49,999	119,233	538	1,677	6,097	25,982	41,603
$50,000 or more	293,996	49,993	52,348	72,854	83,449	23,389
Farms with net losses ..... number	1,167,751	4,504	5,430	10,327	21,243	25,038
Average net loss ..... dollars	15,596	519,050	188,492	112,076	67,996	40,889
Loss of-						
Less than $1,000	134,307	20	34	148	451	886
$1,000 to $4,999	426,570	76	145	491	1,761	3,247
$5,000 to $9,999	247,156	82	180	569	1,842	3,327
$10,000 to $24,999	225,863	181	502	1,586	4,341	6,598
$25,000 to $49,999	76,927	318	734	1,893	4,442	5,147
$50,000 or more	56,928	3,827	3,835	5,640	8,406	5,833

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Rent and lease expenses for machinery, equipment, and farm share of vehicles ....farms	8,469	9,454	6,081	4,384	3,724	9,971
$1,000	22,651	17,326	9,427	6,042	4,694	22,382
Farms with expenses of-						
$1 to $999	4,198	5,762	4,152	3,071	2,681	6,184
$1,000 to $4,999	3,011	2,777	1,486	1,011	803	2,693
$5,000 to $24,999	1,165	858	410	287	231	991
$25,000 to $49,999	73	50	28	14	8	71
$50,000 or more	22	7	5	1	1	32
Interest expense ....farms	58,975	73,884	51,590	41,364	39,125	112,919
$1,000	453,419	474,179	300,385	232,914	217,740	894,282
Farms with expenses of-						
$1 to $4,999	31,587	44,535	32,601	26,130	24,730	60,787
$5,000 to $24,999	24,534	26,714	17,441	14,149	13,446	45,747
$25,000 to $99,999	2,729	2,530	1,493	1,054	920	6,124
$100,000 or more	125	105	55	31	29	261
Secured by real estate ....farms	43,172	55,952	40,624	34,007	33,189	97,512
$1,000	347,271	383,735	249,172	198,915	193,569	737,342
Farms with expenses of-						
$1 to $999	5,287	8,241	7,094	6,134	6,216	14,578
$1,000 to $4,999	16,932	23,779	17,601	14,674	13,946	38,359
$5,000 to $24,999	18,692	21,749	14,669	12,299	12,189	40,012
$25,000 to $49,999	1,681	1,671	1,001	746	676	3,380
$50,000 or more	580	512	259	154	162	1,183
Not secured by real estate ....farms	38,271	45,006	29,459	22,049	19,838	55,334
$1,000	106,148	90,444	51,214	33,999	24,171	156,940
Farms with expenses of-						
$1 to $999	12,334	19,353	14,933	12,708	13,043	27,706
$1,000 to $4,999	19,780	21,610	12,512	8,057	5,887	19,153
$5,000 to $24,999	6,085	3,966	1,957	1,253	892	7,661
$25,000 to $49,999	67	73	55	30	16	807
$50,000 or more	5	4	2	1	-	7
Property taxes paid ....farms	143,605	233,766	193,531	178,143	188,473	613,602
$1,000	367,140	462,287	314,913	270,954	276,200	1,169,763
Farms with expenses of-						
$1 to $4,999	127,942	216,892	183,589	169,972	180,281	568,166
$5,000 to $9,999	11,781	12,755	7,763	6,518	6,405	32,694
$10,000 to $24,999	3,354	3,579	1,888	1,444	1,539	10,524
$25,000 or more	528	540	291	209	248	2,218
All other production expenses (see text) ....farms	102,288	148,492	95,928	76,937	73,644	173,548
$1,000	321,120	305,045	144,815	102,379	87,908	423,351
Farms with expenses of-						
$1 to $4,999	86,600	136,193	90,603	73,281	70,421	156,856
$5,000 to $24,999	14,641	11,404	4,950	3,402	3,026	14,472
$25,000 to $49,999	762	667	287	196	151	1,427
$50,000 to $99,999	231	184	72	52	35	542
$100,000 or more	54	44	16	6	11	251
Production expenses paid by landlords [1] ....farms	4,530	3,321	1,550	852	531	561
$1,000	23,057	10,089	3,504	1,763	942	1,549
Depreciation expenses claimed (see text) ....farms	89,196	122,533	89,735	69,155	61,827	155,835
$1,000	889,596	867,895	494,387	314,940	241,494	843,646
NET CASH FARM INCOME (SEE TEXT)						
Net cash farm income of operations (see text) ....farms	154,732	248,285	218,531	200,302	211,494	688,833
$1,000	1,147,505	-23,371	-676,549	-880,741	-1,048,476	-3,526,357
Average per farm ....dollars	7,416	-94	-3,096	-4,397	-4,957	-5,119
Farms with net gains [2] ....number	112,941	151,566	102,949	66,261	40,308	146,943
Average net gain ....dollars	19,507	9,644	4,955	3,307	3,056	11,568
Gain of-						
Less than $1,000	2,450	9,009	14,957	20,303	22,798	31,725
$1,000 to $4,999	11,336	40,340	58,461	39,204	13,185	51,822
$5,000 to $9,999	16,518	50,473	22,701	3,474	1,993	23,495
$10,000 to $24,999	53,429	45,875	4,930	2,173	1,515	23,503
$25,000 to $49,999	26,070	4,324	1,287	739	530	10,386
$50,000 or more	3,138	1,545	613	368	287	6,012
Farms with net losses ....number	41,791	96,719	115,582	134,041	171,186	541,890
Average net loss ....dollars	25,261	15,354	10,267	8,206	6,844	9,644
Loss of-						
Less than $1,000	2,334	8,038	13,777	19,487	27,010	62,122
$1,000 to $4,999	7,722	26,112	39,689	52,720	75,191	219,416
$5,000 to $9,999	7,208	21,107	26,761	29,454	36,044	120,582
$10,000 to $24,999	12,199	26,013	25,527	24,572	25,938	98,406
$25,000 to $49,999	7,084	10,307	7,160	5,923	5,453	28,466
$50,000 or more	5,244	5,142	2,668	1,885	1,550	12,898

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
NET CASH FARM INCOME (SEE TEXT) - Con.						
Net cash farm income of operators (see text) ..... farms	2,204,792	55,509	60,777	93,373	147,500	125,456
$1,000	64,197,836	38,428,834	11,564,762	9,648,605	7,184,076	2,464,464
Average per farm ..... dollars	29,117	692,299	190,282	103,334	48,706	19,644
Operators reporting net gains [2] ..... farms	1,025,783	49,379	53,635	81,141	124,104	99,213
Average net gain ..... dollars	81,061	833,031	237,259	134,644	70,091	35,421
Gain of-						
Less than $1,000	103,330	31	89	199	551	1,039
$1,000 to $4,999	222,713	195	366	764	2,414	4,457
$5,000 to $9,999	129,906	231	462	1,039	3,408	6,520
$10,000 to $24,999	173,780	817	1,793	3,806	12,535	25,028
$25,000 to $49,999	122,964	1,737	3,591	7,718	27,320	40,199
$50,000 or more	273,090	46,368	47,334	67,615	77,876	21,970
Operators reporting net losses ..... farms	1,179,009	6,130	7,142	12,232	23,396	26,243
Average net loss ..... dollars	16,075	441,339	162,508	104,363	64,735	40,003
Loss of-						
Less than $1,000	135,011	43	82	214	540	952
$1,000 to $4,999	428,133	159	292	635	1,985	3,441
$5,000 to $9,999	248,731	156	292	684	2,129	3,524
$10,000 to $24,999	228,206	445	849	1,929	4,881	6,956
$25,000 to $49,999	78,919	604	1,063	2,294	4,964	5,436
$50,000 or more	60,009	4,723	4,564	6,476	8,897	5,934
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)						
Total ..... farms	50,572	7,039	8,883	11,218	11,260	4,840
$1,000	4,445,758	1,791,533	1,190,435	867,456	463,541	88,422
INCOME FROM FARM-RELATED SOURCES						
Total income from farm-related sources, gross before taxes and expenses (see text) ..... farms	693,187	33,052	39,133	60,485	85,977	61,142
$1,000	10,489,874	1,907,039	1,216,252	1,261,517	1,308,299	758,973
Customwork and other agricultural services ..... farms	121,874	10,894	13,404	18,432	20,467	11,806
$1,000	1,875,665	538,439	346,912	307,467	255,294	127,759
Gross cash rent or share payments ..... farms	241,923	5,849	5,768	9,224	16,046	15,805
$1,000	2,883,897	287,022	153,113	193,549	291,527	229,257
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ..... farms	47,603	951	951	1,425	2,734	2,791
$1,000	594,944	30,609	26,551	27,887	43,202	36,524
Agri-tourism and recreational services (see text) ..... farms	23,350	679	878	1,531	2,509	2,196
$1,000	566,834	47,573	35,840	45,654	80,984	59,438
Patronage dividends and refunds from cooperatives ..... farms	288,196	23,341	28,654	44,040	57,837	34,769
$1,000	854,995	332,304	174,655	153,574	103,144	35,573
Crop and livestock insurance payments received (see text) ..... farms	82,001	8,098	10,803	15,632	18,514	10,013
$1,000	1,676,727	412,789	328,544	358,074	311,031	121,681
Amount from state and local government agricultural program payments (see text) ..... farms	34,410	1,478	1,730	3,184	4,879	3,322
$1,000	145,413	23,570	18,928	23,157	22,346	11,381
Other farm-related income sources (see text) ..... farms	118,939	4,582	5,199	8,040	11,694	8,970
$1,000	1,891,400	234,733	131,710	152,156	200,770	137,359
LAND USE						
Total cropland ..... farms	1,685,339	49,011	56,591	88,805	139,801	116,429
acres	406,424,909	86,875,296	69,907,360	72,040,348	62,619,859	27,764,685
Harvested cropland ..... farms	1,328,004	46,943	55,124	87,084	136,765	112,686
acres	309,607,601	78,844,169	61,689,705	61,497,686	50,096,291	20,447,082
Farms by acres harvested:						
1 to 49 acres	700,266	4,986	4,433	5,725	14,881	21,173
50 to 99 acres	179,055	2,487	2,197	4,051	11,052	14,533
100 to 199 acres	141,875	3,101	3,176	6,610	18,672	37,567
200 to 499 acres	143,776	5,811	7,057	17,493	58,131	34,083
500 to 999 acres	82,211	6,431	9,633	32,373	27,559	4,751
1,000 to 1,999 acres	53,728	8,546	20,434	18,077	5,969	536
2,000 acres or more	27,093	15,581	8,194	2,755	501	43
Cropland-						
For pasture or grazing only ..... farms	404,753	7,871	9,434	15,322	26,488	23,269
acres	35,771,154	2,464,167	2,381,960	3,347,395	4,635,225	3,271,979
On which all crops failed or were abandoned ..... farms	89,587	2,768	3,499	5,440	8,423	6,723
acres	7,405,898	760,991	813,848	1,106,030	1,334,793	742,173
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ..... farms	360,225	8,632	10,177	14,344	20,308	16,247
acres	37,968,749	2,393,451	2,091,997	2,637,775	3,302,736	2,015,369
In cultivated summer fallow ..... farms	67,960	3,473	4,726	7,010	10,609	7,394
acres	15,671,507	2,412,518	2,929,850	3,451,462	3,250,814	1,288,082

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
NET CASH FARM INCOME (SEE TEXT) - Con.						
Net cash farm income of operators (see text) ....farms	154,732	248,285	218,531	200,302	211,494	688,833
$1,000	1,088,498	-46,697	-680,574	-881,044	-1,048,273	-3,524,815
Average per farm .... dollars	7,035	-188	-3,114	-4,399	-4,957	-5,117
Operators reporting net gains [2] ....farms	111,859	150,611	102,565	66,109	40,218	146,949
Average net gain .... dollars	19,281	9,604	4,952	3,308	3,062	11,569
Gain of-						
Less than $1,000	2,593	9,098	14,972	20,304	22,734	31,720
$1,000 to $4,999	11,579	40,547	58,344	39,058	13,160	51,829
$5,000 to $9,999	16,838	50,038	22,419	3,465	1,995	23,491
$10,000 to $24,999	52,593	45,086	4,924	2,176	1,512	23,510
$25,000 to $49,999	25,154	4,297	1,293	738	530	10,387
$50,000 or more	3,102	1,545	613	368	287	6,012
Operators reporting net losses ....farms	42,873	97,674	115,966	134,193	171,276	541,884
Average net loss .... dollars	24,916	15,288	10,248	8,195	6,839	9,642
Loss of-						
Less than $1,000	2,439	8,169	13,815	19,541	27,092	62,124
$1,000 to $4,999	7,975	26,398	39,869	52,760	75,190	219,429
$5,000 to $9,999	7,473	21,371	26,890	29,533	36,068	120,611
$10,000 to $24,999	12,519	26,220	25,560	24,560	25,924	98,363
$25,000 to $49,999	7,178	10,379	7,166	5,914	5,455	28,466
$50,000 or more	5,289	5,137	2,666	1,885	1,547	12,891
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)						
Total ....farms	2,883	1,964	1,081	531	374	499
$1,000	26,291	7,836	3,004	544	228	6,468
INCOME FROM FARM-RELATED SOURCES						
Total income from farm-related sources, gross before taxes and expenses (see text) ....farms	62,228	78,089	50,869	39,148	35,743	147,321
$1,000	653,589	662,093	343,189	228,717	192,961	1,957,245
Customwork and other agricultural services ....farms	10,916	12,746	6,925	5,192	4,377	6,715
$1,000	101,230	93,505	36,336	19,862	13,358	35,502
Gross cash rent or share payments ....farms	18,902	26,317	19,812	15,960	15,156	93,084
$1,000	195,246	191,645	106,328	73,501	60,970	1,101,737
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ....farms	3,914	6,724	5,442	4,720	4,618	13,333
$1,000	46,987	75,373	50,291	37,090	32,354	188,077
Agri-tourism and recreational services (see text) ....farms	2,446	3,066	1,657	1,308	1,148	5,932
$1,000	60,039	63,526	31,485	14,557	18,970	108,769
Patronage dividends and refunds from cooperatives ....farms	28,983	27,618	13,157	7,942	5,832	16,023
$1,000	20,570	15,043	4,894	2,786	1,996	10,457
Crop and livestock insurance payments received (see text) ....farms	7,146	5,641	2,096	1,234	770	2,054
$1,000	65,030	40,953	12,264	5,453	3,037	17,871
Amount from state and local government agricultural program payments (see text) ....farms	3,549	4,469	2,846	1,779	1,442	5,732
$1,000	10,567	9,515	4,787	2,531	2,211	16,420
Other farm-related income sources (see text) ....farms	10,133	14,974	10,591	8,758	8,322	27,676
$1,000	153,920	172,534	96,804	72,936	60,065	478,411
LAND USE						
Total cropland ....farms	139,166	210,530	172,896	146,623	134,741	430,746
acres	19,136,288	16,942,884	8,603,175	5,325,175	3,833,699	33,376,140
Harvested cropland ....farms	132,934	196,147	155,774	127,530	111,356	165,661
acres	13,100,556	10,802,344	5,193,034	3,013,852	2,003,867	2,919,015
Farms by acres harvested:						
1 to 49 acres	41,764	112,092	122,559	112,882	104,097	155,674
50 to 99 acres	39,115	55,015	25,442	11,768	5,923	7,472
100 to 199 acres	37,449	23,186	6,544	2,512	1,161	1,897
200 to 499 acres	13,476	5,542	1,171	341	170	501
500 to 999 acres	1,018	273	55	23	5	90
1,000 to 1,999 acres	99	36	3	4	-	24
2,000 acres or more	13	3	-	-	-	3
Cropland-						
For pasture or grazing only ....farms	29,872	49,413	43,576	38,815	38,644	122,049
acres	3,074,574	3,445,622	1,966,272	1,335,527	1,014,477	8,833,956
On which all crops failed or were abandoned ....farms	7,876	11,148	8,146	6,752	6,047	22,765
acres	565,069	544,065	265,548	169,811	122,928	980,642
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ....farms	17,865	25,798	20,314	17,900	17,686	190,954
acres	1,721,670	1,736,522	1,009,293	715,564	633,075	19,711,297
In cultivated summer fallow ....farms	6,933	7,705	4,782	3,129	2,512	9,687
acres	674,419	414,331	169,028	90,421	59,352	931,230

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
LAND USE - Con.							
Total woodland	farms	843,294	15,723	17,726	26,972	45,491	42,383
	acres	75,098,603	3,982,664	3,740,939	5,888,401	6,905,070	6,547,327
Woodland pastured	farms	370,297	5,149	6,051	9,843	18,000	19,265
	acres	28,609,690	1,537,623	1,802,929	2,623,457	3,319,502	3,433,738
Woodland not pastured	farms	596,123	12,851	14,349	21,676	35,422	30,430
	acres	46,488,913	2,445,041	1,938,010	3,264,944	3,585,568	3,113,589
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text)	farms	1,132,606	19,089	23,902	40,581	69,791	62,672
	acres	408,832,116	48,928,228	43,216,751	59,617,050	74,190,836	40,287,217
Land in house lots, ponds, roads, wasteland, etc.	farms	1,126,272	34,413	36,371	55,050	84,950	67,776
	acres	31,740,212	4,174,342	2,554,731	3,193,543	3,856,538	3,555,353
Irrigated land	farms	301,028	22,504	19,280	24,813	34,168	25,996
	acres	56,599,305	25,097,229	10,663,982	8,297,405	5,960,467	2,320,414
Harvested cropland	farms	256,105	22,003	18,959	24,344	33,175	24,720
	acres	51,537,104	24,167,741	10,151,530	7,777,160	5,144,783	1,824,250
Pastureland and other land	farms	72,585	1,994	1,608	2,335	4,171	4,090
	acres	5,062,201	929,488	512,452	520,245	815,684	496,164
CONSERVATION PRACTICES AND CROP INSURANCE							
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text)	farms	346,231	9,558	13,027	19,445	25,521	18,088
	acres	38,547,450	1,488,254	1,822,932	2,424,931	3,420,140	2,214,418
Land enrolled in crop insurance programs (see text)	farms	349,408	29,067	37,537	57,591	76,785	48,395
	acres	222,267,817	59,443,914	50,117,678	49,666,610	38,304,885	12,607,615
ORGANIC AGRICULTURE							
Land used for organic production (see text)	farms	20,437	723	560	994	2,147	1,838
	acres	2,577,418	356,565	307,476	420,935	583,314	374,021
Total organic product sales (see text)	farms	18,211	694	537	940	1,994	1,732
	$1,000	1,709,111	955,939	180,807	204,082	206,103	76,388
VALUE OF LAND AND BUILDINGS							
Estimated market value of land and buildings	farms	2,204,792	55,509	60,777	93,373	147,500	125,456
	$1,000	1,744,295,252	323,335,086	209,232,988	218,349,654	214,175,106	121,585,055
Average per farm	dollars	791,138	5,824,913	3,442,634	2,338,467	1,452,035	969,145
Average per acre	dollars	1,892	2,246	1,752	1,551	1,451	1,556
Farms by value group:							
$1 to $49,999		223,182	708	582	826	2,127	3,161
$50,000 to $99,999		212,783	510	545	833	2,214	3,491
$100,000 to $199,999		374,783	1,040	1,184	2,103	5,794	8,706
$200,000 to $499,999		631,939	3,016	4,185	7,856	22,794	33,240
$500,000 to $999,999		371,783	5,581	6,506	14,007	38,793	41,821
$1,000,000 to $1,999,999		206,282	8,726	10,922	25,796	47,033	23,780
$2,000,000 to $4,999,999		132,549	15,561	23,550	35,323	24,505	9,142
$5,000,000 to $9,999,999		36,072	11,673	11,194	5,218	3,000	1,513
$10,000,000 or more		15,419	8,694	2,109	1,411	1,240	602
VALUE OF MACHINERY AND EQUIPMENT							
Estimated market value of all machinery and equipment	farms	2,204,513	55,506	60,777	93,370	147,491	125,453
	$1,000	194,783,471	37,880,162	24,171,045	25,728,486	24,533,360	13,013,069
Farms by value group:							
$1 to $4,999		195,820	58	105	140	648	1,931
$5,000 to $9,999		217,460	175	288	353	1,278	3,018
$10,000 to $19,999		351,088	558	875	1,243	4,006	8,022
$20,000 to $49,999		598,289	2,603	3,204	4,855	16,256	28,005
$50,000 to $99,999		366,768	4,478	4,620	9,232	32,485	36,954
$100,000 to $199,999		232,001	7,178	8,399	23,117	49,560	31,152
$200,000 to $499,999		175,152	14,594	25,347	42,217	36,770	14,261
$500,000 or more		67,935	25,862	17,939	12,213	6,488	2,110
SELECTED MACHINERY AND EQUIPMENT							
Trucks, including pickups (see text)	farms	1,783,324	54,051	59,208	89,912	137,386	107,080
	number	3,512,538	318,442	243,600	306,394	376,743	243,973
Tractors	farms	1,844,647	49,699	55,115	85,611	132,824	114,079
	number	4,389,812	308,021	261,713	370,468	495,046	355,343
Less than 40 horsepower (PTO)	farms	910,937	19,040	19,846	31,209	51,124	47,148
	number	1,280,039	45,886	35,072	52,584	83,507	74,660
40 to 99 horsepower (PTO)	farms	1,238,101	37,543	39,749	62,692	99,319	86,826
	number	1,998,508	111,820	86,099	130,020	201,617	166,803
100 horsepower (PTO) or more	farms	555,941	36,206	44,269	71,692	100,840	67,478
	number	1,111,265	150,315	140,542	187,864	209,922	113,880
Grain and bean combines, self-propelled	farms	295,490	22,610	33,847	53,687	65,665	38,135
	number	346,935	32,998	41,945	63,118	75,341	43,240

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
LAND USE - Con.						
Total woodland ....farms	60,852	107,730	93,893	83,665	84,520	264,339
acres	6,271,959	8,609,677	5,625,641	4,104,441	3,482,185	19,940,299
Woodland pastured ....farms	30,155	56,914	48,719	41,093	39,545	95,563
acres	2,787,554	3,657,081	2,125,913	1,421,136	1,048,498	4,852,259
Woodland not pastured ....farms	41,436	70,318	61,210	55,376	56,828	196,227
acres	3,484,405	4,952,596	3,499,728	2,683,305	2,433,687	15,088,040
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ....farms	83,540	145,001	126,235	112,382	120,012	329,401
acres	32,330,109	37,678,650	11,854,080	6,916,610	5,371,313	48,441,272
Land in house lots, ponds, roads, wasteland, etc. ....farms	80,823	127,166	108,624	100,493	107,562	323,044
acres	2,047,983	2,608,176	1,540,049	1,140,147	1,004,342	6,065,008
Irrigated land ....farms	27,829	37,193	27,246	23,469	21,500	37,030
acres	1,413,537	1,058,095	466,128	304,320	207,977	809,751
Harvested cropland ....farms	25,788	33,071	22,786	18,507	14,990	17,762
acres	1,021,537	683,512	293,368	163,882	103,119	206,222
Pastureland and other land ....farms	5,057	8,212	7,387	7,275	8,414	22,042
acres	392,000	374,583	172,760	140,438	104,858	603,529
CONSERVATION PRACTICES AND CROP INSURANCE						
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ....farms	17,610	20,461	13,429	10,497	9,307	189,288
acres	1,987,502	1,856,005	1,023,734	652,699	543,643	21,113,192
Land enrolled in crop insurance programs (see text) ....farms	36,621	27,166	11,407	6,174	3,523	15,142
acres	5,659,018	2,882,113	873,572	357,330	174,600	2,180,482
ORGANIC AGRICULTURE						
Land used for organic production (see text) ....farms	2,305	3,304	2,605	2,173	1,888	1,900
acres	175,623	156,852	85,857	40,406	33,754	42,615
Total organic product sales (see text) ....farms	2,144	3,045	2,393	1,927	1,691	1,114
$1,000	42,625	26,842	9,419	4,405	2,029	472
VALUE OF LAND AND BUILDINGS						
Estimated market value of land and buildings ....farms	154,732	248,285	218,531	200,302	211,494	688,833
$1,000	107,181,040	125,305,008	78,998,277	60,905,894	55,489,283	229,737,861
Average per farm ....dollars	692,688	504,682	361,497	304,070	262,368	333,518
Average per acre ....dollars	1,793	1,903	2,860	3,483	4,053	2,131
Farms by value group:						
$1 to $49,999	6,102	15,472	22,333	27,932	36,731	107,208
$50,000 to $99,999	7,144	19,305	24,880	26,180	30,296	97,385
$100,000 to $199,999	18,434	43,525	46,640	46,124	49,982	151,251
$200,000 to $499,999	54,825	91,742	76,598	65,463	64,972	207,248
$500,000 to $999,999	41,005	51,376	34,557	26,022	23,142	88,973
$1,000,000 to $1,999,999	19,117	20,200	10,835	6,991	5,288	27,594
$2,000,000 to $4,999,999	6,714	5,634	2,375	1,373	921	7,451
$5,000,000 to $9,999,999	1,015	731	228	154	111	1,235
$10,000,000 or more	376	300	85	63	51	488
VALUE OF MACHINERY AND EQUIPMENT						
Estimated market value of all machinery and equipment ....farms	154,723	248,271	218,518	200,298	211,477	688,629
$1,000	11,799,043	13,530,016	9,026,270	6,768,308	6,076,606	22,257,105
Farms by value group:						
$1 to $4,999	4,464	12,225	17,039	22,358	32,941	103,911
$5,000 to $9,999	6,694	17,317	22,033	26,762	32,688	106,854
$10,000 to $19,999	15,872	37,110	42,889	43,922	46,750	149,841
$20,000 to $49,999	45,165	86,327	77,511	66,313	65,443	202,607
$50,000 to $99,999	43,795	59,188	39,633	28,773	23,641	83,969
$100,000 to $199,999	27,256	26,235	14,169	8,773	7,213	28,949
$200,000 to $499,999	10,184	9,154	4,941	3,229	2,720	11,735
$500,000 or more	1,293	715	303	168	81	763
SELECTED MACHINERY AND EQUIPMENT						
Trucks, including pickups (see text) ....farms	131,433	210,214	181,035	160,844	165,636	486,525
number	256,448	356,824	275,692	230,647	227,754	676,021
Tractors ....farms	138,321	219,029	188,479	166,438	167,800	527,252
number	367,426	489,490	363,363	289,103	265,866	823,973
Less than 40 horsepower (PTO) ....farms	60,428	102,893	95,022	91,207	97,042	295,978
number	91,373	147,523	130,064	120,567	124,090	374,713
40 to 99 horsepower (PTO) ....farms	106,303	165,968	134,645	107,988	98,967	298,101
number	191,275	269,612	196,305	146,410	125,900	372,647
100 horsepower (PTO) or more ....farms	57,546	54,620	29,593	18,403	13,562	61,732
number	84,778	72,355	36,994	22,126	15,876	76,613
Grain and bean combines, self-propelled ....farms	28,728	23,225	11,285	6,410	4,090	7,808
number	32,220	25,649	12,334	6,999	4,445	8,646

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
SELECTED MACHINERY AND EQUIPMENT - Con.						
Cotton pickers and strippers, self-propelled ..... farms	12,500	2,338	2,833	2,725	2,410	836
number	18,162	4,341	4,174	3,792	3,146	1,066
Forage harvesters, self-propelled ..... farms	60,133	4,164	4,077	7,134	9,999	6,158
number	64,191	5,145	4,598	7,772	10,747	6,575
Hay balers ..... farms	593,543	13,442	17,913	34,374	59,730	50,625
number	727,501	17,362	22,457	43,129	74,995	64,043
FERTILIZERS AND CHEMICALS						
Commercial fertilizer, lime, and soil conditioners ..... farms	1,022,036	41,970	50,931	81,255	124,184	97,978
acres treated	265,995,497	69,860,537	53,882,773	52,631,686	42,126,145	17,388,113
Manure ..... farms	307,073	19,680	19,055	28,989	41,121	26,508
acres treated	22,096,315	6,598,821	3,317,372	3,400,971	3,174,350	1,496,517
Acres treated with chemicals to control-						
Insects ..... farms	354,357	30,393	32,350	46,589	61,760	41,176
acres	90,947,822	34,004,002	19,961,423	16,762,034	11,777,070	3,906,815
Weeds, grass, or brush ..... farms	703,884	35,806	42,751	68,435	101,516	74,494
acres	226,295,783	61,606,424	48,729,147	47,707,967	36,384,278	13,137,636
Nematodes ..... farms	34,992	4,026	3,513	4,799	6,529	4,098
acres	7,560,158	2,818,008	1,569,778	1,347,607	1,080,425	357,258
Diseases in crops and orchards ..... farms	97,333	11,126	10,328	12,966	15,091	10,065
acres	22,693,212	10,632,412	5,078,365	3,704,827	2,057,396	633,095
Chemicals used to control growth, thin fruit, ripen, or defoliate ..... farms	44,638	5,862	5,454	6,056	7,354	4,445
acres treated	12,125,799	5,480,576	2,979,334	1,971,553	1,136,349	269,805
TENURE						
Full owners ..... farms	1,522,033	19,300	15,814	22,416	48,308	57,099
Part owners ..... farms	542,192	30,380	38,675	60,651	81,045	53,852
Tenants ..... farms	140,567	5,829	6,288	10,306	18,147	14,505
OWNED AND RENTED LAND						
Land owned ..... farms	2,072,101	49,826	54,717	83,491	130,279	112,020
acres	646,247,118	77,643,754	62,050,835	77,574,592	88,844,392	54,294,000
Owned land in farms ..... farms	2,064,225	49,680	54,489	83,067	129,353	110,951
acres	571,303,487	74,498,390	59,653,410	73,930,453	82,796,940	48,951,818
Land rented or leased from others ..... farms	689,102	36,402	45,086	71,193	99,725	68,858
acres	355,918,954	70,202,500	60,193,544	67,400,881	65,475,220	29,812,881
Rented or leased land in farms ..... farms	682,759	36,209	44,963	70,957	99,192	68,357
acres	350,792,353	69,462,140	59,766,371	66,808,889	64,775,363	29,202,764
Land rented or leased to others ..... farms	314,140	6,737	6,377	10,061	17,985	18,567
acres	80,070,232	3,885,724	2,824,598	4,236,131	6,747,309	5,952,299
NUMBER OF OPERATORS						
Total operators ..... number	3,337,450	112,157	104,226	149,651	225,554	186,658
Farms by number of operators:						
1 operator	1,273,122	21,851	29,382	50,527	86,131	75,703
2 operators	786,598	20,592	22,636	32,655	48,649	40,968
3 operators	112,285	8,473	6,673	8,066	10,195	7,087
4 operators	22,529	2,651	1,504	1,551	1,786	1,207
5 or more operators	10,258	1,942	582	574	739	491
Total women operators ..... number	1,008,943	21,222	20,887	31,188	49,586	43,367
Farms by number of women operators:						
1 operator	894,347	16,464	18,100	27,418	43,707	38,623
2 operators	45,408	1,521	1,092	1,477	2,301	1,935
3 operators	5,439	307	120	178	293	209
4 operators	1,017	78	27	32	62	37
5 or more operators	546	70	23	18	22	18
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male	1,898,583	53,531	58,442	89,807	140,002	116,345
Female	306,209	1,978	2,335	3,566	7,498	9,111
Primary occupation:						
Farming	993,881	50,308	55,450	83,487	118,588	83,757
Other	1,210,911	5,201	5,327	9,886	28,912	41,699
Place of residence:						
On farm operated	1,693,362	40,080	48,925	76,722	118,347	96,006
Not on farm operated	511,430	15,429	11,852	16,651	29,153	29,450
Days worked off farm:						
None	777,747	38,304	40,490	57,081	75,732	50,902
Any	1,427,045	17,205	20,287	36,292	71,768	74,554
1 to 49 days	238,479	3,480	5,139	9,497	14,524	11,818
50 to 99 days	115,578	1,261	1,758	3,583	7,141	6,811
100 to 199 days	196,687	1,837	2,506	5,382	12,440	12,835
200 days or more	876,301	10,627	10,884	17,830	37,663	43,090
Years on present farm:						
2 years or less	84,883	1,131	839	1,349	2,686	2,984
3 or 4 years	138,858	1,704	1,286	2,035	4,444	4,894
5 to 9 years	359,545	4,968	4,240	7,004	13,612	14,083

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
SELECTED MACHINERY AND EQUIPMENT - Con.						
Cotton pickers and strippers, self-propelled ....farms	516	333	158	83	51	217
number	637	390	191	95	61	269
Forage harvesters, self-propelled ....farms	5,799	6,676	4,403	3,282	2,680	5,761
number	6,077	6,905	4,509	3,333	2,709	5,821
Hay balers ....farms	61,525	93,616	71,371	54,470	46,534	89,943
number	77,920	117,407	87,889	65,284	54,373	102,642
FERTILIZERS AND CHEMICALS						
Commercial fertilizer, lime, and soil conditioners ....farms	109,798	149,785	106,545	80,461	65,426	113,703
acres treated	11,276,930	8,843,977	3,779,509	1,917,506	1,146,458	3,141,863
Manure ....farms	27,205	37,105	27,472	21,566	19,690	38,682
acres treated	1,186,059	1,152,762	599,008	353,696	258,201	558,558
Acres treated with chemicals to control-						
Insects ....farms	36,200	36,400	20,433	14,610	11,447	22,999
acres	1,986,153	1,136,411	403,104	206,215	122,802	681,793
Weeds, grass, or brush ....farms	74,806	89,737	58,469	43,041	35,886	78,943
acres	7,235,432	4,931,845	1,910,297	981,069	633,255	3,038,433
Nematodes ....farms	3,498	3,119	1,747	1,125	819	1,719
acres	175,343	99,706	31,781	13,661	9,123	57,468
Diseases in crops and orchards ....farms	9,749	10,512	6,161	4,251	2,893	4,191
acres	294,350	162,367	52,991	30,052	12,549	34,808
Chemicals used to control growth, thin fruit, ripen, or defoliate ....farms	4,147	4,156	2,350	1,669	1,230	1,915
acres treated	138,464	78,771	27,178	12,244	8,740	22,785
TENURE						
Full owners ....farms	86,319	161,103	159,154	157,947	177,005	617,568
Part owners ....farms	53,926	69,712	46,345	32,496	25,551	49,559
Tenants ....farms	14,487	17,470	13,032	9,859	8,938	21,706
OWNED AND RENTED LAND						
Land owned ....farms	141,334	231,826	206,107	190,889	202,883	668,729
acres	45,694,814	55,288,984	24,126,197	15,873,699	12,808,880	132,046,971
Owned land in farms ....farms	140,245	230,815	205,499	190,443	202,556	667,127
acres	39,948,040	49,647,052	20,956,986	13,789,825	11,119,646	96,010,927
Land rented or leased from others ....farms	68,997	87,963	60,008	42,858	34,960	73,052
acres	20,242,000	16,576,041	6,890,710	3,790,834	2,669,897	12,664,446
Rented or leased land in farms ....farms	68,413	87,182	59,377	42,355	34,489	71,265
acres	19,838,299	16,192,335	6,665,959	3,696,548	2,571,893	11,811,792
Land rented or leased to others ....farms	23,326	34,570	27,070	22,356	21,345	125,746
acres	6,150,475	6,025,638	3,393,962	2,178,160	1,787,238	36,888,698
NUMBER OF OPERATORS						
Total operators ....number	229,925	370,177	324,139	297,678	317,982	1,019,303
Farms by number of operators:						
1 operator	93,195	146,670	128,702	115,883	118,493	406,585
2 operators	51,197	86,488	78,067	74,642	83,144	247,560
3 operators	8,302	11,975	9,227	7,720	7,713	26,854
4 operators	1,430	2,254	1,783	1,508	1,520	5,335
5 or more operators	608	898	752	549	624	2,499
Total women operators ....number	58,695	105,212	99,096	96,528	110,327	372,835
Farms by number of women operators:						
1 operator	52,173	93,872	88,549	86,846	99,110	329,485
2 operators	2,634	4,590	4,198	3,921	4,556	17,183
3 operators	323	516	502	448	487	2,056
4 operators	43	75	107	76	84	396
5 or more operators	20	55	41	24	50	205
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male	140,238	220,226	189,713	171,676	177,186	541,417
Female	14,494	28,059	28,818	28,626	34,308	147,416
Primary occupation:						
Farming	87,536	115,134	84,944	68,479	64,739	181,459
Other	67,196	133,151	133,587	131,823	146,755	507,374
Place of residence:						
On farm operated	117,788	194,206	174,586	163,714	176,912	486,076
Not on farm operated	36,944	54,079	43,945	36,588	34,582	202,757
Days worked off farm:						
None	54,693	77,789	62,517	54,461	53,195	212,583
Any	100,039	170,496	156,014	145,841	158,299	476,250
1 to 49 days	14,565	23,938	22,879	22,735	25,243	84,661
50 to 99 days	9,018	14,812	13,262	12,184	12,448	33,300
100 to 199 days	16,750	27,338	23,169	20,386	20,747	53,297
200 days or more	59,706	104,408	96,704	90,536	99,861	304,992
Years on present farm:						
2 years or less	4,536	7,909	7,773	8,313	10,168	37,195
3 or 4 years	7,041	13,126	14,137	14,822	18,460	56,909
5 to 9 years	20,073	37,309	38,258	38,410	45,420	136,168

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
PRINCIPAL OPERATOR CHARACTERISTICS - Con.						
Years on present farm - Con.						
10 years or more	1,621,506	47,706	54,412	82,985	126,758	103,495
Average years on present farm	21.6	25.1	27.0	27.5	27.2	26.3
Age group:						
Under 25 years	11,878	147	182	522	1,209	903
25 to 34 years	106,735	2,647	3,085	5,782	10,332	7,877
35 to 44 years	268,818	9,143	9,314	13,377	18,891	14,427
45 to 49 years	256,694	9,109	9,420	13,685	18,537	13,737
50 to 54 years	308,707	10,274	11,426	16,411	22,539	16,661
55 to 59 years	312,577	8,611	9,914	14,440	21,588	17,011
60 to 64 years	283,729	6,244	7,104	11,246	18,012	15,861
65 to 69 years	235,152	4,250	4,711	7,965	14,048	13,604
70 years and over	420,502	5,084	5,621	9,945	22,344	25,375
Average age	57.1	53.3	53.6	53.9	55.1	57.0
Spanish, Hispanic, or Latino origin (see text)	55,570	1,027	810	1,210	2,225	2,595
Race:						
American Indian or Alaska Native	34,706	218	197	394	796	954
Asian	11,214	854	561	574	928	943
Black or African American	30,599	110	129	139	357	696
Native Hawaiian or Other Pacific Islander	1,356	20	10	30	42	59
White	2,114,325	54,207	59,709	92,002	144,937	122,274
More than one race reported	12,592	100	171	234	440	530
Farms by number of persons living in operator's household:						
1 person	275,842	3,757	4,610	8,268	16,323	15,993
2 people	1,108,995	24,031	27,067	42,711	70,386	63,565
3 people	330,188	8,767	9,830	14,838	22,231	18,339
4 people	285,919	9,896	10,238	14,526	20,280	15,106
5 or more people	203,848	9,058	9,032	13,030	18,280	12,453
Percent of operator's total household income from farming:						
Less than 25 percent	1,583,710	7,392	7,741	14,743	37,151	49,863
25 to 49 percent	174,800	4,184	4,971	9,505	20,120	21,982
50 to 74 percent	187,421	9,893	12,562	19,980	32,837	26,090
75 to 99 percent	147,092	17,104	18,266	26,029	31,828	17,423
100 percent	111,769	16,936	17,237	23,116	25,564	10,098
Operator is a hired manager ... farms	59,759	7,891	5,227	5,900	7,059	4,620
acres	120,672,499	31,057,540	15,614,933	15,181,470	12,109,422	6,752,241
Farms with-						
Internet access	1,246,723	45,715	47,071	67,796	94,070	73,002
High-speed internet access	726,700	33,259	31,744	42,822	55,357	41,964
Farms by number of households sharing in net income of farm:						
1 household	1,733,827	29,325	37,774	63,771	107,393	92,938
2 households	356,707	14,327	15,048	20,756	29,790	24,778
3 households	66,438	6,884	4,925	5,554	6,251	4,632
4 households	30,004	2,768	1,736	1,918	2,388	2,028
5 households or more	17,816	2,205	1,294	1,374	1,678	1,080
FARMS BY TYPE OF ORGANIZATION						
Family or individual ... farms	1,906,335	26,997	38,765	68,762	118,532	104,852
acres	574,150,050	52,026,025	63,871,333	87,856,779	103,846,180	57,034,809
Partnership ... farms	174,247	13,570	10,616	12,432	15,478	12,406
acres	161,416,999	48,782,270	26,570,220	24,625,760	22,273,114	10,479,009
Registered under state law ... farms	89,739	10,849	7,398	8,004	9,046	6,591
acres	114,284,815	39,865,528	19,394,556	16,583,739	15,148,187	6,612,908
Corporation ... farms	96,074	14,424	10,895	11,371	11,788	6,591
acres	125,319,810	39,425,049	25,517,345	23,566,272	17,137,723	6,094,618
Family held ... farms	85,837	12,604	10,213	10,710	10,946	5,999
acres	114,264,200	33,758,068	24,124,719	22,654,929	16,392,117	5,668,087
More than 10 stockholders ... farms	2,041	551	182	181	179	125
10 or less stockholders ... farms	83,796	12,053	10,031	10,529	10,767	5,874
Other than family held ... farms	10,237	1,820	682	661	842	592
acres	11,055,610	5,666,981	1,392,626	911,343	745,606	426,531
More than 10 stockholders ... farms	907	364	51	44	46	44
10 or less stockholders ... farms	9,330	1,456	631	617	796	548
Other-cooperative, estate or trust, institutional, etc ... farms	28,136	518	501	808	1,702	1,607
acres	61,208,981	3,727,186	3,460,883	4,690,531	4,315,286	4,546,146
HIRED FARM LABOR						
Hired farm labor ... farms	482,186	44,953	42,365	54,969	66,394	41,295
workers	2,636,509	1,069,318	276,618	261,295	264,226	145,671
Workers by days worked:						
150 days or more ... farms	201,292	38,499	30,670	33,699	32,663	14,857
workers	911,439	518,267	106,939	89,574	73,381	30,077
Less than 150 days ... farms	384,051	29,662	29,507	39,049	49,630	33,298
workers	1,725,070	551,051	169,679	171,721	190,845	115,594

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
PRINCIPAL OPERATOR CHARACTERISTICS - Con.						
Years on present farm - Con.						
10 years or more	123,082	189,941	158,363	138,757	137,446	458,561
Average years on present farm	24.9	22.9	20.8	19.3	17.7	18.9
Age group:						
Under 25 years	1,148	1,476	1,220	1,200	1,325	2,546
25 to 34 years	8,817	12,142	10,322	9,282	10,635	25,814
35 to 44 years	16,436	26,631	25,128	25,082	29,295	81,094
45 to 49 years	15,796	25,257	23,294	22,980	26,322	78,557
50 to 54 years	19,276	31,575	28,807	27,402	30,118	94,218
55 to 59 years	20,729	33,751	30,213	28,044	30,282	97,994
60 to 64 years	20,017	32,448	29,128	26,141	27,007	90,521
65 to 69 years	17,891	29,233	25,231	22,182	21,733	74,304
70 years and over	34,622	55,772	45,188	37,989	34,777	143,785
Average age	58.0	58.3	57.8	57.1	56.0	58.1
Spanish, Hispanic, or Latino origin (see text)	3,573	6,224	5,798	6,076	6,949	19,083
Race:						
American Indian or Alaska Native	1,514	3,143	3,563	3,980	4,946	15,001
Asian	1,054	1,543	1,132	911	897	1,817
Black or African American	1,302	3,251	3,991	4,098	4,400	12,126
Native Hawaiian or Other Pacific Islander	85	197	145	161	238	369
White	149,991	238,457	208,258	189,679	199,418	655,393
More than one race reported	786	1,694	1,442	1,473	1,595	4,127
Farms by number of persons living in operator's household:						
1 person	19,798	31,614	26,749	23,737	23,774	101,219
2 people	81,143	132,740	114,700	102,219	103,615	346,818
3 people	22,156	35,402	32,777	31,087	34,447	100,314
4 people	18,061	28,893	26,777	25,968	29,654	86,520
5 or more people	13,574	19,636	17,528	17,291	20,004	53,962
Percent of operator's total household income from farming:						
Less than 25 percent	85,286	182,905	187,689	182,816	198,051	630,073
25 to 49 percent	27,607	32,483	16,009	7,860	5,324	24,755
50 to 74 percent	23,991	20,329	9,256	6,000	5,371	21,112
75 to 99 percent	11,890	8,268	3,563	2,282	1,703	8,736
100 percent	5,958	4,300	2,014	1,344	1,045	4,157
Operator is a hired manager ... farms	4,097	5,020	3,442	2,633	2,430	11,440
acres	5,670,391	13,368,579	1,188,429	480,012	357,563	18,891,919
Farms with-						
Internet access	85,825	134,899	117,243	110,220	120,764	350,118
High-speed internet access	49,165	75,167	64,822	60,936	66,841	204,623
Farms by number of households sharing in net income of farm:						
1 household	117,071	193,453	174,873	164,265	176,560	576,404
2 households	29,398	44,003	35,534	29,676	28,509	84,888
3 households	4,763	6,233	4,727	3,556	3,544	15,369
4 households	2,340	3,094	2,345	1,900	1,995	7,492
5 households or more	1,160	1,502	1,052	905	886	4,680
FARMS BY TYPE OF ORGANIZATION						
Family or individual ... farms	133,355	221,162	199,717	185,236	198,056	610,901
acres	45,573,486	44,849,085	23,578,056	15,371,977	12,042,462	68,099,858
Partnership ... farms	13,689	18,071	12,980	10,448	9,326	45,231
acres	6,830,905	5,824,042	2,241,917	1,249,240	822,531	11,717,991
Registered under state law ... farms	6,877	8,152	5,298	4,014	3,416	20,094
acres	4,197,663	3,206,547	1,102,960	629,522	378,288	7,164,917
Corporation ... farms	5,995	6,679	4,039	3,200	2,741	18,351
acres	3,032,358	2,487,794	838,158	534,598	418,135	6,267,760
Family held ... farms	5,413	5,946	3,562	2,771	2,350	15,323
acres	2,785,499	2,215,038	690,518	454,628	356,831	5,163,766
More than 10 stockholders ... farms	108	106	62	49	43	455
10 or less stockholders ... farms	5,305	5,840	3,500	2,722	2,307	14,868
Other than family held ... farms	582	733	477	429	391	3,028
acres	246,859	272,756	147,640	79,970	61,304	1,103,994
More than 10 stockholders ... farms	22	34	18	18	14	252
10 or less stockholders ... farms	560	699	459	411	377	2,776
Other-cooperative, estate or trust, institutional, etc ... farms	1,693	2,373	1,795	1,418	1,371	14,350
acres	4,349,590	12,678,466	964,814	330,558	408,411	21,737,110
HIRED FARM LABOR						
Hired farm labor ... farms	42,479	54,055	36,326	26,762	22,381	50,207
workers	134,062	153,750	92,951	64,790	51,617	122,211
Workers by days worked:						
150 days or more ... farms	11,785	11,839	6,417	4,671	3,724	12,468
workers	22,788	22,044	11,577	8,337	6,214	22,241
Less than 150 days ... farms	35,839	47,338	32,684	24,074	20,178	42,792
workers	111,274	131,706	81,374	56,453	45,403	99,970

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
HIRED FARM LABOR - Con.						
Migrant farm labor on farms with hired labor (see text) ..... farms	38,784	6,862	4,554	5,075	6,139	3,496
Migrant farm labor on farms reporting only contract labor (see text) ..... farms	8,488	176	235	463	1,080	1,078
FARMS BY SIZE						
1 to 9 acres	232,849	1,260	1,478	1,928	3,786	4,022
10 to 49 acres	620,283	4,851	3,856	4,219	8,604	11,831
50 to 69 acres	153,862	1,572	1,105	1,450	3,395	3,116
70 to 99 acres	192,043	1,865	1,357	2,025	4,664	5,262
100 to 139 acres	175,146	1,875	1,519	2,393	5,013	8,724
140 to 179 acres	139,479	1,509	1,320	2,086	5,680	12,657
180 to 219 acres	87,502	1,298	1,201	1,924	5,851	9,965
220 to 259 acres	68,313	1,166	1,167	1,980	6,853	9,096
260 to 499 acres	212,553	5,104	4,842	11,476	40,252	28,020
500 to 999 acres	149,713	6,883	8,806	29,210	33,611	17,374
1,000 to 1,999 acres	92,656	8,559	19,000	20,923	15,501	8,960
2,000 acres or more	80,393	19,567	15,126	13,759	14,290	6,429
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)						
Oilseed and grain farming (1111)	338,237	13,095	27,133	46,515	67,388	49,041
Vegetable and melon farming (1112)	40,589	2,640	1,180	1,284	2,055	2,631
Fruit and tree nut farming (1113)	98,281	3,199	2,726	4,239	8,116	8,931
Greenhouse, nursery, and floriculture production (1114)	54,889	2,917	1,994	2,615	5,461	4,409
Other crop farming (1119)	519,893	3,319	4,567	6,160	10,293	11,195
Tobacco farming (11191)	9,626	151	361	619	1,138	1,345
Cotton farming (11192)	9,968	1,012	1,713	1,943	2,117	973
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	500,299	2,156	2,493	3,598	7,038	8,877
Beef cattle ranching and farming (112111)	656,475	3,646	5,042	10,819	25,547	35,238
Cattle feedlots (112112)	31,065	2,939	1,289	1,579	2,303	2,221
Dairy cattle and milk production (11212)	57,318	5,978	5,391	11,811	18,673	6,031
Hog and pig farming (1122)	30,546	5,051	3,172	2,303	2,117	1,086
Poultry and egg production (1123)	64,570	11,581	7,146	4,434	1,944	503
Sheep and goat farming (1124)	67,254	53	91	156	456	569
Animal aquaculture and other animal production (1125, 1129)	245,675	1,091	1,046	1,458	3,147	3,601
FARM TYPOLOGY (SEE TEXT)						
Small family farms:						
Limited resource farms ..... farms	308,837	-	-	-	-	11,172
acres	42,419,764	-	-	-	-	6,780,181
Retirement farms ..... farms	456,093	-	-	-	14,483	21,387
acres	89,580,775	-	-	-	11,884,242	10,541,023
Residential/lifestyle farms ..... farms	801,844	-	-	-	24,081	33,307
acres	121,143,585	-	-	-	17,274,270	14,924,253
Farming occupation/lower sales ..... farms	258,899	-	-	-	-	53,321
acres	87,190,445	-	-	-	-	37,224,506
Farming occupation/higher sales ..... farms	100,126	-	-	-	100,126	-
acres	104,081,344	-	-	-	104,081,344	-
Large family farms ..... farms	86,551	-	-	86,551	-	-
acres	123,024,138	-	-	123,024,138	-	-
Very large family farms ..... farms	101,265	46,434	54,831	-	-	-
acres	211,224,012	109,330,140	101,893,872	-	-	-
Non-family farms ..... farms	91,177	9,075	5,946	6,822	8,810	6,269
acres	143,431,777	34,630,390	17,525,909	17,715,204	14,332,447	8,684,619
LIVESTOCK						
Cattle and calves inventory ..... farms	963,669	24,893	26,800	45,616	75,570	65,543
number	96,347,858	33,356,528	9,368,287	11,460,790	12,650,580	7,558,014
Farms with-						
1 to 9	233,078	622	883	1,230	2,285	3,033
10 to 49	415,493	2,943	3,788	5,673	12,007	16,596
50 to 99	135,117	2,173	2,965	5,808	19,869	16,800
100 to 199	91,193	2,431	4,293	13,979	20,159	18,347
200 to 499	59,234	4,159	9,312	12,800	17,289	10,056
500 or more	29,554	12,565	5,559	6,126	3,961	711
Cows and heifers that had calved ..... farms	818,992	19,166	22,216	39,080	66,163	57,035
number	42,101,375	9,081,857	4,001,616	5,403,041	6,621,950	4,182,485
Beef cows ..... farms	764,984	13,180	16,773	27,844	48,782	51,239
number	32,834,801	3,247,071	3,017,495	4,265,019	5,611,066	3,981,019
Farms with-						
1 to 9	246,863	755	1,149	1,993	3,633	4,012
10 to 49	360,845	4,001	5,008	7,923	14,655	17,027
50 to 99	84,253	2,504	3,271	5,587	9,857	14,238
100 to 199	43,575	2,295	3,048	5,067	10,428	13,032
200 to 499	23,635	2,175	2,619	5,404	9,574	2,842
500 or more	5,813	1,450	1,678	1,870	635	88

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
HIRED FARM LABOR - Con.						
Migrant farm labor on farms with hired labor (see text) ....farms	3,157	3,289	1,888	1,265	924	2,135
Migrant farm labor on farms reporting only contract labor (see text) ....farms	1,273	1,459	757	499	404	1,064
FARMS BY SIZE						
1 to 9 acres	7,787	19,343	23,099	30,483	43,659	96,004
10 to 49 acres	19,604	48,594	67,367	80,367	98,946	272,044
50 to 69 acres	7,193	19,236	22,575	20,271	18,594	55,355
70 to 99 acres	14,812	29,419	28,249	22,350	18,126	63,914
100 to 139 acres	17,120	29,484	24,822	17,122	12,230	54,844
140 to 179 acres	15,730	24,343	16,364	10,272	7,162	42,356
180 to 219 acres	10,871	15,993	9,638	5,611	3,903	21,247
220 to 259 acres	8,922	12,270	6,395	3,370	2,298	14,796
260 to 499 acres	27,977	31,059	13,559	7,015	4,449	38,800
500 to 999 acres	15,238	12,093	4,329	2,386	1,441	18,342
1,000 to 1,999 acres	5,911	4,139	1,391	717	445	7,110
2,000 acres or more	3,567	2,312	743	338	241	4,021
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)						
Oilseed and grain farming (1111)	42,498	38,202	22,768	14,988	10,157	6,452
Vegetable and melon farming (1112)	4,141	7,777	6,545	5,516	4,144	2,676
Fruit and tree nut farming (1113)	11,905	17,449	11,897	9,849	6,891	13,079
Greenhouse, nursery, and floriculture production (1114)	5,664	8,465	6,128	5,172	4,123	7,941
Other crop farming (1119)	17,414	35,706	38,467	42,924	50,262	299,586
Tobacco farming (11191)	1,678	2,116	1,268	668	232	50
Cotton farming (11192)	791	706	373	187	114	39
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	14,945	32,884	36,826	42,069	49,916	299,497
Beef cattle ranching and farming (112111)	58,606	115,060	103,158	85,177	79,438	134,744
Cattle feedlots (112112)	2,472	4,501	4,455	4,135	4,312	859
Dairy cattle and milk production (11212)	3,277	2,511	1,793	1,680	66	107
Hog and pig farming (1122)	870	1,395	1,592	2,156	3,650	7,154
Poultry and egg production (1123)	532	923	1,295	2,456	7,437	26,319
Sheep and goat farming (1124)	1,031	2,989	4,400	7,420	14,619	35,470
Animal aquaculture and other animal production (1125, 1129)	6,322	13,307	16,033	18,829	26,395	154,446
FARM TYPOLOGY (SEE TEXT)						
Small family farms:						
Limited resource farms ....farms	17,714	38,313	38,492	36,847	39,991	126,308
acres	5,692,082	7,149,669	4,417,010	2,952,433	2,315,793	13,112,596
Retirement farms ....farms	36,412	65,568	56,022	48,724	46,982	166,515
acres	12,120,907	13,986,036	7,278,075	4,538,561	3,373,564	25,858,367
Residential/lifestyle farms ....farms	51,633	97,055	94,143	90,870	101,056	309,699
acres	15,171,857	18,243,112	10,389,114	7,040,875	5,477,799	32,622,305
Farming occupation/lower sales ....farms	43,079	39,834	24,527	19,620	19,435	59,083
acres	20,118,889	11,923,032	3,884,851	2,247,031	1,768,649	10,023,487
Farming occupation/higher sales ....farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Large family farms ....farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Very large family farms ....farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Non-family farms ....farms	5,894	7,515	5,347	4,241	4,030	27,228
acres	6,682,604	14,537,538	1,653,895	707,473	755,734	26,205,964
LIVESTOCK						
Cattle and calves inventory ....farms	85,003	144,578	123,328	101,064	95,249	176,025
number	6,590,169	6,599,890	3,210,125	1,688,336	1,107,029	2,758,110
Farms with-						
1 to 9	5,233	12,917	21,266	34,655	53,164	97,790
10 to 49	27,848	82,519	90,127	63,150	40,635	70,207
50 to 99	27,808	39,356	10,559	2,812	1,184	5,783
100 to 199	20,320	8,585	1,155	355	185	1,384
200 to 499	3,566	1,042	185	84	66	675
500 or more	228	159	36	8	15	186
Cows and heifers that had calved ....farms	75,796	130,901	109,741	87,114	78,055	133,725
number	3,840,088	3,963,955	1,945,765	1,019,154	638,064	1,403,400
Beef cows ....farms	72,691	128,847	108,268	86,014	77,866	133,480
number	3,776,205	3,941,795	1,939,434	1,016,398	636,708	1,402,591
Farms with-						
1 to 9	6,610	16,458	26,788	42,598	55,416	87,451
10 to 49	32,040	92,888	78,510	42,648	22,084	44,061
50 to 99	26,385	17,367	2,659	661	304	1,420
100 to 199	7,042	1,872	279	83	46	383
200 to 499	580	231	29	21	16	144
500 or more	34	31	3	3	-	21

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
LIVESTOCK - Con.						
Cattle and calves inventory - Con.						
Cows and heifers that had calved - Con.						
Milk cows ..... farms	69,890	6,736	6,400	13,195	20,679	7,587
number	9,266,574	5,834,786	984,121	1,138,022	1,010,884	201,466
Farms with-						
1 to 9	14,426	57	112	279	852	1,118
10 to 49	19,912	62	182	807	9,797	5,884
50 to 99	18,986	171	764	7,815	9,574	563
100 to 199	8,975	461	3,870	4,178	438	22
200 to 499	4,307	2,715	1,460	115	17	-
500 or more	3,284	3,270	12	1	1	-
Other cattle (see text) ..... farms	788,633	23,237	24,920	42,808	70,208	59,447
number	54,246,483	24,274,671	5,366,671	6,057,749	6,028,630	3,375,529
Cattle and calves sold ..... farms	798,290	23,796	25,772	44,421	73,815	64,246
number	74,071,936	39,439,183	6,546,234	6,995,972	7,324,190	4,344,721
$1,000	61,209,970	38,034,160	5,123,708	5,140,331	4,950,680	2,723,746
Calves weighing less than 500 pounds ..... farms	414,324	11,914	12,065	20,730	35,540	31,503
number	13,695,252	4,293,490	1,226,979	1,450,317	1,767,410	1,258,389
Cattle, including calves weighing 500 pounds or more ..... farms	681,126	21,992	23,854	41,518	68,617	59,386
number	60,376,684	35,145,693	5,319,255	5,545,655	5,556,780	3,086,332
Cattle on feed (see text) ..... farms	76,396	6,154	5,460	8,355	10,991	7,458
number	27,595,928	24,661,327	1,092,234	810,536	539,155	208,735
Hogs and pigs inventory ..... farms	75,442	7,490	5,717	5,560	6,149	4,159
number	67,786,318	50,746,534	9,382,309	4,260,468	2,041,983	581,304
Farms with-						
1 to 24	45,047	328	436	792	1,648	1,728
25 to 49	4,292	62	93	178	440	422
50 to 99	3,182	37	103	244	473	501
100 to 199	2,590	56	143	341	644	577
200 to 499	4,524	233	538	1,114	1,494	710
500 or more	15,807	6,774	4,404	2,891	1,450	221
Used or to be used for breeding ..... farms	32,867	2,129	1,727	2,347	3,174	2,303
number	6,290,610	4,810,539	622,875	379,684	230,929	72,272
Other hogs and pigs ..... farms	66,441	7,410	5,568	5,373	5,774	3,825
number	61,495,708	45,935,995	8,759,434	3,880,784	1,811,054	509,032
Hogs and pigs sold ..... farms	74,789	7,694	5,994	5,938	6,574	4,394
number	206,807,181	162,594,936	25,936,052	11,191,758	4,746,019	1,149,061
$1,000	18,056,981	14,221,695	2,320,351	936,846	386,106	91,382
Sheep and lambs inventory ..... farms	83,134	724	1,128	2,004	4,038	3,705
number	5,819,162	1,053,511	712,812	705,005	917,376	455,190
Ewes 1 year old or older ..... farms	68,222	607	1,003	1,829	3,671	3,382
number	3,516,409	452,967	418,043	470,278	615,715	313,747
Sheep and lambs sold ..... farms	53,268	565	894	1,673	3,437	3,128
number	4,579,608	1,363,307	543,578	556,788	660,863	325,078
Horses and ponies inventory ..... farms	575,942	7,822	8,202	13,516	25,143	22,890
number	4,028,827	101,494	85,832	126,546	227,576	204,311
Owned ..... farms	501,528	6,592	6,831	11,054	20,495	18,718
number	3,224,964	83,904	70,507	102,816	182,925	163,525
Horses and ponies sold ..... farms	133,472	1,310	1,319	2,196	5,010	5,503
number	506,503	19,989	14,836	21,765	41,834	42,403
Owned ..... farms	106,050	1,104	1,078	1,781	4,102	4,555
number	400,845	17,978	13,127	18,198	36,524	36,980
Goats, all inventory ..... farms	144,466	795	939	1,560	3,165	3,575
number	3,140,529	53,704	54,694	147,698	297,702	216,866
Goats sold ..... farms	61,748	349	407	695	1,566	1,782
number	1,387,576	32,644	33,442	83,949	151,786	124,137
POULTRY						
Layers inventory (see text) ..... farms	145,615	1,231	1,804	3,040	5,334	5,017
number	349,772,508	288,598,969	28,742,820	20,632,748	7,187,770	990,961
Farms with-						
1 to 399	140,844	254	654	1,709	4,656	4,815
400 to 3,199	785	31	24	34	131	153
3,200 to 9,999	626	22	28	207	329	27
10,000 to 19,999	1,373	42	288	851	175	11
20,000 to 49,999	1,292	252	769	229	30	11
50,000 to 99,999	261	218	35	4	4	-
100,000 or more	434	412	6	6	9	-
Pullets for laying flock replacement inventory ..... farms	22,514	499	495	730	938	771
number	105,876,529	65,959,900	17,447,186	14,242,791	5,374,101	655,691
Layers sold ..... farms	24,971	760	1,199	1,557	1,261	848
number	194,955,057	141,441,267	25,599,134	19,562,400	6,175,704	641,147
Pullets for laying flock replacement sold (see text) ..... farms	4,169	360	456	598	411	158
number	161,354,686	90,538,815	34,574,939	25,989,614	9,223,777	674,575

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
LIVESTOCK - Con.						
Cattle and calves inventory - Con.						
Cows and heifers that had calved - Con.						
Milk cows ....farms	4,867	4,499	3,011	2,092	387	437
....number	63,883	22,160	6,331	2,756	1,356	809
Farms with-						
1 to 9	2,199	3,991	2,930	2,081	372	435
10 to 49	2,583	496	79	11	9	2
50 to 99	82	9	2	-	6	-
100 to 199	3	3	-	-	-	-
200 to 499	-	-	-	-	-	-
500 or more	-	-	-	-	-	-
Other cattle (see text) ....farms	75,499	122,569	99,237	77,621	69,667	123,420
....number	2,750,081	2,635,935	1,264,360	669,182	468,965	1,354,710
Cattle and calves sold ....farms	84,365	144,294	122,509	98,311	88,783	27,978
....number	3,638,921	3,362,643	1,434,978	640,206	299,048	45,840
....$1,000	2,148,442	1,866,151	750,652	314,667	139,175	18,258
Calves weighing less than 500 pounds ....farms	45,676	82,739	68,949	51,661	40,893	12,654
....number	1,234,524	1,352,394	642,443	301,398	143,457	24,451
Cattle, including calves weighing 500 pounds or more ....farms	77,299	127,429	102,085	77,211	64,472	17,263
....number	2,404,397	2,010,249	792,535	338,808	155,591	21,389
Cattle on feed (see text) ....farms	7,208	10,459	8,012	6,175	5,212	912
....number	115,250	93,509	43,042	20,289	10,682	1,169
Hogs and pigs inventory ....farms	4,349	6,670	6,691	6,849	8,584	13,224
....number	246,129	184,086	127,926	72,429	65,922	77,228
Farms with-						
1 to 24	2,538	4,898	5,570	6,137	8,108	12,864
25 to 49	563	751	649	497	363	274
50 to 99	553	598	352	168	92	61
100 to 199	408	278	85	39	10	9
200 to 499	248	139	27	5	9	7
500 or more	39	6	8	3	2	9
Used or to be used for breeding ....farms	2,508	3,550	3,277	3,228	3,532	5,092
....number	46,578	40,212	25,266	19,129	16,790	26,336
Other hogs and pigs ....farms	3,807	5,649	5,627	5,601	7,123	10,684
....number	199,551	143,874	102,660	53,300	49,132	50,892
Hogs and pigs sold ....farms	4,544	7,114	7,246	7,670	8,942	8,679
....number	442,903	339,327	171,793	113,747	81,242	40,343
....$1,000	39,037	27,630	14,462	9,728	6,775	2,968
Sheep and lambs inventory ....farms	5,106	8,774	8,780	9,705	12,997	26,173
....number	392,916	446,665	294,292	247,275	241,145	352,975
Ewes 1 year old or older ....farms	4,593	7,660	7,373	7,980	10,451	19,673
....number	270,386	298,451	190,912	154,441	143,622	187,847
Sheep and lambs sold ....farms	4,130	6,945	6,811	7,374	9,789	8,522
....number	287,507	316,237	200,756	150,295	121,876	53,323
Horses and ponies inventory ....farms	31,161	55,245	54,416	55,049	69,060	233,438
....number	259,651	403,855	346,646	322,363	371,032	1,579,521
Owned ....farms	25,780	46,648	46,825	48,019	60,870	209,696
....number	210,250	324,091	282,887	266,545	306,196	1,231,318
Horses and ponies sold ....farms	8,415	16,798	19,631	20,880	26,114	26,296
....number	50,170	75,619	61,787	55,624	57,642	64,834
Owned ....farms	7,238	14,637	17,561	18,720	23,438	11,836
....number	44,168	65,531	53,363	48,209	48,696	18,071
Goats, all inventory ....farms	5,663	12,254	13,671	16,344	24,682	61,818
....number	237,824	356,344	288,585	299,412	377,260	810,440
Goats sold ....farms	2,880	6,427	7,213	9,202	14,459	16,768
....number	127,074	199,719	163,475	168,398	186,024	116,928
POULTRY						
Layers inventory (see text) ....farms	7,444	14,911	16,447	19,000	26,409	44,978
....number	503,249	618,059	530,647	539,281	640,295	787,709
Farms with-						
1 to 399	7,271	14,721	16,411	18,987	26,398	44,968
400 to 3,199	162	187	35	11	11	6
3,200 to 9,999	8	1	1	1	-	2
10,000 to 19,999	2	2	-	1	-	1
20,000 to 49,999	1	-	-	-	-	-
50,000 to 99,999	-	-	-	-	-	-
100,000 or more	-	-	-	-	-	1
Pullets for laying flock replacement inventory ....farms	1,309	2,446	2,867	3,224	4,333	4,902
....number	231,155	292,755	218,647	329,880	227,223	897,200
Layers sold ....farms	1,239	2,597	3,051	3,522	4,676	4,261
....number	337,081	447,090	218,468	219,834	194,800	118,132
Pullets for laying flock replacement sold (see text) ....farms	186	304	363	429	502	402
....number	197,489	54,692	45,284	30,003	16,934	8,564

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
POULTRY - Con.						
Broilers and other meat-type chickens sold ... farms	27,091	9,096	4,967	2,482	1,371	717
... number	8,914,828,122	7,045,367,401	1,442,498,188	354,567,485	66,913,996	3,626,085
Farms with-						
1 to 1,999	9,743	51	89	236	507	535
2,000 to 59,999	618	40	23	35	205	182
60,000 to 99,999	623	4	20	86	513	-
100,000 or more	16,107	9,001	4,835	2,125	146	-
Turkeys inventory (see text) ... farms	17,226	1,532	778	367	459	486
... number	107,173,804	87,602,779	15,100,057	3,034,284	567,585	152,556
Turkeys sold (see text) ... farms	8,284	1,628	840	323	295	291
... number	295,793,159	249,313,239	38,119,583	6,764,369	1,218,871	110,814
CROPS HARVESTED						
Barley for grain ... farms	19,848	1,756	2,737	4,190	4,960	2,319
... acres	3,521,957	841,042	837,072	870,364	658,475	173,414
... bushels	207,089,232	61,400,549	50,733,047	48,442,146	31,964,417	8,363,132
Irrigated ... farms	4,241	669	554	742	935	451
... acres	741,475	305,334	124,729	137,452	108,968	33,135
Farms by acres harvested:						
1 to 24 acres	5,742	139	279	659	1,279	924
25 to 99 acres	5,405	349	576	1,051	1,526	814
100 to 249 acres	4,469	410	698	1,180	1,458	436
250 to 499 acres	2,552	325	634	915	520	123
500 acres or more	1,680	533	550	385	177	22
Corn for grain ... farms	347,760	24,462	34,081	55,047	76,781	49,412
... acres	86,248,542	25,815,939	19,950,392	19,058,305	13,489,282	4,431,824
... bushels	12,738,519,330	4,138,017,988	3,041,832,179	2,761,575,376	1,853,097,245	566,444,146
Irrigated ... farms	38,911	7,453	7,582	8,826	8,153	3,437
... acres	13,156,769	5,925,317	3,245,364	2,377,463	1,205,433	282,348
Farms by acres harvested:						
1 to 24 acres	68,008	453	616	1,419	4,841	4,841
25 to 99 acres	101,672	1,555	2,461	6,443	16,460	27,047
100 to 249 acres	78,166	2,890	4,804	11,945	38,034	16,343
250 to 499 acres	50,807	3,678	6,808	23,203	15,766	1,082
500 acres or more	49,107	15,886	19,392	12,037	1,680	99
Corn for silage or greenchop ... farms	84,317	9,210	9,640	16,691	22,381	9,528
... acres	5,979,661	2,395,079	1,004,298	1,078,854	892,962	280,493
... tons	104,224,795	48,742,156	17,454,118	17,045,234	12,938,654	3,856,193
Irrigated ... farms	9,664	3,312	1,570	1,528	1,476	740
... acres	1,497,288	996,188	198,246	141,281	97,674	33,611
Farms by acres harvested:						
1 to 24 acres	34,207	622	1,300	3,739	9,731	5,803
25 to 99 acres	34,878	2,447	4,589	9,925	11,040	3,323
100 to 249 acres	10,855	3,101	3,071	2,619	1,414	373
250 to 499 acres	2,859	1,780	527	333	177	23
500 acres or more	1,518	1,260	153	75	19	6
Cotton, all ... farms	18,605	3,156	3,582	3,704	3,742	1,578
... acres	10,493,238	3,890,765	2,955,337	2,037,402	1,192,944	244,315
... bales	18,898,128	8,128,621	5,249,493	3,292,842	1,699,165	322,408
Irrigated ... farms	8,776	2,205	2,162	1,822	1,483	514
... acres	4,035,610	2,013,378	1,090,477	588,469	269,588	45,847
Farms by acres harvested:						
1 to 24 acres	961	16	24	28	34	64
25 to 99 acres	3,043	114	137	225	490	517
100 to 249 acres	3,886	325	375	677	1,303	769
250 to 499 acres	3,738	476	750	1,058	1,229	181
500 acres or more	6,977	2,225	2,296	1,716	686	47
Dry edible beans, excluding limas ... farms	6,236	1,211	1,281	1,366	1,141	489
... acres	1,455,549	638,381	386,157	257,465	124,136	32,311
... cwt	25,353,900	11,845,560	6,504,141	4,263,277	2,013,048	483,511
Irrigated ... farms	2,456	550	403	456	476	210
... acres	353,503	174,134	68,952	59,349	37,392	8,934
Farms by acres harvested:						
1 to 24 acres	818	15	25	50	111	103
25 to 99 acres	1,709	129	180	336	552	302
100 to 249 acres	1,856	281	440	645	396	72
250 to 499 acres	1,066	312	395	280	71	6
500 acres or more	787	474	241	55	11	6
Oats for grain ... farms	42,558	1,422	2,492	5,444	9,608	6,363
... acres	1,509,149	158,639	178,179	304,585	387,496	188,815
... bushels	89,508,669	11,200,512	11,755,102	19,173,215	22,784,303	10,187,738
Irrigated ... farms	1,620	183	150	195	308	229
... acres	78,214	27,398	9,709	11,917	13,947	6,058
Farms by acres harvested:						
1 to 24 acres	27,044	374	870	2,239	5,178	4,210
25 to 99 acres	12,167	577	1,070	2,378	3,556	1,810
100 to 249 acres	2,643	289	424	650	717	299
250 to 499 acres	552	130	93	142	134	37
500 acres or more	152	52	35	35	23	7
Peanuts for nuts ... farms	6,182	797	861	1,166	1,428	628
... acres	1,200,564	412,137	280,901	242,192	180,501	44,302
... pounds	3,703,138,887	1,421,410,867	866,615,546	722,064,268	504,811,836	108,406,039
Irrigated ... farms	2,381	441	465	513	560	178
... acres	418,789	177,965	102,672	75,083	49,929	8,264

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
POULTRY - Con.						
Broilers and other meat-type chickens sold ....farms	907	1,445	1,437	1,415	1,767	1,487
....number	953,399	416,355	188,053	133,877	107,253	56,030
Farms with-						
1 to 1,999	818	1,409	1,429	1,415	1,767	1,487
2,000 to 59,999	89	36	8	-	-	-
60,000 to 99,999	-	-	-	-	-	-
100,000 or more	-	-	-	-	-	-
Turkeys inventory (see text) ....farms	843	1,581	1,900	2,264	2,915	4,101
....number	194,160	203,321	114,398	42,620	39,744	122,300
Turkeys sold (see text) ....farms	452	733	887	903	1,091	841
....number	132,279	77,442	23,613	14,470	12,567	5,912
CROPS HARVESTED						
Barley for grain ....farms	1,562	1,206	525	321	158	114
....acres	83,838	38,163	11,523	5,146	1,935	985
....bushels	3,660,956	1,744,407	495,239	196,132	61,543	27,664
Irrigated ....farms	404	254	106	65	35	26
....acres	20,030	8,210	2,101	745	485	286
Farms by acres harvested:						
1 to 24 acres	796	769	391	264	134	108
25 to 99 acres	539	355	115	50	24	6
100 to 249 acres	188	74	19	6	-	-
250 to 499 acres	27	7	-	1	-	-
500 acres or more	12	1	-	-	-	-
Corn for grain ....farms	39,476	31,769	16,619	9,716	5,853	4,544
....acres	2,041,771	949,267	290,290	121,470	52,185	47,817
....bushels	239,435,300	96,491,502	25,709,516	9,287,268	3,370,627	3,258,183
Irrigated ....farms	1,693	897	395	193	134	148
....acres	84,141	26,661	5,557	1,538	911	2,036
Farms by acres harvested:						
1 to 24 acres	8,259	15,885	13,233	8,736	5,512	4,213
25 to 99 acres	27,691	15,171	3,303	937	317	287
100 to 249 acres	3,324	663	73	33	23	34
250 to 499 acres	198	47	9	7	1	8
500 acres or more	4	3	1	3	-	2
Corn for silage or greenchop ....farms	6,562	5,261	2,133	1,202	722	987
....acres	156,331	104,469	30,488	15,403	8,173	13,111
....tons	2,098,244	1,317,608	355,224	171,987	89,664	155,713
Irrigated ....farms	461	283	120	84	51	39
....acres	17,978	8,268	1,728	879	606	829
Farms by acres harvested:						
1 to 24 acres	4,550	4,073	1,819	1,049	651	870
25 to 99 acres	1,850	1,085	296	146	68	109
100 to 249 acres	150	92	18	6	3	8
250 to 499 acres	10	8	-	1	-	-
500 acres or more	2	3	-	-	-	-
Cotton, all ....farms	1,138	888	433	219	121	44
....acres	107,669	46,283	13,276	3,568	1,453	226
....bales	133,937	53,523	13,524	3,257	1,205	153
Irrigated ....farms	308	165	64	32	11	10
....acres	20,589	5,669	1,127	391	47	28
Farms by acres harvested:						
1 to 24 acres	75	179	207	179	111	44
25 to 99 acres	675	617	219	39	10	-
100 to 249 acres	338	91	7	1	-	-
250 to 499 acres	43	1	-	-	-	-
500 acres or more	7	-	-	-	-	-
Dry edible beans, excluding limas ....farms	286	192	125	79	50	16
....acres	11,130	3,894	1,327	647	84	17
....cwt	161,691	57,775	14,509	8,782	1,350	256
Irrigated ....farms	101	82	72	63	33	10
....acres	3,227	1,013	303	146	42	11
Farms by acres harvested:						
1 to 24 acres	123	142	107	76	50	16
25 to 99 acres	147	45	17	1	-	-
100 to 249 acres	15	4	1	2	-	-
250 to 499 acres	1	1	-	-	-	-
500 acres or more	-	-	-	-	-	-
Oats for grain ....farms	5,555	5,265	2,840	1,653	993	923
....acres	126,894	89,368	37,266	18,737	10,342	8,828
....bushels	6,849,031	4,349,434	1,717,258	777,657	393,223	321,196
Irrigated ....farms	177	133	91	68	60	26
....acres	4,250	2,510	1,026	630	581	188
Farms by acres harvested:						
1 to 24 acres	4,079	4,337	2,521	1,481	908	847
25 to 99 acres	1,309	852	291	168	83	73
100 to 249 acres	158	70	28	3	2	3
250 to 499 acres	9	6	-	1	-	-
500 acres or more	-	-	-	-	-	-
Peanuts for nuts ....farms	530	425	139	100	52	56
....acres	24,273	12,641	2,091	941	330	255
....pounds	52,282,102	22,293,686	3,694,247	1,228,609	193,955	137,732
Irrigated ....farms	105	54	18	22	11	14
....acres	3,661	922	83	113	15	82

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
CROPS HARVESTED - Con.						
Peanuts for nuts - Con.						
Farms by acres harvested:						
1 to 24 acres	915	15	15	18	52	88
25 to 99 acres	1,909	81	97	231	605	377
100 to 249 acres	1,886	175	302	551	651	151
250 to 499 acres	920	216	284	302	106	11
500 acres or more	552	310	163	64	14	1
Rice ... farms	6,084	1,175	1,435	1,477	1,086	457
acres	2,758,792	1,217,224	760,779	496,823	213,967	49,101
cwt	198,538,690	90,080,324	54,824,369	34,861,011	14,696,726	2,875,049
Irrigated ... farms	6,084	1,175	1,435	1,477	1,086	457
acres	2,758,792	1,217,224	760,779	496,823	213,967	49,101
Farms by acres harvested:						
1 to 24 acres	132	2	6	2	4	8
25 to 99 acres	915	40	53	77	178	252
100 to 249 acres	1,459	83	183	361	637	168
250 to 499 acres	1,616	162	408	790	226	28
500 acres or more	1,962	888	785	247	41	1
Sorghum for grain ... farms	26,242	2,531	3,514	4,902	6,179	3,701
acres	6,769,834	1,703,054	1,548,667	1,547,135	1,226,419	431,548
bushels	482,452,865	132,630,480	117,579,232	110,604,581	80,686,529	25,556,164
Irrigated ... farms	4,483	858	930	983	884	400
acres	845,214	304,134	196,714	165,662	120,442	35,601
Farms by acres harvested:						
1 to 24 acres	2,609	69	82	153	334	338
25 to 99 acres	8,335	283	504	864	1,867	1,801
100 to 249 acres	7,302	564	952	1,590	2,319	1,222
250 to 499 acres	4,377	549	855	1,384	1,227	270
500 acres or more	3,619	1,066	1,121	911	432	70
Soybeans for beans ... farms	279,110	19,028	28,786	46,143	62,192	41,587
acres	63,915,821	15,277,727	14,854,002	14,861,183	11,279,666	4,123,328
bushels	2,582,423,697	658,566,570	624,737,487	600,954,340	437,097,281	150,259,200
Irrigated ... farms	20,333	3,717	4,252	4,889	4,191	1,689
acres	5,237,075	2,137,636	1,410,232	990,835	500,814	129,363
Farms by acres harvested:						
1 to 24 acres	38,458	350	450	1,162	2,568	2,805
25 to 99 acres	90,935	1,496	2,433	5,535	14,227	23,470
100 to 249 acres	70,698	2,906	4,575	12,225	31,765	13,309
250 to 499 acres	44,381	3,482	7,787	19,304	11,543	1,752
500 acres or more	34,638	10,794	13,541	7,917	2,089	251
Sugarbeets for sugar ... farms	4,022	1,143	1,159	862	547	179
acres	1,253,817	706,228	346,709	141,857	47,619	8,044
tons	31,937,325	18,735,633	8,337,763	3,463,802	1,141,193	183,350
Irrigated ... farms	1,595	488	372	355	239	82
acres	394,675	228,165	87,522	54,905	18,975	3,665
Sugarcane for sugar ... farms	692	241	152	113	46	42
acres	846,666	679,750	109,293	42,061	9,796	3,615
tons	31,127,405	25,432,680	3,772,283	1,420,972	313,341	121,761
Irrigated ... farms	219	88	28	33	22	21
acres	435,205	410,573	10,313	8,618	3,666	1,585
Sunflower seed, all ... farms	6,403	921	1,417	1,670	1,397	473
acres	2,000,153	653,330	568,044	462,532	238,850	53,227
pounds	2,820,962,445	969,772,209	820,594,953	639,034,274	307,100,677	63,521,432
Irrigated ... farms	608	174	148	117	103	31
acres	102,219	50,045	22,298	17,143	10,086	2,039
Farms by acres harvested:						
1 to 24 acres	502	16	34	50	95	49
25 to 99 acres	1,153	59	122	207	383	194
100 to 249 acres	2,110	178	381	659	622	199
250 to 499 acres	1,494	214	466	533	242	31
500 acres or more	1,144	454	414	221	55	-
Tobacco ... farms	16,234	679	823	1,279	2,821	2,350
acres	359,846	94,566	66,557	63,328	63,119	32,675
pounds	778,301,825	221,417,357	152,875,261	139,601,494	128,921,693	63,838,434
Irrigated ... farms	2,572	200	265	355	564	439
acres	71,578	17,668	15,958	14,591	13,589	5,136
Farms by acres harvested:						
0.1 to 0.9 acres	235	2	1	4	5	6
1.0 to 1.9 acres	1,493	4	7	13	41	28
2.0 to 2.9 acres	1,827	8	14	23	118	107
3.0 to 4.9 acres	2,772	15	19	49	300	231
5.0 to 9.9 acres	3,459	32	47	121	690	532
10.0 to 24.9 acres	3,129	70	92	213	757	1,165
25.0 acres or more	3,319	548	643	856	910	281
Wheat for grain, all ... farms	160,810	13,717	19,056	27,971	35,265	22,227
acres	50,932,969	11,748,747	11,516,114	11,731,262	9,536,719	3,412,326
bushels	1,993,648,378	575,539,168	483,874,271	437,990,616	313,485,442	102,935,596
Irrigated ... farms	15,213	3,429	2,846	3,022	2,823	1,347
acres	3,364,079	1,668,389	660,995	511,795	332,578	106,966
Farms by acres harvested:						
1 to 24 acres	26,703	494	908	2,050	3,511	3,804
25 to 99 acres	49,409	2,153	3,688	6,534	10,784	8,693
100 to 249 acres	34,703	2,806	4,041	6,622	8,952	5,362
250 to 499 acres	21,167	2,351	3,348	4,841	5,860	2,977
500 acres or more	28,828	5,913	7,071	7,924	6,158	1,391

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
CROPS HARVESTED - Con.						
Peanuts for nuts - Con.						
Farms by acres harvested:						
1 to 24 acres	175	237	114	95	51	55
25 to 99 acres	316	171	24	5	1	1
100 to 249 acres	38	17	1	-	-	-
250 to 499 acres	1	-	-	-	-	-
500 acres or more	-	-	-	-	-	-
Rice ....farms	270	138	32	11	3	-
acres	15,196	4,980	599	117	6	-
cwt	919,732	252,808	23,006	5,278	387	-
Irrigated ....farms	270	138	32	11	3	-
acres	15,196	4,980	599	117	6	-
Farms by acres harvested:						
1 to 24 acres	11	59	26	11	3	-
25 to 99 acres	239	71	5	-	-	-
100 to 249 acres	18	8	1	-	-	-
250 to 499 acres	2	-	-	-	-	-
500 acres or more	-	-	-	-	-	-
Sorghum for grain ....farms	2,468	1,690	665	302	168	122
acres	187,043	89,055	23,178	7,180	3,003	3,552
bushels	10,005,962	4,038,277	902,890	214,692	92,438	141,620
Irrigated ....farms	186	112	62	31	9	28
acres	11,952	6,668	2,803	489	70	679
Farms by acres harvested:						
1 to 24 acres	396	494	313	193	140	97
25 to 99 acres	1,547	1,002	325	104	22	16
100 to 249 acres	443	175	21	5	6	5
250 to 499 acres	66	16	6	-	-	4
500 acres or more	16	3	-	-	-	-
Soybeans for beans ....farms	32,247	24,741	11,840	6,732	4,276	1,538
acres	1,993,706	1,018,870	312,290	120,892	53,658	20,499
bushels	67,308,492	30,744,168	8,304,072	2,896,109	1,054,290	501,688
Irrigated ....farms	780	501	177	84	44	9
acres	43,032	19,045	4,363	1,423	277	55
Farms by acres harvested:						
1 to 24 acres	4,970	8,626	7,022	5,290	3,804	1,411
25 to 99 acres	22,415	14,784	4,618	1,398	457	102
100 to 249 acres	4,453	1,202	194	38	15	16
250 to 499 acres	373	120	6	6	-	8
500 acres or more	36	9	-	-	-	1
Sugarbeets for sugar ....farms	83	35	8	3	-	3
acres	2,613	633	(D)	(D)	-	3
tons	58,221	15,146	1,967	220	-	30
Irrigated ....farms	35	16	2	3	-	3
acres	(D)	228	(D)	(D)	-	3
Sugarcane for sugar ....farms	36	35	13	2	11	1
acres	1,174	(D)	81	(D)	19	(D)
tons	35,558	28,080	1,961	(D)	(D)	(D)
Irrigated ....farms	4	6	7	1	8	1
acres	92	330	9	(D)	(D)	(D)
Sunflower seed, all ....farms	214	125	63	55	45	23
acres	14,184	7,008	1,196	675	268	839
pounds	14,031,945	4,920,118	726,497	304,562	111,761	844,017
Irrigated ....farms	13	5	6	2	6	3
acres	491	32	69	(D)	11	(D)
Farms by acres harvested:						
1 to 24 acres	52	54	44	45	44	19
25 to 99 acres	112	47	18	10	1	-
100 to 249 acres	47	19	1	-	-	4
250 to 499 acres	3	5	-	-	-	-
500 acres or more	-	-	-	-	-	-
Tobacco ....farms	2,676	3,057	1,535	721	240	53
acres	20,775	13,171	3,856	1,332	356	111
pounds	39,472,703	23,627,597	6,306,092	1,810,239	316,947	114,008
Irrigated ....farms	374	242	93	24	9	7
acres	3,296	1,016	214	57	8	45
Farms by acres harvested:						
0.1 to 0.9 acres	16	30	62	39	57	13
1.0 to 1.9 acres	111	312	410	403	136	28
2.0 to 2.9 acres	215	598	551	162	27	4
3.0 to 4.9 acres	523	1,138	398	81	14	4
5.0 to 9.9 acres	1,120	798	89	26	1	3
10.0 to 24.9 acres	630	166	22	10	4	-
25.0 acres or more	61	15	3	-	1	1
Wheat for grain, all ....farms	17,469	13,601	5,830	2,945	1,764	965
acres	1,667,152	881,300	254,768	93,739	36,600	54,242
bushels	47,235,240	22,770,174	5,655,955	2,014,829	634,486	1,512,601
Irrigated ....farms	817	524	191	123	41	50
acres	47,885	21,302	5,220	1,709	638	6,602
Farms by acres harvested:						
1 to 24 acres	4,605	4,815	2,715	1,795	1,322	684
25 to 99 acres	7,438	6,041	2,543	983	408	144
100 to 249 acres	3,844	2,304	508	156	29	79
250 to 499 acres	1,309	378	49	7	5	42
500 acres or more	273	63	15	4	-	16

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
CROPS HARVESTED - Con.						
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ..... farms	869,534	22,942	26,179	44,051	72,483	61,764
acres	61,455,483	7,031,010	5,324,854	7,662,553	10,157,902	6,731,016
tons, dry	155,393,762	31,376,096	17,173,480	21,514,994	25,230,598	15,322,867
Irrigated ..... farms	86,007	6,705	4,765	6,694	9,680	7,632
acres	10,264,753	3,158,000	1,364,487	1,553,971	1,704,804	858,795
Farms by acres harvested:						
1 to 24 acres	367,533	3,106	4,151	6,649	12,410	12,034
25 to 99 acres	345,273	6,781	8,486	15,342	28,898	25,775
100 to 249 acres	111,368	5,744	7,665	13,344	19,778	17,645
250 to 499 acres	30,370	3,619	3,399	5,415	7,805	5,054
500 acres or more	14,990	3,692	2,478	3,301	3,592	1,256
Alfalfa hay ..... farms	290,726	10,881	14,818	27,832	45,492	31,297
acres	20,244,497	3,289,451	2,321,229	3,370,472	4,320,349	2,297,548
tons, dry	65,349,074	17,212,657	8,904,054	10,880,016	12,252,235	6,006,568
Irrigated ..... farms	56,390	4,247	3,367	4,989	7,483	5,650
acres	6,556,652	2,106,424	885,340	987,910	1,080,990	551,506
Other tame hay ..... farms	496,740	10,668	11,533	16,869	28,199	30,490
acres	26,763,972	1,665,024	1,571,650	2,225,327	3,346,711	3,095,744
tons, dry	54,347,673	4,813,134	3,803,247	5,057,820	7,357,215	6,700,329
Irrigated ..... farms	24,348	1,774	1,211	1,590	2,228	1,897
acres	1,699,864	384,326	200,461	256,614	291,335	162,077
Field and grass seed crops, all ..... farms	6,038	583	577	729	1,010	716
acres	1,178,726	476,289	217,658	181,502	146,096	62,138
Irrigated ..... farms	1,457	353	233	220	231	125
acres	323,441	194,353	51,546	38,031	24,372	8,388
Land in vegetables (see text) ..... farms	69,172	4,833	3,074	3,671	5,465	5,491
acres	4,356,880	3,168,433	440,799	297,672	194,500	93,229
Irrigated ..... farms	29,885	3,520	1,737	1,810	2,567	2,478
acres	3,068,485	2,542,247	241,427	136,714	70,487	29,018
Farms by acres harvested:						
0.1 to 4.9 acres	41,453	164	232	468	1,255	1,843
5.0 to 24.9 acres	13,869	252	300	659	1,777	2,573
25.0 to 99.9 acres	6,671	559	905	1,451	1,975	967
100.0 to 249.9 acres	3,473	952	1,098	884	420	94
250.0 acres or more	3,706	2,906	539	209	38	14
Snap beans ..... farms	17,300	698	559	787	1,149	1,425
acres	303,997	190,851	44,261	33,537	18,473	7,005
Harvested for processing ..... farms	1,999	352	275	275	201	125
acres	198,101	114,004	35,783	25,990	13,296	4,915
Peas, green ..... farms	4,532	566	443	587	533	414
acres	214,057	109,517	40,511	31,001	18,218	9,895
Harvested for processing ..... farms	2,047	492	371	450	368	184
acres	206,092	106,977	38,968	29,605	17,528	9,497
Potatoes ..... farms	15,014	1,288	644	708	1,064	1,204
acres	1,131,963	937,603	107,626	52,163	21,088	5,288
Harvested for processing ..... farms	1,739	665	248	175	116	55
acres	599,604	527,323	44,003	19,799	6,715	1,170
Farms by acres harvested:						
0.1 to 4.9 acres	12,013	87	106	248	691	1,033
5.0 to 24.9 acres	612	42	32	68	112	114
25.0 to 99.9 acres	539	52	69	154	200	52
100.0 to 249.9 acres	714	185	263	202	58	4
250.0 acres or more	1,136	922	174	36	3	1
Sweet corn ..... farms	28,241	1,161	992	1,526	2,422	2,413
acres	622,946	335,563	74,926	76,434	59,925	28,899
Harvested for processing ..... farms	3,670	554	402	557	580	311
acres	361,886	198,998	51,862	52,858	35,265	13,935
Sweet potatoes ..... farms	1,910	168	110	128	186	158
acres	105,284	68,953	16,206	9,705	5,494	1,793
Harvested for processing ..... farms	259	55	41	41	32	24
acres	21,360	12,228	3,935	3,135	1,564	334
Tomatoes in the open ..... farms	25,809	1,002	555	868	1,730	2,266
acres	442,225	390,681	21,296	8,823	6,777	3,749
Harvested for processing ..... farms	1,761	461	96	70	65	72
acres	319,549	298,206	14,638	3,810	2,026	248
Land in orchards ..... farms	115,935	4,241	3,182	4,827	9,457	10,130
acres	5,039,476	2,604,203	543,180	478,709	475,069	286,962
Irrigated ..... farms	61,189	3,680	2,558	3,628	6,294	6,197
acres	3,981,316	2,427,593	444,834	361,752	311,406	156,922
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres	52,775	143	159	258	751	1,029
5.0 to 24.9 acres	37,043	296	243	505	2,237	5,294
25.0 to 99.9 acres	17,119	522	744	2,181	5,431	3,483
100.0 to 249.9 acres	5,434	842	1,378	1,625	938	280
250.0 acres or more	3,564	2,438	658	258	100	44
Apples ..... farms	25,591	778	689	1,047	1,858	1,862
bearing and nonbearing acres	398,770	193,847	50,595	44,500	41,098	20,603
Grapes ..... farms	25,892	1,231	847	1,276	2,560	2,502
bearing and nonbearing acres	1,051,407	585,554	113,249	101,036	108,879	56,658
Peaches, all ..... farms	13,582	539	446	599	1,117	960
bearing and nonbearing acres	149,237	72,096	22,380	14,827	14,774	6,821

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
CROPS HARVESTED - Con.						
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ....farms	80,614	134,029	112,609	93,932	86,569	134,362
acres	6,406,231	7,262,635	4,074,926	2,528,594	1,764,467	2,511,295
tons, dry	13,827,302	14,251,252	7,214,806	3,975,865	2,394,536	3,111,965
Irrigated ....farms	8,059	10,588	8,302	7,426	6,825	9,331
acres	591,514	459,420	222,870	129,549	82,112	139,231
Farms by acres harvested:						
1 to 24 acres	16,789	37,588	50,267	55,945	63,148	105,446
25 to 99 acres	41,006	77,798	56,306	35,612	22,265	27,004
100 to 249 acres	19,496	17,014	5,627	2,265	1,096	1,694
250 to 499 acres	2,913	1,487	375	97	56	150
500 acres or more	410	142	34	13	4	68
Alfalfa hay ....farms	30,107	37,008	25,807	20,648	18,091	28,745
acres	1,585,495	1,390,575	657,392	394,652	254,554	362,780
tons, dry	3,962,919	3,142,382	1,319,422	712,496	406,952	549,373
Irrigated ....farms	5,656	6,846	5,129	4,325	3,802	4,896
acres	377,796	270,258	122,273	69,725	42,040	62,390
Other tame hay ....farms	48,609	88,834	75,507	60,220	52,244	73,567
acres	3,676,808	4,569,668	2,607,669	1,573,467	1,039,385	1,392,519
tons, dry	7,706,637	8,797,876	4,577,694	2,427,104	1,388,235	1,718,382
Irrigated ....farms	2,207	3,191	2,653	2,427	2,212	2,958
acres	122,008	115,962	61,859	40,586	23,934	40,702
Field and grass seed crops, all ....farms	675	659	378	309	187	215
acres	42,919	28,256	11,625	6,201	2,814	3,228
Irrigated ....farms	73	79	34	43	34	32
acres	2,432	1,958	597	362	319	1,083
Land in vegetables (see text) ....farms	7,488	12,336	9,813	7,701	5,677	3,623
acres	63,288	50,587	23,646	13,083	7,678	3,966
Irrigated ....farms	3,082	4,855	3,789	2,853	2,073	1,121
acres	18,028	14,936	7,790	4,466	2,268	1,106
Farms by acres harvested:						
0.1 to 4.9 acres	3,750	9,092	8,541	7,177	5,442	3,489
5.0 to 24.9 acres	3,170	3,045	1,228	513	222	130
25.0 to 99.9 acres	552	194	44	9	11	4
100.0 to 249.9 acres	16	5	-	2	2	-
250.0 acres or more	-	-	-	-	-	-
Snap beans ....farms	2,231	3,790	2,821	1,863	1,236	741
acres	4,548	2,883	1,074	749	351	265
Harvested for processing ....farms	138	189	123	125	127	69
acres	2,780	922	151	209	35	17
Peas, green ....farms	379	599	437	288	172	114
acres	2,970	1,159	450	186	104	46
Harvested for processing ....farms	81	42	25	11	15	8
acres	2,639	725	138	5	7	5
Potatoes ....farms	1,853	3,075	2,182	1,493	920	583
acres	2,872	2,651	1,149	875	440	210
Harvested for processing ....farms	60	137	84	93	62	44
acres	223	256	54	37	13	11
Farms by acres harvested:						
0.1 to 4.9 acres	1,713	2,981	2,169	1,486	917	582
5.0 to 24.9 acres	131	91	13	6	2	1
25.0 to 99.9 acres	8	3	-	-	1	-
100.0 to 249.9 acres	1	-	-	1	-	-
250.0 acres or more	-	-	-	-	-	-
Sweet corn ....farms	3,200	5,226	4,247	3,214	2,426	1,414
acres	18,918	13,878	7,668	3,830	1,986	919
Harvested for processing ....farms	269	283	225	206	171	112
acres	6,558	1,636	384	224	111	56
Sweet potatoes ....farms	253	324	237	160	106	80
acres	1,877	713	266	180	70	31
Harvested for processing ....farms	23	18	9	12	4	-
acres	120	40	2	2	(Z)	-
Tomatoes in the open ....farms	3,522	5,892	4,247	2,809	1,795	1,123
acres	3,774	3,689	1,591	858	542	445
Harvested for processing ....farms	143	217	195	187	155	100
acres	214	135	125	62	42	45
Land in orchards ....farms	13,875	21,056	14,168	11,844	8,619	14,536
acres	229,395	194,418	68,274	40,378	23,470	95,417
Irrigated ....farms	7,643	10,252	6,547	5,441	3,755	5,194
acres	112,813	77,407	25,092	13,233	7,179	43,085
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres	2,809	9,771	10,063	9,880	7,476	10,436
5.0 to 24.9 acres	8,570	9,924	3,782	1,762	1,029	3,401
25.0 to 99.9 acres	2,332	1,243	288	190	107	598
100.0 to 249.9 acres	141	99	34	11	7	79
250.0 acres or more	23	19	1	1	-	22
Apples ....farms	2,727	4,542	3,511	2,686	2,033	3,858
bearing and nonbearing acres	15,484	13,178	5,479	3,384	2,592	8,012
Grapes ....farms	3,076	4,512	2,925	2,491	1,672	2,800
bearing and nonbearing acres	38,133	26,481	8,025	4,133	1,946	7,314
Peaches, all ....farms	1,427	2,225	1,806	1,465	1,045	1,953
bearing and nonbearing acres	5,856	5,047	2,492	1,271	837	2,837

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
CROPS HARVESTED - Con.						
Land in orchards - Con.						
Citrus fruit, all ..... farms	15,658	741	544	908	1,615	1,874
bearing and nonbearing acres	1,005,806	647,383	87,812	85,654	74,412	44,153
Almonds ..... farms	6,700	1,054	526	621	970	772
bearing and nonbearing acres	790,245	525,960	86,914	65,068	51,639	21,923
Pecans ..... farms	21,856	346	266	380	1,016	1,353
bearing and nonbearing acres	581,809	104,922	43,631	52,752	71,721	72,352
Walnuts, English ..... farms	7,161	441	314	400	605	508
bearing and nonbearing acres	267,751	105,592	39,045	35,199	32,154	16,408
Land in berries (see text) ..... farms	25,017	866	710	1,042	2,026	2,171
acres	261,733	130,105	28,010	23,950	23,406	15,219

See footnote(s) at end of table.

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Table 59. **Summary by Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
CROPS HARVESTED - Con.						
Land in orchards - Con.						
Citrus fruit, all ....farms	2,425	2,912	1,578	1,287	889	885
bearing and nonbearing acres	33,450	20,189	5,336	2,402	1,291	3,724
Almonds ....farms	879	752	316	191	109	510
bearing and nonbearing acres	15,432	8,623	1,476	329	305	12,575
Pecans ....farms	2,282	4,575	3,156	2,540	1,887	4,055
bearing and nonbearing acres	70,001	77,683	28,667	17,584	9,840	32,655
Walnuts, English ....farms	700	1,019	802	776	613	983
bearing and nonbearing acres	13,843	10,791	4,270	3,260	1,635	5,555
Land in berries (see text) ....farms	3,180	4,603	3,195	2,367	1,735	3,122
acres	12,551	11,554	4,916	2,842	2,572	6,609

[1] Landlord production expenses are included with total farm production expenses.
[2] Farms with a zero net cash income are included as farms with net gains of less than $1,000.

Table 60. Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
FARMS AND LAND IN FARMS						
Farms ..... number	2,204,792	57,292	63,567	96,251	149,049	129,124
percent	100.0	2.6	2.9	4.4	6.8	5.9
Land in farms ..... acres	922,095,840	149,421,698	123,795,313	143,059,892	149,338,327	79,734,620
Average size of farm ..... acres	418	2,608	1,947	1,486	1,002	618
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS						
Total ..... farms	2,204,792	57,292	63,567	96,251	149,049	129,124
$1,000	305,204,413	179,241,475	44,578,145	34,366,766	24,400,981	9,219,416
Average per farm ..... dollars	138,428	3,128,560	701,278	357,054	163,711	71,400
Farms by economic class:						
Less than $1,000 (see text)	499,880	-	-	-	-	-
$1,000 to $2,499	270,712	-	-	-	-	-
$2,500 to $4,999	246,309	-	-	-	-	-
$5,000 to $9,999	254,834	-	-	-	-	-
$10,000 to $24,999	274,274	-	-	-	-	-
$25,000 to $49,999	163,500	-	-	-	-	-
$50,000 to $99,999	129,124	-	-	-	-	129,124
$100,000 to $249,999	149,049	-	-	-	149,049	-
$250,000 to $499,999	96,251	-	-	96,251	-	-
$500,000 to $999,999	63,567	-	63,567	-	-	-
$1,000,000 or more	57,292	57,292	-	-	-	-
$1,000,000 to $2,499,999	41,863	41,863	-	-	-	-
$2,500,000 to $4,999,999	9,845	9,845	-	-	-	-
$5,000,000 or more	5,584	5,584	-	-	-	-
Total sales ..... farms	2,204,792	57,292	63,567	96,251	149,049	129,124
$1,000	297,220,491	177,506,579	43,155,934	32,979,970	23,255,874	8,644,217
Grains, oilseeds, dry beans, and dry peas ..... farms	479,467	31,640	43,906	68,566	94,602	66,725
$1,000	77,215,262	25,838,748	19,363,508	16,185,542	10,386,581	3,273,787
Sales of $50,000 or more ..... farms	235,343	27,696	39,200	58,439	73,536	36,472
$1,000	73,535,966	25,759,771	19,270,439	15,993,564	10,005,987	2,506,207
Corn ..... farms	347,540	26,061	35,651	54,994	73,638	49,800
$1,000	39,909,600	14,247,619	9,825,119	8,108,488	5,137,254	1,588,906
Sales of $50,000 or more ..... farms	151,428	22,074	30,168	43,304	46,738	9,144
$1,000	36,859,125	14,164,287	9,708,954	7,867,775	4,543,240	574,869
Wheat ..... farms	159,527	14,581	20,201	28,739	35,392	21,976
$1,000	10,623,640	3,385,310	2,728,409	2,283,910	1,474,309	444,828
Sales of $50,000 or more ..... farms	47,250	9,589	11,703	13,292	10,463	2,203
$1,000	8,944,760	3,275,901	2,545,385	1,967,918	1,014,577	140,979
Soybeans ..... farms	285,089	20,297	30,594	47,273	62,544	42,674
$1,000	20,283,986	5,668,644	5,092,796	4,559,327	3,135,464	1,072,621
Sales of $50,000 or more ..... farms	109,269	16,866	25,392	35,495	28,684	2,832
$1,000	17,191,360	5,588,170	4,963,078	4,263,441	2,201,547	175,124
Sorghum ..... farms	27,142	2,923	3,897	5,162	6,302	3,691
$1,000	1,651,798	519,614	417,168	361,493	240,574	73,366
Sales of $50,000 or more ..... farms	8,972	1,960	2,402	2,644	1,720	246
$1,000	1,348,798	499,689	383,588	305,557	144,389	15,574
Barley ..... farms	18,326	1,784	2,746	4,079	4,330	2,076
$1,000	701,047	227,451	180,363	163,381	91,878	22,848
Sales of $50,000 or more ..... farms	3,973	989	1,244	1,180	493	67
$1,000	526,415	214,162	153,054	114,456	40,388	4,355
Rice ..... farms	6,085	1,313	1,542	1,464	993	399
$1,000	2,020,231	1,010,002	561,485	316,767	105,492	18,931
Sales of $50,000 or more ..... farms	5,184	1,281	1,496	1,402	831	174
$1,000	1,995,322	1,009,068	560,011	314,683	100,115	11,444
Other grains, oilseeds, dry beans, and dry peas ..... farms	55,228	4,437	6,245	9,059	11,280	6,972
$1,000	2,024,959	780,109	558,169	392,175	201,609	52,287
Sales of $50,000 or more ..... farms	10,062	2,507	3,133	3,004	1,286	132
$1,000	1,698,514	754,048	517,191	318,891	100,336	8,047
Tobacco ..... farms	16,228	705	870	1,298	2,831	2,343
$1,000	1,268,114	402,029	258,490	214,768	196,426	93,994
Sales of $50,000 or more ..... farms	4,495	611	733	1,009	1,388	754
$1,000	1,076,035	399,736	255,283	207,763	163,095	50,158
Cotton and cottonseed ..... farms	18,591	3,608	3,922	3,869	3,302	1,453
$1,000	4,898,608	2,586,848	1,281,162	665,733	276,814	55,701
Sales of $50,000 or more ..... farms	13,232	3,427	3,676	3,424	2,288	417
$1,000	4,784,510	2,581,576	1,274,785	653,497	247,484	27,169
Vegetables, melons, potatoes, and sweet potatoes ..... farms	69,100	5,001	3,188	3,779	5,624	5,570
$1,000	14,683,058	12,345,182	917,681	519,026	361,134	195,838
Sales of $50,000 or more ..... farms	13,824	4,450	2,389	2,375	2,675	1,935
$1,000	14,167,307	12,333,826	901,236	492,669	311,201	128,375
Fruits, tree nuts, and berries ..... farms	112,690	4,747	3,561	5,432	10,495	11,297
$1,000	18,625,459	12,465,731	1,922,837	1,486,015	1,282,408	630,694
Sales of $50,000 or more ..... farms	28,824	4,256	3,117	4,629	8,452	8,370
$1,000	17,681,378	12,456,452	1,916,049	1,473,823	1,253,503	581,550
Nursery, greenhouse, floriculture, and sod (see text) ..... farms	50,784	3,338	2,393	3,206	6,553	5,173
$1,000	16,632,734	13,000,583	1,349,257	874,888	792,905	276,920
Sales of $50,000 or more ..... farms	17,039	3,152	2,164	2,783	5,346	3,594
$1,000	16,227,627	12,997,571	1,345,412	867,407	772,229	245,008
Cut Christmas trees and short-rotation woody crops ..... farms	13,374	149	150	246	655	795
$1,000	384,594	157,692	41,642	34,634	52,070	32,148
Sales of $50,000 or more ..... farms	1,088	104	90	127	368	399
$1,000	306,465	156,915	40,850	32,997	48,821	26,883

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
FARMS AND LAND IN FARMS						
Farms ....number	163,500	274,274	254,834	246,309	270,712	499,880
percent	7.4	12.4	11.6	11.2	12.3	22.7
Land in farms ....acres	61,673,246	73,948,809	34,304,165	23,557,915	18,888,110	64,373,745
Average size of farm ....acres	377	270	135	96	70	129
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS						
Total ....farms	163,500	274,274	254,834	246,309	270,712	499,880
$1,000	5,794,771	4,363,801	1,810,538	883,995	448,240	96,287
Average per farm ....dollars	35,442	15,910	7,105	3,589	1,656	193
Farms by economic class:						
Less than $1,000 (see text)	-	-	-	-	-	499,880
$1,000 to $2,499	-	-	-	-	270,712	-
$2,500 to $4,999	-	-	-	246,309	-	-
$5,000 to $9,999	-	-	254,834	-	-	-
$10,000 to $24,999	-	274,274	-	-	-	-
$25,000 to $49,999	163,500	-	-	-	-	-
$50,000 to $99,999	-	-	-	-	-	-
$100,000 to $249,999	-	-	-	-	-	-
$250,000 to $499,999	-	-	-	-	-	-
$500,000 to $999,999	-	-	-	-	-	-
$1,000,000 or more	-	-	-	-	-	-
$1,000,000 to $2,499,999	-	-	-	-	-	-
$2,500,000 to $4,999,999	-	-	-	-	-	-
$5,000,000 or more	-	-	-	-	-	-
Total sales ....farms	163,500	274,274	254,834	246,309	270,712	499,880
$1,000	5,286,277	3,809,812	1,487,807	684,721	332,461	76,839
Grains, oilseeds, dry beans, and dry peas ....farms	57,894	53,424	29,293	17,762	10,992	4,663
$1,000	1,393,339	570,468	142,230	45,383	13,759	1,919
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Corn ....farms	40,067	32,748	16,628	9,507	5,577	2,869
$1,000	655,454	254,834	64,041	20,877	5,965	1,043
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Wheat ....farms	17,000	12,486	5,096	2,364	1,285	407
$1,000	198,219	83,229	18,703	5,073	1,457	193
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Soybeans ....farms	32,996	25,408	11,761	6,646	3,952	944
$1,000	473,265	206,158	52,550	17,223	5,439	500
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Sorghum ....farms	2,493	1,610	616	219	174	55
$1,000	27,166	9,855	2,028	375	143	18
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Barley ....farms	1,391	1,064	440	252	106	58
$1,000	9,851	3,838	1,024	318	74	21
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Rice ....farms	247	91	27	6	3	-
$1,000	6,310	1,111	106	23	4	-
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Other grains, oilseeds, dry beans, and dry peas ....farms	5,694	5,311	2,868	1,653	1,088	621
$1,000	23,075	11,442	3,778	1,494	677	144
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Tobacco ....farms	2,694	3,014	1,512	690	229	42
$1,000	57,856	33,179	8,700	2,273	372	28
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Cotton and cottonseed ....farms	986	838	341	186	68	18
$1,000	20,919	8,997	1,850	480	94	12
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Vegetables, melons, potatoes, and sweet potatoes ....farms	7,591	12,467	9,783	7,691	5,517	2,889
$1,000	149,077	123,112	45,379	19,042	6,480	1,109
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Fruits, tree nuts, and berries ....farms	15,202	22,362	15,002	11,903	8,110	4,579
$1,000	422,982	280,971	84,790	35,463	11,344	2,226
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Nursery, greenhouse, floriculture, and sod (see text) ....farms	6,410	9,100	5,825	4,445	3,137	1,204
$1,000	173,418	113,438	32,859	13,455	4,393	617
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Cut Christmas trees and short-rotation woody crops ....farms	1,249	2,132	1,925	1,834	1,759	2,480
$1,000	26,158	22,105	10,025	4,935	2,259	924
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.						
Total - Con.						
Total sales - Con.						
Other crops and hay (see text) ..... farms	434,502	11,544	12,986	19,104	30,710	29,303
$1,000	9,950,098	4,243,051	1,474,268	1,108,044	1,008,219	586,695
Sales of $50,000 or more ..... farms	27,831	5,553	5,156	5,811	6,920	4,391
$1,000	7,529,077	4,171,410	1,381,638	951,842	735,769	288,418
Cattle and calves ..... farms	798,290	24,386	26,865	45,758	74,788	65,660
$1,000	61,209,970	38,165,974	5,199,068	5,172,589	4,885,909	2,691,244
Sales of $50,000 or more ..... farms	119,983	17,476	15,668	23,409	34,327	29,103
$1,000	53,786,091	38,023,573	4,954,925	4,702,076	4,158,935	1,946,582
Milk and other dairy products from cows ..... farms	69,763	6,865	6,646	13,727	21,191	7,545
$1,000	31,848,029	21,419,278	3,411,094	3,676,689	2,774,292	398,895
Sales of $50,000 or more ..... farms	50,792	6,788	6,503	13,307	19,508	4,686
$1,000	31,558,210	21,418,070	3,409,143	3,669,743	2,738,305	322,950
Hogs and pigs ..... farms	74,789	7,830	6,027	6,012	6,510	4,469
$1,000	18,056,981	14,276,646	2,285,539	932,704	373,149	90,229
Sales of $50,000 or more ..... farms	19,956	7,277	5,084	4,088	2,781	726
$1,000	17,829,977	14,271,809	2,273,587	906,757	328,528	49,296
Sheep, goats, and their products ..... farms	121,171	931	1,379	2,495	5,007	5,003
$1,000	704,855	187,888	76,868	81,062	98,860	56,251
Sales of $50,000 or more ..... farms	1,825	164	237	380	663	381
$1,000	415,640	183,822	70,138	66,972	69,214	25,493
Horses, ponies, mules, burros, and donkeys ..... farms	114,317	1,167	1,163	1,901	4,372	4,839
$1,000	2,061,862	1,042,223	162,285	117,892	170,629	125,184
Sales of $50,000 or more ..... farms	3,638	291	287	394	1,126	1,540
$1,000	1,559,047	1,036,773	157,354	109,208	153,989	101,723
Poultry and eggs ..... farms	148,911	12,303	8,012	6,302	6,643	5,439
$1,000	37,065,947	29,805,781	5,099,512	1,652,719	359,800	42,590
Sales of $50,000 or more ..... farms	26,267	12,036	7,301	4,503	2,004	423
$1,000	36,932,463	29,804,905	5,097,905	1,649,472	350,824	29,358
Aquaculture (see text) ..... farms	6,409	399	414	597	861	625
$1,000	1,415,271	870,625	197,999	161,116	117,389	35,858
Sales of $50,000 or more ..... farms	2,449	359	342	510	752	486
$1,000	1,376,454	869,983	196,979	159,577	116,169	33,747
Other animals and other animal products (see text) ..... farms	43,226	576	541	870	1,954	2,226
$1,000	1,199,649	698,301	114,724	96,548	119,289	58,190
Sales of $50,000 or more ..... farms	2,294	214	212	328	814	726
$1,000	1,066,659	696,061	113,160	94,282	114,281	48,875
Value of-						
Government payments ..... farms	838,391	34,682	46,387	74,977	109,858	83,208
$1,000	7,983,922	1,734,896	1,422,210	1,386,796	1,145,107	575,199
Landlord's share of total sales (see text) ..... farms	97,706	8,503	13,763	19,784	21,242	11,488
$1,000	6,429,386	2,136,171	1,803,385	1,426,031	759,825	190,799
Agricultural products sold directly to individuals for human consumption (see text) ..... farms	136,817	1,303	1,708	3,224	6,881	8,229
$1,000	1,211,270	242,055	132,519	152,427	182,059	134,338
FARM PRODUCTION EXPENSES						
Total farm production expenses ..... farms	2,204,792	57,292	63,567	96,251	149,049	129,124
$1,000	241,113,666	136,258,177	31,868,452	24,823,920	18,138,750	7,424,444
Average per farm ..... dollars	109,359	2,378,311	501,336	257,908	121,697	57,499
Fertilizer, lime, and soil conditioners purchased ..... farms	1,148,218	45,134	54,897	85,685	128,753	104,202
$1,000	18,107,194	6,467,784	3,652,351	3,219,625	2,318,797	915,700
Farms with expenses of-						
$1 to $4,999	734,931	4,230	4,436	8,448	26,755	41,122
$5,000 to $24,999	249,546	7,004	10,141	27,161	69,870	57,894
$25,000 to $49,999	74,633	5,556	10,676	26,514	25,484	4,543
$50,000 or more	89,108	28,344	29,644	23,562	6,644	643
Chemicals purchased ..... farms	918,604	44,885	51,426	79,015	116,076	90,712
$1,000	10,074,914	4,550,521	1,971,432	1,623,699	1,088,555	376,552
Farms with expenses of-						
$1 to $4,999	666,084	7,792	8,007	16,123	47,903	65,007
$5,000 to $24,999	162,785	9,075	15,013	39,242	60,017	24,821
$25,000 to $49,999	46,594	6,614	14,304	17,593	6,868	720
$50,000 or more	43,141	21,404	14,102	6,057	1,288	164
Seeds, plants, vines, and trees ..... farms	775,893	41,041	50,346	77,643	112,088	82,009
$1,000	11,740,521	5,160,925	2,269,167	1,948,128	1,350,252	463,145
Farms with expenses of-						
$1 to $999	302,164	1,407	1,494	2,648	8,220	13,367
$1,000 to $4,999	192,154	2,936	3,651	8,848	27,366	32,958
$5,000 to $24,999	173,462	7,469	12,756	33,428	64,937	34,416
$25,000 to $49,999	56,320	6,294	13,818	24,720	9,828	990
$50,000 or more	51,793	22,935	18,627	7,999	1,737	278

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.						
Total - Con.						
Total sales - Con.						
Other crops and hay (see text) ....farms	38,978	66,386	62,238	58,604	59,252	45,397
$1,000	511,363	513,557	260,900	145,653	76,789	21,558
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Cattle and calves ....farms	86,133	144,817	120,957	96,267	85,993	26,666
$1,000	2,112,175	1,806,942	722,781	302,349	133,583	17,356
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Milk and other dairy products from cows ....farms	4,823	4,313	2,744	1,752	126	31
$1,000	108,687	41,160	12,638	5,167	117	11
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Hogs and pigs ....farms	4,540	7,228	7,326	7,679	8,871	8,297
$1,000	38,147	27,213	14,328	9,604	6,618	2,801
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Sheep, goats, and their products ....farms	7,160	13,556	14,212	16,649	24,564	30,215
$1,000	48,513	57,619	36,044	27,798	23,727	10,225
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Horses, ponies, mules, burros, and donkeys ....farms	7,849	15,979	18,899	20,125	25,339	12,684
$1,000	133,602	141,229	81,374	49,329	32,047	6,069
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Poultry and eggs ....farms	7,465	14,518	15,664	17,569	24,052	30,944
$1,000	25,305	23,899	16,394	14,323	15,172	10,452
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Aquaculture (see text) ....farms	631	890	602	509	610	271
$1,000	17,468	10,008	2,818	1,254	672	64
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Other animals and other animal products (see text) ....farms	3,477	6,301	5,962	6,101	7,500	7,718
$1,000	47,268	35,915	14,696	8,214	5,035	1,468
Sales of $50,000 or more ....farms	-	-	-	-	-	-
$1,000	-	-	-	-	-	-
Value of-						
Government payments ....farms	85,763	110,475	86,525	79,547	84,577	42,392
$1,000	508,494	553,989	322,731	199,274	115,779	19,447
Landlord's share of total sales (see text) ....farms	8,370	7,091	3,609	2,043	1,299	514
$1,000	72,786	30,387	7,089	2,134	688	92
Agricultural products sold directly to individuals for human consumption (see text) ....farms	12,479	22,626	20,986	21,092	22,833	15,456
$1,000	123,310	120,197	60,079	37,158	21,833	5,294
FARM PRODUCTION EXPENSES						
Total farm production expenses ....farms	163,500	274,274	254,834	246,309	270,712	499,880
$1,000	5,309,363	5,048,344	2,908,332	2,144,900	1,908,734	5,280,251
Average per farm .... dollars	32,473	18,406	11,413	8,708	7,051	10,563
Fertilizer, lime, and soil conditioners purchased ....farms	119,974	170,590	127,641	100,225	85,290	125,827
$1,000	582,746	447,317	202,282	109,692	71,032	119,869
Farms with expenses of-						
$1 to $4,999	76,881	147,025	121,653	97,894	83,909	122,578
$5,000 to $24,999	41,855	23,172	5,834	2,243	1,319	3,053
$25,000 to $49,999	1,047	362	145	84	57	165
$50,000 or more	191	31	9	4	5	31
Chemicals purchased ....farms	96,880	126,519	89,575	70,287	62,268	90,961
$1,000	199,677	123,946	50,251	29,095	20,993	40,193
Farms with expenses of-						
$1 to $4,999	87,745	123,306	88,656	69,778	61,854	89,913
$5,000 to $24,999	8,852	3,062	869	487	397	950
$25,000 to $49,999	203	129	46	18	17	82
$50,000 or more	80	22	4	4	-	16
Seeds, plants, vines, and trees ....farms	82,695	100,540	68,968	52,077	45,374	63,112
$1,000	239,957	149,750	61,168	35,004	23,294	39,733
Farms with expenses of-						
$1 to $999	26,146	56,151	52,620	44,272	40,619	55,220
$1,000 to $4,999	43,816	39,791	14,885	6,960	4,188	6,755
$5,000 to $24,999	12,342	4,373	1,377	786	532	1,046
$25,000 to $49,999	269	187	73	48	28	65
$50,000 or more	122	38	13	11	7	26

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Livestock and poultry purchased or leased (see text) ..... farms	490,819	30,899	26,171	33,448	44,782	36,741
$1,000	38,003,682	30,163,432	3,262,839	1,914,634	1,097,121	500,437
Farms with expenses of-						
$1 to $4,999	306,414	1,355	3,304	8,023	16,547	17,288
$5,000 to $24,999	97,441	2,213	4,063	8,623	15,176	12,536
$25,000 to $99,999	42,768	3,305	8,728	9,353	10,718	6,675
$100,000 to $249,999	24,183	9,580	5,610	6,418	2,286	239
$250,000 or more	20,013	14,446	4,466	1,031	55	3
Breeding livestock purchased or leased (see text) ..... farms	278,572	10,104	11,302	19,274	30,315	25,257
$1,000	3,599,873	1,544,485	348,984	387,260	415,097	257,683
Other livestock and poultry purchased or leased (see text) ..... farms	279,155	25,619	19,012	19,483	21,376	16,781
$1,000	34,403,809	28,618,947	2,913,855	1,527,373	682,024	242,755
Feed purchased ..... farms	1,135,968	34,451	31,917	46,616	71,297	62,360
$1,000	49,095,106	35,504,855	5,071,780	2,794,732	1,825,612	724,286
Farms with expenses of-						
$1 to $4,999	766,606	1,347	3,681	8,196	19,088	25,496
$5,000 to $24,999	245,328	2,005	5,170	11,860	26,902	29,190
$25,000 to $99,999	66,394	2,856	6,764	16,511	22,879	7,416
$100,000 to $249,999	23,472	3,965	7,678	8,969	2,306	231
$250,000 or more	34,168	24,278	8,624	1,080	122	27
Gasoline, fuels, and oils ..... farms	2,148,806	57,150	63,426	95,917	148,119	127,582
$1,000	12,912,179	4,667,378	1,965,441	1,765,800	1,451,546	672,205
Farms with expenses of-						
$1 to $4,999	1,704,545	2,890	4,666	10,728	44,668	78,091
$5,000 to $24,999	336,324	12,818	27,370	63,899	95,365	47,882
$25,000 to $49,999	64,765	14,747	21,325	17,344	6,883	1,337
$50,000 or more	43,172	26,695	10,065	3,946	1,203	272
Utilities (see text) ..... farms	1,102,530	53,802	57,336	84,018	122,259	93,688
$1,000	5,917,615	2,936,738	766,905	642,886	539,444	248,681
Farms with expenses of-						
$1 to $999	506,560	580	1,566	4,983	18,220	27,601
$1,000 to $4,999	402,839	5,873	16,816	37,912	71,169	55,095
$5,000 to $24,999	157,818	25,541	32,038	37,379	31,104	10,428
$25,000 to $49,999	19,269	9,742	4,569	2,713	1,326	449
$50,000 or more	16,044	12,066	2,347	1,031	440	115
Supplies, repairs, and maintenance ..... farms	1,992,234	57,272	63,549	96,058	142,376	118,981
$1,000	15,896,723	6,082,829	2,101,645	1,997,158	1,661,637	771,372
Farms with expenses of-						
$1 to $4,999	1,478,317	2,911	5,341	11,795	40,330	64,363
$5,000 to $24,999	389,971	14,931	26,180	56,179	88,339	51,642
$25,000 to $49,999	73,014	11,962	19,191	21,789	11,621	2,394
$50,000 or more	50,932	27,468	12,837	6,295	2,086	582
Hired farm labor ..... farms	482,186	46,398	43,990	55,824	65,728	41,708
$1,000	21,877,661	14,688,661	2,495,205	1,755,024	1,259,954	473,468
Farms with expenses of-						
$1 to $4,999	262,262	3,469	7,490	15,984	28,114	23,900
$5,000 to $24,999	108,122	7,407	12,633	19,471	22,126	12,626
$25,000 to $99,999	75,938	14,167	16,757	16,305	13,658	4,692
$100,000 to $249,999	21,237	9,274	5,367	3,622	1,632	442
$250,000 or more	14,627	12,081	1,743	442	198	48
Contract labor ..... farms	182,701	15,377	11,945	15,007	20,834	16,777
$1,000	4,514,166	2,985,764	392,508	309,342	300,578	147,819
Farms with expenses of-						
$1 to $999	49,657	608	811	1,446	2,661	2,931
$1,000 to $4,999	66,104	2,525	3,103	4,677	7,141	6,485
$5,000 to $24,999	45,949	4,959	4,605	5,661	7,520	5,876
$25,000 to $49,999	9,730	1,984	1,445	1,539	2,090	1,152
$50,000 or more	11,261	5,301	1,981	1,684	1,422	333
Customwork and custom hauling ..... farms	362,475	24,374	25,088	38,617	55,265	39,133
$1,000	4,091,038	2,135,708	519,998	495,322	421,931	183,004
Farms with expenses of-						
$1 to $999	119,768	755	1,467	3,141	7,486	8,774
$1,000 to $4,999	131,318	3,423	6,143	12,469	23,140	18,660
$5,000 to $24,999	83,762	8,094	11,455	17,858	21,652	11,009
$25,000 to $49,999	14,558	4,096	3,513	3,508	2,368	559
$50,000 or more	13,069	8,006	2,510	1,641	619	131
Cash rent for land, buildings, and grazing fees ..... farms	490,372	35,816	43,368	65,807	85,581	55,694
$1,000	13,274,530	5,355,190	2,814,897	2,369,364	1,538,439	511,875
Farms with expenses of-						
$1 to $4,999	238,363	2,358	3,622	9,430	23,864	26,678
$5,000 to $9,999	59,281	1,845	3,117	7,410	15,104	12,673
$10,000 to $24,999	76,679	4,410	7,480	15,989	26,163	12,972
$25,000 or more	116,049	27,203	29,149	32,978	20,450	3,371

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Livestock and poultry purchased or leased (see text) ....farms	43,110	64,099	51,103	44,087	46,559	69,820
$1,000	344,056	271,925	131,717	86,850	67,419	163,252
Farms with expenses of-						
$1 to $4,999	24,798	45,605	43,399	40,220	43,813	62,062
$5,000 to $24,999	15,038	17,906	7,660	3,848	2,724	7,654
$25,000 to $99,999	3,247	582	38	17	22	83
$100,000 to $249,999	26	5	3	1	-	15
$250,000 or more	1	1	3	1	-	6
Breeding livestock purchased or leased (see text) ....farms	29,930	42,743	30,689	23,351	21,612	33,995
$1,000	206,207	173,070	77,414	51,320	38,957	99,396
Other livestock and poultry purchased or leased (see text) ....farms	19,173	29,761	26,884	26,466	30,721	43,879
$1,000	137,849	98,854	54,303	35,530	28,462	63,857
Feed purchased ....farms	84,767	148,320	129,984	117,745	129,382	279,129
$1,000	612,673	674,987	412,672	301,067	281,719	890,723
Farms with expenses of-						
$1 to $4,999	46,032	104,020	106,675	102,877	116,797	232,397
$5,000 to $24,999	35,010	42,224	22,615	14,352	12,179	43,821
$25,000 to $99,999	3,607	2,025	666	501	391	2,778
$100,000 to $249,999	112	47	16	14	15	119
$250,000 or more	6	4	12	1	-	14
Gasoline, fuels, and oils ....farms	160,910	268,640	248,493	238,705	259,772	480,092
$1,000	510,481	509,916	321,837	240,192	210,493	596,889
Farms with expenses of-						
$1 to $4,999	130,987	248,378	238,965	232,213	254,489	458,470
$5,000 to $24,999	29,171	19,916	9,115	6,208	4,976	19,604
$25,000 to $49,999	675	270	338	211	242	1,393
$50,000 or more	77	76	75	73	65	625
Utilities (see text) ....farms	104,676	148,328	110,802	91,601	85,700	150,320
$1,000	187,442	184,525	104,826	77,048	64,466	164,653
Farms with expenses of-						
$1 to $999	47,277	89,083	77,846	68,141	66,818	104,445
$1,000 to $4,999	50,885	54,125	30,741	21,987	17,734	40,502
$5,000 to $24,999	6,235	5,077	2,191	1,450	1,132	5,243
$25,000 to $49,999	269	36	21	20	16	108
$50,000 or more	10	7	3	3	-	22
Supplies, repairs, and maintenance ....farms	147,561	244,385	230,119	219,064	237,040	435,829
$1,000	610,326	660,420	447,000	347,440	319,493	897,404
Farms with expenses of-						
$1 to $4,999	108,613	210,734	210,630	204,984	224,742	393,874
$5,000 to $24,999	37,348	32,264	18,755	13,569	11,806	38,958
$25,000 to $49,999	1,289	1,088	608	412	398	2,262
$50,000 or more	311	299	126	99	94	735
Hired farm labor ....farms	43,177	55,503	37,613	28,227	23,808	40,210
$1,000	315,117	295,950	136,844	94,012	70,051	293,376
Farms with expenses of-						
$1 to $4,999	30,002	44,253	32,614	24,743	21,155	30,538
$5,000 to $24,999	10,223	8,532	3,874	2,671	2,079	6,480
$25,000 to $99,999	2,684	2,474	1,016	770	544	2,871
$100,000 to $249,999	240	219	97	35	24	285
$250,000 or more	28	25	12	8	6	36
Contract labor ....farms	19,007	25,114	16,696	12,420	10,586	18,938
$1,000	107,166	97,701	43,956	27,345	21,426	80,560
Farms with expenses of-						
$1 to $999	4,193	8,219	7,413	6,557	6,243	8,575
$1,000 to $4,999	8,328	11,702	7,327	4,691	3,416	6,709
$5,000 to $24,999	5,910	4,713	1,772	1,058	836	3,039
$25,000 to $49,999	460	362	131	86	69	412
$50,000 or more	116	118	53	28	22	203
Customwork and custom hauling ....farms	39,680	48,237	32,250	22,374	17,063	20,394
$1,000	121,114	98,142	43,258	24,610	16,409	31,542
Farms with expenses of-						
$1 to $999	13,050	22,531	19,974	15,518	13,007	14,065
$1,000 to $4,999	19,891	21,629	10,937	6,177	3,679	5,170
$5,000 to $24,999	6,494	3,898	1,279	645	337	1,041
$25,000 to $49,999	189	139	41	30	33	82
$50,000 or more	56	40	19	4	7	36
Cash rent for land, buildings, and grazing fees ....farms	52,068	57,111	32,178	20,002	14,810	27,937
$1,000	271,376	179,488	69,443	37,879	28,482	98,096
Farms with expenses of-						
$1 to $4,999	36,348	49,650	29,828	18,723	13,796	24,066
$5,000 to $9,999	9,733	4,885	1,433	700	547	1,834
$10,000 to $24,999	4,916	1,915	681	429	330	1,394
$25,000 or more	1,071	661	236	150	137	643

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Rent and lease expenses for machinery, equipment, and farm share of vehicles ..... farms	109,199	14,500	12,429	15,260	16,319	9,524
$1,000	1,385,219	810,411	209,445	155,834	97,396	33,744
Farms with expenses of-						
$1 to $999	39,280	907	1,427	2,787	4,710	3,721
$1,000 to $4,999	31,997	2,433	3,310	5,111	6,085	3,643
$5,000 to $24,999	26,656	5,195	5,233	5,691	4,763	2,041
$25,000 to $49,999	5,778	2,200	1,489	1,156	600	102
$50,000 or more	5,488	3,765	970	515	161	17
Interest expense ..... farms	667,454	42,180	44,695	64,042	85,379	58,979
$1,000	10,880,731	3,767,860	1,508,732	1,384,900	1,146,824	559,017
Farms with expenses of-						
$1 to $4,999	289,876	2,913	5,044	11,372	26,387	26,314
$5,000 to $24,999	275,988	9,895	17,879	33,275	47,124	28,464
$25,000 to $99,999	87,574	19,434	19,700	18,521	11,467	4,052
$100,000 or more	14,016	9,938	2,072	874	401	149
Secured by real estate ..... farms	519,095	32,895	34,279	47,715	61,561	42,381
$1,000	7,185,334	2,181,723	914,622	861,439	759,534	403,616
Farms with expenses of-						
$1 to $999	58,501	718	1,039	1,855	3,722	3,958
$1,000 to $4,999	171,356	2,588	4,501	8,872	16,901	14,600
$5,000 to $24,999	225,304	10,415	16,332	26,375	33,774	20,886
$25,000 to $49,999	39,515	7,365	7,701	7,767	5,534	2,276
$50,000 or more	24,419	11,809	4,706	2,846	1,630	661
Not secured by real estate ..... farms	413,327	28,415	31,675	46,171	60,593	40,229
$1,000	3,695,397	1,586,137	594,110	523,461	387,290	155,401
Farms with expenses of-						
$1 to $999	122,808	1,045	1,542	3,528	8,338	9,222
$1,000 to $4,999	153,159	3,641	5,958	12,461	25,355	20,659
$5,000 to $24,999	106,610	9,078	15,962	25,352	25,166	10,061
$25,000 to $49,999	18,841	5,943	6,049	4,015	1,546	268
$50,000 or more	11,909	8,708	2,164	815	188	19
Property taxes paid ..... farms	1,995,808	53,891	59,529	89,135	135,787	118,074
$1,000	6,223,048	1,184,620	564,121	610,316	650,603	399,456
Farms with expenses of-						
$1 to $4,999	1,717,819	17,509	26,583	47,405	91,937	96,699
$5,000 to $9,999	172,489	11,057	14,731	23,628	30,909	16,006
$10,000 to $24,999	80,800	13,784	13,792	15,520	11,389	4,671
$25,000 or more	24,700	11,541	4,423	2,582	1,552	698
All other production expenses (see text) ..... farms	1,115,703	57,200	63,472	96,101	145,597	90,432
$1,000	17,119,339	9,795,500	2,301,987	1,837,157	1,390,060	443,684
Farms with expenses of-						
$1 to $4,999	765,840	2,266	7,083	20,362	63,709	64,459
$5,000 to $24,999	234,512	11,378	25,079	52,165	71,759	24,070
$25,000 to $49,999	55,174	9,314	15,987	17,345	7,706	1,408
$50,000 to $99,999	32,742	12,558	11,787	4,957	1,978	372
$100,000 or more	27,435	21,684	3,536	1,272	445	123
Production expenses paid by landlords [1] ..... farms	67,427	8,519	11,773	15,073	14,583	6,784
$1,000	1,556,963	522,207	417,567	344,909	186,315	49,361
Depreciation expenses claimed (see text) ..... farms	963,340	50,567	55,172	80,910	112,102	84,075
$1,000	20,185,540	7,206,755	3,085,459	2,842,040	2,384,550	1,107,336
NET CASH FARM INCOME (SEE TEXT)						
Net cash farm income of operations (see text) ..... farms	2,204,792	57,292	63,567	96,251	149,049	129,124
$1,000	74,581,098	44,951,930	13,965,769	10,813,694	7,559,452	2,580,735
Average per farm ..... dollars	33,827	784,611	219,702	112,349	50,718	19,986
Farms with net gains [2] ..... number	1,037,041	52,643	57,852	85,376	127,211	103,092
Average net gain ..... dollars	89,479	898,869	259,699	140,472	70,696	35,107
Gain of-						
Less than $1,000	102,871	15	33	161	501	1,022
$1,000 to $4,999	221,477	64	241	611	2,257	4,462
$5,000 to $9,999	128,828	97	223	861	3,109	6,578
$10,000 to $24,999	170,636	329	925	2,826	12,014	26,016
$25,000 to $49,999	119,233	563	1,807	6,594	27,710	43,184
$50,000 or more	293,996	51,575	54,623	74,323	81,620	21,830
Farms with net losses ..... number	1,167,751	4,649	5,715	10,875	21,838	26,032
Average net loss ..... dollars	15,596	509,190	185,186	108,433	65,661	39,894
Loss of-						
Less than $1,000	134,307	24	32	158	485	946
$1,000 to $4,999	426,570	80	158	533	1,861	3,477
$5,000 to $9,999	247,156	86	196	593	1,944	3,499
$10,000 to $24,999	225,863	189	569	1,658	4,593	6,897
$25,000 to $49,999	76,927	336	768	2,053	4,594	5,320
$50,000 or more	56,928	3,934	3,992	5,880	8,361	5,893

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Rent and lease expenses for machinery, equipment, and farm share of vehicles ....farms	8,507	9,692	6,363	4,763	4,109	7,733
$1,000	22,078	17,854	9,768	6,483	5,189	17,017
Farms with expenses of-						
$1 to $999	4,339	5,948	4,337	3,361	2,953	4,790
$1,000 to $4,999	2,971	2,821	1,558	1,081	891	2,093
$5,000 to $24,999	1,103	861	434	304	256	775
$25,000 to $49,999	72	52	29	16	7	55
$50,000 or more	22	10	5	1	2	20
Interest expense ....farms	60,530	77,614	56,377	46,598	45,525	85,535
$1,000	470,514	506,104	337,532	273,622	257,807	667,820
Farms with expenses of-						
$1 to $4,999	32,506	46,387	35,145	29,225	28,662	45,921
$5,000 to $24,999	24,986	28,411	19,479	15,999	15,696	34,780
$25,000 to $99,999	2,894	2,678	1,691	1,327	1,127	4,683
$100,000 or more	144	138	62	47	40	151
Secured by real estate ....farms	44,581	59,543	44,986	38,722	38,878	73,554
$1,000	365,019	412,854	280,649	232,598	226,080	547,200
Farms with expenses of-						
$1 to $999	5,514	8,708	7,533	6,900	7,355	11,199
$1,000 to $4,999	17,476	25,150	19,582	16,810	16,400	28,476
$5,000 to $24,999	19,174	23,332	16,458	13,910	14,151	30,497
$25,000 to $49,999	1,766	1,770	1,111	883	763	2,579
$50,000 or more	651	583	302	219	209	803
Not secured by real estate ....farms	38,825	46,132	31,214	24,021	22,437	43,615
$1,000	105,495	93,249	56,883	41,024	31,727	120,619
Farms with expenses of-						
$1 to $999	12,897	20,061	15,967	13,717	14,315	22,176
$1,000 to $4,999	19,859	21,881	12,893	8,618	6,807	15,027
$5,000 to $24,999	5,986	4,108	2,271	1,613	1,265	5,748
$25,000 to $49,999	81	79	81	71	50	658
$50,000 or more	2	3	2	2	-	6
Property taxes paid ....farms	151,609	256,446	226,641	220,104	242,884	441,708
$1,000	392,721	524,483	386,977	345,233	356,781	807,736
Farms with expenses of-						
$1 to $4,999	134,693	236,711	213,816	209,255	231,950	411,261
$5,000 to $9,999	12,622	14,674	9,845	8,523	8,528	21,966
$10,000 to $24,999	3,662	4,356	2,544	2,004	2,075	7,003
$25,000 or more	632	705	436	322	331	1,478
All other production expenses (see text) ....farms	104,697	151,000	99,526	80,884	77,982	148,812
$1,000	321,919	305,837	148,800	109,330	93,679	371,388
Farms with expenses of-						
$1 to $4,999	89,322	138,854	94,144	77,006	74,601	134,034
$5,000 to $24,999	14,285	11,231	4,995	3,593	3,169	12,788
$25,000 to $49,999	795	671	289	209	162	1,288
$50,000 to $99,999	240	199	81	65	36	469
$100,000 or more	55	45	17	11	14	233
Production expenses paid by landlords [1] ....farms	4,320	3,148	1,434	810	523	460
$1,000	20,524	9,202	3,086	1,642	908	1,242
Depreciation expenses claimed (see text) ....farms	91,978	129,068	97,495	78,580	72,033	111,360
$1,000	899,763	898,241	524,293	345,562	277,959	613,583
NET CASH FARM INCOME (SEE TEXT)						
Net cash farm income of operations (see text) ....farms	163,500	274,274	254,834	246,309	270,712	499,880
$1,000	1,217,904	153,105	-554,899	-810,792	-1,018,979	-4,276,820
Average per farm ....dollars	7,449	558	-2,177	-3,292	-3,764	-8,556
Farms with net gains [2] ....number	119,514	171,585	128,930	94,707	67,833	28,298
Average net gain ....dollars	19,344	10,000	5,713	4,480	4,798	11,677
Gain of-						
Less than $1,000	2,620	9,774	16,931	25,361	34,583	11,870
$1,000 to $4,999	12,070	44,486	71,659	56,913	22,253	6,461
$5,000 to $9,999	17,840	58,045	30,292	4,831	3,608	3,344
$10,000 to $24,999	57,349	52,432	6,310	4,411	4,317	3,707
$25,000 to $49,999	26,618	4,573	2,448	2,094	1,971	1,671
$50,000 or more	3,017	2,275	1,290	1,097	1,101	1,245
Farms with net losses ....number	43,986	102,689	125,904	151,602	202,879	471,582
Average net loss ....dollars	24,870	15,219	10,257	8,147	6,627	9,770
Loss of-						
Less than $1,000	2,497	8,694	15,348	23,126	35,635	47,362
$1,000 to $4,999	8,226	27,960	43,465	60,143	89,235	191,432
$5,000 to $9,999	7,776	22,435	28,871	32,585	40,698	108,473
$10,000 to $24,999	12,825	27,391	27,488	26,872	29,205	88,176
$25,000 to $49,999	7,295	10,787	7,752	6,629	6,272	25,121
$50,000 or more	5,367	5,422	2,980	2,247	1,834	11,018

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
NET CASH FARM INCOME (SEE TEXT) - Con.						
Net cash farm income of operators (see text) ..... farms	2,204,792	57,292	63,567	96,251	149,049	129,124
$1,000	64,197,836	38,974,771	11,687,889	9,512,807	6,951,574	2,437,668
Average per farm ..... dollars	29,117	680,283	183,867	98,833	46,640	18,879
Operators reporting net gains [2] ..... farms	1,025,783	50,979	56,042	83,459	125,092	101,885
Average net gain ..... dollars	81,061	818,298	229,992	129,487	67,560	34,352
Gain of-						
Less than $1,000	103,330	32	92	216	591	1,081
$1,000 to $4,999	222,713	204	386	804	2,558	4,772
$5,000 to $9,999	129,906	240	477	1,129	3,600	6,934
$10,000 to $24,999	173,780	838	1,886	4,051	13,281	26,856
$25,000 to $49,999	122,964	1,775	3,735	8,345	28,892	41,603
$50,000 or more	273,090	47,890	49,466	68,914	76,170	20,639
Operators reporting net losses ..... farms	1,179,009	6,313	7,525	12,792	23,957	27,239
Average net loss ..... dollars	16,075	434,223	159,642	101,161	62,597	38,999
Loss of-						
Less than $1,000	135,011	46	84	234	563	1,021
$1,000 to $4,999	428,133	165	310	673	2,096	3,685
$5,000 to $9,999	248,731	158	314	726	2,217	3,708
$10,000 to $24,999	228,206	456	927	2,028	5,114	7,274
$25,000 to $49,999	78,919	623	1,116	2,463	5,132	5,566
$50,000 or more	60,009	4,865	4,774	6,668	8,835	5,985
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)						
Total ..... farms	50,572	7,502	9,293	11,503	10,813	4,701
$1,000	4,445,758	1,894,512	1,193,476	839,797	405,258	78,745
INCOME FROM FARM-RELATED SOURCES						
Total income from farm-related sources, gross before taxes and expenses (see text) ..... farms	693,187	34,409	41,157	62,227	86,469	62,378
$1,000	10,489,874	1,968,631	1,256,076	1,270,849	1,296,752	785,764
Customwork and other agricultural services ..... farms	121,874	11,428	14,031	18,765	20,042	11,802
$1,000	1,875,665	556,225	353,684	302,706	248,222	125,348
Gross cash rent or share payments ..... farms	241,923	6,063	6,067	9,629	16,654	16,888
$1,000	2,883,897	294,444	157,367	204,327	302,731	261,013
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ..... farms	47,603	970	987	1,486	2,808	2,882
$1,000	594,944	31,102	27,531	29,059	44,653	39,422
Agri-tourism and recreational services (see text) ..... farms	23,350	698	940	1,568	2,608	2,314
$1,000	566,834	48,013	36,724	45,763	84,571	60,207
Patronage dividends and refunds from cooperatives ..... farms	288,196	24,403	30,082	45,089	57,846	34,863
$1,000	854,995	342,755	176,723	151,052	97,625	34,396
Crop and livestock insurance payments received (see text) ..... farms	82,001	8,622	11,508	16,067	18,380	9,924
$1,000	1,676,727	432,775	349,483	360,694	296,613	115,021
Amount from state and local government agricultural program payments (see text) ..... farms	34,410	1,527	1,848	3,256	4,961	3,395
$1,000	145,413	24,181	20,404	23,456	21,643	12,542
Other farm-related income sources (see text) ..... farms	118,939	4,765	5,406	8,321	11,701	9,031
$1,000	1,891,400	239,137	134,161	153,792	200,694	137,815
LAND USE						
Total cropland ..... farms	1,685,339	50,792	59,368	91,630	141,241	119,671
acres	406,424,909	91,150,046	72,600,530	72,225,477	60,882,078	28,277,667
Harvested cropland ..... farms	1,328,004	48,721	57,886	89,854	137,878	114,581
acres	309,607,601	82,593,747	63,726,544	61,055,473	47,621,322	19,520,108
Farms by acres harvested:						
1 to 49 acres	700,266	4,987	4,445	5,757	15,073	21,775
50 to 99 acres	179,055	2,490	2,212	4,118	11,313	16,063
100 to 199 acres	141,875	3,112	3,206	6,822	20,152	40,059
200 to 499 acres	143,776	5,861	7,257	19,237	60,767	32,364
500 to 999 acres	82,211	6,570	10,831	34,480	25,349	3,919
1,000 to 1,999 acres	53,728	9,244	22,054	17,072	4,877	369
2,000 acres or more	27,093	16,457	7,881	2,368	347	32
Cropland-						
For pasture or grazing only ..... farms	404,753	8,118	9,811	15,845	26,958	24,019
acres	35,771,154	2,538,532	2,497,348	3,477,257	4,682,592	3,487,749
On which all crops failed or were abandoned ..... farms	89,587	2,932	3,748	5,695	8,575	7,004
acres	7,405,898	801,705	887,278	1,156,833	1,376,500	745,256
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ..... farms	360,225	9,049	10,822	14,891	21,240	18,178
acres	37,968,749	2,570,680	2,364,390	2,958,000	4,093,415	3,310,542
In cultivated summer fallow ..... farms	67,960	3,703	5,073	7,404	10,791	7,561
acres	15,671,507	2,645,382	3,124,970	3,577,914	3,108,249	1,214,012

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
NET CASH FARM INCOME (SEE TEXT) - Con.						
Net cash farm income of operators (see text) ....farms	163,500	274,274	254,834	246,309	270,712	499,880
$1,000	1,165,027	132,088	-558,664	-810,994	-1,018,759	-4,275,569
Average per farm .... dollars	7,126	482	-2,192	-3,293	-3,763	-8,553
Operators reporting net gains [2] ....farms	118,483	170,681	128,548	94,560	67,751	28,303
Average net gain .... dollars	19,164	9,975	5,713	4,482	4,803	11,680
Gain of-						
Less than $1,000	2,764	9,859	16,944	25,360	34,526	11,865
$1,000 to $4,999	12,318	44,703	71,497	56,773	22,229	6,469
$5,000 to $9,999	18,150	57,550	30,054	4,826	3,607	3,339
$10,000 to $24,999	56,389	51,725	6,313	4,411	4,317	3,713
$25,000 to $49,999	25,862	4,566	2,450	2,093	1,971	1,672
$50,000 or more	3,000	2,278	1,290	1,097	1,101	1,245
Operators reporting net losses ....farms	45,017	103,593	126,286	151,749	202,961	471,577
Average net loss .... dollars	24,559	15,160	10,239	8,137	6,623	9,768
Loss of-						
Less than $1,000	2,597	8,823	15,390	23,181	35,708	47,364
$1,000 to $4,999	8,481	28,227	43,640	60,181	89,235	191,440
$5,000 to $9,999	8,042	22,673	29,006	32,664	40,721	108,502
$10,000 to $24,999	13,108	27,596	27,520	26,853	29,192	88,138
$25,000 to $49,999	7,389	10,860	7,751	6,623	6,274	25,122
$50,000 or more	5,400	5,414	2,979	2,247	1,831	11,011
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)						
Total ....farms	2,657	1,992	994	514	351	252
$1,000	21,210	8,663	2,089	508	667	832
INCOME FROM FARM-RELATED SOURCES						
Total income from farm-related sources, gross before taxes and expenses (see text) ....farms	65,491	86,891	63,232	54,911	55,316	80,706
$1,000	732,496	837,648	542,895	450,113	441,515	907,135
Customwork and other agricultural services ....farms	10,966	12,655	7,043	5,357	4,570	5,215
$1,000	100,880	91,842	36,670	20,842	14,244	25,004
Gross cash rent or share payments ....farms	21,648	34,267	30,639	29,333	31,643	39,092
$1,000	260,538	349,025	275,991	257,948	271,280	249,232
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ....farms	4,259	7,359	6,330	5,878	6,038	8,606
$1,000	55,526	89,115	71,026	61,424	58,090	87,996
Agri-tourism and recreational services (see text) ....farms	2,648	3,563	2,060	1,736	1,581	3,634
$1,000	66,099	67,112	34,102	18,171	22,223	83,849
Patronage dividends and refunds from cooperatives ....farms	29,254	28,234	14,257	9,179	7,234	7,755
$1,000	20,512	15,212	5,556	3,369	2,483	5,314
Crop and livestock insurance payments received (see text) ....farms	7,076	5,392	2,070	1,183	871	908
$1,000	61,631	34,828	10,222	5,388	3,836	6,234
Amount from state and local government agricultural program payments (see text) ....farms	3,718	4,882	3,408	2,525	2,525	2,365
$1,000	11,325	12,766	7,276	4,521	3,475	3,824
Other farm-related income sources (see text) ....farms	10,453	15,520	11,158	9,552	9,367	23,665
$1,000	155,985	177,747	102,052	78,452	65,883	445,682
LAND USE						
Total cropland ....farms	146,778	232,153	201,551	180,881	176,283	284,991
acres	22,155,587	21,685,588	12,041,348	7,779,671	5,580,522	12,046,395
Harvested cropland ....farms	135,209	198,935	156,569	127,048	109,519	151,804
acres	12,517,530	10,290,808	4,953,549	2,880,406	1,907,188	2,540,926
Farms by acres harvested:						
1 to 49 acres	44,177	118,440	125,763	113,588	102,883	143,378
50 to 99 acres	41,688	54,354	24,023	10,854	5,437	6,503
100 to 199 acres	36,589	21,325	5,772	2,266	1,042	1,530
200 to 499 acres	11,910	4,615	968	327	152	318
500 to 999 acres	772	174	41	10	5	60
1,000 to 1,999 acres	69	26	2	1	-	14
2,000 acres or more	4	1	-	2	-	1
Cropland-						
For pasture or grazing only ....farms	31,455	53,103	48,487	45,169	47,414	94,374
acres	3,516,249	4,217,432	2,669,460	1,948,188	1,661,107	5,075,240
On which all crops failed or were abandoned ....farms	8,175	11,554	8,810	7,322	7,012	18,760
acres	627,299	555,248	304,489	218,717	173,257	559,316
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ....farms	23,432	42,985	44,093	46,209	50,974	78,352
acres	4,816,095	6,140,780	3,892,922	2,579,285	1,727,953	3,514,687
In cultivated summer fallow ....farms	7,100	8,018	5,158	3,633	3,203	6,316
acres	678,414	481,320	220,928	153,075	111,017	356,226

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
LAND USE - Con.						
Total woodland ..... farms	843,294	16,152	18,331	27,802	46,255	43,986
acres	75,098,603	4,103,301	3,827,879	6,064,517	7,068,234	6,988,735
Woodland pastured ..... farms	370,297	5,256	6,257	10,182	18,377	19,898
acres	28,609,690	1,554,559	1,820,296	2,724,354	3,390,960	3,540,163
Woodland not pastured ..... farms	596,123	13,217	14,859	22,352	35,940	31,657
acres	46,488,913	2,548,742	2,007,583	3,340,163	3,677,274	3,448,572
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ..... farms	1,132,606	19,701	24,993	42,015	71,189	64,559
acres	408,832,116	49,895,345	44,693,697	61,517,570	77,399,663	40,764,901
Land in house lots, ponds, roads, wasteland, etc. ..... farms	1,126,272	35,377	37,905	56,610	85,929	69,726
acres	31,740,212	4,273,006	2,673,207	3,252,328	3,988,352	3,703,317
Irrigated land ..... farms	301,028	23,292	19,997	25,202	33,803	25,958
acres	56,599,305	25,892,028	10,757,247	8,035,926	5,594,853	2,226,654
Harvested cropland ..... farms	256,105	22,788	19,672	24,726	32,778	24,588
acres	51,537,104	24,953,318	10,241,572	7,499,289	4,769,950	1,719,618
Pastureland and other land ..... farms	72,585	2,041	1,638	2,417	4,236	4,170
acres	5,062,201	938,710	515,675	536,637	824,903	507,036
CONSERVATION PRACTICES AND CROP INSURANCE						
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ..... farms	346,231	10,197	14,033	20,283	26,598	20,948
acres	38,547,450	1,689,678	2,090,786	2,827,722	4,373,848	4,044,221
Land enrolled in crop insurance programs (see text) ..... farms	349,408	30,614	39,772	59,391	76,917	48,325
acres	222,267,817	62,728,166	51,817,842	49,352,540	36,184,799	11,772,912
ORGANIC AGRICULTURE						
Land used for organic production (see text) ..... farms	20,437	731	581	1,025	2,149	1,878
acres	2,577,418	381,484	304,948	433,227	581,722	370,932
Total organic product sales (see text) ..... farms	18,211	702	558	970	1,995	1,766
$1,000	1,709,111	959,452	183,799	205,718	200,594	75,836
VALUE OF LAND AND BUILDINGS						
Estimated market value of land and buildings ..... farms	2,204,792	57,292	63,567	96,251	149,049	129,124
$1,000	1,744,295,252	332,707,174	214,631,535	219,021,873	212,015,322	122,982,236
Average per farm ..... dollars	791,138	5,807,219	3,376,462	2,275,528	1,422,454	952,435
Average per acre ..... dollars	1,892	2,227	1,734	1,531	1,420	1,542
Farms by value group:						
$1 to $49,999	223,182	708	583	836	2,158	3,271
$50,000 to $99,999	212,783	511	549	849	2,254	3,659
$100,000 to $199,999	374,783	1,041	1,201	2,138	5,990	9,206
$200,000 to $499,999	631,939	3,037	4,292	8,138	23,818	35,270
$500,000 to $999,999	371,783	5,642	6,747	14,903	40,634	42,984
$1,000,000 to $1,999,999	206,282	8,931	11,739	27,623	46,906	23,564
$2,000,000 to $4,999,999	132,549	16,299	25,253	35,481	23,066	9,028
$5,000,000 to $9,999,999	36,072	12,264	11,172	4,887	2,969	1,526
$10,000,000 or more	15,419	8,859	2,031	1,396	1,254	616
VALUE OF MACHINERY AND EQUIPMENT						
Estimated market value of all machinery and equipment ..... farms	2,204,513	57,289	63,567	96,248	149,040	129,120
$1,000	194,783,471	39,037,738	24,914,811	25,760,402	23,892,296	12,977,103
Farms by value group:						
$1 to $4,999	195,820	58	105	141	680	2,096
$5,000 to $9,999	217,460	175	290	359	1,320	3,262
$10,000 to $19,999	351,088	559	880	1,261	4,241	8,577
$20,000 to $49,999	598,289	2,606	3,239	5,046	17,327	29,776
$50,000 to $99,999	366,768	4,499	4,716	9,843	34,266	38,345
$100,000 to $199,999	232,001	7,292	8,910	24,843	50,023	31,240
$200,000 to $499,999	175,152	15,158	27,304	43,002	35,214	13,791
$500,000 or more	67,935	26,942	18,123	11,753	5,969	2,033
SELECTED MACHINERY AND EQUIPMENT						
Trucks, including pickups (see text) ..... farms	1,783,324	55,809	61,937	92,674	138,038	109,756
number	3,512,538	327,497	253,650	312,288	374,157	247,204
Tractors ..... farms	1,844,647	51,365	57,772	88,320	134,100	117,089
number	4,389,812	317,459	272,732	379,290	495,219	360,025
Less than 40 horsepower (PTO) ..... farms	910,937	19,520	20,651	32,191	51,787	48,447
number	1,280,039	46,715	36,400	53,987	84,578	76,550
40 to 99 horsepower (PTO) ..... farms	1,238,101	38,545	41,478	64,696	100,469	89,170
number	1,998,508	113,970	88,991	134,002	203,697	170,532
100 horsepower (PTO) or more ..... farms	555,941	37,835	46,860	74,071	101,240	68,209
number	1,111,265	156,774	147,341	191,301	206,944	112,943
Grain and bean combines, self-propelled ..... farms	295,490	23,959	36,038	55,302	65,091	37,867
number	346,935	34,817	44,501	64,863	74,572	42,908

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
LAND USE - Con.						
Total woodland ....farms	64,052	116,454	107,554	103,575	112,872	186,261
acres	7,235,767	10,252,243	7,446,163	6,165,831	5,569,246	10,376,687
Woodland pastured ....farms	31,227	58,354	50,494	43,173	42,184	84,895
acres	2,931,162	3,709,508	2,242,668	1,540,323	1,168,569	3,987,128
Woodland not pastured ....farms	44,053	78,265	73,800	73,990	83,572	124,418
acres	4,304,605	6,542,735	5,203,495	4,625,508	4,400,677	6,389,559
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ....farms	87,272	152,052	134,134	121,297	129,839	285,555
acres	29,918,196	38,801,652	12,700,893	7,927,985	6,190,940	39,021,274
Land in house lots, ponds, roads, wasteland, etc. ....farms	84,824	138,142	123,630	120,626	134,042	239,461
acres	2,363,696	3,209,326	2,115,761	1,684,428	1,547,402	2,929,389
Irrigated land ....farms	27,831	37,251	27,344	23,449	21,638	35,263
acres	1,387,699	1,035,946	474,440	311,419	221,592	661,501
Harvested cropland ....farms	25,704	32,882	22,676	18,316	14,863	17,112
acres	972,665	653,420	285,017	159,805	101,849	180,601
Pastureland and other land ....farms	5,151	8,448	7,573	7,417	8,675	20,819
acres	415,034	382,526	189,423	151,614	119,743	480,900
CONSERVATION PRACTICES AND CROP INSURANCE						
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ....farms	25,090	44,544	48,022	53,363	62,270	20,883
acres	5,885,343	7,648,908	4,842,978	3,049,582	1,830,532	263,852
Land enrolled in crop insurance programs (see text) ....farms	36,347	27,207	11,981	7,232	4,958	6,664
acres	5,295,795	2,861,171	896,706	466,767	257,161	633,958
ORGANIC AGRICULTURE						
Land used for organic production (see text) ....farms	2,324	3,301	2,629	2,163	1,863	1,793
acres	167,795	142,362	87,454	40,426	28,202	38,866
Total organic product sales (see text) ....farms	2,165	3,039	2,400	1,908	1,652	1,056
$1,000	41,946	25,976	9,168	4,233	1,943	447
VALUE OF LAND AND BUILDINGS						
Estimated market value of land and buildings ....farms	163,500	274,274	254,834	246,309	270,712	499,880
$1,000	112,302,842	137,395,503	91,397,105	73,929,895	69,149,469	158,762,299
Average per farm ....dollars	686,868	500,942	358,653	300,151	255,436	317,601
Average per acre ....dollars	1,821	1,858	2,664	3,138	3,661	2,466
Farms by value group:						
$1 to $49,999	6,358	16,640	25,519	34,582	49,964	82,563
$50,000 to $99,999	7,651	21,511	30,107	34,562	41,727	69,403
$100,000 to $199,999	19,771	48,997	55,713	57,402	63,273	110,051
$200,000 to $499,999	58,421	101,888	88,690	78,393	79,664	150,328
$500,000 to $999,999	42,714	55,957	39,252	30,812	28,079	64,059
$1,000,000 to $1,999,999	19,948	21,924	12,464	8,618	6,625	17,940
$2,000,000 to $4,999,999	7,177	6,234	2,708	1,673	1,175	4,455
$5,000,000 to $9,999,999	1,078	798	276	190	144	768
$10,000,000 or more	382	325	105	77	61	313
VALUE OF MACHINERY AND EQUIPMENT						
Estimated market value of all machinery and equipment ....farms	163,487	274,231	254,801	246,283	270,683	499,764
$1,000	12,061,080	14,349,934	10,096,587	7,954,943	7,480,408	16,258,167
Farms by value group:						
$1 to $4,999	4,991	14,756	21,760	29,348	44,550	77,335
$5,000 to $9,999	7,488	20,545	27,923	35,355	44,355	76,388
$10,000 to $19,999	17,624	43,214	51,734	55,960	60,640	106,398
$20,000 to $49,999	48,633	95,859	89,184	78,936	80,857	146,826
$50,000 to $99,999	45,895	62,962	43,314	33,151	28,550	61,227
$100,000 to $199,999	27,481	26,805	15,203	9,715	8,412	22,077
$200,000 to $499,999	10,121	9,328	5,303	3,589	3,175	9,167
$500,000 or more	1,254	762	380	229	144	346
SELECTED MACHINERY AND EQUIPMENT						
Trucks, including pickups (see text) ....farms	137,664	226,462	202,682	186,932	198,132	373,238
number	265,243	378,588	303,465	264,178	268,665	517,603
Tractors ....farms	144,893	237,900	215,710	201,098	212,156	384,244
number	378,772	521,469	407,754	343,606	333,059	580,427
Less than 40 horsepower (PTO) ....farms	63,171	111,307	107,925	108,781	122,094	225,063
number	95,214	158,984	147,429	143,556	155,482	281,144
40 to 99 horsepower (PTO) ....farms	110,786	178,245	151,499	128,900	123,235	211,078
number	197,442	285,249	216,883	171,790	155,451	260,501
100 horsepower (PTO) or more ....farms	59,285	59,089	34,841	23,371	18,360	32,780
number	86,116	77,236	43,442	28,260	22,126	38,782
Grain and bean combines, self-propelled ....farms	28,390	22,977	11,215	6,545	4,262	3,844
number	31,743	25,362	12,241	7,136	4,630	4,162

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
SELECTED MACHINERY AND EQUIPMENT - Con.						
Cotton pickers and strippers, self-propelled ..... farms	12,500	2,727	3,066	2,845	1,979	750
number	18,162	4,970	4,433	3,908	2,549	951
Forage harvesters, self-propelled ..... farms	60,133	4,260	4,245	7,342	9,992	6,288
number	64,191	5,250	4,785	7,997	10,725	6,704
Hay balers ..... farms	593,543	13,867	18,763	35,709	60,538	51,707
number	727,501	17,889	23,503	44,752	76,097	65,336
FERTILIZERS AND CHEMICALS						
Commercial fertilizer, lime, and soil conditioners ..... farms	1,022,036	43,728	53,609	83,822	124,918	99,317
acres treated	265,995,497	73,264,996	55,589,469	52,171,893	40,085,874	16,602,076
Manure ..... farms	307,073	20,133	19,598	29,634	41,117	26,684
acres treated	22,096,315	6,714,287	3,366,758	3,417,375	3,125,926	1,473,014
Acres treated with chemicals to control-						
Insects ..... farms	354,357	31,619	33,916	47,703	61,108	41,056
acres	90,947,822	35,480,491	20,475,295	16,373,873	10,834,063	3,694,499
Weeds, grass, or brush ..... farms	703,884	37,279	45,118	70,682	101,949	75,301
acres	226,295,783	64,691,022	50,460,160	47,288,449	34,223,688	12,491,605
Nematodes ..... farms	34,992	4,211	3,696	4,946	6,392	4,079
acres	7,560,158	2,985,529	1,576,155	1,350,873	973,233	325,085
Diseases in crops and orchards ..... farms	97,333	11,556	10,716	13,065	14,806	9,953
acres	22,693,212	11,005,577	5,167,193	3,524,401	1,882,383	575,496
Chemicals used to control growth, thin fruit, ripen, or defoliate ..... farms	44,638	6,290	5,800	6,170	6,941	4,363
acres treated	12,125,799	5,941,328	3,041,031	1,761,353	906,078	227,568
TENURE						
Full owners ..... farms	1,522,033	19,465	16,125	23,162	50,014	60,643
Part owners ..... farms	542,192	31,748	40,816	62,394	80,757	53,950
Tenants ..... farms	140,567	6,079	6,626	10,695	18,278	14,531
OWNED AND RENTED LAND						
Land owned ..... farms	2,072,101	51,368	57,190	85,976	131,757	115,694
acres	646,247,118	79,926,830	64,413,545	79,816,689	92,981,438	58,027,709
Owned land in farms ..... farms	2,064,225	51,213	56,941	85,556	130,771	114,593
acres	571,303,487	76,686,335	61,888,646	75,851,580	86,484,224	51,261,562
Land rented or leased from others ..... farms	689,102	38,024	47,571	73,351	99,575	69,018
acres	355,918,954	73,499,468	62,350,394	67,811,070	63,562,923	29,119,234
Rented or leased land in farms ..... farms	682,759	37,827	47,442	73,089	99,035	68,481
acres	350,792,353	72,735,363	61,906,667	67,208,312	62,854,103	28,473,058
Land rented or leased to others ..... farms	314,140	6,974	6,662	10,504	18,761	19,956
acres	80,070,232	4,004,600	2,968,626	4,567,867	7,206,034	7,412,323
NUMBER OF OPERATORS						
Total operators ..... number	3,337,450	115,449	108,157	153,537	227,548	192,282
Farms by number of operators:						
1 operator	1,273,122	22,562	31,213	52,586	87,189	77,988
2 operators	786,598	21,351	23,418	33,384	49,141	41,987
3 operators	112,285	8,698	6,842	8,110	10,230	7,359
4 operators	22,529	2,715	1,518	1,576	1,758	1,256
5 or more operators	10,258	1,966	576	595	731	534
Total women operators ..... number	1,008,943	21,848	21,556	31,944	50,301	45,048
Farms by number of women operators:						
1 operator	894,347	17,007	18,721	28,054	44,381	40,047
2 operators	45,408	1,545	1,120	1,529	2,317	2,002
3 operators	5,439	316	117	180	293	241
4 operators	1,017	80	26	32	66	39
5 or more operators	546	70	24	19	21	22
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male	1,898,583	55,284	61,164	92,566	141,315	119,354
Female	306,209	2,008	2,403	3,685	7,734	9,770
Primary occupation:						
Farming	993,881	52,041	58,072	85,812	118,767	84,774
Other	1,210,911	5,251	5,495	10,439	30,282	44,350
Place of residence:						
On farm operated	1,693,362	41,457	51,151	79,183	119,144	98,097
Not on farm operated	511,430	15,835	12,416	17,068	29,905	31,027
Days worked off farm:						
None	777,747	39,656	42,280	58,291	75,685	51,926
Any	1,427,045	17,636	21,287	37,960	73,364	77,198
1 to 49 days	238,479	3,633	5,424	9,857	14,577	12,256
50 to 99 days	115,578	1,289	1,906	3,756	7,280	6,971
100 to 199 days	196,687	1,860	2,658	5,754	12,785	13,175
200 days or more	876,301	10,854	11,299	18,593	38,722	44,796
Years on present farm:						
2 years or less	84,883	1,147	857	1,372	2,762	3,102
3 or 4 years	138,858	1,726	1,335	2,112	4,537	5,129
5 to 9 years	359,545	5,056	4,401	7,236	13,860	14,576

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
SELECTED MACHINERY AND EQUIPMENT - Con.						
Cotton pickers and strippers, self-propelled ....farms	460	306	167	85	44	71
number	554	353	211	102	55	76
Forage harvesters, self-propelled ....farms	5,816	6,793	4,564	3,435	2,883	4,515
number	6,087	7,011	4,669	3,482	2,907	4,574
Hay balers ....farms	62,999	95,460	72,970	56,157	48,122	77,251
number	79,706	119,432	89,482	67,010	56,073	88,221
FERTILIZERS AND CHEMICALS						
Commercial fertilizer, lime, and soil conditioners ....farms	111,284	151,150	107,411	81,232	66,599	98,966
acres treated	10,901,948	8,478,675	3,700,543	1,919,604	1,190,188	2,090,231
Manure ....farms	27,339	37,303	27,471	21,659	19,906	36,229
acres treated	1,164,958	1,140,563	587,021	354,599	263,765	488,049
Acres treated with chemicals to control-						
Insects ....farms	35,773	36,293	20,636	15,047	12,072	19,134
acres	1,863,263	1,099,630	412,729	235,130	154,128	324,721
Weeds, grass, or brush ....farms	75,765	92,054	61,531	46,451	39,884	57,870
acres	7,048,515	4,898,569	2,079,398	1,107,637	728,857	1,277,883
Nematodes ....farms	3,474	3,085	1,753	1,147	890	1,319
acres	167,102	94,068	34,997	22,562	10,940	19,614
Diseases in crops and orchards ....farms	9,665	10,438	6,141	4,158	2,872	3,963
acres	273,667	147,896	52,234	21,536	12,207	30,622
Chemicals used to control growth, thin fruit, ripen, or defoliate ....farms	4,006	4,140	2,302	1,660	1,193	1,773
acres treated	114,823	71,126	23,073	12,023	7,475	19,921
TENURE						
Full owners ....farms	94,698	186,971	195,268	203,414	234,950	437,323
Part owners ....farms	54,308	69,552	46,321	32,622	26,355	43,369
Tenants ....farms	14,494	17,751	13,245	10,273	9,407	19,188
OWNED AND RENTED LAND						
Land owned ....farms	150,097	257,594	242,292	236,625	261,831	481,677
acres	50,546,138	68,962,561	35,903,939	26,473,004	22,162,101	67,033,164
Owned land in farms ....farms	149,006	256,523	241,589	236,036	261,305	480,692
acres	42,051,073	58,114,522	27,734,508	19,667,843	16,180,789	55,382,405
Land rented or leased from others ....farms	69,452	88,285	60,297	43,568	36,408	63,553
acres	20,200,175	16,249,946	6,851,553	4,029,039	2,850,934	9,394,218
Rented or leased land in farms ....farms	68,802	87,303	59,566	42,895	35,762	62,557
acres	19,622,173	15,834,287	6,569,657	3,890,072	2,707,321	8,991,340
Land rented or leased to others ....farms	26,998	45,351	41,823	40,678	44,010	52,423
acres	9,073,067	11,263,698	8,451,327	6,944,128	6,124,925	12,053,637
NUMBER OF OPERATORS						
Total operators ....number	242,388	406,247	374,361	361,482	398,947	757,052
Farms by number of operators:						
1 operator	98,953	164,799	154,146	147,840	159,883	275,963
2 operators	53,718	92,852	86,881	86,230	98,185	199,451
3 operators	8,689	13,068	10,733	9,503	9,963	19,090
4 operators	1,497	2,506	2,119	1,894	1,859	3,831
5 or more operators	643	1,049	955	842	822	1,545
Total women operators ....number	62,719	117,434	116,380	118,109	137,189	286,415
Farms by number of women operators:						
1 operator	55,693	104,273	103,509	105,749	123,110	253,803
2 operators	2,816	5,175	4,966	4,858	5,611	13,469
3 operators	352	644	666	631	638	1,361
4 operators	45	117	149	111	120	232
5 or more operators	28	73	63	43	75	108
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male	147,208	239,808	216,864	206,647	223,232	395,141
Female	16,292	34,466	37,970	39,662	47,480	104,739
Primary occupation:						
Farming	89,872	120,743	91,211	75,712	73,989	142,888
Other	73,628	153,531	163,623	170,597	196,723	356,992
Place of residence:						
On farm operated	121,967	204,904	189,581	184,323	206,852	396,703
Not on farm operated	41,533	69,370	65,253	61,986	63,860	103,177
Days worked off farm:						
None	57,836	87,834	76,688	71,938	75,522	140,091
Any	105,664	186,440	178,146	174,371	195,190	359,789
1 to 49 days	15,681	27,619	28,012	29,633	34,109	57,678
50 to 99 days	9,510	15,840	14,654	13,728	14,404	26,240
100 to 199 days	17,378	28,956	24,812	22,668	23,379	43,262
200 days or more	63,095	114,025	110,668	108,342	123,298	232,609
Years on present farm:						
2 years or less	4,841	8,850	9,046	10,244	12,455	30,207
3 or 4 years	7,473	14,625	16,628	17,846	22,339	45,108
5 to 9 years	21,286	41,238	44,247	46,162	56,243	105,240

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
PRINCIPAL OPERATOR CHARACTERISTICS - Con.						
Years on present farm - Con.						
10 years or more	1,621,506	49,363	56,974	85,531	127,890	106,317
Average years on present farm	21.6	25.2	27.1	27.6	27.3	26.3
Age group:						
Under 25 years	11,878	150	194	555	1,211	922
25 to 34 years	106,735	2,734	3,240	5,927	10,388	7,916
35 to 44 years	268,818	9,414	9,678	13,661	18,819	14,641
45 to 49 years	256,694	9,412	9,832	13,943	18,448	14,065
50 to 54 years	308,707	10,602	11,906	16,896	22,507	16,917
55 to 59 years	312,577	8,913	10,359	14,895	21,601	17,423
60 to 64 years	283,729	6,418	7,492	11,658	18,235	16,421
65 to 69 years	235,152	4,410	4,976	8,221	14,465	14,028
70 years and over	420,502	5,239	5,890	10,495	23,375	26,791
Average age	57.1	53.4	53.6	54.0	55.3	57.3
Spanish, Hispanic, or Latino origin (see text)	55,570	1,036	829	1,249	2,262	2,653
Race:						
American Indian or Alaska Native	34,706	218	211	412	817	1,024
Asian	11,214	855	563	579	939	949
Black or African American	30,599	111	137	156	375	772
Native Hawaiian or Other Pacific Islander	1,356	20	11	30	41	63
White	2,114,325	55,988	62,468	94,830	146,426	125,754
More than one race reported	12,592	100	177	244	451	562
Farms by number of persons living in operator's household:						
1 person	275,842	3,878	4,841	8,710	16,660	16,738
2 people	1,108,995	24,829	28,510	44,215	71,664	65,487
3 people	330,188	9,070	10,225	15,243	22,362	18,799
4 people	285,919	10,211	10,685	14,836	20,151	15,451
5 or more people	203,848	9,304	9,306	13,247	18,212	12,649
Percent of operator's total household income from farming:						
Less than 25 percent	1,583,710	7,531	8,075	15,481	38,428	52,491
25 to 49 percent	174,800	4,306	5,218	10,007	20,770	22,911
50 to 74 percent	187,421	10,233	13,126	20,843	33,362	26,517
75 to 99 percent	147,092	17,745	19,175	26,539	31,487	17,365
100 percent	111,769	17,477	17,973	23,381	25,002	9,840
Operator is a hired manager ... farms	59,759	8,007	5,375	5,961	6,998	4,795
acres	120,672,499	31,387,113	15,928,160	15,405,848	14,735,728	7,434,203
Farms with-						
Internet access	1,246,723	47,218	49,198	69,445	94,288	74,707
High-speed internet access	726,700	34,342	33,159	43,546	55,267	43,082
Farms by number of households sharing in net income of farm:						
1 household	1,733,827	30,297	39,823	66,034	108,509	95,575
2 households	356,707	14,825	15,631	21,191	30,198	25,484
3 households	66,438	7,092	5,022	5,643	6,258	4,784
4 households	30,004	2,841	1,763	1,959	2,425	2,160
5 households or more	17,816	2,237	1,328	1,424	1,659	1,121
FARMS BY TYPE OF ORGANIZATION						
Family or individual ... farms	1,906,335	27,944	40,937	71,418	120,073	107,783
acres	574,150,050	54,861,257	67,026,128	90,183,797	103,207,351	57,526,356
Partnership ... farms	174,247	14,128	10,834	12,525	15,613	12,823
acres	161,416,999	50,571,247	26,856,394	24,560,919	22,235,942	10,565,896
Registered under state law ... farms	89,739	11,262	7,510	8,002	9,110	6,828
acres	114,284,815	41,148,914	19,547,740	16,554,489	15,163,363	6,710,342
Corporation ... farms	96,074	14,694	11,284	11,464	11,600	6,775
acres	125,319,810	40,233,407	26,385,148	23,435,395	16,652,582	6,138,760
Family held ... farms	85,837	12,867	10,593	10,782	10,761	6,149
acres	114,264,200	34,544,978	24,999,725	22,502,124	15,877,701	5,690,886
More than 10 stockholders ... farms	2,041	553	196	176	176	137
10 or less stockholders ... farms	83,796	12,314	10,397	10,606	10,585	6,012
Other than family held ... farms	10,237	1,827	691	682	839	626
acres	11,055,610	5,688,429	1,385,423	933,271	774,881	447,874
More than 10 stockholders ... farms	907	364	53	42	47	48
10 or less stockholders ... farms	9,330	1,463	638	640	792	578
Other-cooperative, estate or trust, institutional, etc ... farms	28,136	526	512	844	1,763	1,743
acres	61,208,981	3,755,787	3,527,643	4,879,781	7,242,452	5,503,608
HIRED FARM LABOR						
Hired farm labor ... farms	482,186	46,398	43,990	55,824	65,728	41,708
workers	2,636,509	1,076,440	279,682	262,389	261,708	146,798
Workers by days worked:						
150 days or more ... farms	201,292	39,681	31,513	33,699	31,854	14,831
workers	911,439	521,566	107,890	88,980	71,825	30,141
Less than 150 days ... farms	384,051	30,659	30,671	39,723	49,366	33,694
workers	1,725,070	554,874	171,792	173,409	189,883	116,657

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
PRINCIPAL OPERATOR CHARACTERISTICS - Con.						
Years on present farm - Con.						
10 years or more	129,900	209,561	184,913	172,057	179,675	319,325
Average years on present farm	25.0	23.0	21.2	19.8	18.4	17.4
Age group:						
Under 25 years	1,163	1,523	1,277	1,327	1,433	2,123
25 to 34 years	9,004	12,605	11,073	10,214	12,168	21,466
35 to 44 years	16,923	28,308	27,941	28,684	35,024	65,725
45 to 49 years	16,237	27,301	26,295	26,920	32,040	62,201
50 to 54 years	20,161	34,124	32,590	32,783	37,260	72,961
55 to 59 years	21,742	37,019	34,663	34,180	38,112	73,670
60 to 64 years	21,058	35,767	33,633	32,292	34,718	66,037
65 to 69 years	19,086	32,254	29,756	27,603	28,491	51,862
70 years and over	38,126	65,373	57,606	52,306	51,466	83,835
Average age	58.4	58.8	58.5	58.0	57.1	56.5
Spanish, Hispanic, or Latino origin (see text)	3,756	6,505	6,172	6,549	7,481	17,078
Race:						
American Indian or Alaska Native	1,537	3,301	3,712	4,103	5,169	14,202
Asian	1,071	1,572	1,171	987	981	1,547
Black or African American	1,409	3,519	4,381	4,623	5,351	9,765
Native Hawaiian or Other Pacific Islander	85	198	153	175	237	343
White	158,595	263,909	243,870	234,846	257,260	470,379
More than one race reported	803	1,775	1,547	1,575	1,714	3,644
Farms by number of persons living in operator's household:						
1 person	21,486	37,292	34,257	32,743	34,704	64,533
2 people	86,583	146,670	134,107	127,149	134,400	245,381
3 people	22,815	38,174	36,606	36,171	41,524	79,199
4 people	18,722	31,095	30,435	30,465	36,584	67,284
5 or more people	13,894	21,043	19,429	19,781	23,500	43,483
Percent of operator's total household income from farming:						
Less than 25 percent	91,308	202,276	217,876	223,242	251,841	475,161
25 to 49 percent	29,197	36,002	19,368	10,557	7,569	8,895
50 to 74 percent	25,001	22,511	11,158	7,987	7,513	9,170
75 to 99 percent	12,182	9,102	4,338	2,981	2,484	3,694
100 percent	5,812	4,383	2,094	1,542	1,305	2,960
Operator is a hired manager ....farms	4,431	5,774	4,368	3,572	3,422	7,056
acres	3,131,913	14,168,107	1,470,351	740,832	493,601	15,776,643
Farms with-						
Internet access	89,766	145,770	131,423	127,795	144,185	272,928
High-speed internet access	51,708	82,193	74,095	72,050	81,085	156,173
Farms by number of households sharing in net income of farm:						
1 household	123,513	213,110	202,637	200,875	225,111	428,343
2 households	30,834	48,075	41,219	36,151	36,100	56,999
3 households	5,164	7,522	6,273	5,194	5,365	8,121
4 households	2,607	3,636	3,106	2,612	2,720	4,175
5 households or more	1,382	1,931	1,599	1,477	1,416	2,242
FARMS BY TYPE OF ORGANIZATION						
Family or individual ....farms	140,157	242,040	229,442	223,862	248,794	453,885
acres	48,826,363	50,410,929	28,582,687	20,143,159	16,145,001	37,237,022
Partnership ....farms	14,693	20,633	16,498	14,382	14,051	28,067
acres	7,421,128	6,679,468	3,079,876	1,929,114	1,418,167	6,098,848
Registered under state law ....farms	7,470	9,552	7,118	5,894	5,546	11,447
acres	4,505,516	3,688,564	1,561,999	1,001,680	698,161	3,704,047
Corporation ....farms	6,579	7,893	5,277	4,550	4,228	11,730
acres	3,727,004	2,986,819	1,206,222	789,487	584,524	3,180,462
Family held ....farms	5,918	6,972	4,588	3,834	3,547	9,826
acres	3,318,021	2,640,641	997,340	684,345	491,334	2,517,105
More than 10 stockholders ....farms	132	173	115	111	78	194
10 or less stockholders ....farms	5,786	6,799	4,473	3,723	3,469	9,632
Other than family held ....farms	661	921	689	716	681	1,904
acres	408,983	346,178	208,882	105,142	93,190	663,357
More than 10 stockholders ....farms	30	60	34	50	58	121
10 or less stockholders ....farms	631	861	655	666	623	1,783
Other-cooperative, estate or trust, institutional, etc ....farms	2,071	3,708	3,617	3,515	3,639	6,198
acres	1,698,751	13,871,593	1,435,380	696,155	740,418	17,857,413
HIRED FARM LABOR						
Hired farm labor ....farms	43,177	55,503	37,613	28,227	23,808	40,210
workers	135,213	156,868	95,151	68,142	54,623	99,495
Workers by days worked:						
150 days or more ....farms	11,727	11,959	6,479	4,907	3,838	10,804
workers	22,550	22,261	11,625	8,701	6,442	19,458
Less than 150 days ....farms	36,585	48,742	33,910	25,372	21,529	33,800
workers	112,663	134,607	83,526	59,441	48,181	80,037

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
HIRED FARM LABOR - Con.						
Migrant farm labor on farms with hired labor (see text) ..... farms	38,784	6,955	4,665	5,076	6,109	3,493
Migrant farm labor on farms reporting only contract labor (see text) ..... farms	8,488	178	235	482	1,105	1,085
FARMS BY SIZE						
1 to 9 acres	232,849	1,260	1,481	1,926	3,798	4,054
10 to 49 acres	620,283	4,852	3,864	4,230	8,635	11,932
50 to 69 acres	153,862	1,572	1,105	1,468	3,414	3,168
70 to 99 acres	192,043	1,868	1,360	2,040	4,734	5,631
100 to 139 acres	175,146	1,875	1,525	2,421	5,098	9,459
140 to 179 acres	139,479	1,509	1,328	2,137	5,996	13,361
180 to 219 acres	87,502	1,300	1,212	1,965	6,294	10,244
220 to 259 acres	68,313	1,173	1,167	2,066	7,409	9,171
260 to 499 acres	212,553	5,124	4,952	12,472	41,621	28,300
500 to 999 acres	149,713	6,980	9,608	31,286	32,580	17,839
1,000 to 1,999 acres	92,656	9,094	20,629	20,379	15,219	9,502
2,000 acres or more	80,393	20,685	15,336	13,861	14,251	6,463
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)						
Oilseed and grain farming (1111)	338,237	14,248	29,181	48,253	67,885	49,444
Vegetable and melon farming (1112)	40,589	2,654	1,183	1,286	2,080	2,671
Fruit and tree nut farming (1113)	98,281	3,203	2,730	4,262	8,161	8,991
Greenhouse, nursery, and floriculture production (1114)	54,889	2,919	2,001	2,628	5,465	4,425
Other crop farming (1119)	519,893	3,693	4,939	6,429	10,402	12,709
Tobacco farming (11191)	9,626	161	386	624	1,132	1,368
Cotton farming (11192)	9,968	1,244	1,924	2,055	1,888	930
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	500,299	2,288	2,629	3,750	7,382	10,411
Beef cattle ranching and farming (112111)	656,475	3,727	5,253	11,366	26,514	36,825
Cattle feedlots (112112)	31,065	2,958	1,315	1,585	2,344	2,243
Dairy cattle and milk production (11212)	57,318	6,033	5,533	12,034	18,547	5,879
Hog and pig farming (1122)	30,546	5,104	3,144	2,340	2,073	1,092
Poultry and egg production (1123)	64,570	11,593	7,151	4,422	1,942	522
Sheep and goat farming (1124)	67,254	54	92	170	467	601
Animal aquaculture and other animal production (1125, 1129)	245,675	1,106	1,045	1,476	3,169	3,722
FARM TYPOLOGY (SEE TEXT)						
Small family farms:						
Limited resource farms ..... farms	308,837	-	-	-	687	11,594
acres	42,419,764	-	-	-	830,288	6,833,579
Retirement farms ..... farms	456,093	-	-	385	15,300	23,097
acres	89,580,775	-	-	504,262	12,677,334	11,748,413
Residential/lifestyle farms ..... farms	801,844	-	-	663	25,118	35,116
acres	121,143,585	-	-	820,429	18,013,418	16,052,284
Farming occupation/lower sales ..... farms	258,899	-	1	9	5,012	52,739
acres	87,190,445	-	(D)	24,241	6,480,128	35,388,322
Farming occupation/higher sales ..... farms	100,126	-	4	5,984	94,138	-
acres	104,081,344	-	5,912	9,773,584	94,301,848	-
Large family farms ..... farms	86,551	2	4,281	82,268	-	-
acres	123,024,138	(D)	(D)	113,914,444	-	-
Very large family farms ..... farms	101,265	48,086	53,179	-	-	-
acres	211,224,012	114,415,419	96,808,593	-	-	-
Non-family farms ..... farms	91,177	9,204	6,102	6,942	8,794	6,578
acres	143,431,777	(D)	(D)	18,022,932	17,035,311	9,712,022
LIVESTOCK						
Cattle and calves inventory ..... farms	963,669	25,504	27,957	46,974	76,580	67,030
number	96,347,858	33,597,217	9,600,021	11,634,423	12,550,407	7,532,013
Farms with-						
1 to 9	233,078	637	915	1,299	2,325	3,150
10 to 49	415,493	3,014	3,962	5,908	12,457	17,363
50 to 99	135,117	2,236	3,151	6,119	20,332	17,438
100 to 199	91,193	2,537	4,555	14,489	20,388	18,759
200 to 499	59,234	4,346	9,726	12,996	17,343	9,642
500 or more	29,554	12,734	5,648	6,163	3,735	678
Cows and heifers that had calved ..... farms	818,992	19,672	23,224	40,335	67,121	58,456
number	42,101,375	9,184,278	4,110,794	5,517,551	6,603,441	4,179,544
Beef cows ..... farms	764,984	13,622	17,651	28,874	49,887	52,805
number	32,834,801	3,335,260	3,114,171	4,374,370	5,611,373	3,987,139
Farms with-						
1 to 9	246,863	770	1,185	2,078	3,677	4,194
10 to 49	360,845	4,099	5,296	8,189	15,175	18,017
50 to 99	84,253	2,604	3,462	5,844	10,200	15,042
100 to 199	43,575	2,381	3,254	5,259	10,879	12,810
200 to 499	23,635	2,276	2,755	5,649	9,364	2,649
500 or more	5,813	1,492	1,699	1,855	592	93

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
HIRED FARM LABOR - Con.						
Migrant farm labor on farms with hired labor (see text) ....farms	3,210	3,280	1,889	1,281	947	1,879
Migrant farm labor on farms reporting only contract labor (see text) ....farms	1,306	1,460	774	523	425	915
FARMS BY SIZE						
1 to 9 acres	7,829	19,532	23,447	31,287	45,872	92,363
10 to 49 acres	20,018	50,629	71,126	90,719	125,853	228,425
50 to 69 acres	7,603	20,240	25,238	26,009	25,951	38,094
70 to 99 acres	15,505	31,016	33,457	31,704	26,834	37,894
100 to 139 acres	17,685	31,800	29,821	23,616	17,526	34,320
140 to 179 acres	16,187	27,265	23,381	16,325	10,581	21,409
180 to 219 acres	11,255	18,079	12,586	7,720	5,425	11,422
220 to 259 acres	9,252	14,196	8,820	4,749	3,243	7,067
260 to 499 acres	29,660	38,657	19,040	9,718	6,334	16,675
500 to 999 acres	17,358	16,048	5,560	3,090	2,156	7,208
1,000 to 1,999 acres	7,434	4,485	1,551	934	639	2,790
2,000 acres or more	3,714	2,327	807	438	298	2,213
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)						
Oilseed and grain farming (1111)	42,383	37,861	21,771	13,747	8,948	4,516
Vegetable and melon farming (1112)	4,150	7,866	6,549	5,538	4,121	2,491
Fruit and tree nut farming (1113)	11,965	17,590	11,980	9,860	6,959	12,580
Greenhouse, nursery, and floriculture production (1114)	5,696	8,524	6,171	5,230	4,223	7,607
Other crop farming (1119)	23,718	59,352	74,619	88,847	108,982	126,203
Tobacco farming (11191)	1,690	2,097	1,261	643	223	41
Cotton farming (11192)	715	677	289	165	64	17
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	21,313	56,578	73,069	88,039	108,695	126,145
Beef cattle ranching and farming (112111)	60,799	116,418	102,784	84,650	78,923	129,216
Cattle feedlots (112112)	2,545	4,576	4,427	4,104	4,159	809
Dairy cattle and milk production (11212)	3,204	2,481	1,792	1,643	69	103
Hog and pig farming (1122)	887	1,435	1,681	2,255	3,709	6,826
Poultry and egg production (1123)	545	1,047	1,542	2,855	8,048	24,903
Sheep and goat farming (1124)	1,150	3,285	4,711	7,685	14,795	34,244
Animal aquaculture and other animal production (1125, 1129)	6,458	13,839	16,807	19,895	27,776	150,382
FARM TYPOLOGY (SEE TEXT)						
Small family farms:						
Limited resource farms ....farms	18,335	41,755	44,000	44,179	49,614	98,673
acres	5,838,030	7,955,931	5,365,558	3,882,896	3,176,404	8,537,078
Retirement farms ....farms	40,181	75,053	67,734	62,997	64,362	106,984
acres	14,682,560	17,096,093	9,626,763	6,544,203	5,014,001	11,687,146
Residential/lifestyle farms ....farms	55,170	107,103	108,648	109,992	126,983	233,051
acres	17,232,379	21,301,348	12,878,284	9,349,256	7,499,400	17,996,787
Farming occupation/lower sales ....farms	43,189	40,722	26,290	21,734	22,328	46,875
acres	19,400,494	11,587,902	4,014,748	2,506,237	(D)	5,766,546
Farming occupation/higher sales ....farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Large family farms ....farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Very large family farms ....farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Non-family farms ....farms	6,625	9,641	8,162	7,407	7,425	14,297
acres	4,519,783	16,007,535	2,418,812	1,275,323	(D)	20,386,188
LIVESTOCK						
Cattle and calves inventory ....farms	87,000	145,871	122,963	100,675	94,945	168,170
number	6,560,320	6,456,543	3,118,827	1,675,098	1,123,737	2,499,252
Farms with-						
1 to 9	5,476	13,662	22,200	35,223	53,031	95,160
10 to 49	29,634	84,978	89,542	62,149	40,280	66,206
50 to 99	28,611	38,176	9,929	2,825	1,274	5,026
100 to 199	19,703	7,949	1,071	366	246	1,130
200 to 499	3,337	962	195	100	100	487
500 or more	239	144	26	12	14	161
Cows and heifers that had calved ....farms	77,612	131,882	109,186	86,432	77,568	127,504
number	3,808,270	3,872,446	1,894,740	1,001,715	641,659	1,286,937
Beef cows ....farms	74,589	129,830	107,737	85,350	77,374	127,265
number	3,747,440	3,850,995	1,888,533	999,056	640,277	1,286,187
Farms with-						
1 to 9	6,952	17,466	27,991	42,893	54,968	84,689
10 to 49	34,333	94,090	76,958	41,716	22,004	40,968
50 to 99	26,142	16,338	2,493	633	319	1,176
100 to 199	6,570	1,714	260	81	68	299
200 to 499	563	193	35	24	15	112
500 or more	29	29	-	3	-	21

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
LIVESTOCK - Con.						
Cattle and calves inventory - Con.						
Cows and heifers that had calved - Con.						
Milk cows ..... farms	69,890	6,808	6,569	13,456	20,546	7,411
number	9,266,574	5,849,018	996,623	1,143,181	992,068	192,405
Farms with-						
1 to 9	14,426	57	116	307	859	1,127
10 to 49	19,912	64	189	875	9,982	5,759
50 to 99	18,986	181	824	8,097	9,286	507
100 to 199	8,975	477	4,009	4,062	403	18
200 to 499	4,307	2,759	1,419	114	15	-
500 or more	3,284	3,270	12	1	1	-
Other cattle (see text) ..... farms	788,633	23,810	26,007	44,044	71,068	60,704
number	54,246,483	24,412,939	5,489,227	6,116,872	5,946,966	3,352,469
Cattle and calves sold ..... farms	798,290	24,386	26,865	45,758	74,788	65,660
number	74,071,936	39,598,957	6,658,835	7,066,944	7,258,974	4,314,649
$1,000	61,209,970	38,165,974	5,199,068	5,172,589	4,885,909	2,691,244
Calves weighing less than 500 pounds ..... farms	414,324	12,141	12,459	21,328	36,105	32,415
number	13,695,252	4,314,071	1,243,948	1,477,482	1,771,885	1,269,454
Cattle, including calves weighing 500 pounds or more ..... farms	681,126	22,554	24,882	42,769	69,492	60,540
number	60,376,684	35,284,886	5,414,887	5,589,462	5,487,089	3,045,195
Cattle on feed (see text) ..... farms	76,396	6,303	5,639	8,486	10,944	7,566
number	27,595,928	24,694,593	1,097,582	798,061	525,649	204,055
Hogs and pigs inventory ..... farms	75,442	7,621	5,733	5,629	6,103	4,236
number	67,786,318	50,974,173	9,241,525	4,264,890	1,974,841	582,394
Farms with-						
1 to 24	45,047	339	452	817	1,663	1,782
25 to 49	4,292	66	90	195	440	447
50 to 99	3,182	39	110	241	494	528
100 to 199	2,590	57	159	349	638	571
200 to 499	4,524	244	554	1,123	1,489	691
500 or more	15,807	6,876	4,368	2,904	1,379	217
Used or to be used for breeding ..... farms	32,867	2,159	1,772	2,380	3,167	2,351
number	6,290,610	4,816,449	626,331	376,333	227,280	78,225
Other hogs and pigs ..... farms	66,441	7,538	5,574	5,438	5,736	3,877
number	61,495,708	46,157,724	8,615,194	3,888,557	1,747,561	504,169
Hogs and pigs sold ..... farms	74,789	7,830	6,027	6,012	6,510	4,469
number	206,807,181	163,099,490	25,617,289	11,191,931	4,590,443	1,142,229
$1,000	18,056,981	14,276,646	2,285,539	932,704	373,149	90,229
Sheep and lambs inventory ..... farms	83,134	738	1,179	2,116	4,075	3,813
number	5,819,162	1,068,765	720,644	749,308	893,912	458,059
Ewes 1 year old or older ..... farms	68,222	619	1,052	1,931	3,712	3,471
number	3,516,409	457,831	430,998	498,266	602,766	313,222
Sheep and lambs sold ..... farms	53,268	575	946	1,765	3,475	3,213
number	4,579,608	1,374,309	552,486	579,164	645,052	325,484
Horses and ponies inventory ..... farms	575,942	8,027	8,492	13,904	25,585	23,404
number	4,028,827	102,640	87,851	129,443	232,999	209,176
Owned ..... farms	501,528	6,750	7,065	11,372	20,835	19,118
number	3,224,964	84,784	72,087	104,972	188,091	166,976
Horses and ponies sold ..... farms	133,472	1,320	1,367	2,243	5,095	5,602
number	506,503	20,013	15,281	21,817	42,532	42,945
Owned ..... farms	106,050	1,112	1,114	1,816	4,171	4,628
number	400,845	17,999	13,480	18,194	37,205	37,379
Goats, all inventory ..... farms	144,466	814	964	1,628	3,207	3,720
number	3,140,529	54,201	55,555	160,899	297,293	223,267
Goats sold ..... farms	61,748	356	415	728	1,596	1,859
number	1,387,576	32,950	33,640	90,932	151,181	125,236
POULTRY						
Layers inventory (see text) ..... farms	145,615	1,244	1,834	3,107	5,401	5,149
number	349,772,508	288,679,200	28,812,907	20,524,581	7,167,777	978,714
Farms with-						
1 to 399	140,844	265	681	1,777	4,726	4,945
400 to 3,199	785	31	24	35	130	156
3,200 to 9,999	626	22	28	209	327	27
10,000 to 19,999	1,373	42	289	850	176	10
20,000 to 49,999	1,292	254	770	227	29	11
50,000 to 99,999	261	218	36	3	4	-
100,000 or more	434	412	6	6	9	-
Pullets for laying flock replacement inventory ..... farms	22,514	500	501	738	941	805
number	105,876,529	65,983,900	17,560,579	14,105,759	5,374,798	656,242
Layers sold ..... farms	24,971	764	1,203	1,561	1,265	869
number	194,955,057	141,527,283	25,581,345	19,534,546	6,182,378	596,940
Pullets for laying flock replacement sold (see text) ..... farms	4,169	361	459	594	413	158
number	161,354,686	90,579,315	34,719,439	25,804,614	9,223,788	674,839

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
LIVESTOCK - Con.						
Cattle and calves inventory - Con.						
Cows and heifers that had calved - Con.						
Milk cows ....farms	4,798	4,469	2,980	2,036	393	424
number	60,830	21,451	6,207	2,659	1,382	750
Farms with-						
1 to 9	2,244	3,987	2,903	2,025	378	423
10 to 49	2,476	471	75	11	9	1
50 to 99	75	8	2	-	6	-
100 to 199	3	3	-	-	-	-
200 to 499	-	-	-	-	-	-
500 or more	-	-	-	-	-	-
Other cattle (see text) ....farms	77,035	123,190	98,708	77,028	69,308	117,731
number	2,752,050	2,584,097	1,224,087	673,383	482,078	1,212,315
Cattle and calves sold ....farms	86,133	144,817	120,957	96,267	85,993	26,666
number	3,582,103	3,262,508	1,383,677	615,185	286,550	43,554
$1,000	2,112,175	1,806,942	722,781	302,349	133,583	17,356
Calves weighing less than 500 pounds ....farms	46,636	83,169	67,972	50,332	39,655	12,112
number	1,225,351	1,322,222	620,893	289,445	137,285	23,216
Cattle, including calves weighing 500 pounds or more ....farms	78,708	127,440	100,542	75,425	62,347	16,427
number	2,356,752	1,940,286	762,784	325,740	149,265	20,338
Cattle on feed (see text) ....farms	7,223	10,397	7,910	6,053	5,015	860
number	112,768	90,585	41,734	19,651	10,142	1,108
Hogs and pigs inventory ....farms	4,343	6,753	6,787	6,859	8,536	12,842
number	234,204	175,240	127,376	72,058	64,480	75,137
Farms with-						
1 to 24	2,567	5,024	5,680	6,160	8,068	12,495
25 to 49	563	738	640	486	365	262
50 to 99	527	584	348	167	84	60
100 to 199	409	268	84	37	9	9
200 to 499	240	135	27	6	8	7
500 or more	37	4	8	3	2	9
Used or to be used for breeding ....farms	2,496	3,568	3,321	3,201	3,507	4,945
number	39,871	39,549	25,254	19,144	16,343	25,831
Other hogs and pigs ....farms	3,798	5,719	5,696	5,605	7,092	10,368
number	194,333	135,691	102,122	52,914	48,137	49,306
Hogs and pigs sold ....farms	4,540	7,228	7,326	7,679	8,871	8,297
number	433,073	332,638	169,474	113,183	78,901	38,530
$1,000	38,147	27,213	14,328	9,604	6,618	2,801
Sheep and lambs inventory ....farms	5,292	8,964	8,908	9,792	12,962	25,295
number	382,567	443,792	288,680	240,771	234,443	338,221
Ewes 1 year old or older ....farms	4,773	7,815	7,463	7,996	10,381	19,009
number	263,043	295,629	186,979	149,242	139,214	179,219
Sheep and lambs sold ....farms	4,298	7,069	6,874	7,322	9,603	8,128
number	284,461	311,284	196,372	144,651	115,923	50,422
Horses and ponies inventory ....farms	32,023	56,846	56,361	57,574	71,733	221,993
number	263,319	411,369	357,024	335,015	383,609	1,516,382
Owned ....farms	26,512	47,878	48,370	50,121	62,942	200,565
number	212,533	329,552	290,231	274,790	314,067	1,186,881
Horses and ponies sold ....farms	8,593	17,196	19,955	21,116	25,963	25,022
number	50,934	76,473	62,000	55,813	56,807	61,888
Owned ....farms	7,364	14,943	17,805	18,788	23,140	11,169
number	44,553	66,024	53,623	47,801	47,538	17,049
Goats, all inventory ....farms	5,890	12,635	13,943	16,753	25,060	59,852
number	244,138	356,378	290,035	300,595	378,108	780,060
Goats sold ....farms	2,998	6,578	7,330	9,327	14,438	16,123
number	129,327	200,320	162,774	166,019	183,438	111,759
POULTRY						
Layers inventory (see text) ....farms	7,596	15,301	16,805	19,382	26,779	43,017
number	510,300	623,228	534,411	544,555	639,404	757,431
Farms with-						
1 to 399	7,423	15,112	16,771	19,369	26,768	43,007
400 to 3,199	162	186	33	11	11	6
3,200 to 9,999	8	1	1	1	-	2
10,000 to 19,999	2	2	-	1	-	1
20,000 to 49,999	1	-	-	-	-	-
50,000 to 99,999	-	-	-	-	-	-
100,000 or more	-	-	-	-	-	1
Pullets for laying flock replacement inventory ....farms	1,327	2,511	2,889	3,243	4,291	4,768
number	231,880	293,900	217,827	329,825	226,604	895,215
Layers sold ....farms	1,268	2,632	3,118	3,585	4,638	4,068
number	340,886	444,850	224,947	215,780	197,134	108,968
Pullets for laying flock replacement sold (see text) ....farms	188	318	380	407	504	387
number	197,432	55,739	45,378	29,419	16,412	8,311

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
POULTRY - Con.						
Broilers and other meat-type chickens sold ... farms	27,091	9,106	4,978	2,474	1,372	754
number	8,914,828,122	7,048,162,401	1,441,161,546	353,298,134	66,726,978	3,641,975
Farms with-						
1 to 1,999	9,743	51	103	233	510	571
2,000 to 59,999	618	40	23	35	205	183
60,000 to 99,999	623	4	20	87	512	-
100,000 or more	16,107	9,011	4,832	2,119	145	-
Turkeys inventory (see text) ... farms	17,226	1,533	779	373	460	506
number	107,173,804	87,623,459	15,099,727	3,014,168	579,608	141,476
Turkeys sold (see text) ... farms	8,284	1,629	842	323	300	302
number	295,793,159	249,372,227	38,131,895	6,693,327	1,221,875	110,019
CROPS HARVESTED						
Barley for grain ... farms	19,848	1,857	2,881	4,348	4,810	2,289
acres	3,521,957	893,389	862,755	880,332	603,107	171,518
bushels	207,089,232	64,457,033	51,796,424	48,702,264	28,968,163	7,813,426
Irrigated ... farms	4,241	686	579	758	920	466
acres	741,475	309,532	129,381	137,769	103,345	35,017
Farms by acres harvested:						
1 to 24 acres	5,742	140	287	686	1,281	951
25 to 99 acres	5,405	360	604	1,102	1,526	806
100 to 249 acres	4,469	427	761	1,255	1,389	399
250 to 499 acres	2,552	354	672	940	459	108
500 acres or more	1,680	576	557	365	155	25
Corn for grain ... farms	347,760	25,705	35,964	56,513	76,528	49,375
acres	86,248,542	26,906,259	20,492,833	18,725,344	12,756,047	4,192,104
bushels	12,738,519,330	4,304,418,815	3,109,411,715	2,705,965,351	1,744,688,920	533,521,358
Irrigated ... farms	38,911	7,874	7,881	8,888	7,777	3,296
acres	13,156,769	6,160,766	3,261,099	2,281,819	1,093,741	256,155
Farms by acres harvested:						
1 to 24 acres	68,008	459	629	1,455	4,957	5,087
25 to 99 acres	101,672	1,583	2,570	6,771	17,503	28,518
100 to 249 acres	78,166	3,000	5,121	12,981	38,872	14,848
250 to 499 acres	50,807	3,866	7,517	24,508	13,881	859
500 acres or more	49,107	16,797	20,127	10,798	1,315	63
Corn for silage or greenchop ... farms	84,317	9,398	9,968	16,960	22,176	9,409
acres	5,979,661	2,420,818	1,024,977	1,079,040	871,471	270,913
tons	104,224,795	49,246,162	17,710,632	16,953,377	12,588,862	3,726,743
Irrigated ... farms	9,664	3,364	1,599	1,540	1,446	708
acres	1,497,288	1,005,994	196,888	140,119	94,725	30,267
Farms by acres harvested:						
1 to 24 acres	34,207	644	1,379	3,859	9,744	5,832
25 to 99 acres	34,878	2,530	4,753	10,111	10,891	3,206
100 to 249 acres	10,855	3,159	3,144	2,603	1,357	342
250 to 499 acres	2,859	1,798	539	318	165	24
500 acres or more	1,518	1,267	153	69	19	5
Cotton, all ... farms	18,605	3,612	3,925	3,871	3,306	1,453
acres	10,493,238	4,406,510	3,024,683	1,886,868	862,760	191,236
bales	18,898,128	9,039,329	5,280,822	2,934,352	1,244,866	254,566
Irrigated ... farms	8,776	2,488	2,285	1,776	1,259	499
acres	4,035,610	2,189,760	1,083,895	505,694	196,746	41,526
Farms by acres harvested:						
1 to 24 acres	961	16	33	21	42	70
25 to 99 acres	3,043	120	148	278	543	574
100 to 249 acres	3,886	353	442	808	1,349	670
250 to 499 acres	3,738	547	849	1,246	965	116
500 acres or more	6,977	2,576	2,453	1,518	407	23
Dry edible beans, excluding limas ... farms	6,236	1,268	1,314	1,347	1,099	480
acres	1,455,549	662,278	383,947	246,841	115,920	30,390
cwt	25,353,900	12,227,058	6,467,727	4,069,229	1,902,209	454,460
Irrigated ... farms	2,456	563	412	456	467	204
acres	353,503	177,073	69,726	57,330	36,743	8,161
Farms by acres harvested:						
1 to 24 acres	818	15	26	49	111	108
25 to 99 acres	1,709	135	194	347	539	298
100 to 249 acres	1,856	296	457	642	377	63
250 to 499 acres	1,066	324	412	259	64	5
500 acres or more	787	498	225	50	8	6
Oats for grain ... farms	42,558	1,484	2,664	5,622	9,617	6,439
acres	1,509,149	163,996	192,990	309,821	380,647	188,888
bushels	89,508,669	11,526,839	12,647,649	19,297,649	22,421,137	10,218,834
Irrigated ... farms	1,620	186	157	212	300	226
acres	78,214	27,627	10,661	11,716	13,579	5,818
Farms by acres harvested:						
1 to 24 acres	27,044	394	921	2,330	5,230	4,252
25 to 99 acres	12,167	604	1,146	2,459	3,528	1,857
100 to 249 acres	2,643	299	450	670	709	287
250 to 499 acres	552	133	110	129	129	37
500 acres or more	152	54	37	34	21	6
Peanuts for nuts ... farms	6,182	913	1,031	1,265	1,288	597
acres	1,200,564	461,322	298,388	238,172	139,824	36,970
pounds	3,703,138,887	1,574,846,234	916,954,008	685,899,164	387,947,044	84,913,106
Irrigated ... farms	2,381	506	541	534	468	153
acres	418,789	194,753	107,933	70,400	36,702	6,064

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
POULTRY - Con.						
Broilers and other meat-type chickens sold ....farms	909	1,463	1,473	1,446	1,790	1,326
....number	950,050	412,659	186,813	132,430	107,435	47,701
Farms with-						
1 to 1,999	819	1,429	1,465	1,446	1,790	1,326
2,000 to 59,999	90	34	8	-	-	-
60,000 to 99,999	-	-	-	-	-	-
100,000 or more	-	-	-	-	-	-
Turkeys inventory (see text) ....farms	854	1,616	1,948	2,285	2,904	3,968
....number	193,261	203,678	114,964	42,278	39,623	121,562
Turkeys sold (see text) ....farms	446	752	907	893	1,087	803
....number	130,928	79,026	21,779	13,902	12,594	5,587
CROPS HARVESTED						
Barley for grain ....farms	1,513	1,168	493	276	132	81
....acres	64,732	31,611	9,306	3,446	1,080	681
....bushels	3,306,120	1,436,668	408,718	142,614	37,419	20,383
Irrigated ....farms	374	240	104	62	27	25
....acres	16,016	7,274	1,943	654	273	271
Farms by acres harvested:						
1 to 24 acres	799	776	379	242	124	77
25 to 99 acres	516	341	107	31	8	4
100 to 249 acres	180	48	7	3	-	-
250 to 499 acres	17	2	-	-	-	-
500 acres or more	1	1	-	-	-	-
Corn for grain ....farms	38,796	31,035	15,882	9,049	5,353	3,560
....acres	1,885,075	859,783	257,087	102,626	45,305	26,079
....bushels	218,978,273	86,909,976	22,586,902	7,899,957	2,871,702	1,266,361
Irrigated ....farms	1,575	825	366	177	118	134
....acres	74,274	21,314	4,644	1,181	1,136	640
Farms by acres harvested:						
1 to 24 acres	8,833	16,787	13,037	8,253	5,083	3,428
25 to 99 acres	27,083	13,711	2,779	770	257	127
100 to 249 acres	2,747	490	64	26	12	5
250 to 499 acres	128	45	2	-	1	-
500 acres or more	5	2	-	-	-	-
Corn for silage or greenchop ....farms	6,490	5,103	2,069	1,190	685	869
....acres	154,485	95,234	29,640	15,003	7,374	10,706
....tons	2,102,995	1,170,965	350,280	165,082	79,411	130,286
Irrigated ....farms	448	272	121	81	51	34
....acres	18,951	6,427	1,736	812	596	773
Farms by acres harvested:						
1 to 24 acres	4,536	4,006	1,754	1,052	623	778
25 to 99 acres	1,794	1,017	299	131	59	87
100 to 249 acres	148	73	15	7	3	4
250 to 499 acres	8	6	1	-	-	-
500 acres or more	4	1	-	-	-	-
Cotton, all ....farms	988	838	341	183	69	19
....acres	74,519	35,577	7,913	2,450	633	89
....bales	91,093	41,749	8,458	2,207	611	75
Irrigated ....farms	241	134	55	25	7	7
....acres	13,206	3,683	932	133	20	15
Farms by acres harvested:						
1 to 24 acres	84	239	208	163	66	19
25 to 99 acres	670	558	129	20	3	-
100 to 249 acres	219	41	4	-	-	-
250 to 499 acres	15	-	-	-	-	-
500 acres or more	-	-	-	-	-	-
Dry edible beans, excluding limas ....farms	281	190	114	78	51	14
....acres	11,192	3,641	992	255	78	15
....cwt	165,075	53,671	9,683	3,438	1,108	242
Irrigated ....farms	97	82	69	63	35	8
....acres	3,010	1,049	212	146	44	9
Farms by acres harvested:						
1 to 24 acres	126	139	102	77	51	14
25 to 99 acres	136	48	11	1	-	-
100 to 249 acres	18	2	1	-	-	-
250 to 499 acres	1	1	-	-	-	-
500 acres or more	-	-	-	-	-	-
Oats for grain ....farms	5,431	5,251	2,752	1,548	1,000	750
....acres	118,361	87,454	33,520	17,037	10,235	6,200
....bushels	6,321,919	4,206,482	1,538,313	697,794	426,750	205,303
Irrigated ....farms	163	136	91	70	60	19
....acres	3,920	2,510	1,106	652	515	110
Farms by acres harvested:						
1 to 24 acres	4,058	4,366	2,476	1,388	916	713
25 to 99 acres	1,225	815	258	159	82	34
100 to 249 acres	141	64	18	-	2	3
250 to 499 acres	7	6	-	1	-	-
500 acres or more	-	-	-	-	-	-
Peanuts for nuts ....farms	469	346	128	62	43	40
....acres	16,620	7,120	1,342	521	142	143
....pounds	35,558,373	13,984,096	2,257,589	602,468	124,231	52,574
Irrigated ....farms	79	42	20	14	12	12
....acres	2,104	583	124	63	16	47

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
CROPS HARVESTED - Con.						
Peanuts for nuts - Con.						
Farms by acres harvested:						
1 to 24 acres	915	15	17	25	60	99
25 to 99 acres	1,909	91	130	284	646	385
100 to 249 acres	1,886	199	394	662	507	108
250 to 499 acres	920	265	342	238	70	5
500 acres or more	552	343	148	56	5	-
Rice ... farms	6,084	1,313	1,542	1,464	992	399
acres	2,758,792	1,313,302	771,089	450,488	172,768	36,242
cwt	198,538,690	96,848,912	55,506,574	31,565,066	11,603,544	2,155,575
Irrigated ... farms	6,084	1,313	1,542	1,464	992	399
acres	2,758,792	1,313,302	771,089	450,488	172,768	36,242
Farms by acres harvested:						
1 to 24 acres	132	2	6	3	6	12
25 to 99 acres	915	41	61	79	220	255
100 to 249 acres	1,459	95	206	435	590	121
250 to 499 acres	1,616	186	495	773	152	10
500 acres or more	1,962	989	774	174	24	1
Sorghum for grain ... farms	26,242	2,770	3,770	5,043	6,165	3,578
acres	6,769,834	1,845,051	1,612,623	1,532,860	1,133,563	388,948
bushels	482,452,865	144,006,009	120,602,250	107,615,941	74,563,436	22,876,752
Irrigated ... farms	4,483	952	960	1,001	818	372
acres	845,214	325,964	200,175	172,056	95,678	31,966
Farms by acres harvested:						
1 to 24 acres	2,609	69	87	163	335	370
25 to 99 acres	8,335	308	543	926	1,999	1,816
100 to 249 acres	7,302	617	1,040	1,642	2,359	1,115
250 to 499 acres	4,377	606	931	1,455	1,115	222
500 acres or more	3,619	1,170	1,169	857	357	55
Soybeans for beans ... farms	279,110	20,103	30,473	47,379	62,191	41,507
acres	63,915,821	16,059,641	15,383,320	14,694,702	10,706,407	3,894,441
bushels	2,582,423,697	690,788,750	642,711,392	592,584,527	414,487,925	141,530,048
Irrigated ... farms	20,333	3,980	4,421	4,943	3,955	1,577
acres	5,237,075	2,264,286	1,421,978	939,520	443,261	109,153
Farms by acres harvested:						
1 to 24 acres	38,458	356	459	1,204	2,657	2,995
25 to 99 acres	90,935	1,532	2,581	5,800	15,241	24,441
100 to 249 acres	70,698	3,027	4,873	13,269	32,211	12,409
250 to 499 acres	44,381	3,684	8,656	19,812	10,353	1,484
500 acres or more	34,638	11,504	13,904	7,294	1,729	178
Sugarbeets for sugar ... farms	4,022	1,190	1,177	817	542	165
acres	1,253,817	727,252	338,197	131,838	46,095	7,105
tons	31,937,325	19,236,195	8,129,419	3,227,641	1,103,337	165,839
Irrigated ... farms	1,595	498	382	342	241	73
acres	394,675	231,823	88,010	51,398	19,005	2,996
Sugarcane for sugar ... farms	692	243	155	109	49	40
acres	846,666	681,797	109,862	39,795	10,019	3,060
tons	31,127,405	25,509,633	3,777,127	1,348,175	319,240	107,402
Irrigated ... farms	219	89	27	33	24	21
acres	435,205	410,973	9,913	8,618	3,865	1,404
Sunflower seed, all ... farms	6,403	995	1,492	1,684	1,318	421
acres	2,000,153	692,390	586,896	439,137	216,898	43,324
pounds	2,820,962,445	1,029,191,058	835,665,176	609,859,526	275,385,759	51,473,213
Irrigated ... farms	608	184	152	113	97	27
acres	102,219	51,923	24,871	13,759	9,211	1,847
Farms by acres harvested:						
1 to 24 acres	502	17	35	57	88	54
25 to 99 acres	1,153	60	134	227	372	186
100 to 249 acres	2,110	196	406	690	597	159
250 to 499 acres	1,494	234	495	521	216	22
500 acres or more	1,144	488	422	189	45	-
Tobacco ... farms	16,234	705	870	1,299	2,834	2,342
acres	359,846	97,608	68,188	61,567	62,586	31,538
pounds	778,301,825	228,522,669	156,278,097	135,563,107	125,674,944	62,329,098
Irrigated ... farms	2,572	211	272	364	559	446
acres	71,578	18,327	16,274	14,430	13,355	5,122
Farms by acres harvested:						
0.1 to 0.9 acres	235	2	1	4	5	6
1.0 to 1.9 acres	1,493	4	8	13	41	31
2.0 to 2.9 acres	1,827	8	15	23	120	111
3.0 to 4.9 acres	2,772	15	21	52	304	236
5.0 to 9.9 acres	3,459	32	51	132	695	535
10.0 to 24.9 acres	3,129	71	103	220	782	1,159
25.0 acres or more	3,319	573	671	855	887	264
Wheat for grain, all ... farms	160,810	14,579	20,237	28,827	35,535	22,164
acres	50,932,969	12,516,562	12,086,930	11,829,069	8,979,544	3,057,062
bushels	1,993,648,378	608,238,321	500,898,317	433,790,522	292,286,292	91,348,050
Irrigated ... farms	15,213	3,606	2,955	3,017	2,784	1,259
acres	3,364,079	1,715,336	682,409	492,087	312,084	90,278
Farms by acres harvested:						
1 to 24 acres	26,703	508	955	2,097	3,612	3,960
25 to 99 acres	49,409	2,234	3,877	6,760	11,133	8,956
100 to 249 acres	34,703	2,967	4,319	6,853	9,126	5,442
250 to 499 acres	21,167	2,526	3,580	5,045	5,968	2,795
500 acres or more	28,828	6,344	7,506	8,072	5,696	1,011

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
CROPS HARVESTED - Con.						
Peanuts for nuts - Con.						
Farms by acres harvested:						
1 to 24 acres	197	240	120	59	43	40
25 to 99 acres	257	105	8	3	-	-
100 to 249 acres	15	1	-	-	-	-
250 to 499 acres	-	-	-	-	-	-
500 acres or more	-	-	-	-	-	-
Rice ....farms	247	91	27	6	3	-
acres	11,810	2,754	287	46	6	-
cwt	699,222	143,511	12,255	3,644	387	-
Irrigated ....farms	247	91	27	6	3	-
acres	11,810	2,754	287	46	6	-
Farms by acres harvested:						
1 to 24 acres	19	50	25	6	3	-
25 to 99 acres	219	38	2	-	-	-
100 to 249 acres	9	3	-	-	-	-
250 to 499 acres	-	-	-	-	-	-
500 acres or more	-	-	-	-	-	-
Sorghum for grain ....farms	2,378	1,516	604	206	153	59
acres	162,658	68,869	17,937	3,946	2,186	1,193
bushels	8,553,946	3,276,794	726,774	143,114	44,044	43,805
Irrigated ....farms	165	108	52	25	19	11
acres	12,700	4,276	1,716	308	288	87
Farms by acres harvested:						
1 to 24 acres	423	501	329	151	128	53
25 to 99 acres	1,519	888	257	50	25	4
100 to 249 acres	386	122	15	5	-	1
250 to 499 acres	39	5	3	-	-	1
500 acres or more	11	-	-	-	-	-
Soybeans for beans ....farms	31,631	23,981	11,095	6,149	3,642	959
acres	1,850,147	909,422	267,695	101,229	40,035	8,782
bushels	62,280,337	27,553,292	7,122,074	2,407,765	817,152	140,435
Irrigated ....farms	755	441	142	77	35	7
acres	40,412	14,523	2,694	1,016	188	44
Farms by acres harvested:						
1 to 24 acres	5,346	9,116	7,052	5,014	3,341	918
25 to 99 acres	22,115	13,854	3,923	1,113	297	38
100 to 249 acres	3,827	935	118	22	4	3
250 to 499 acres	315	75	2	-	-	-
500 acres or more	28	1	-	-	-	-
Sugarbeets for sugar ....farms	83	37	5	3	3	-
acres	2,595	673	(D)	(D)	3	-
tons	57,915	15,628	1,101	220	30	-
Irrigated ....farms	36	15	2	3	3	-
acres	(D)	216	(D)	(D)	3	-
Sugarcane for sugar ....farms	37	32	13	2	11	1
acres	1,456	(D)	81	(D)	19	(D)
tons	45,539	17,559	1,961	(D)	(D)	(D)
Irrigated ....farms	5	3	7	1	8	1
acres	374	(D)	9	(D)	16	(D)
Sunflower seed, all ....farms	207	115	64	50	42	15
acres	13,581	5,378	1,594	688	213	54
pounds	13,824,891	3,741,069	1,414,265	286,260	104,111	17,117
Irrigated ....farms	13	6	6	1	6	3
acres	491	33	69	(D)	11	(D)
Farms by acres harvested:						
1 to 24 acres	49	61	45	39	42	15
25 to 99 acres	111	37	15	11	-	-
100 to 249 acres	44	14	4	-	-	-
250 to 499 acres	3	3	-	-	-	-
500 acres or more	-	-	-	-	-	-
Tobacco ....farms	2,694	3,013	1,513	690	231	43
acres	20,165	12,778	3,708	1,276	335	98
pounds	38,797,727	22,895,069	6,128,604	1,712,189	294,972	105,349
Irrigated ....farms	357	238	88	22	10	5
acres	2,791	976	197	55	8	44
Farms by acres harvested:						
0.1 to 0.9 acres	16	33	66	37	57	8
1.0 to 1.9 acres	112	327	407	395	130	25
2.0 to 2.9 acres	221	599	556	145	25	4
3.0 to 4.9 acres	557	1,112	382	77	14	2
5.0 to 9.9 acres	1,132	770	83	25	1	3
10.0 to 24.9 acres	607	157	16	11	3	-
25.0 acres or more	49	15	3	-	1	1
Wheat for grain, all ....farms	17,177	12,685	5,247	2,454	1,362	543
acres	1,466,395	700,098	201,835	60,252	21,962	13,260
bushels	41,817,686	18,466,201	4,613,748	1,430,319	447,944	310,978
Irrigated ....farms	787	463	170	116	36	20
acres	42,995	17,921	7,789	2,599	263	318
Farms by acres harvested:						
1 to 24 acres	4,756	4,867	2,644	1,720	1,144	440
25 to 99 acres	7,544	5,769	2,213	656	199	68
100 to 249 acres	3,715	1,822	346	71	15	27
250 to 499 acres	993	204	38	7	4	7
500 acres or more	169	23	6	-	-	1

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
CROPS HARVESTED - Con.						
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ..... farms	869,534	23,556	27,281	45,405	73,533	63,098
acres	61,455,483	7,172,330	5,505,084	7,868,384	10,157,461	6,762,003
tons, dry	155,393,762	31,842,315	17,634,023	21,830,003	25,098,941	15,280,322
Irrigated ..... farms	86,007	6,849	4,917	6,849	9,763	7,681
acres	10,264,753	3,194,067	1,389,466	1,575,052	1,685,651	843,282
Farms by acres harvested:						
1 to 24 acres	367,533	3,181	4,311	6,957	12,605	12,324
25 to 99 acres	345,273	6,963	8,852	15,825	29,509	26,495
100 to 249 acres	111,368	5,919	8,018	13,680	20,078	18,072
250 to 499 acres	30,370	3,727	3,549	5,556	7,846	5,004
500 acres or more	14,990	3,766	2,551	3,387	3,495	1,203
Alfalfa hay ..... farms	290,726	11,261	15,480	28,665	45,930	31,583
acres	20,244,497	3,362,255	2,393,337	3,474,886	4,299,282	2,252,263
tons, dry	65,349,074	17,496,986	9,123,375	11,016,485	12,145,079	5,874,715
Irrigated ..... farms	56,390	4,351	3,475	5,102	7,554	5,665
acres	6,556,652	2,131,380	904,174	999,444	1,069,275	539,426
Other tame hay ..... farms	496,740	10,916	11,987	17,383	28,713	31,550
acres	26,763,972	1,702,732	1,632,370	2,271,984	3,376,542	3,176,255
tons, dry	54,347,673	4,894,235	3,937,458	5,149,019	7,401,126	6,820,858
Irrigated ..... farms	24,348	1,809	1,258	1,626	2,229	1,942
acres	1,699,864	388,382	203,264	259,846	289,447	162,567
Field and grass seed crops, all ..... farms	6,038	604	589	759	974	751
acres	1,178,726	482,428	224,936	177,858	138,312	69,338
Irrigated ..... farms	1,457	363	234	226	217	126
acres	323,441	196,184	52,687	37,332	22,260	8,331
Land in vegetables (see text) ..... farms	69,172	4,925	3,103	3,685	5,503	5,519
acres	4,356,880	3,181,557	439,555	293,628	191,729	90,730
Irrigated ..... farms	29,885	3,566	1,731	1,827	2,575	2,486
acres	3,068,485	2,547,923	239,523	135,918	69,253	27,904
Farms by acres harvested:						
0.1 to 4.9 acres	41,453	168	244	471	1,294	1,864
5.0 to 24.9 acres	13,869	263	309	673	1,799	2,606
25.0 to 99.9 acres	6,671	581	917	1,472	1,970	950
100.0 to 249.9 acres	3,473	990	1,099	869	403	87
250.0 acres or more	3,706	2,923	534	200	37	12
Snap beans ..... farms	17,300	710	568	788	1,154	1,438
acres	303,997	192,088	44,803	32,702	17,852	6,954
Harvested for processing ..... farms	1,999	362	280	270	195	125
acres	198,101	115,108	35,983	25,591	12,666	4,855
Peas, green ..... farms	4,532	586	454	577	522	416
acres	214,057	111,115	41,393	29,510	17,801	9,535
Harvested for processing ..... farms	2,047	511	382	440	355	183
acres	206,092	108,571	39,851	28,109	17,116	9,135
Potatoes ..... farms	15,014	1,303	649	708	1,070	1,206
acres	1,131,963	940,427	107,137	50,439	20,657	5,147
Harvested for processing ..... farms	1,739	669	250	171	114	55
acres	599,604	528,018	44,299	18,918	6,605	1,170
Farms by acres harvested:						
0.1 to 4.9 acres	12,013	88	107	254	699	1,041
5.0 to 24.9 acres	612	43	35	65	120	109
25.0 to 99.9 acres	539	52	72	160	192	51
100.0 to 249.9 acres	714	193	264	195	56	4
250.0 acres or more	1,136	927	171	34	3	1
Sweet corn ..... farms	28,241	1,182	1,006	1,551	2,454	2,422
acres	622,946	338,012	74,767	76,038	59,497	28,189
Harvested for processing ..... farms	3,670	567	407	556	579	308
acres	361,886	200,963	51,964	52,002	34,846	13,614
Sweet potatoes ..... farms	1,910	171	113	128	181	170
acres	105,284	69,509	16,046	9,921	4,887	1,944
Harvested for processing ..... farms	259	57	41	42	29	27
acres	21,360	12,328	3,913	3,277	1,344	342
Tomatoes in the open ..... farms	25,809	1,009	561	873	1,743	2,302
acres	442,225	391,197	20,797	9,259	6,392	3,825
Harvested for processing ..... farms	1,761	462	101	66	64	72
acres	319,549	298,456	14,390	4,204	1,637	241
Land in orchards ..... farms	115,935	4,286	3,185	4,882	9,515	10,243
acres	5,039,476	2,608,300	542,308	481,161	479,190	284,016
Irrigated ..... farms	61,189	3,711	2,552	3,655	6,303	6,236
acres	3,981,316	2,430,986	443,605	362,612	311,605	156,272
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres	52,775	148	160	275	747	1,088
5.0 to 24.9 acres	37,043	305	250	515	2,265	5,332
25.0 to 99.9 acres	17,119	541	737	2,208	5,462	3,509
100.0 to 249.9 acres	5,434	851	1,381	1,624	939	275
250.0 acres or more	3,564	2,441	657	260	102	39
Apples ..... farms	25,591	780	691	1,070	1,860	1,870
bearing and nonbearing acres	398,770	193,849	50,818	44,724	41,116	20,625
Grapes ..... farms	25,892	1,235	847	1,282	2,570	2,516
bearing and nonbearing acres	1,051,407	585,730	113,092	101,531	108,855	56,570
Peaches, all ..... farms	13,582	542	446	613	1,114	970
bearing and nonbearing acres	149,237	72,130	22,425	14,986	14,690	6,971

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
CROPS HARVESTED - Con.						
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ....farms	82,823	136,512	114,011	94,453	85,554	123,308
acres	6,414,306	7,182,214	3,978,176	2,468,600	1,701,804	2,245,121
tons, dry	13,789,807	13,995,320	7,010,504	3,847,668	2,297,921	2,766,938
Irrigated ....farms	8,097	10,561	8,225	7,326	6,782	8,957
acres	575,400	453,065	214,257	126,155	81,019	127,339
Farms by acres harvested:						
1 to 24 acres	17,571	39,516	52,628	57,709	63,178	97,553
25 to 99 acres	42,630	79,128	55,865	34,480	21,317	24,209
100 to 249 acres	19,490	16,378	5,190	2,160	998	1,385
250 to 499 acres	2,770	1,363	301	93	57	104
500 acres or more	362	127	27	11	4	57
Alfalfa hay ....farms	30,386	37,166	26,066	20,651	17,794	25,744
acres	1,553,096	1,345,408	635,847	376,426	244,150	307,547
tons, dry	3,867,648	3,016,919	1,282,195	674,936	386,921	463,815
Irrigated ....farms	5,620	6,810	5,063	4,258	3,769	4,723
acres	363,313	266,433	118,046	67,778	41,420	55,963
Other tame hay ....farms	50,017	90,526	75,930	60,250	51,485	67,983
acres	3,698,354	4,553,166	2,546,905	1,537,369	1,005,425	1,262,870
tons, dry	7,734,130	8,711,012	4,449,490	2,350,912	1,339,980	1,559,453
Irrigated ....farms	2,228	3,187	2,655	2,410	2,185	2,819
acres	119,852	116,103	59,429	39,438	23,382	38,154
Field and grass seed crops, all ....farms	661	653	379	287	181	200
acres	38,431	25,949	11,376	5,455	2,512	2,131
Irrigated ....farms	72	82	31	44	32	30
acres	2,398	2,030	1,395	357	264	203
Land in vegetables (see text) ....farms	7,531	12,402	9,773	7,702	5,617	3,412
acres	63,065	49,130	23,234	13,091	7,368	3,792
Irrigated ....farms	3,088	4,843	3,794	2,841	2,041	1,093
acres	18,225	14,264	7,745	4,523	2,126	1,082
Farms by acres harvested:						
0.1 to 4.9 acres	3,812	9,203	8,542	7,177	5,396	3,282
5.0 to 24.9 acres	3,160	3,023	1,188	511	211	126
25.0 to 99.9 acres	541	173	43	12	8	4
100.0 to 249.9 acres	18	3	-	2	2	-
250.0 acres or more	-	-	-	-	-	-
Snap beans ....farms	2,229	3,811	2,801	1,877	1,204	720
acres	4,496	2,690	1,057	759	334	262
Harvested for processing ....farms	138	188	124	128	125	64
acres	2,755	733	150	211	34	16
Peas, green ....farms	379	595	444	284	169	106
acres	2,884	1,047	448	182	102	42
Harvested for processing ....farms	79	39	24	11	15	8
acres	2,544	612	138	5	7	5
Potatoes ....farms	1,859	3,100	2,162	1,498	902	557
acres	2,882	2,653	1,134	944	346	198
Harvested for processing ....farms	63	136	83	94	61	43
acres	225	255	54	37	13	11
Farms by acres harvested:						
0.1 to 4.9 acres	1,720	3,009	2,149	1,490	900	556
5.0 to 24.9 acres	130	88	13	6	2	1
25.0 to 99.9 acres	8	3	-	1	-	-
100.0 to 249.9 acres	1	-	-	1	-	-
250.0 acres or more	-	-	-	-	-	-
Sweet corn ....farms	3,196	5,256	4,222	3,206	2,381	1,365
acres	18,830	13,411	7,605	3,798	1,915	885
Harvested for processing ....farms	269	279	223	206	170	106
acres	6,454	1,275	384	221	109	54
Sweet potatoes ....farms	251	322	233	159	107	75
acres	1,743	694	265	177	72	28
Harvested for processing ....farms	22	16	9	12	4	-
acres	126	26	2	2	(Z)	-
Tomatoes in the open ....farms	3,540	5,901	4,232	2,802	1,774	1,072
acres	3,776	3,592	1,564	858	534	430
Harvested for processing ....farms	145	219	195	193	152	92
acres	234	137	104	63	41	44
Land in orchards ....farms	13,971	21,159	14,300	11,829	8,618	13,947
acres	230,398	191,786	70,864	39,907	24,525	87,022
Irrigated ....farms	7,638	10,294	6,563	5,411	3,741	5,085
acres	112,223	77,483	26,104	13,345	7,452	39,630
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres	2,862	9,891	10,185	9,867	7,463	10,089
5.0 to 24.9 acres	8,616	9,948	3,774	1,771	1,029	3,238
25.0 to 99.9 acres	2,328	1,206	300	175	119	534
100.0 to 249.9 acres	140	98	37	16	5	68
250.0 acres or more	25	16	4	-	2	18
Apples ....farms	2,765	4,578	3,542	2,677	2,047	3,711
bearing and nonbearing acres	15,711	13,162	5,582	3,163	2,562	7,459
Grapes ....farms	3,087	4,561	2,938	2,492	1,661	2,703
bearing and nonbearing acres	38,060	26,397	8,002	4,137	1,869	7,165
Peaches, all ....farms	1,443	2,250	1,806	1,464	1,049	1,885
bearing and nonbearing acres	5,879	5,002	2,284	1,282	921	2,666

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms	$1,000,000 or more	$500,000 to $999,999	$250,000 to $499,999	$100,000 to $249,999	$50,000 to $99,999
CROPS HARVESTED - Con.						
Land in orchards - Con.						
Citrus fruit, all ..... farms	15,658	741	546	908	1,630	1,881
bearing and nonbearing acres	1,005,806	647,383	88,330	85,610	74,909	44,290
Almonds ..... farms	6,700	1,063	523	620	965	776
bearing and nonbearing acres	790,245	527,209	86,117	64,990	51,266	22,041
Pecans ..... farms	21,856	363	272	398	1,044	1,408
bearing and nonbearing acres	581,809	105,943	43,967	53,529	75,257	69,724
Walnuts, English ..... farms	7,161	448	308	405	606	511
bearing and nonbearing acres	267,751	105,913	38,742	35,442	32,182	16,505
Land in berries (see text) ..... farms	25,017	867	716	1,049	2,050	2,174
acres	261,733	130,105	28,358	23,673	23,450	15,348

See footnote(s) at end of table.

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Table 60. **Summary by Combined Government Payments and Market Value of Agricultural Products Sold: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	$25,000 to $49,999	$10,000 to $24,999	$5,000 to $9,999	$2,500 to $4,999	$1,000 to $2,499	Less than $1,000
CROPS HARVESTED - Con.						
Land in orchards - Con.						
Citrus fruit, all ....farms	2,417	2,906	1,586	1,291	883	869
bearing and nonbearing acres	32,720	19,903	5,344	2,403	1,291	3,623
Almonds ....farms	890	748	320	194	114	487
bearing and nonbearing acres	15,953	8,712	2,550	669	466	10,273
Pecans ....farms	2,339	4,600	3,192	2,545	1,878	3,817
bearing and nonbearing acres	71,455	75,263	30,125	17,088	10,397	29,061
Walnuts, English ....farms	699	1,034	813	776	607	954
bearing and nonbearing acres	13,640	10,909	4,303	3,248	1,580	5,289
Land in berries (see text) ....farms	3,213	4,608	3,223	2,351	1,754	3,012
acres	12,997	11,213	4,800	2,829	2,644	6,315

[1] Landlord production expenses are included with total farm production expenses.
[2] Farms with a zero net cash income are included as farms with net gains of less than $1,000.

Table 61. **Summary by Type of Organization: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Family or individual	Partnership	
			Total	Registered under state law
FARMS AND LAND IN FARMS				
Farms ..... number	2,204,792	1,906,335	174,247	89,739
percent	100.0	86.5	7.9	4.1
Land in farms ..... acres	922,095,840	574,150,050	161,416,999	114,284,815
Average size of farm ..... acres	418	301	926	1,274
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS				
Total ..... farms	2,204,792	1,906,335	174,247	89,739
$1,000	305,204,413	152,928,064	63,891,119	51,501,295
Average per farm ..... dollars	138,428	80,221	366,670	573,901
Farms by economic class:				
Less than $1,000 (see text)	499,880	453,885	28,067	11,447
$1,000 to $2,499	270,712	248,794	14,051	5,546
$2,500 to $4,999	246,309	223,862	14,382	5,894
$5,000 to $9,999	254,834	229,442	16,498	7,118
$10,000 to $24,999	274,274	242,040	20,633	9,552
$25,000 to $49,999	163,500	140,157	14,693	7,470
$50,000 to $99,999	129,124	107,783	12,823	6,828
$100,000 to $249,999	149,049	120,073	15,613	9,110
$250,000 to $499,999	96,251	71,418	12,525	8,002
$500,000 to $999,999	63,567	40,937	10,834	7,510
$1,000,000 or more	57,292	27,944	14,128	11,262
$1,000,000 to $2,499,999	41,863	22,826	9,645	7,358
$2,500,000 to $4,999,999	9,845	3,846	2,853	2,426
$5,000,000 or more	5,584	1,272	1,630	1,478
Total sales ..... farms	2,204,792	1,906,335	174,247	89,739
$1,000	297,220,491	147,562,463	62,249,612	50,310,839
Grains, oilseeds, dry beans, and dry peas ..... farms	479,467	390,425	53,101	29,666
$1,000	77,215,262	50,072,554	16,077,397	11,277,496
Sales of $50,000 or more ..... farms	235,343	177,808	31,778	19,599
$1,000	73,535,966	46,927,418	15,728,555	11,103,290
Corn ..... farms	347,540	283,211	38,204	20,999
$1,000	39,909,600	26,269,737	7,882,918	5,433,229
Sales of $50,000 or more ..... farms	151,428	113,407	20,401	12,528
$1,000	36,859,125	23,681,973	7,583,594	5,281,315
Wheat ..... farms	159,527	123,670	21,264	12,870
$1,000	10,623,640	6,463,436	2,399,037	1,733,670
Sales of $50,000 or more ..... farms	47,250	31,293	8,768	5,995
$1,000	8,944,760	5,132,910	2,188,222	1,607,260
Soybeans ..... farms	285,089	232,452	31,469	16,920
$1,000	20,283,986	13,843,157	3,736,457	2,466,880
Sales of $50,000 or more ..... farms	109,269	80,763	15,360	9,400
$1,000	17,191,360	11,211,226	3,441,396	2,321,719
Sorghum ..... farms	27,142	20,548	4,143	2,684
$1,000	1,651,798	1,007,457	439,437	342,157
Sales of $50,000 or more ..... farms	8,972	5,841	1,964	1,446
$1,000	1,348,798	767,664	399,554	318,333
Barley ..... farms	18,326	13,565	2,614	1,647
$1,000	701,047	414,707	144,378	104,553
Sales of $50,000 or more ..... farms	3,973	2,487	759	517
$1,000	526,415	287,818	119,857	89,481
Rice ..... farms	6,085	3,252	2,106	1,756
$1,000	2,020,231	786,234	1,030,410	895,316
Sales of $50,000 or more ..... farms	5,184	2,585	1,950	1,658
$1,000	1,995,322	767,581	1,026,316	892,692
Other grains, oilseeds, dry beans, and dry peas ..... farms	55,228	44,445	6,642	3,792
$1,000	2,024,959	1,287,825	444,762	301,690
Sales of $50,000 or more ..... farms	10,062	6,874	1,776	1,143
$1,000	1,698,514	1,034,169	402,815	276,957
Tobacco ..... farms	16,228	13,747	1,958	761
$1,000	1,268,114	840,646	253,802	137,802
Sales of $50,000 or more ..... farms	4,495	3,393	760	358
$1,000	1,076,035	673,832	232,207	129,653
Cotton and cottonseed ..... farms	18,591	12,595	4,106	3,080
$1,000	4,898,608	2,401,685	1,778,427	1,496,084
Sales of $50,000 or more ..... farms	13,232	8,204	3,497	2,739
$1,000	4,784,510	2,309,948	1,764,598	1,488,044
Vegetables, melons, potatoes, and sweet potatoes ..... farms	69,100	56,878	6,255	3,918
$1,000	14,683,058	4,069,597	3,837,785	3,456,338
Sales of $50,000 or more ..... farms	13,824	7,913	2,635	2,010
$1,000	14,167,307	3,632,780	3,794,686	3,431,715
Fruits, tree nuts, and berries ..... farms	112,690	90,537	10,959	7,681
$1,000	18,625,459	6,024,582	4,865,345	4,465,045
Sales of $50,000 or more ..... farms	28,824	16,817	5,501	4,519
$1,000	17,681,378	5,232,802	4,785,055	4,415,214
Nursery, greenhouse, floriculture, and sod (see text) ..... farms	50,784	34,849	4,215	3,196
$1,000	16,632,734	2,890,809	1,831,136	1,621,894
Sales of $50,000 or more ..... farms	17,039	7,681	1,910	1,596
$1,000	16,227,627	2,583,499	1,798,300	1,598,736
Cut Christmas trees and short-rotation woody crops ..... farms	13,374	11,282	1,152	781
$1,000	384,594	188,859	87,261	75,524
Sales of $50,000 or more ..... farms	1,088	648	203	168
$1,000	306,465	126,404	78,805	69,841

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
FARMS AND LAND IN FARMS						
Farms ....number	96,074	85,837	83,796	10,237	9,330	28,136
....percent	4.4	3.9	3.8	0.5	0.4	1.3
Land in farms .... acres	125,319,810	114,264,200	106,438,716	11,055,610	7,738,659	61,208,981
Average size of farm .... acres	1,304	1,331	1,270	1,080	829	2,175
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS						
Total ....farms	96,074	85,837	83,796	10,237	9,330	28,136
....$1,000	84,980,592	66,599,318	59,683,543	18,381,275	12,222,482	3,404,637
Average per farm .... dollars	884,533	775,881	712,248	1,795,572	1,310,020	121,006
Farms by economic class:						
Less than $1,000 (see text)	11,730	9,826	9,632	1,904	1,783	6,198
$1,000 to $2,499	4,228	3,547	3,469	681	623	3,639
$2,500 to $4,999	4,550	3,834	3,723	716	666	3,515
$5,000 to $9,999	5,277	4,588	4,473	689	655	3,617
$10,000 to $24,999	7,893	6,972	6,799	921	861	3,708
$25,000 to $49,999	6,579	5,918	5,786	661	631	2,071
$50,000 to $99,999	6,775	6,149	6,012	626	578	1,743
$100,000 to $249,999	11,600	10,761	10,585	839	792	1,763
$250,000 to $499,999	11,464	10,782	10,606	682	640	844
$500,000 to $999,999	11,284	10,593	10,397	691	638	512
$1,000,000 or more	14,694	12,867	12,314	1,827	1,463	526
$1,000,000 to $2,499,999	9,083	8,294	8,102	789	687	309
$2,500,000 to $4,999,999	3,017	2,619	2,475	398	342	129
$5,000,000 or more	2,594	1,954	1,737	640	434	88
Total sales ....farms	96,074	85,837	83,796	10,237	9,330	28,136
....$1,000	84,118,556	65,785,258	58,890,432	18,333,298	12,177,784	3,289,859
Grains, oilseeds, dry beans, and dry peas ....farms	31,548	29,925	29,359	1,623	1,495	4,393
....$1,000	10,538,775	10,064,068	9,829,902	474,708	399,543	526,535
Sales of $50,000 or more ....farms	24,038	23,066	22,633	972	905	1,719
....$1,000	10,397,816	9,933,844	9,702,225	463,971	390,101	482,178
Corn ....farms	23,161	22,000	21,644	1,161	1,074	2,964
....$1,000	5,479,720	5,221,497	5,129,424	258,223	217,487	277,225
Sales of $50,000 or more ....farms	16,640	16,002	15,751	638	597	980
....$1,000	5,348,761	5,100,028	5,010,044	248,733	208,904	244,798
Wheat ....farms	13,119	12,588	12,324	531	486	1,474
....$1,000	1,673,211	1,597,485	1,526,771	75,725	55,477	87,956
Sales of $50,000 or more ....farms	6,863	6,631	6,464	232	210	326
....$1,000	1,551,117	1,480,327	1,411,563	70,790	51,010	72,510
Soybeans ....farms	18,809	17,991	17,703	818	764	2,359
....$1,000	2,593,361	2,498,777	2,457,346	94,584	85,513	111,011
Sales of $50,000 or more ....farms	12,577	12,161	11,980	416	393	569
....$1,000	2,455,480	2,367,614	2,328,648	87,866	79,462	83,257
Sorghum ....farms	2,127	2,012	1,981	115	102	324
....$1,000	188,614	179,414	176,303	9,200	8,369	16,290
Sales of $50,000 or more ....farms	1,078	1,023	1,005	55	50	89
....$1,000	168,570	160,222	157,301	8,348	7,610	13,010
Barley ....farms	2,008	1,944	1,851	64	55	139
....$1,000	137,922	131,987	119,403	5,934	5,267	4,041
Sales of $50,000 or more ....farms	708	677	621	31	27	19
....$1,000	115,840	110,312	98,387	5,529	4,935	2,899
Rice ....farms	668	597	579	71	68	59
....$1,000	190,810	173,229	162,992	17,581	17,178	12,778
Sales of $50,000 or more ....farms	609	543	529	66	65	40
....$1,000	188,989	171,581	161,445	17,408	(D)	12,436
Other grains, oilseeds, dry beans, and dry peas ....farms	3,720	3,579	3,524	141	122	421
....$1,000	275,138	261,678	257,663	13,460	10,251	17,234
Sales of $50,000 or more ....farms	1,359	1,312	1,294	47	42	53
....$1,000	246,924	234,458	230,896	12,466	(D)	14,606
Tobacco .... farms	470	440	435	30	30	53
....$1,000	165,072	153,758	152,501	11,314	11,314	8,595
Sales of $50,000 or more ....farms	332	310	306	22	22	10
....$1,000	162,087	150,918	(D)	11,168	11,168	7,909
Cotton and cottonseed ....farms	1,696	1,549	1,528	147	137	194
....$1,000	667,703	473,839	(D)	193,864	41,060	50,794
Sales of $50,000 or more ....farms	1,429	1,319	1,300	110	100	102
....$1,000	660,802	467,790	(D)	193,012	40,207	49,162
Vegetables, melons, potatoes, and sweet potatoes ....farms	5,168	4,624	4,504	544	489	799
....$1,000	6,564,619	5,290,297	4,707,039	1,274,322	980,155	211,058
Sales of $50,000 or more ....farms	3,058	2,747	2,681	311	269	218
....$1,000	6,536,005	5,264,703	4,682,547	1,271,303	977,326	203,836
Fruits, tree nuts, and berries ....farms	9,237	8,074	7,819	1,163	1,014	1,957
....$1,000	7,243,341	5,572,511	4,830,845	1,670,830	1,154,134	492,191
Sales of $50,000 or more ....farms	5,656	4,864	4,666	792	669	850
....$1,000	7,186,426	5,521,621	4,780,853	1,664,805	1,148,533	477,094
Nursery, greenhouse, floriculture, and sod (see text) ....farms	10,811	9,405	9,289	1,406	1,349	909
....$1,000	11,784,367	9,454,244	8,987,525	2,330,123	2,041,135	126,422
Sales of $50,000 or more ....farms	7,227	6,242	6,160	985	933	221
....$1,000	11,726,098	9,403,015	8,936,854	2,323,084	2,034,192	119,729
Cut Christmas trees and short-rotation woody crops ....farms	821	759	735	62	58	119
....$1,000	105,438	90,614	(D)	14,824	(D)	3,036
Sales of $50,000 or more ....farms	215	196	189	19	17	22
....$1,000	98,871	84,632	82,673	14,239	(D)	2,386

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Total	Family or individual	Partnership	
				Total	Registered under state law
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.					
Total - Con.					
Total sales - Con.					
Other crops and hay (see text)	farms	434,502	380,574	34,000	17,668
	$1,000	9,950,098	5,503,231	1,988,479	1,551,772
Sales of $50,000 or more	farms	27,831	18,096	5,118	3,739
	$1,000	7,529,077	3,458,055	1,758,889	1,424,646
Cattle and calves	farms	798,290	700,525	66,002	32,372
	$1,000	61,209,970	27,043,196	12,772,235	10,378,209
Sales of $50,000 or more	farms	119,983	86,737	18,900	12,201
	$1,000	53,786,091	20,569,082	12,101,504	10,049,021
Milk and other dairy products from cows	farms	69,763	55,239	9,925	6,438
	$1,000	31,848,029	15,359,574	10,424,758	9,214,763
Sales of $50,000 or more	farms	50,792	38,227	8,528	5,863
	$1,000	31,558,210	15,102,856	10,400,077	9,204,957
Hogs and pigs	farms	74,789	63,473	5,806	3,155
	$1,000	18,056,981	7,939,176	3,957,721	3,317,933
Sales of $50,000 or more	farms	19,956	13,488	2,665	1,767
	$1,000	17,829,977	7,742,553	3,937,548	3,308,879
Sheep, goats, and their products	farms	121,171	111,189	6,326	2,887
	$1,000	704,855	470,021	110,985	82,229
Sales of $50,000 or more	farms	1,825	1,223	313	212
	$1,000	415,640	216,791	88,810	70,664
Horses, ponies, mules, burros, and donkeys	farms	114,317	102,074	6,486	3,607
	$1,000	2,061,862	1,128,314	329,767	298,609
Sales of $50,000 or more	farms	3,638	2,359	473	376
	$1,000	1,559,047	702,380	294,690	276,316
Poultry and eggs	farms	148,911	134,458	7,931	3,902
	$1,000	37,065,947	22,848,961	3,570,786	2,629,455
Sales of $50,000 or more	farms	26,267	21,255	2,060	1,341
	$1,000	36,932,463	22,731,853	3,561,977	2,624,544
Aquaculture (see text)	farms	6,409	3,918	706	546
	$1,000	1,415,271	330,138	194,456	153,110
Sales of $50,000 or more	farms	2,449	985	334	277
	$1,000	1,376,454	304,543	190,178	149,847
Other animals and other animal products (see text)	farms	43,226	37,613	2,733	1,671
	$1,000	1,199,649	451,120	169,273	154,576
Sales of $50,000 or more	farms	2,294	1,372	276	223
	$1,000	1,066,659	345,369	156,777	145,265
Value of-					
Government payments	farms	838,391	697,216	83,151	45,227
	$1,000	7,983,922	5,365,601	1,641,507	1,190,455
Landlord's share of total sales (see text)	farms	97,706	76,600	12,405	6,777
	$1,000	6,429,386	4,157,790	1,287,174	894,949
Agricultural products sold directly to individuals for human consumption (see text)	farms	136,817	122,236	8,326	4,479
	$1,000	1,211,270	715,921	177,654	140,590
FARM PRODUCTION EXPENSES					
Total farm production expenses	farms	2,204,792	1,906,335	174,247	89,739
	$1,000	241,113,666	120,730,912	49,405,644	40,335,327
Average per farm	dollars	109,359	63,331	283,538	449,474
Fertilizer, lime, and soil conditioners purchased	farms	1,148,218	973,083	102,171	56,270
	$1,000	18,107,194	10,910,809	3,853,451	2,829,744
Farms with expenses of-					
$1 to $4,999		734,931	659,382	47,643	22,122
$5,000 to $24,999		249,546	204,035	26,183	14,685
$25,000 to $49,999		74,633	55,985	9,455	5,925
$50,000 or more		89,108	53,681	18,890	13,538
Chemicals purchased	farms	918,604	766,609	84,786	49,319
	$1,000	10,074,914	5,245,471	2,465,717	1,945,053
Farms with expenses of-					
$1 to $4,999		666,084	588,078	46,948	23,746
$5,000 to $24,999		162,785	125,765	18,875	11,670
$25,000 to $49,999		46,594	31,467	6,969	4,610
$50,000 or more		43,141	21,299	11,994	9,293
Seeds, plants, vines, and trees	farms	775,893	643,846	73,988	43,072
	$1,000	11,740,521	6,177,872	2,399,039	1,829,370
Farms with expenses of-					
$1 to $999		302,164	274,411	17,714	8,257
$1,000 to $4,999		192,154	163,313	17,244	9,251
$5,000 to $24,999		173,462	137,901	19,139	11,450
$25,000 to $49,999		56,320	40,515	7,754	5,088
$50,000 or more		51,793	27,706	12,137	9,026

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.						
Total - Con.						
Total sales - Con.						
Other crops and hay (see text) ....farms	16,279	15,066	14,754	1,213	1,124	3,649
$1,000	2,337,073	1,989,012	1,799,570	348,060	155,005	121,315
Sales of $50,000 or more ....farms	4,331	4,051	3,941	280	239	286
$1,000	2,213,486	1,873,601	1,686,418	339,885	147,332	98,647
Cattle and calves ....farms	26,648	24,878	24,242	1,770	1,660	5,115
$1,000	20,640,494	13,847,166	11,661,624	6,793,328	4,640,116	754,045
Sales of $50,000 or more ....farms	13,052	12,243	11,813	809	725	1,294
$1,000	20,409,252	13,628,496	11,446,428	6,780,755	4,627,981	706,254
Milk and other dairy products from cows ....farms	4,203	4,011	3,892	192	176	396
$1,000	5,722,617	5,183,346	4,959,791	539,271	442,408	341,080
Sales of $50,000 or more ....farms	3,768	3,619	3,521	149	136	269
$1,000	5,715,741	5,177,272	4,953,905	538,468	441,672	339,537
Hogs and pigs ....farms	4,823	4,340	4,180	483	410	687
$1,000	5,995,805	4,604,648	3,929,454	1,391,157	857,334	164,279
Sales of $50,000 or more ....farms	3,664	3,253	3,127	411	344	139
$1,000	5,987,995	4,597,088	3,922,151	1,390,907	857,142	161,881
Sheep, goats, and their products ....farms	2,646	2,428	2,371	218	202	1,010
$1,000	112,603	103,823	99,441	8,779	(D)	11,245
Sales of $50,000 or more ....farms	255	240	223	15	10	34
$1,000	102,248	94,165	90,109	8,083	(D)	7,791
Horses, ponies, mules, burros, and donkeys ....farms	4,979	4,472	4,382	507	486	778
$1,000	585,162	439,969	437,734	145,193	144,528	18,620
Sales of $50,000 or more ....farms	751	653	644	98	93	55
$1,000	548,044	406,501	405,011	141,543	141,063	13,933
Poultry and eggs ....farms	5,545	4,968	4,760	577	440	977
$1,000	10,504,977	7,752,543	6,204,381	2,752,434	1,017,565	141,222
Sales of $50,000 or more ....farms	2,844	2,520	2,365	324	197	108
$1,000	10,499,152	7,747,266	6,199,438	2,751,887	1,017,063	139,481
Aquaculture (see text) ....farms	1,039	875	840	164	148	746
$1,000	654,093	489,657	474,664	164,436	145,136	236,584
Sales of $50,000 or more ....farms	656	532	508	124	111	474
$1,000	648,795	484,908	470,183	163,887	144,605	232,938
Other animals and other animal products (see text) ....farms	2,467	2,193	2,150	274	256	413
$1,000	496,417	275,763	270,946	220,655	133,009	82,839
Sales of $50,000 or more ....farms	597	510	499	87	77	49
$1,000	482,989	263,543	258,823	219,446	131,819	81,525
Value of-						
Government payments ....farms	44,009	40,793	39,914	3,216	2,968	14,015
$1,000	862,036	814,060	793,111	47,976	44,698	114,778
Landlord's share of total sales (see text) ....farms	8,270	7,887	7,784	383	371	431
$1,000	959,476	920,049	905,920	39,427	37,487	24,946
Agricultural products sold directly to individuals for human consumption (see text) ....farms	5,286	4,824	4,704	462	436	969
$1,000	303,695	269,463	255,378	34,232	29,607	14,000
FARM PRODUCTION EXPENSES						
Total farm production expenses ....farms	96,074	85,837	83,796	10,237	9,330	28,136
$1,000	68,061,799	52,805,234	47,179,340	15,256,565	10,075,087	2,915,311
Average per farm .... dollars	708,431	615,180	563,026	1,490,336	1,079,859	103,615
Fertilizer, lime, and soil conditioners purchased ....farms	63,002	57,694	56,516	5,308	4,897	9,962
$1,000	3,183,311	2,833,167	2,687,189	350,144	243,931	159,624
Farms with expenses of-						
$1 to $4,999	21,818	19,431	19,120	2,387	2,263	6,088
$5,000 to $24,999	16,645	15,294	15,001	1,351	1,251	2,683
$25,000 to $49,999	8,561	8,045	7,889	516	475	632
$50,000 or more	15,978	14,924	14,506	1,054	908	559
Chemicals purchased ....farms	58,300	53,340	52,165	4,960	4,502	8,909
$1,000	2,259,284	1,947,597	1,810,740	311,687	219,248	104,442
Farms with expenses of-						
$1 to $4,999	24,620	22,144	21,739	2,476	2,311	6,438
$5,000 to $24,999	16,339	15,195	14,907	1,144	1,046	1,806
$25,000 to $49,999	7,830	7,365	7,236	465	417	328
$50,000 or more	9,511	8,636	8,283	875	728	337
Seeds, plants, vines, and trees ....farms	51,285	47,173	46,254	4,112	3,796	6,774
$1,000	3,078,370	2,676,360	2,543,630	402,010	340,457	85,240
Farms with expenses of-						
$1 to $999	7,620	6,766	6,650	854	797	2,419
$1,000 to $4,999	9,412	8,549	8,369	863	803	2,185
$5,000 to $24,999	14,876	13,835	13,577	1,041	960	1,546
$25,000 to $49,999	7,727	7,320	7,210	407	383	324
$50,000 or more	11,650	10,703	10,448	947	853	300

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Family or individual	Partnership	
			Total	Registered under state law
FARM PRODUCTION EXPENSES - Con.				
Total farm production expenses - Con.				
Livestock and poultry purchased or leased (see text) ..... farms	490,819	424,972	38,695	20,990
$1,000	38,003,682	14,691,733	7,627,860	6,490,991
Farms with expenses of-				
$1 to $4,999	306,414	279,093	18,249	8,441
$5,000 to $24,999	97,441	81,857	9,444	5,173
$25,000 to $99,999	42,768	34,088	4,743	2,953
$100,000 to $249,999	24,183	18,173	2,810	1,894
$250,000 or more	20,013	11,761	3,449	2,529
Breeding livestock purchased or leased (see text) ..... farms	278,572	239,809	24,369	13,110
$1,000	3,599,873	2,038,884	761,177	639,247
Other livestock and poultry purchased or leased (see text) ..... farms	279,155	242,351	20,034	11,045
$1,000	34,403,809	12,652,849	6,866,684	5,851,744
Feed purchased ..... farms	1,135,968	1,009,980	77,819	38,964
$1,000	49,095,106	25,967,391	9,514,521	8,056,074
Farms with expenses of-				
$1 to $4,999	766,606	709,441	40,195	15,953
$5,000 to $24,999	245,328	211,532	19,945	10,732
$25,000 to $99,999	66,394	50,400	8,691	5,536
$100,000 to $249,999	23,472	16,364	3,671	2,532
$250,000 or more	34,168	22,243	5,317	4,211
Gasoline, fuels, and oils ..... farms	2,148,806	1,860,117	168,594	87,371
$1,000	12,912,179	7,681,800	2,530,412	1,919,224
Farms with expenses of-				
$1 to $4,999	1,704,545	1,531,142	109,458	48,564
$5,000 to $24,999	336,324	268,318	35,495	21,090
$25,000 to $49,999	64,765	41,489	11,250	7,832
$50,000 or more	43,172	19,168	12,391	9,885
Utilities (see text) ..... farms	1,102,530	927,215	95,996	56,850
$1,000	5,917,615	2,937,738	1,286,663	1,079,929
Farms with expenses of-				
$1 to $999	506,560	462,623	29,170	13,163
$1,000 to $4,999	402,839	342,042	34,011	19,245
$5,000 to $24,999	157,818	107,379	23,840	16,819
$25,000 to $49,999	19,269	9,623	4,351	3,546
$50,000 or more	16,044	5,548	4,624	4,077
Supplies, repairs, and maintenance ..... farms	1,992,234	1,721,083	158,014	82,555
$1,000	15,896,723	9,181,204	3,069,829	2,413,386
Farms with expenses of-				
$1 to $4,999	1,478,317	1,330,468	94,452	41,231
$5,000 to $24,999	389,971	317,528	38,621	22,620
$25,000 to $49,999	73,014	49,282	11,659	8,020
$50,000 or more	50,932	23,805	13,282	10,684
Hired farm labor ..... farms	482,186	365,578	55,792	37,123
$1,000	21,877,661	6,425,308	4,753,189	4,184,723
Farms with expenses of-				
$1 to $4,999	262,262	231,676	19,214	9,452
$5,000 to $24,999	108,122	80,984	13,413	8,963
$25,000 to $99,999	75,938	41,913	14,341	10,977
$100,000 to $249,999	21,237	7,771	5,182	4,397
$250,000 or more	14,627	3,234	3,642	3,334
Contract labor ..... farms	182,701	139,959	21,272	14,735
$1,000	4,514,166	1,600,094	1,041,170	936,787
Farms with expenses of-				
$1 to $999	49,657	43,471	3,565	1,904
$1,000 to $4,999	66,104	53,950	6,342	4,018
$5,000 to $24,999	45,949	32,324	6,585	4,837
$25,000 to $49,999	9,730	5,631	1,879	1,478
$50,000 or more	11,261	4,583	2,901	2,498
Customwork and custom hauling ..... farms	362,475	298,749	36,469	22,356
$1,000	4,091,038	2,010,900	1,026,458	881,951
Farms with expenses of-				
$1 to $999	119,768	108,399	7,645	3,295
$1,000 to $4,999	131,318	112,566	11,157	6,095
$5,000 to $24,999	83,762	63,410	10,731	7,223
$25,000 to $49,999	14,558	8,757	2,970	2,315
$50,000 or more	13,069	5,617	3,966	3,428
Cash rent for land, buildings, and grazing fees ..... farms	490,372	396,412	53,719	31,684
$1,000	13,274,530	7,682,515	3,000,999	2,276,962
Farms with expenses of-				
$1 to $4,999	238,363	209,792	18,606	8,830
$5,000 to $9,999	59,281	48,864	6,198	3,537
$10,000 to $24,999	76,679	60,730	8,920	5,360
$25,000 or more	116,049	77,026	19,995	13,957

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Livestock and poultry purchased or leased (see text) ....farms	24,335	22,235	21,625	2,100	1,815	2,817
$1,000	15,291,889	9,919,915	8,193,754	5,371,974	3,302,403	392,200
Farms with expenses of-						
$1 to $4,999	7,408	6,792	6,687	616	594	1,664
$5,000 to $24,999	5,525	5,177	5,047	348	330	615
$25,000 to $99,999	3,686	3,426	3,338	260	226	251
$100,000 to $249,999	3,060	2,819	2,721	241	216	140
$250,000 or more	4,656	4,021	3,832	635	449	147
Breeding livestock purchased or leased (see text) ....farms	12,749	11,827	11,503	922	830	1,645
$1,000	765,221	552,479	514,844	212,742	129,270	34,591
Other livestock and poultry purchased or leased (see text) ....farms	15,231	13,807	13,408	1,424	1,201	1,539
$1,000	14,526,668	9,367,436	7,678,909	5,159,232	3,173,133	357,609
Feed purchased ....farms	40,665	36,825	36,013	3,840	3,536	7,504
$1,000	13,121,427	9,755,508	8,291,186	3,365,919	2,077,390	491,767
Farms with expenses of-						
$1 to $4,999	12,735	11,409	11,249	1,326	1,285	4,235
$5,000 to $24,999	11,775	10,719	10,532	1,056	1,009	2,076
$25,000 to $99,999	6,570	6,133	5,990	437	412	733
$100,000 to $249,999	3,231	3,025	2,959	206	188	206
$250,000 or more	6,354	5,539	5,283	815	642	254
Gasoline, fuels, and oils ....farms	94,071	84,211	82,251	9,860	8,983	26,024
$1,000	2,544,909	2,158,993	1,998,821	385,916	269,790	155,058
Farms with expenses of-						
$1 to $4,999	42,974	37,351	36,549	5,623	5,274	20,971
$5,000 to $24,999	28,571	26,315	25,839	2,256	2,067	3,940
$25,000 to $49,999	11,404	10,654	10,434	750	668	622
$50,000 or more	11,122	9,891	9,429	1,231	974	491
Utilities (see text) ....farms	69,304	63,195	61,794	6,109	5,523	10,015
$1,000	1,586,984	1,278,496	1,160,961	308,488	202,962	106,230
Farms with expenses of-						
$1 to $999	10,885	9,737	9,588	1,148	1,104	3,882
$1,000 to $4,999	23,246	21,484	21,134	1,762	1,679	3,540
$5,000 to $24,999	24,710	23,021	22,613	1,689	1,550	1,889
$25,000 to $49,999	4,969	4,407	4,248	562	489	326
$50,000 or more	5,494	4,546	4,211	948	701	378
Supplies, repairs, and maintenance ....farms	89,833	80,528	78,631	9,305	8,462	23,304
$1,000	3,440,414	2,896,241	2,655,622	544,173	378,397	205,277
Farms with expenses of-						
$1 to $4,999	36,086	31,362	30,720	4,724	4,438	17,311
$5,000 to $24,999	29,345	27,070	26,565	2,275	2,118	4,477
$25,000 to $49,999	11,272	10,553	10,319	719	628	801
$50,000 or more	13,130	11,543	11,027	1,587	1,278	715
Hired farm labor ....farms	54,894	49,893	48,749	5,001	4,412	5,922
$1,000	10,176,246	8,235,137	7,581,285	1,941,109	1,403,293	522,919
Farms with expenses of-						
$1 to $4,999	9,254	8,518	8,384	736	685	2,118
$5,000 to $24,999	12,418	11,572	11,391	846	794	1,307
$25,000 to $99,999	18,318	16,981	16,690	1,337	1,239	1,366
$100,000 to $249,999	7,607	6,824	6,647	783	683	677
$250,000 or more	7,297	5,998	5,637	1,299	1,011	454
Contract labor ....farms	18,971	16,954	16,475	2,017	1,791	2,499
$1,000	1,772,144	1,395,402	1,198,175	376,742	238,633	100,757
Farms with expenses of-						
$1 to $999	2,186	1,987	1,960	199	189	435
$1,000 to $4,999	5,096	4,696	4,603	400	377	716
$5,000 to $24,999	6,300	5,704	5,585	596	547	740
$25,000 to $49,999	1,972	1,717	1,659	255	224	248
$50,000 or more	3,417	2,850	2,668	567	454	360
Customwork and custom hauling ....farms	23,874	22,075	21,557	1,799	1,611	3,383
$1,000	986,899	811,479	724,864	175,421	125,242	66,780
Farms with expenses of-						
$1 to $999	2,815	2,573	2,532	242	228	909
$1,000 to $4,999	6,459	6,037	5,941	422	401	1,136
$5,000 to $24,999	8,662	8,175	8,004	487	428	959
$25,000 to $49,999	2,637	2,407	2,344	230	207	194
$50,000 or more	3,301	2,883	2,736	418	347	185
Cash rent for land, buildings, and grazing fees ....farms	37,335	34,469	33,775	2,866	2,637	2,906
$1,000	2,512,808	2,274,049	2,167,797	238,759	194,669	78,207
Farms with expenses of-						
$1 to $4,999	8,467	7,561	7,403	906	846	1,498
$5,000 to $9,999	3,822	3,502	3,421	320	300	397
$10,000 to $24,999	6,602	6,141	6,022	461	422	427
$25,000 or more	18,444	17,265	16,929	1,179	1,069	584

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Family or individual	Partnership	
			Total	Registered under state law
FARM PRODUCTION EXPENSES - Con.				
Total farm production expenses - Con.				
Rent and lease expenses for machinery, equipment, and farm share of vehicles ..... farms	109,199	81,060	14,403	10,053
$1,000	1,385,219	548,929	413,216	357,979
Farms with expenses of-				
$1 to $999	39,280	33,850	3,245	1,809
$1,000 to $4,999	31,997	24,893	3,595	2,351
$5,000 to $24,999	26,656	17,464	4,355	3,184
$25,000 to $49,999	5,778	3,027	1,326	1,054
$50,000 or more	5,488	1,826	1,882	1,655
Interest expense ..... farms	667,454	558,541	60,634	36,113
$1,000	10,880,731	6,946,551	2,026,902	1,568,286
Farms with expenses of-				
$1 to $4,999	289,876	256,821	20,056	9,639
$5,000 to $24,999	275,988	234,294	22,884	13,443
$25,000 to $99,999	87,574	61,340	13,510	9,578
$100,000 or more	14,016	6,086	4,184	3,453
Secured by real estate ..... farms	519,095	441,533	43,594	25,496
$1,000	7,185,334	4,812,419	1,212,516	929,340
Farms with expenses of-				
$1 to $999	58,501	52,212	4,058	1,796
$1,000 to $4,999	171,356	154,157	10,661	5,224
$5,000 to $24,999	225,304	192,677	18,077	10,521
$25,000 to $49,999	39,515	28,952	5,247	3,591
$50,000 or more	24,419	13,535	5,551	4,364
Not secured by real estate ..... farms	413,327	340,773	40,768	24,201
$1,000	3,695,397	2,134,131	814,386	638,946
Farms with expenses of-				
$1 to $999	122,808	109,418	8,341	3,851
$1,000 to $4,999	153,159	131,798	12,312	6,426
$5,000 to $24,999	106,610	82,518	12,567	8,049
$25,000 to $49,999	18,841	11,854	3,795	2,827
$50,000 or more	11,909	5,185	3,753	3,048
Property taxes paid ..... farms	1,995,808	1,729,483	156,447	81,034
$1,000	6,223,048	4,400,415	870,321	617,014
Farms with expenses of-				
$1 to $4,999	1,717,819	1,529,522	117,700	54,718
$5,000 to $9,999	172,489	135,276	19,450	12,237
$10,000 to $24,999	80,800	52,904	13,328	9,366
$25,000 or more	24,700	11,781	5,969	4,713
All other production expenses (see text) ..... farms	1,115,703	933,869	100,404	59,087
$1,000	17,119,339	8,322,183	3,525,898	2,947,852
Farms with expenses of-				
$1 to $4,999	765,840	684,778	51,183	24,635
$5,000 to $24,999	234,512	180,383	27,461	17,690
$25,000 to $49,999	55,174	36,426	8,930	6,426
$50,000 to $99,999	32,742	19,707	6,212	4,757
$100,000 or more	27,435	12,575	6,618	5,579
Production expenses paid by landlords [1] ..... farms	67,427	52,046	8,578	4,912
$1,000	1,556,963	1,031,772	284,763	195,670
Depreciation expenses claimed (see text) ..... farms	963,340	803,168	88,229	52,843
$1,000	20,185,540	12,241,267	3,741,502	2,901,197
NET CASH FARM INCOME (SEE TEXT)				
Net cash farm income of operations (see text) ..... farms	2,204,792	1,906,335	174,247	89,739
$1,000	74,581,098	38,752,427	16,251,623	12,474,461
Average per farm ..... dollars	33,827	20,328	93,268	139,008
Farms with net gains [2] ..... number	1,037,041	858,868	101,952	55,787
Average net gain ..... dollars	89,479	59,887	182,752	256,022
Gain of-				
Less than $1,000	102,871	93,314	6,315	2,508
$1,000 to $4,999	221,477	197,910	15,462	6,402
$5,000 to $9,999	128,828	112,978	10,194	4,732
$10,000 to $24,999	170,636	145,566	15,262	7,450
$25,000 to $49,999	119,233	98,495	12,002	6,458
$50,000 or more	293,996	210,605	42,717	28,237
Farms with net losses ..... number	1,167,751	1,047,467	72,295	33,952
Average net loss ..... dollars	15,596	12,108	32,925	53,259
Loss of-				
Less than $1,000	134,307	122,802	7,813	2,773
$1,000 to $4,999	426,570	393,473	22,877	8,348
$5,000 to $9,999	247,156	227,065	12,899	5,485
$10,000 to $24,999	225,863	202,387	13,923	7,030
$25,000 to $49,999	76,927	64,207	6,493	4,027
$50,000 or more	56,928	37,533	8,290	6,289

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Rent and lease expenses for machinery, equipment, and farm share of vehicles ....farms	12,788	11,527	11,218	1,261	1,110	948
$1,000	405,209	328,156	297,112	77,053	49,886	17,866
Farms with expenses of-						
$1 to $999	1,883	1,708	1,678	175	163	302
$1,000 to $4,999	3,260	2,995	2,933	265	245	249
$5,000 to $24,999	4,573	4,149	4,051	424	389	264
$25,000 to $49,999	1,360	1,212	1,171	148	134	65
$50,000 or more	1,712	1,463	1,385	249	179	68
Interest expense ....farms	44,116	40,457	39,692	3,659	3,379	4,163
$1,000	1,808,128	1,566,206	1,485,847	241,922	184,528	99,150
Farms with expenses of-						
$1 to $4,999	11,086	10,037	9,893	1,049	999	1,913
$5,000 to $24,999	17,302	16,006	15,776	1,296	1,241	1,508
$25,000 to $99,999	12,137	11,285	11,058	852	775	587
$100,000 or more	3,591	3,129	2,965	462	364	155
Secured by real estate ....farms	30,832	28,331	27,775	2,501	2,304	3,136
$1,000	1,090,824	947,815	902,584	143,009	107,449	69,574
Farms with expenses of-						
$1 to $999	1,762	1,554	1,531	208	203	469
$1,000 to $4,999	5,626	5,135	5,063	491	453	912
$5,000 to $24,999	13,319	12,395	12,210	924	891	1,231
$25,000 to $49,999	5,030	4,701	4,624	329	305	286
$50,000 or more	5,095	4,546	4,347	549	452	238
Not secured by real estate ....farms	29,156	26,889	26,368	2,267	2,079	2,630
$1,000	717,304	618,392	583,263	98,913	77,080	29,576
Farms with expenses of-						
$1 to $999	4,163	3,758	3,701	405	393	886
$1,000 to $4,999	8,069	7,457	7,328	612	572	980
$5,000 to $24,999	10,960	10,243	10,071	717	677	565
$25,000 to $49,999	3,089	2,901	2,841	188	165	103
$50,000 or more	2,875	2,530	2,427	345	272	96
Property taxes paid ....farms	87,085	78,232	76,356	8,853	8,019	22,793
$1,000	861,197	733,884	681,677	127,313	82,813	91,115
Farms with expenses of-						
$1 to $4,999	51,521	45,737	44,895	5,784	5,373	19,076
$5,000 to $9,999	15,625	14,406	14,141	1,219	1,125	2,138
$10,000 to $24,999	13,476	12,468	12,133	1,008	889	1,092
$25,000 or more	6,463	5,621	5,187	842	632	487
All other production expenses (see text) ....farms	71,265	64,963	63,545	6,302	5,678	10,165
$1,000	5,032,580	3,994,645	3,700,679	1,037,935	761,446	238,679
Farms with expenses of-						
$1 to $4,999	23,379	21,274	20,905	2,105	1,985	6,500
$5,000 to $24,999	24,192	22,471	22,096	1,721	1,599	2,476
$25,000 to $49,999	9,291	8,607	8,443	684	639	527
$50,000 to $99,999	6,485	5,905	5,753	580	497	338
$100,000 or more	7,918	6,706	6,348	1,212	958	324
Production expenses paid by landlords [1] ....farms	6,515	6,021	5,953	494	484	288
$1,000	233,217	219,562	217,429	13,655	12,323	7,211
Depreciation expenses claimed (see text) ....farms	63,465	57,939	56,631	5,526	4,972	8,478
$1,000	3,995,633	3,350,071	3,121,325	645,562	443,588	207,138
NET CASH FARM INCOME (SEE TEXT)						
Net cash farm income of operations (see text) ....farms	96,074	85,837	83,796	10,237	9,330	28,136
$1,000	18,799,386	15,484,079	14,088,121	3,315,307	2,299,371	777,662
Average per farm ....dollars	195,676	180,389	168,124	323,855	246,449	27,639
Farms with net gains [2] ....number	60,726	55,102	53,774	5,624	5,052	15,495
Average net gain ....dollars	355,120	321,974	301,442	679,874	530,398	74,937
Gain of-						
Less than $1,000	1,714	1,431	1,395	283	264	1,528
$1,000 to $4,999	4,479	3,840	3,743	639	586	3,626
$5,000 to $9,999	3,433	3,019	2,950	414	389	2,223
$10,000 to $24,999	6,636	5,972	5,851	664	632	3,172
$25,000 to $49,999	6,905	6,318	6,205	587	548	1,831
$50,000 or more	37,559	34,522	33,630	3,037	2,633	3,115
Farms with net losses ....number	35,348	30,735	30,022	4,613	4,278	12,641
Average net loss ....dollars	78,240	73,444	70,669	110,190	88,874	30,337
Loss of-						
Less than $1,000	1,980	1,647	1,604	333	318	1,712
$1,000 to $4,999	6,153	5,183	5,054	970	921	4,067
$5,000 to $9,999	5,037	4,319	4,230	718	671	2,155
$10,000 to $24,999	7,432	6,556	6,440	876	833	2,121
$25,000 to $49,999	5,199	4,650	4,565	549	505	1,028
$50,000 or more	9,547	8,380	8,129	1,167	1,030	1,558

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Total	Family or individual	Partnership	
				Total	Registered under state law
NET CASH FARM INCOME (SEE TEXT) - Con.					
Net cash farm income of operators (see text)	farms	2,204,792	1,906,335	174,247	89,739
	$1,000	64,197,836	31,347,895	14,777,137	11,489,737
Average per farm	dollars	29,117	16,444	84,806	128,035
Operators reporting net gains [2]	farms	1,025,783	849,975	100,596	55,081
Average net gain	dollars	81,061	52,282	171,986	243,384
Gain of-					
Less than $1,000		103,330	93,691	6,380	2,538
$1,000 to $4,999		222,713	198,934	15,586	6,460
$5,000 to $9,999		129,906	113,869	10,271	4,772
$10,000 to $24,999		173,780	148,291	15,446	7,597
$25,000 to $49,999		122,964	101,625	12,250	6,613
$50,000 or more		273,090	193,565	40,663	27,101
Operators reporting net losses	farms	1,179,009	1,056,360	73,651	34,658
Average net loss	dollars	16,075	12,392	34,270	55,285
Loss of-					
Less than $1,000		135,011	123,430	7,864	2,791
$1,000 to $4,999		428,133	394,860	22,984	8,382
$5,000 to $9,999		248,731	228,374	13,119	5,578
$10,000 to $24,999		228,206	204,315	14,148	7,106
$25,000 to $49,999		78,919	65,741	6,726	4,143
$50,000 or more		60,009	39,640	8,810	6,658
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)					
Total	farms	50,572	38,351	7,199	4,713
	$1,000	4,445,758	2,647,855	1,210,848	942,156
INCOME FROM FARM-RELATED SOURCES					
Total income from farm-related sources, gross before taxes and expenses (see text)	farms	693,187	571,677	67,257	39,481
	$1,000	10,489,874	6,554,797	1,766,148	1,308,493
Customwork and other agricultural services	farms	121,874	98,003	13,661	8,424
	$1,000	1,875,665	1,173,995	340,520	252,509
Gross cash rent or share payments	farms	241,923	201,127	21,546	12,135
	$1,000	2,883,897	1,972,164	381,914	270,174
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products	farms	47,603	40,671	4,129	2,363
	$1,000	594,944	428,415	82,393	55,588
Agri-tourism and recreational services (see text)	farms	23,350	16,452	3,230	2,303
	$1,000	566,834	205,109	114,317	97,990
Patronage dividends and refunds from cooperatives	farms	288,196	233,328	30,535	18,444
	$1,000	854,995	480,818	205,101	166,043
Crop and livestock insurance payments received (see text)	farms	82,001	63,456	10,655	6,636
	$1,000	1,676,727	1,082,365	347,905	245,336
Amount from state and local government agricultural program payments (see text)	farms	34,410	28,163	4,080	2,403
	$1,000	145,413	100,667	26,493	19,810
Other farm-related income sources (see text)	farms	118,939	97,031	11,234	6,764
	$1,000	1,891,400	1,111,264	267,504	201,042
LAND USE					
Total cropland	farms	1,685,339	1,440,564	143,526	74,836
	acres	406,424,909	273,634,759	76,378,232	52,459,635
Harvested cropland	farms	1,328,004	1,133,780	114,432	62,063
	acres	309,607,601	205,926,488	60,383,411	42,005,132
Farms by acres harvested:					
1 to 49 acres		700,266	631,520	41,049	18,862
50 to 99 acres		179,055	156,616	14,823	7,188
100 to 199 acres		141,875	119,928	13,929	7,338
200 to 499 acres		143,776	115,346	16,565	9,629
500 to 999 acres		82,211	61,558	10,514	6,643
1,000 to 1,999 acres		53,728	35,185	9,115	6,112
2,000 acres or more		27,093	13,627	8,437	6,291
Cropland-					
For pasture or grazing only	farms	404,753	350,140	34,898	16,005
	acres	35,771,154	26,295,732	5,594,557	3,381,587
On which all crops failed or were abandoned	farms	89,587	75,805	8,414	4,550
	acres	7,405,898	5,431,430	1,221,812	754,191
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed	farms	360,225	300,626	31,738	17,058
	acres	37,968,749	26,806,550	5,921,219	3,910,130
In cultivated summer fallow	farms	67,960	53,389	8,017	4,751
	acres	15,671,507	9,174,559	3,257,233	2,408,595

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
NET CASH FARM INCOME (SEE TEXT) - Con.						
Net cash farm income of operators (see text) ....farms	96,074	85,837	83,796	10,237	9,330	28,136
$1,000	17,326,247	13,981,350	12,603,403	3,344,898	2,255,107	746,556
Average per farm .... dollars	180,343	162,883	150,406	326,746	241,705	26,534
Operators reporting net gains [2] ....farms	59,760	54,208	52,884	5,552	4,993	15,452
Average net gain .... dollars	339,285	302,431	280,980	699,115	533,041	73,463
Gain of-						
Less than $1,000	1,740	1,457	1,421	283	264	1,519
$1,000 to $4,999	4,548	3,899	3,803	649	595	3,645
$5,000 to $9,999	3,531	3,119	3,045	412	388	2,235
$10,000 to $24,999	6,880	6,206	6,083	674	641	3,163
$25,000 to $49,999	7,249	6,653	6,533	596	557	1,840
$50,000 or more	35,812	32,874	31,999	2,938	2,548	3,050
Operators reporting net losses ....farms	36,314	31,629	30,912	4,685	4,337	12,684
Average net loss .... dollars	81,221	76,286	72,979	114,534	93,697	30,637
Loss of-						
Less than $1,000	2,000	1,665	1,624	335	319	1,717
$1,000 to $4,999	6,221	5,242	5,114	979	928	4,068
$5,000 to $9,999	5,075	4,365	4,278	710	666	2,163
$10,000 to $24,999	7,613	6,720	6,600	893	847	2,130
$25,000 to $49,999	5,420	4,855	4,770	565	521	1,032
$50,000 or more	9,985	8,782	8,526	1,203	1,056	1,574
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)						
Total ....farms	4,733	4,517	4,463	216	198	289
$1,000	568,381	544,147	537,844	24,233	23,356	18,675
INCOME FROM FARM-RELATED SOURCES						
Total income from farm-related sources, gross before taxes and expenses (see text) ....farms	44,865	41,571	40,595	3,294	3,017	9,388
$1,000	1,880,593	1,689,996	1,583,918	190,597	151,976	288,336
Customwork and other agricultural services ....farms	9,602	9,168	8,993	434	410	608
$1,000	347,015	322,403	301,683	24,612	21,333	14,135
Gross cash rent or share payments ....farms	13,167	12,010	11,585	1,157	1,025	6,083
$1,000	376,642	329,945	298,874	46,697	34,836	153,177
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ....farms	2,193	1,974	1,882	219	191	610
$1,000	60,160	53,837	47,371	6,323	4,197	23,976
Agri-tourism and recreational services (see text) ....farms	3,089	2,781	2,669	308	267	579
$1,000	213,161	181,399	163,901	31,763	19,648	34,246
Patronage dividends and refunds from cooperatives ....farms	22,137	20,967	20,552	1,170	1,087	2,196
$1,000	158,453	144,697	134,269	13,756	12,226	10,622
Crop and livestock insurance payments received (see text) ....farms	7,298	6,948	6,797	350	330	592
$1,000	230,242	215,440	206,872	14,802	11,896	16,215
Amount from state and local government agricultural program payments (see text) ....farms	1,754	1,638	1,599	116	110	413
$1,000	16,370	15,323	14,893	1,046	1,043	1,883
Other farm-related income sources (see text) ....farms	9,659	9,007	8,819	652	607	1,015
$1,000	478,550	426,952	416,055	51,598	46,797	34,081
LAND USE						
Total cropland ....farms	79,415	71,724	70,116	7,691	7,062	21,834
acres	51,363,072	47,755,279	45,748,650	3,607,793	2,682,011	5,048,846
Harvested cropland ....farms	67,992	62,217	60,955	5,775	5,336	11,800
acres	40,813,604	38,171,090	36,679,780	2,642,514	1,969,582	2,484,098
Farms by acres harvested:						
1 to 49 acres	21,724	18,964	18,688	2,760	2,625	5,973
50 to 99 acres	5,846	5,270	5,154	576	535	1,770
100 to 199 acres	6,422	5,815	5,718	607	549	1,596
200 to 499 acres	10,468	9,740	9,529	728	647	1,397
500 to 999 acres	9,564	9,115	8,926	449	409	575
1,000 to 1,999 acres	9,118	8,735	8,579	383	346	310
2,000 acres or more	4,850	4,578	4,361	272	225	179
Cropland-						
For pasture or grazing only ....farms	15,281	13,778	13,472	1,503	1,401	4,434
acres	3,056,003	2,619,187	2,500,442	436,816	303,608	824,862
On which all crops failed or were abandoned ....farms	4,345	3,949	3,841	396	355	1,023
acres	636,699	593,159	558,206	43,540	38,316	115,957
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ....farms	18,395	16,371	15,870	2,024	1,814	9,466
acres	3,789,593	3,404,712	3,252,307	384,881	280,230	1,451,387
In cultivated summer fallow ....farms	5,642	5,306	5,129	336	303	912
acres	3,067,173	2,967,131	2,757,915	100,042	90,275	172,542

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Family or individual	Partnership	
			Total	Registered under state law
LAND USE - Con.				
Total woodland ..... farms	843,294	742,422	62,545	31,359
acres	75,098,603	52,179,468	9,826,538	6,512,147
Woodland pastured ..... farms	370,297	331,135	26,858	11,983
acres	28,609,690	18,908,968	3,687,319	2,450,200
Woodland not pastured ..... farms	596,123	519,818	45,589	24,079
acres	46,488,913	33,270,500	6,139,219	4,061,947
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ..... farms	1,132,606	1,002,226	82,104	40,598
acres	408,832,116	227,940,850	70,959,899	52,374,565
Land in house lots, ponds, roads, wasteland, etc. ..... farms	1,126,272	976,899	83,071	45,164
acres	31,740,212	20,394,973	4,252,330	2,938,468
Irrigated land ..... farms	301,028	230,316	33,658	23,847
acres	56,599,305	28,074,132	15,692,733	13,135,935
Harvested cropland ..... farms	256,105	191,159	30,543	21,962
acres	51,537,104	25,055,346	14,716,707	12,344,183
Pastureland and other land ..... farms	72,585	60,697	6,025	3,991
acres	5,062,201	3,018,786	976,026	791,752
CONSERVATION PRACTICES AND CROP INSURANCE				
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ..... farms	346,231	285,141	32,674	17,230
acres	38,547,450	27,914,435	5,637,681	3,639,576
Land enrolled in crop insurance programs (see text) ..... farms	349,408	272,220	42,969	26,463
acres	222,267,817	141,841,658	46,988,220	33,233,007
ORGANIC AGRICULTURE				
Land used for organic production (see text) ..... farms	20,437	16,595	1,764	1,223
acres	2,577,418	1,648,633	371,780	285,893
Total organic product sales (see text) ..... farms	18,211	14,716	1,572	1,101
$1,000	1,709,111	699,239	357,865	319,251
VALUE OF LAND AND BUILDINGS				
Estimated market value of land and buildings ..... farms	2,204,792	1,906,335	174,247	89,739
$1,000	1,744,295,252	1,203,042,981	277,034,189	194,345,439
Average per farm ..... dollars	791,138	631,076	1,589,894	2,165,674
Average per acre ..... dollars	1,892	2,095	1,716	1,701
Farms by value group:				
$1 to $49,999	223,182	199,768	14,795	5,447
$50,000 to $99,999	212,783	191,903	13,450	5,030
$100,000 to $199,999	374,783	340,999	21,518	8,782
$200,000 to $499,999	631,939	568,721	39,060	17,858
$500,000 to $999,999	371,783	321,156	28,997	15,324
$1,000,000 to $1,999,999	206,282	165,298	22,322	13,278
$2,000,000 to $4,999,999	132,549	91,841	21,115	14,191
$5,000,000 to $9,999,999	36,072	20,042	8,337	6,130
$10,000,000 or more	15,419	6,607	4,653	3,699
VALUE OF MACHINERY AND EQUIPMENT				
Estimated market value of all machinery and equipment ..... farms	2,204,513	1,906,140	174,230	89,726
$1,000	194,783,471	138,188,087	29,642,407	20,236,519
Farms by value group:				
$1 to $4,999	195,820	176,418	12,055	4,945
$5,000 to $9,999	217,460	195,953	13,599	5,634
$10,000 to $19,999	351,088	316,663	21,574	9,136
$20,000 to $49,999	598,289	535,850	38,514	17,622
$50,000 to $99,999	366,768	319,784	27,847	14,053
$100,000 to $199,999	232,001	192,163	22,288	12,530
$200,000 to $499,999	175,152	131,216	22,739	14,347
$500,000 or more	67,935	38,093	15,614	11,459
SELECTED MACHINERY AND EQUIPMENT				
Trucks, including pickups (see text) ..... farms	1,783,324	1,544,121	139,457	72,679
number	3,512,538	2,798,697	383,940	230,800
Tractors ..... farms	1,844,647	1,596,485	146,381	76,175
number	4,389,812	3,578,955	463,140	268,458
Less than 40 horsepower (PTO) ..... farms	910,937	794,430	68,427	34,562
number	1,280,039	1,092,957	105,357	55,676
40 to 99 horsepower (PTO) ..... farms	1,238,101	1,066,119	102,875	53,304
number	1,998,508	1,661,685	194,439	108,125
100 horsepower (PTO) or more ..... farms	555,941	446,631	62,969	37,019
number	1,111,265	824,313	163,344	104,657
Grain and bean combines, self-propelled ..... farms	295,490	235,232	35,788	20,316
number	346,935	270,379	46,140	27,006

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
LAND USE - Con.						
Total woodland ....farms	29,630	26,747	26,111	2,883	2,658	8,697
acres	7,727,301	6,874,238	6,358,570	853,063	698,271	5,365,296
Woodland pastured ....farms	9,652	8,820	8,624	832	788	2,652
acres	2,822,252	2,539,049	2,366,568	283,203	252,931	3,191,151
Woodland not pastured ....farms	23,742	21,429	20,920	2,313	2,124	6,974
acres	4,905,049	4,335,189	3,992,002	569,860	445,340	2,174,145
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ....farms	37,999	34,678	33,901	3,321	3,116	10,277
acres	62,037,729	56,152,597	51,141,526	5,885,132	3,866,129	47,893,638
Land in house lots, ponds, roads, wasteland, etc. ....farms	53,368	48,184	47,040	5,184	4,619	12,934
acres	4,191,708	3,482,086	3,189,970	709,622	492,248	2,901,201
Irrigated land ....farms	32,496	29,049	28,320	3,447	3,115	4,558
acres	11,970,801	10,459,532	9,759,591	1,511,269	943,675	861,639
Harvested cropland ....farms	30,410	27,208	26,533	3,202	2,897	3,993
acres	11,044,402	9,608,150	8,985,669	1,436,252	896,215	720,649
Pastureland and other land ....farms	4,836	4,383	4,244	453	400	1,027
acres	926,399	851,382	773,922	75,017	47,460	140,990
CONSERVATION PRACTICES AND CROP INSURANCE						
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ....farms	18,022	16,339	15,867	1,683	1,515	10,394
acres	3,442,260	3,170,788	3,058,432	271,472	248,958	1,553,074
Land enrolled in crop insurance programs (see text) ....farms	30,754	28,814	28,239	1,940	1,800	3,465
acres	31,691,029	30,144,035	28,956,618	1,546,994	1,269,444	1,746,910
ORGANIC AGRICULTURE						
Land used for organic production (see text) ....farms	1,728	1,498	1,458	230	197	350
acres	521,551	465,543	442,696	56,008	38,181	35,454
Total organic product sales (see text) ....farms	1,604	1,386	1,351	218	188	319
$1,000	625,126	477,283	416,248	147,843	79,805	26,880
VALUE OF LAND AND BUILDINGS						
Estimated market value of land and buildings ....farms	96,074	85,837	83,796	10,237	9,330	28,136
$1,000	226,574,069	200,552,780	189,533,187	26,021,289	20,242,944	37,644,013
Average per farm .... dollars	2,358,329	2,336,437	2,261,841	2,541,886	2,169,662	1,337,931
Average per acre .... dollars	1,808	1,755	1,781	2,354	2,616	615
Farms by value group:						
$1 to $49,999	4,965	4,160	4,059	805	752	3,654
$50,000 to $99,999	4,312	3,701	3,621	611	578	3,118
$100,000 to $199,999	7,755	6,543	6,395	1,212	1,120	4,511
$200,000 to $499,999	17,543	15,403	15,102	2,140	1,997	6,615
$500,000 to $999,999	17,145	15,311	15,059	1,834	1,694	4,485
$1,000,000 to $1,999,999	15,891	14,497	14,208	1,394	1,280	2,771
$2,000,000 to $4,999,999	17,670	16,397	16,014	1,273	1,127	1,923
$5,000,000 to $9,999,999	7,113	6,589	6,356	524	445	580
$10,000,000 or more	3,680	3,236	2,982	444	337	479
VALUE OF MACHINERY AND EQUIPMENT						
Estimated market value of all machinery and equipment ....farms	96,063	85,827	83,786	10,236	9,329	28,080
$1,000	24,687,859	22,122,952	21,076,382	2,564,908	1,974,842	2,265,117
Farms by value group:						
$1 to $4,999	3,964	3,259	3,169	705	660	3,383
$5,000 to $9,999	4,574	3,809	3,714	765	709	3,334
$10,000 to $19,999	8,087	6,893	6,697	1,194	1,116	4,764
$20,000 to $49,999	16,574	14,401	14,120	2,173	2,033	7,351
$50,000 to $99,999	14,890	13,299	13,025	1,591	1,481	4,247
$100,000 to $199,999	15,087	13,744	13,465	1,343	1,222	2,463
$200,000 to $499,999	19,357	17,977	17,607	1,380	1,237	1,840
$500,000 or more	13,530	12,445	11,989	1,085	871	698
SELECTED MACHINERY AND EQUIPMENT						
Trucks, including pickups (see text) ....farms	81,225	73,382	71,701	7,843	7,146	18,521
number	291,879	263,885	254,380	27,994	23,091	38,022
Tractors ....farms	81,045	73,157	71,483	7,888	7,197	20,736
number	301,059	273,859	265,247	27,200	23,197	46,658
Less than 40 horsepower (PTO) ....farms	37,712	33,963	33,210	3,749	3,420	10,368
number	66,877	59,729	58,067	7,148	6,323	14,848
40 to 99 horsepower (PTO) ....farms	55,669	50,480	49,282	5,189	4,703	13,438
number	121,011	108,648	105,105	12,363	10,554	21,373
100 horsepower (PTO) or more ....farms	40,496	37,826	36,914	2,670	2,403	5,845
number	113,171	105,482	102,075	7,689	6,320	10,437
Grain and bean combines, self-propelled ....farms	22,475	21,622	21,236	853	811	1,995
number	27,937	26,869	26,264	1,068	1,013	2,479

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Family or individual	Partnership	
			Total	Registered under state law
SELECTED MACHINERY AND EQUIPMENT - Con.				
Cotton pickers and strippers, self-propelled ... farms	12,500	8,297	2,968	2,275
number	18,162	11,368	4,847	3,819
Forage harvesters, self-propelled ... farms	60,133	47,244	7,746	4,813
number	64,191	49,766	8,560	5,427
Hay balers ... farms	593,543	518,772	49,882	24,424
number	727,501	632,866	63,538	31,346
FERTILIZERS AND CHEMICALS				
Commercial fertilizer, lime, and soil conditioners ... farms	1,022,036	861,116	93,781	52,148
acres treated	265,995,497	174,531,367	53,309,273	37,261,380
Manure ... farms	307,073	259,194	28,459	16,171
acres treated	22,096,315	14,493,422	4,287,103	3,155,178
Acres treated with chemicals to control-				
Insects ... farms	354,357	274,654	41,885	27,032
acres	90,947,822	53,055,642	22,164,246	16,869,252
Weeds, grass, or brush ... farms	703,884	581,887	67,600	39,689
acres	226,295,783	145,211,977	46,347,800	32,652,538
Nematodes ... farms	34,992	25,893	4,633	3,080
acres	7,560,158	4,262,188	1,892,151	1,483,632
Diseases in crops and orchards ... farms	97,333	69,789	12,870	9,206
acres	22,693,212	11,488,368	6,365,946	5,008,822
Chemicals used to control growth, thin fruit, ripen, or defoliate ... farms	44,638	30,980	7,416	5,444
acres treated	12,125,799	5,888,253	4,007,584	3,266,201
TENURE				
Full owners ... farms	1,522,033	1,337,187	106,721	52,707
Part owners ... farms	542,192	457,807	51,359	27,875
Tenants ... farms	140,567	111,341	16,167	9,157
OWNED AND RENTED LAND				
Land owned ... farms	2,072,101	1,801,494	158,886	80,954
acres	646,247,118	390,998,415	100,920,014	70,945,208
Owned land in farms ... farms	2,064,225	1,794,994	158,080	80,582
acres	571,303,487	342,219,405	91,910,148	65,044,046
Land rented or leased from others ... farms	689,102	574,287	68,255	37,375
acres	355,918,954	235,281,237	70,408,598	49,873,412
Rented or leased land in farms ... farms	682,759	569,148	67,526	37,032
acres	350,792,353	231,930,645	69,506,851	49,240,769
Land rented or leased to others ... farms	314,140	261,754	28,374	15,022
acres	80,070,232	52,129,602	9,911,613	6,533,805
NUMBER OF OPERATORS				
Total operators ... number	3,337,450	2,779,982	332,596	179,972
Farms by number of operators:				
1 operator ...	1,273,122	1,152,596	61,725	27,996
2 operators ...	786,598	662,131	80,112	42,289
3 operators ...	112,285	73,376	24,167	14,025
4 operators ...	22,529	13,168	5,711	3,696
5 or more operators ...	10,258	5,064	2,532	1,733
Total women operators ... number	1,008,943	867,484	78,692	42,939
Farms by number of women operators:				
1 operator ...	894,347	788,384	58,170	30,378
2 operators ...	45,408	32,469	7,862	4,685
3 operators ...	5,439	3,479	1,094	709
4 operators ...	1,017	555	216	155
5 or more operators ...	546	255	110	81
PRINCIPAL OPERATOR CHARACTERISTICS				
Sex of operator:				
Male ...	1,898,583	1,641,178	152,518	78,811
Female ...	306,209	265,157	21,729	10,928
Primary occupation:				
Farming ...	993,881	829,119	93,302	51,918
Other ...	1,210,911	1,077,216	80,945	37,821
Place of residence:				
On farm operated ...	1,693,362	1,505,255	112,788	55,846
Not on farm operated ...	511,430	401,080	61,459	33,893
Days worked off farm:				
None ...	777,747	648,526	73,333	38,501
Any ...	1,427,045	1,257,809	100,914	51,238
1 to 49 days ...	238,479	205,032	20,014	10,370
50 to 99 days ...	115,578	100,824	8,890	4,603
100 to 199 days ...	196,687	173,809	13,723	6,982
200 days or more ...	876,301	778,144	58,287	29,283
Years on present farm:				
2 years or less ...	84,883	73,170	6,525	3,385
3 or 4 years ...	138,858	120,765	10,262	5,621
5 to 9 years ...	359,545	313,411	26,727	14,428

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
SELECTED MACHINERY AND EQUIPMENT - Con.						
Cotton pickers and strippers, self-propelled ....farms	1,127	1,031	1,020	96	87	108
number	1,782	1,539	1,510	243	157	165
Forage harvesters, self-propelled ....farms	4,618	4,394	4,261	224	204	525
number	5,295	5,014	4,818	281	244	570
Hay balers ....farms	20,751	19,520	19,115	1,231	1,150	4,138
number	25,995	24,456	23,921	1,539	1,413	5,102
FERTILIZERS AND CHEMICALS						
Commercial fertilizer, lime, and soil conditioners ....farms	58,276	53,552	52,448	4,724	4,337	8,863
acres treated	35,807,598	33,237,844	31,839,082	2,569,754	1,878,531	2,347,259
Manure ....farms	17,587	16,572	16,231	1,015	957	1,833
acres treated	3,118,063	2,891,446	2,760,514	226,617	165,861	197,727
Acres treated with chemicals to control-						
Insects ....farms	34,057	31,076	30,379	2,981	2,686	3,761
acres	14,902,653	13,387,959	12,699,159	1,514,694	1,042,139	825,281
Weeds, grass, or brush ....farms	47,757	44,001	43,070	3,756	3,418	6,640
acres	32,894,118	30,888,468	29,619,302	2,005,650	1,574,442	1,841,888
Nematodes ....farms	3,971	3,511	3,403	460	423	495
acres	1,325,346	1,127,348	1,069,319	197,998	151,296	80,473
Diseases in crops and orchards ....farms	13,325	11,954	11,648	1,371	1,228	1,349
acres	4,649,578	4,089,710	3,837,063	559,868	426,211	189,320
Chemicals used to control growth, thin fruit, ripen, or defoliate ....farms	5,613	4,981	4,849	632	562	629
acres treated	2,106,277	1,709,900	1,575,963	396,377	218,780	123,685
TENURE						
Full owners ....farms	54,265	47,421	46,099	6,844	6,160	23,860
Part owners ....farms	30,330	28,514	27,957	1,816	1,669	2,696
Tenants ....farms	11,479	9,902	9,740	1,577	1,501	1,580
OWNED AND RENTED LAND						
Land owned ....farms	85,059	76,362	74,469	8,697	7,864	26,662
acres	88,348,580	79,427,172	72,437,325	8,921,408	6,040,823	65,980,109
Owned land in farms ....farms	84,595	75,935	74,056	8,660	7,829	26,556
acres	80,453,287	72,406,385	66,052,345	8,046,902	5,358,089	56,720,647
Land rented or leased from others ....farms	42,175	38,754	38,026	3,421	3,197	4,385
acres	45,625,430	42,507,086	41,005,089	3,118,344	2,457,898	4,603,689
Rented or leased land in farms ....farms	41,809	38,416	37,697	3,393	3,170	4,276
acres	44,866,523	41,857,815	40,386,371	3,008,708	2,380,570	4,488,334
Land rented or leased to others ....farms	15,727	14,269	13,761	1,458	1,304	8,285
acres	8,654,200	7,670,058	7,003,698	984,142	760,062	9,374,817
NUMBER OF OPERATORS						
Total operators ....number	179,168	160,067	155,638	19,101	16,937	45,704
Farms by number of operators:						
1 operator	41,666	36,243	35,329	5,423	4,905	17,135
2 operators	36,738	33,781	33,202	2,957	2,803	7,617
3 operators	12,444	11,262	10,938	1,182	1,072	2,298
4 operators	3,135	2,859	2,761	276	250	515
5 or more operators	2,091	1,692	1,566	399	300	571
Total women operators ....number	48,425	44,009	43,158	4,416	4,085	14,342
Farms by number of women operators:						
1 operator	37,055	34,085	33,521	2,970	2,816	10,738
2 operators	3,999	3,592	3,512	407	382	1,078
3 operators	641	545	529	96	89	225
4 operators	172	146	136	26	24	74
5 or more operators	112	82	75	30	19	69
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male	83,289	74,641	72,806	8,648	7,809	21,598
Female	12,785	11,196	10,990	1,589	1,521	6,538
Primary occupation:						
Farming	61,348	56,216	54,971	5,132	4,697	10,112
Other	34,726	29,621	28,825	5,105	4,633	18,024
Place of residence:						
On farm operated	61,848	57,173	56,176	4,675	4,392	13,471
Not on farm operated	34,226	28,664	27,620	5,562	4,938	14,665
Days worked off farm:						
None	44,429	40,443	39,491	3,986	3,590	11,459
Any	51,645	45,394	44,305	6,251	5,740	16,677
1 to 49 days	9,901	8,693	8,434	1,208	1,102	3,532
50 to 99 days	4,707	4,219	4,123	488	461	1,157
100 to 199 days	7,220	6,530	6,428	690	630	1,935
200 days or more	29,817	25,952	25,320	3,865	3,547	10,053
Years on present farm:						
2 years or less	3,490	2,833	2,739	657	582	1,698
3 or 4 years	5,771	4,852	4,715	919	857	2,060
5 to 9 years	14,239	12,141	11,832	2,098	1,914	5,168

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Family or individual	Partnership	
			Total	Registered under state law
PRINCIPAL OPERATOR CHARACTERISTICS - Con.				
Years on present farm - Con.				
10 years or more	1,621,506	1,398,989	130,733	66,305
Average years on present farm	21.6	21.5	23.0	22.2
Age group:				
Under 25 years	11,878	10,659	823	310
25 to 34 years	106,735	94,759	7,438	3,750
35 to 44 years	268,818	235,807	18,655	10,239
45 to 49 years	256,694	222,677	18,302	10,353
50 to 54 years	308,707	265,382	23,683	13,415
55 to 59 years	312,577	269,061	24,255	13,173
60 to 64 years	283,729	245,505	22,294	11,577
65 to 69 years	235,152	203,906	19,025	9,255
70 years and over	420,502	358,579	39,772	17,667
Average age	57.1	57.0	58.5	57.5
Spanish, Hispanic, or Latino origin (see text)	55,570	48,150	4,506	2,225
Race:				
American Indian or Alaska Native	34,706	32,051	1,494	537
Asian	11,214	8,833	1,097	722
Black or African American	30,599	27,120	2,476	724
Native Hawaiian or Other Pacific Islander	1,356	1,182	98	61
White	2,114,325	1,826,072	168,117	87,283
More than one race reported	12,592	11,077	965	412
Farms by number of persons living in operator's household:				
1 person	275,842	239,109	21,203	9,770
2 people	1,108,995	955,906	90,913	45,953
3 people	330,188	287,046	25,586	13,290
4 people	285,919	247,288	21,735	12,192
5 or more people	203,848	176,986	14,810	8,534
Percent of operator's total household income from farming:				
Less than 25 percent	1,583,710	1,405,554	109,926	51,718
25 to 49 percent	174,800	148,361	15,343	7,979
50 to 74 percent	187,421	152,829	18,994	10,839
75 to 99 percent	147,092	113,478	17,531	10,783
100 percent	111,769	86,113	12,453	8,420
Operator is a hired manager ... farms	59,759	29,534	8,542	6,321
acres	120,672,499	19,445,147	18,983,555	16,342,945
Farms with-				
Internet access	1,246,723	1,067,407	94,834	56,248
High-speed internet access	726,700	606,426	60,232	37,464
Farms by number of households sharing in net income of farm:				
1 household	1,733,827	1,564,450	86,284	41,847
2 households	356,707	269,604	62,333	31,270
3 households	66,438	41,131	16,221	10,126
4 households	30,004	20,247	5,753	3,917
5 households or more	17,816	10,903	3,656	2,579
FARMS BY TYPE OF ORGANIZATION				
Family or individual ... farms	1,906,335	1,906,335	-	-
acres	574,150,050	574,150,050	-	-
Partnership ... farms	174,247	-	174,247	89,739
acres	161,416,999	-	161,416,999	114,284,815
Registered under state law ... farms	89,739	-	89,739	89,739
acres	114,284,815	-	114,284,815	114,284,815
Corporation ... farms	96,074	-	-	-
acres	125,319,810	-	-	-
Family held ... farms	85,837	-	-	-
acres	114,264,200	-	-	-
More than 10 stockholders ... farms	2,041	-	-	-
10 or less stockholders ... farms	83,796	-	-	-
Other than family held ... farms	10,237	-	-	-
acres	11,055,610	-	-	-
More than 10 stockholders ... farms	907	-	-	-
10 or less stockholders ... farms	9,330	-	-	-
Other-cooperative, estate or trust, institutional, etc ... farms	28,136	-	-	-
acres	61,208,981	-	-	-
HIRED FARM LABOR				
Hired farm labor ... farms	482,186	365,578	55,792	37,123
workers	2,636,509	1,311,510	462,447	382,178
Workers by days worked:				
150 days or more ... farms	201,292	121,346	33,360	25,222
workers	911,439	317,682	190,990	164,872
Less than 150 days ... farms	384,051	302,957	40,753	25,996
workers	1,725,070	993,828	271,457	217,306

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
PRINCIPAL OPERATOR CHARACTERISTICS - Con.						
Years on present farm - Con.						
10 years or more	72,574	66,011	64,510	6,563	5,977	19,210
Average years on present farm	22.2	22.7	22.8	17.3	17.4	20.8
Age group:						
Under 25 years	247	210	199	37	37	149
25 to 34 years	3,541	3,037	2,959	504	461	997
35 to 44 years	11,820	10,370	10,158	1,450	1,315	2,536
45 to 49 years	13,024	11,535	11,271	1,489	1,365	2,691
50 to 54 years	16,135	14,439	14,114	1,696	1,529	3,507
55 to 59 years	15,420	13,835	13,510	1,585	1,437	3,841
60 to 64 years	12,303	11,114	10,867	1,189	1,087	3,627
65 to 69 years	9,140	8,294	8,089	846	764	3,081
70 years and over	14,444	13,003	12,629	1,441	1,335	7,707
Average age	56.2	56.4	56.3	55.1	55.1	60.3
Spanish, Hispanic, or Latino origin (see text)	2,240	1,843	1,784	397	365	674
Race:						
American Indian or Alaska Native	511	433	425	78	70	650
Asian	1,125	961	933	164	140	159
Black or African American	635	549	528	86	81	368
Native Hawaiian or Other Pacific Islander	63	50	47	13	13	13
White	93,360	83,513	81,539	9,847	8,979	26,776
More than one race reported	380	331	324	49	47	170
Farms by number of persons living in operator's household:						
1 person	10,204	8,673	8,475	1,531	1,442	5,326
2 people	47,936	43,278	42,232	4,658	4,254	14,240
3 people	14,040	12,532	12,270	1,508	1,373	3,516
4 people	13,763	12,252	11,975	1,511	1,346	3,133
5 or more people	10,131	9,102	8,844	1,029	915	1,921
Percent of operator's total household income from farming:						
Less than 25 percent	47,033	40,603	39,595	6,430	5,915	21,197
25 to 49 percent	8,899	8,148	7,990	751	694	2,197
50 to 74 percent	13,347	12,329	12,023	1,018	907	2,251
75 to 99 percent	14,529	13,406	13,084	1,123	1,010	1,554
100 percent	12,266	11,351	11,104	915	804	937
Operator is a hired manager ... farms	17,119	14,728	13,986	2,391	1,907	4,564
acres	38,980,938	32,738,484	27,740,246	6,242,454	3,415,085	43,262,859
Farms with-						
Internet access	70,734	64,085	62,649	6,649	5,997	13,748
High-speed internet access	50,522	45,634	44,515	4,888	4,352	9,520
Farms by number of households sharing in net income of farm:						
1 household	61,728	54,898	53,634	6,830	6,168	21,365
2 households	20,713	18,668	18,293	2,045	1,922	4,057
3 households	7,690	6,969	6,788	721	661	1,396
4 households	3,308	2,987	2,888	321	298	696
5 households or more	2,635	2,315	2,193	320	281	622
FARMS BY TYPE OF ORGANIZATION						
Family or individual ... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Partnership ... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Registered under state law ... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Corporation ... farms	96,074	85,837	83,796	10,237	9,330	-
acres	125,319,810	114,264,200	106,438,716	11,055,610	7,738,659	-
Family held ... farms	85,837	85,837	83,796	-	-	-
acres	114,264,200	114,264,200	106,438,716	-	-	-
More than 10 stockholders ... farms	2,041	2,041	-	-	-	-
10 or less stockholders ... farms	83,796	83,796	83,796	-	-	-
Other than family held ... farms	10,237	-	-	10,237	9,330	-
acres	11,055,610	-	-	11,055,610	7,738,659	-
More than 10 stockholders ... farms	907	-	-	907	-	-
10 or less stockholders ... farms	9,330	-	-	9,330	9,330	-
Other-cooperative, estate or trust, institutional, etc ... farms	-	-	-	-	-	28,136
acres	-	-	-	-	-	61,208,981
HIRED FARM LABOR						
Hired farm labor ... farms	54,894	49,893	48,749	5,001	4,412	5,922
workers	816,829	674,326	635,696	142,503	111,612	45,723
Workers by days worked:						
150 days or more ... farms	42,894	38,903	37,942	3,991	3,479	3,692
workers	381,223	309,646	287,618	71,577	54,101	21,544
Less than 150 days ... farms	36,248	33,030	32,275	3,218	2,871	4,093
workers	435,606	364,680	348,078	70,926	57,511	24,179

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Family or individual	Partnership	
			Total	Registered under state law
HIRED FARM LABOR - Con.				
Migrant farm labor on farms with hired labor (see text) ..... farms	38,784	25,469	6,067	4,462
Migrant farm labor on farms reporting only contract labor (see text) ..... farms	8,488	6,927	783	465
FARMS BY SIZE				
1 to 9 acres	232,849	210,585	11,553	5,132
10 to 49 acres	620,283	563,287	33,023	14,533
50 to 69 acres	153,862	138,500	9,401	4,071
70 to 99 acres	192,043	172,264	12,425	5,590
100 to 139 acres	175,146	155,276	12,499	5,363
140 to 179 acres	139,479	121,879	11,151	4,982
180 to 219 acres	87,502	75,789	7,315	3,541
220 to 259 acres	68,313	58,673	5,999	2,944
260 to 499 acres	212,553	177,816	21,117	11,034
500 to 999 acres	149,713	117,791	17,956	10,679
1,000 to 1,999 acres	92,656	66,379	13,706	8,850
2,000 acres or more	80,393	48,096	18,102	13,020
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)				
Oilseed and grain farming (1111)	338,237	279,040	35,317	18,862
Vegetable and melon farming (1112)	40,589	34,183	3,318	1,937
Fruit and tree nut farming (1113)	98,281	79,502	9,326	6,573
Greenhouse, nursery, and floriculture production (1114)	54,889	39,329	4,410	3,264
Other crop farming (1119)	519,893	449,380	41,810	20,794
Tobacco farming (11191)	9,626	8,341	1,041	323
Cotton farming (11192)	9,968	7,108	1,905	1,390
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	500,299	433,931	38,864	19,081
Beef cattle ranching and farming (112111)	656,475	592,845	44,918	19,218
Cattle feedlots (112112)	31,065	26,631	2,545	1,322
Dairy cattle and milk production (11212)	57,318	45,128	8,425	5,606
Hog and pig farming (1122)	30,546	25,373	2,341	1,391
Poultry and egg production (1123)	64,570	57,487	3,452	1,848
Sheep and goat farming (1124)	67,254	62,712	3,323	1,125
Animal aquaculture and other animal production (1125, 1129)	245,675	214,725	15,062	7,799
FARM TYPOLOGY (SEE TEXT)				
Small family farms:				
Limited resource farms ..... farms	308,837	280,742	22,278	8,457
acres	42,419,764	35,891,558	4,852,032	2,586,702
Retirement farms ..... farms	456,093	412,954	33,803	14,369
acres	89,580,775	73,519,723	11,564,609	6,644,227
Residential/lifestyle farms ..... farms	801,844	736,536	48,273	22,853
acres	121,143,585	99,962,238	14,974,602	9,453,461
Farming occupation/lower sales ..... farms	258,899	231,427	19,057	9,339
acres	87,190,445	71,994,898	10,255,449	6,183,649
Farming occupation/higher sales ..... farms	100,126	85,158	9,217	5,207
acres	104,081,344	79,654,275	14,588,129	9,630,570
Large family farms ..... farms	86,551	66,806	11,537	7,296
acres	123,024,138	84,293,577	21,988,089	14,335,560
Very large family farms ..... farms	101,265	63,178	21,540	15,897
acres	211,224,012	109,388,634	64,210,534	49,107,701
Non-family farms ..... farms	91,177	29,534	8,542	6,321
acres	143,431,777	19,445,147	18,983,555	16,342,945
LIVESTOCK				
Cattle and calves inventory ..... farms	963,669	853,223	74,855	36,045
number	96,347,858	59,500,378	18,413,650	13,836,404
Farms with-				
1 to 9	233,078	218,711	10,185	3,616
10 to 49	415,493	380,721	25,689	9,892
50 to 99	135,117	118,900	11,535	5,315
100 to 199	91,193	75,378	10,703	5,843
200 to 499	59,234	43,266	9,732	6,174
500 or more	29,554	16,247	7,011	5,205
Cows and heifers that had calved ..... farms	818,992	724,037	65,334	31,283
number	42,101,375	29,095,152	7,651,972	5,520,423
Beef cows ..... farms	764,984	681,557	57,428	25,970
number	32,834,801	24,382,582	4,747,014	2,992,060
Farms with-				
1 to 9	246,863	231,219	11,379	4,106
10 to 49	360,845	326,163	25,596	10,245
50 to 99	84,253	71,360	8,665	4,286
100 to 199	43,575	34,155	5,891	3,345
200 to 499	23,635	15,883	4,379	2,825
500 or more	5,813	2,777	1,518	1,163

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
HIRED FARM LABOR - Con.						
Migrant farm labor on farms with hired labor (see text) ....farms	6,830	6,077	5,883	753	638	418
Migrant farm labor on farms reporting only contract labor (see text) ....farms	555	471	463	84	84	223
FARMS BY SIZE						
1 to 9 acres	8,505	7,245	7,124	1,260	1,192	2,206
10 to 49 acres	17,663	15,233	15,003	2,430	2,248	6,310
50 to 69 acres	4,247	3,666	3,589	581	546	1,714
70 to 99 acres	4,843	4,140	4,041	703	647	2,511
100 to 139 acres	4,903	4,266	4,175	637	598	2,468
140 to 179 acres	4,102	3,516	3,427	586	543	2,347
180 to 219 acres	3,082	2,678	2,623	404	356	1,316
220 to 259 acres	2,566	2,271	2,223	295	253	1,075
260 to 499 acres	10,341	9,287	9,070	1,054	959	3,279
500 to 999 acres	11,829	10,995	10,713	834	737	2,137
1,000 to 1,999 acres	11,328	10,673	10,456	655	574	1,243
2,000 acres or more	12,665	11,867	11,352	798	677	1,530
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)						
Oilseed and grain farming (1111)	20,420	19,430	19,107	990	927	3,460
Vegetable and melon farming (1112)	2,672	2,346	2,305	326	291	416
Fruit and tree nut farming (1113)	7,801	6,736	6,501	1,065	920	1,652
Greenhouse, nursery, and floriculture production (1114)	10,365	9,009	8,903	1,356	1,304	785
Other crop farming (1119)	16,254	14,028	13,576	2,226	1,994	12,449
Tobacco farming (11191)	224	208	208	16	16	20
Cotton farming (11192)	869	795	787	74	66	86
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	15,161	13,025	12,581	2,136	1,912	12,343
Beef cattle ranching and farming (112111)	14,265	13,039	12,675	1,226	1,164	4,447
Cattle feedlots (112112)	1,703	1,478	1,433	225	198	186
Dairy cattle and milk production (11212)	3,487	3,334	3,286	153	140	278
Hog and pig farming (1122)	2,648	2,268	2,186	380	315	184
Poultry and egg production (1123)	3,320	2,921	2,794	399	268	311
Sheep and goat farming (1124)	837	714	705	123	115	382
Animal aquaculture and other animal production (1125, 1129)	12,302	10,534	10,325	1,768	1,694	3,586
FARM TYPOLOGY (SEE TEXT)						
Small family farms:						
Limited resource farms ....farms	5,817	5,817	5,684	-	-	-
acres	1,676,174	1,676,174	1,629,441	-	-	-
Retirement farms ....farms	9,336	9,336	9,109	-	-	-
acres	4,496,443	4,496,443	4,342,999	-	-	-
Residential/lifestyle farms ....farms	17,035	17,035	16,747	-	-	-
acres	6,206,745	6,206,745	6,047,144	-	-	-
Farming occupation/lower sales ....farms	8,415	8,415	8,269	-	-	-
acres	4,940,098	4,940,098	4,735,352	-	-	-
Farming occupation/higher sales ....farms	5,751	5,751	5,685	-	-	-
acres	9,838,940	9,838,940	9,622,842	-	-	-
Large family farms ....farms	8,208	8,208	8,095	-	-	-
acres	16,742,472	16,742,472	16,355,595	-	-	-
Very large family farms ....farms	16,547	16,547	16,221	-	-	-
acres	37,624,844	37,624,844	35,965,097	-	-	-
Non-family farms ....farms	24,965	14,728	13,986	10,237	9,330	28,136
acres	43,794,094	32,738,484	27,740,246	11,055,610	7,738,659	61,208,981
LIVESTOCK						
Cattle and calves inventory ....farms	29,284	27,180	26,531	2,104	1,972	6,307
number	17,346,291	13,554,847	12,200,963	3,791,444	2,756,913	1,087,539
Farms with-						
1 to 9	2,864	2,566	2,538	298	291	1,318
10 to 49	6,560	5,958	5,861	602	588	2,523
50 to 99	3,878	3,621	3,565	257	238	804
100 to 199	4,466	4,251	4,171	215	208	646
200 to 499	5,627	5,364	5,232	263	249	609
500 or more	5,889	5,420	5,164	469	398	407
Cows and heifers that had calved ....farms	24,248	22,663	22,104	1,585	1,495	5,373
number	4,845,317	4,394,824	4,100,797	450,493	363,857	508,934
Beef cows ....farms	20,843	19,406	18,906	1,437	1,360	5,156
number	3,295,084	2,994,823	2,758,562	300,261	235,831	410,121
Farms with-						
1 to 9	2,977	2,712	2,665	265	257	1,288
10 to 49	6,809	6,259	6,167	550	532	2,277
50 to 99	3,546	3,354	3,302	192	185	682
100 to 199	3,086	2,907	2,829	179	168	443
200 to 499	3,030	2,889	2,769	141	130	343
500 or more	1,395	1,285	1,174	110	88	123

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Total	Family or individual	Partnership	
				Total	Registered under state law
LIVESTOCK - Con.					
Cattle and calves inventory - Con.					
Cows and heifers that had calved - Con.					
Milk cows	farms	69,890	55,489	9,841	6,371
	number	9,266,574	4,712,570	2,904,958	2,528,363
Farms with-					
1 to 9		14,426	13,018	947	409
10 to 49		19,912	17,909	1,569	707
50 to 99		18,986	15,514	2,599	1,524
100 to 199		8,975	5,658	2,199	1,541
200 to 499		4,307	2,144	1,290	1,045
500 or more		3,284	1,246	1,237	1,145
Other cattle (see text)	farms	788,633	694,301	63,253	31,369
	number	54,246,483	30,405,226	10,761,678	8,315,981
Cattle and calves sold	farms	798,290	700,525	66,002	32,372
	number	74,071,936	37,291,086	14,884,941	11,823,891
	$1,000	61,209,970	27,043,196	12,772,235	10,378,209
Calves weighing less than 500 pounds	farms	414,324	362,967	35,841	17,923
	number	13,695,252	9,111,295	2,527,274	1,961,743
Cattle, including calves weighing 500 pounds or more	farms	681,126	594,565	57,894	28,937
	number	60,376,684	28,179,791	12,357,667	9,862,148
Cattle on feed (see text)	farms	76,396	63,790	7,621	4,146
	number	27,595,928	6,453,818	6,572,565	5,833,719
Hogs and pigs inventory	farms	75,442	64,187	5,795	3,094
	number	67,786,318	29,130,237	15,510,121	13,146,633
Farms with-					
1 to 24		45,047	41,519	2,231	950
25 to 49		4,292	3,803	321	129
50 to 99		3,182	2,755	284	128
100 to 199		2,590	2,214	250	125
200 to 499		4,524	3,728	474	255
500 or more		15,807	10,168	2,235	1,507
Used or to be used for breeding	farms	32,867	27,617	2,777	1,417
	number	6,290,610	1,621,525	1,721,671	1,537,564
Other hogs and pigs	farms	66,441	56,006	5,301	2,895
	number	61,495,708	27,508,712	13,788,450	11,609,069
Hogs and pigs sold	farms	74,789	63,473	5,806	3,155
	number	206,807,181	83,015,929	46,820,180	39,800,990
	$1,000	18,056,981	7,939,176	3,957,721	3,317,933
Sheep and lambs inventory	farms	83,134	75,303	4,732	2,242
	number	5,819,162	3,870,574	935,230	661,624
Ewes 1 year old or older	farms	68,222	61,669	3,923	1,879
	number	3,516,409	2,375,347	562,927	389,598
Sheep and lambs sold	farms	53,268	48,012	3,227	1,572
	number	4,579,608	2,904,585	746,292	546,444
Horses and ponies inventory	farms	575,942	515,498	34,951	18,243
	number	4,028,827	3,331,992	311,102	199,556
Owned	farms	501,528	450,951	28,951	15,215
	number	3,224,964	2,720,344	233,350	145,049
Horses and ponies sold	farms	133,472	118,495	7,814	4,368
	number	506,503	415,308	39,160	24,929
Owned	farms	106,050	94,471	6,075	3,421
	number	400,845	329,590	30,983	20,108
Goats, all inventory	farms	144,466	133,279	7,307	3,037
	number	3,140,529	2,709,064	284,501	158,095
Goats sold	farms	61,748	57,369	2,955	1,252
	number	1,387,576	1,207,841	121,869	66,714
POULTRY					
Layers inventory (see text)	farms	145,615	134,221	6,928	3,053
	number	349,772,508	109,525,421	54,944,313	48,754,748
Farms with-					
1 to 399		140,844	130,541	6,484	2,769
400 to 3,199		785	632	70	32
3,200 to 9,999		626	544	42	23
10,000 to 19,999		1,373	1,174	103	55
20,000 to 49,999		1,292	1,021	118	83
50,000 to 99,999		261	165	30	23
100,000 or more		434	144	81	68
Pullets for laying flock replacement inventory	farms	22,514	20,453	1,213	528
	number	105,876,529	53,113,032	11,353,615	9,702,016
Layers sold	farms	24,971	22,613	1,325	671
	number	194,955,057	71,781,441	34,699,659	31,112,182
Pullets for laying flock replacement sold (see text)	farms	4,169	3,662	261	141
	number	161,354,686	94,632,009	16,051,817	12,229,287

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
LIVESTOCK - Con.						
Cattle and calves inventory - Con.						
Cows and heifers that had calved - Con.						
Milk cows ....farms	4,138	3,949	3,830	189	173	422
number	1,550,233	1,400,001	1,342,235	150,232	128,026	98,813
Farms with-						
1 to 9	330	302	281	28	27	131
10 to 49	368	348	341	20	18	66
50 to 99	808	784	774	24	24	65
100 to 199	1,045	1,012	981	33	32	73
200 to 499	829	804	781	25	22	44
500 or more	758	699	672	59	50	43
Other cattle (see text) ....farms	26,013	24,241	23,653	1,772	1,657	5,066
number	12,500,974	9,160,023	8,100,166	3,340,951	2,393,056	578,605
Cattle and calves sold ....farms	26,648	24,878	24,242	1,770	1,660	5,115
number	20,997,121	14,699,297	12,629,041	6,297,824	4,301,244	898,788
$1,000	20,640,494	13,847,166	11,661,624	6,793,328	4,640,116	754,045
Calves weighing less than 500 pounds ....farms	12,813	11,910	11,612	903	854	2,703
number	1,887,297	1,627,285	1,542,995	260,012	218,710	169,386
Cattle, including calves weighing 500 pounds or more ....farms	24,235	22,710	22,121	1,525	1,422	4,432
number	19,109,824	13,072,012	11,086,046	6,037,812	4,082,534	729,402
Cattle on feed (see text) ....farms	4,526	4,218	4,127	308	268	459
number	14,219,165	8,635,173	6,919,486	5,583,992	3,719,729	350,380
Hogs and pigs inventory ....farms	4,755	4,251	4,098	504	427	705
number	22,498,978	16,947,369	14,262,513	5,551,609	3,298,780	646,982
Farms with-						
1 to 24	881	795	782	86	80	416
25 to 49	102	95	88	7	6	66
50 to 99	97	92	89	5	1	46
100 to 199	99	92	89	7	6	27
200 to 499	277	269	259	8	8	45
500 or more	3,299	2,908	2,791	391	326	105
Used or to be used for breeding ....farms	2,096	1,786	1,679	310	254	377
number	2,864,503	1,964,514	1,603,897	899,989	534,126	82,911
Other hogs and pigs ....farms	4,515	4,048	3,905	467	394	619
number	19,634,475	14,982,855	12,658,616	4,651,620	2,764,654	564,071
Hogs and pigs sold ....farms	4,823	4,340	4,180	483	410	687
number	74,958,962	54,913,788	46,484,493	20,045,174	12,753,672	2,012,110
$1,000	5,995,805	4,604,648	3,929,454	1,391,157	857,334	164,279
Sheep and lambs inventory ....farms	2,199	2,003	1,959	196	182	900
number	900,401	847,981	803,193	52,420	39,941	112,957
Ewes 1 year old or older ....farms	1,884	1,733	1,691	151	137	746
number	507,719	486,281	453,946	21,438	14,147	70,416
Sheep and lambs sold ....farms	1,471	1,371	1,335	100	89	558
number	849,464	801,131	763,170	48,333	44,359	79,267
Horses and ponies inventory ....farms	21,320	19,175	18,783	2,145	2,053	4,173
number	316,372	274,730	267,387	41,642	37,581	69,361
Owned ....farms	18,197	16,316	16,007	1,881	1,810	3,429
number	215,220	184,662	179,090	30,558	27,432	56,050
Horses and ponies sold ....farms	6,250	5,646	5,537	604	577	913
number	44,390	38,253	37,285	6,137	5,751	7,645
Owned ....farms	4,784	4,306	4,220	478	457	720
number	33,822	28,824	27,961	4,998	4,659	6,450
Goats, all inventory ....farms	2,856	2,561	2,526	295	278	1,024
number	113,413	102,902	102,402	10,511	7,423	33,551
Goats sold ....farms	1,033	949	930	84	82	391
number	46,158	44,243	43,492	1,915	(D)	11,708
POULTRY						
Layers inventory (see text) ....farms	3,512	3,144	3,032	368	327	954
number	184,281,929	130,634,853	119,581,444	53,647,076	29,766,488	1,020,845
Farms with-						
1 to 399	2,912	2,631	2,585	281	268	907
400 to 3,199	61	46	38	15	14	22
3,200 to 9,999	36	35	20	1	1	4
10,000 to 19,999	91	88	72	3	3	5
20,000 to 49,999	143	129	120	14	10	10
50,000 to 99,999	64	55	55	9	5	2
100,000 or more	205	160	142	45	26	4
Pullets for laying flock replacement inventory ....farms	691	605	550	86	68	157
number	40,983,271	30,793,295	28,515,180	10,189,976	5,586,399	426,611
Layers sold ....farms	879	772	735	107	79	154
number	87,974,681	66,578,388	61,245,463	21,396,293	7,498,273	499,276
Pullets for laying flock replacement sold (see text) ....farms	218	195	189	23	12	28
number	49,862,171	41,214,234	39,756,156	8,647,937	4,580,499	808,689

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Total	Family or individual	Partnership	
				Total	Registered under state law
POULTRY - Con.					
Broilers and other meat-type chickens sold	farms	27,091	23,609	1,661	998
	number	8,914,828,122	6,862,986,935	737,718,131	483,078,570
Farms with-					
1 to 1,999		9,743	8,941	456	252
2,000 to 59,999		618	510	36	21
60,000 to 99,999		623	564	34	20
100,000 or more		16,107	13,594	1,135	705
Turkeys inventory (see text)	farms	17,226	15,173	978	460
	number	107,173,804	55,326,479	12,124,996	9,652,019
Turkeys sold (see text)	farms	8,284	6,876	576	375
	number	295,793,159	163,447,991	31,578,723	25,251,297
CROPS HARVESTED					
Barley for grain	farms	19,848	14,766	2,812	1,785
	acres	3,521,957	2,183,881	663,628	462,584
	bushels	207,089,232	124,534,268	42,542,188	30,695,877
Irrigated	farms	4,241	2,697	728	544
	acres	741,475	354,104	173,654	147,130
Farms by acres harvested:					
1 to 24 acres		5,742	4,911	565	335
25 to 99 acres		5,405	3,962	822	519
100 to 249 acres		4,469	3,170	668	439
250 to 499 acres		2,552	1,763	389	235
500 acres or more		1,680	960	368	257
Corn for grain	farms	347,760	284,137	38,088	20,878
	acres	86,248,542	58,016,810	16,409,113	11,028,938
	bushels	12,738,519,330	8,460,061,378	2,462,857,575	1,670,730,149
Irrigated	farms	38,911	27,019	6,243	4,384
	acres	13,156,769	7,542,219	3,358,722	2,614,980
Farms by acres harvested:					
1 to 24 acres		68,008	61,623	4,646	1,860
25 to 99 acres		101,672	87,820	9,549	4,514
100 to 249 acres		78,166	64,225	8,467	4,669
250 to 499 acres		50,807	39,409	5,896	3,467
500 acres or more		49,107	31,060	9,530	6,368
Corn for silage or greenchop	farms	84,317	65,210	12,362	7,937
	acres	5,979,661	3,446,917	1,539,688	1,222,405
	tons	104,224,795	56,346,652	28,812,047	23,643,423
Irrigated	farms	9,664	5,802	2,110	1,680
	acres	1,497,288	658,609	491,717	431,773
Farms by acres harvested:					
1 to 24 acres		34,207	30,024	2,937	1,438
25 to 99 acres		34,878	26,927	5,222	3,241
100 to 249 acres		10,855	6,405	2,733	1,996
250 to 499 acres		2,859	1,324	876	727
500 acres or more		1,518	530	594	535
Cotton, all	farms	18,605	12,603	4,105	3,079
	acres	10,493,238	5,739,374	3,526,083	2,870,158
	bales	18,898,128	9,752,130	6,718,429	5,570,970
Irrigated	farms	8,776	5,297	2,354	1,880
	acres	4,035,610	1,875,682	1,560,653	1,328,257
Farms by acres harvested:					
1 to 24 acres		961	787	108	58
25 to 99 acres		3,043	2,502	332	193
100 to 249 acres		3,886	2,858	632	436
250 to 499 acres		3,738	2,536	769	569
500 acres or more		6,977	3,920	2,264	1,823
Dry edible beans, excluding limas	farms	6,236	4,408	890	636
	acres	1,455,549	855,943	354,478	262,386
	cwt	25,353,900	14,322,921	6,455,631	4,868,106
Irrigated	farms	2,456	1,602	358	287
	acres	353,503	173,389	88,330	73,850
Farms by acres harvested:					
1 to 24 acres		818	689	41	29
25 to 99 acres		1,709	1,337	161	115
100 to 249 acres		1,856	1,300	250	169
250 to 499 acres		1,066	680	192	137
500 acres or more		787	402	246	186
Oats for grain	farms	42,558	35,810	4,787	2,551
	acres	1,509,149	1,154,611	231,544	135,207
	bushels	89,508,669	67,150,587	14,310,243	8,561,455
Irrigated	farms	1,620	1,157	248	174
	acres	78,214	47,244	16,631	13,788
Farms by acres harvested:					
1 to 24 acres		27,044	23,728	2,440	1,168
25 to 99 acres		12,167	9,682	1,729	1,023
100 to 249 acres		2,643	1,924	482	284
250 to 499 acres		552	386	104	53
500 acres or more		152	90	32	23
Peanuts for nuts	farms	6,182	4,633	986	594
	acres	1,200,564	755,647	311,253	217,263
	pounds	3,703,138,887	2,276,117,420	990,720,819	704,025,180
Irrigated	farms	2,381	1,652	429	275
	acres	418,789	248,719	115,359	88,292

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
POULTRY - Con.						
Broilers and other meat-type chickens sold ....farms	1,660	1,534	1,457	126	113	161
....number	1,289,776,744	1,142,905,809	891,892,523	146,870,935	69,152,508	24,346,312
Farms with-						
1 to 1,999	245	223	193	22	21	101
2,000 to 59,999	60	59	36	1	1	12
60,000 to 99,999	24	23	21	1	1	1
100,000 or more	1,331	1,229	1,207	102	90	47
Turkeys inventory (see text) ....farms	905	834	777	71	48	170
....number	38,900,660	33,436,114	28,361,923	5,464,546	1,485,044	821,669
Turkeys sold (see text) ....farms	749	688	627	61	40	83
....number	98,829,600	86,637,729	76,546,640	12,191,871	4,490,227	1,936,845
CROPS HARVESTED						
Barley for grain ....farms	2,127	2,061	1,964	66	57	143
....acres	656,499	638,929	530,467	17,570	15,740	17,949
....bushels	38,734,951	37,198,922	33,201,486	1,536,029	1,361,630	1,277,825
Irrigated ....farms	747	707	668	40	33	69
....acres	204,496	193,328	178,816	11,168	9,462	9,221
Farms by acres harvested:						
1 to 24 acres	213	197	191	16	15	53
25 to 99 acres	574	562	551	12	9	47
100 to 249 acres	605	591	575	14	11	26
250 to 499 acres	392	379	367	13	13	8
500 acres or more	343	332	280	11	9	9
Corn for grain ....farms	22,743	21,631	21,288	1,112	1,038	2,792
....acres	11,242,090	10,755,851	10,558,007	486,239	437,426	580,529
....bushels	1,733,635,380	1,658,610,949	1,627,895,247	75,024,431	67,205,421	81,964,997
Irrigated ....farms	5,243	4,956	4,865	287	257	406
....acres	2,137,158	2,014,494	1,967,470	122,664	109,956	118,670
Farms by acres harvested:						
1 to 24 acres	1,145	1,033	1,009	112	99	594
25 to 99 acres	3,270	2,971	2,929	299	278	1,033
100 to 249 acres	4,850	4,621	4,548	229	216	624
250 to 499 acres	5,188	5,024	4,969	164	157	314
500 acres or more	8,290	7,982	7,833	308	288	227
Corn for silage or greenchop ....farms	6,268	6,006	5,881	262	232	477
....acres	940,565	881,840	847,361	58,725	47,037	52,491
....tons	18,060,375	16,786,117	16,150,038	1,274,258	1,012,438	1,005,721
Irrigated ....farms	1,615	1,521	1,467	94	81	137
....acres	322,522	286,148	268,980	36,374	28,037	24,440
Farms by acres harvested:						
1 to 24 acres	1,090	1,053	1,039	37	36	156
25 to 99 acres	2,558	2,471	2,426	87	78	171
100 to 249 acres	1,618	1,547	1,522	71	64	99
250 to 499 acres	628	588	567	40	34	31
500 acres or more	374	347	327	27	20	20
Cotton, all ....farms	1,702	1,555	1,534	147	137	195
....acres	1,140,599	950,901	921,321	189,698	85,895	87,182
....bales	2,246,324	1,787,868	1,729,123	458,456	166,946	181,245
Irrigated ....farms	999	916	902	83	75	126
....acres	551,158	421,342	409,848	129,816	(D)	48,117
Farms by acres harvested:						
1 to 24 acres	40	29	27	11	11	26
25 to 99 acres	160	142	142	18	16	49
100 to 249 acres	344	320	315	24	23	52
250 to 499 acres	406	381	380	25	25	27
500 acres or more	752	683	670	69	62	41
Dry edible beans, excluding limas ....farms	868	830	825	38	35	70
....acres	232,568	220,959	220,321	11,609	11,520	12,560
....cwt	4,323,210	4,105,863	4,090,978	217,347	215,635	252,138
Irrigated ....farms	441	414	411	27	25	55
....acres	80,936	74,371	74,062	6,565	(D)	10,848
Farms by acres harvested:						
1 to 24 acres	52	45	44	7	6	36
25 to 99 acres	197	188	187	9	7	14
100 to 249 acres	295	287	285	8	8	11
250 to 499 acres	190	184	183	6	6	4
500 acres or more	134	126	126	8	8	5
Oats for grain ....farms	1,713	1,639	1,606	74	67	248
....acres	114,887	110,303	107,798	4,584	3,440	8,107
....bushels	7,558,042	7,251,583	7,104,997	306,459	214,836	489,797
Irrigated ....farms	187	176	168	11	8	28
....acres	13,696	12,825	12,381	871	(D)	643
Farms by acres harvested:						
1 to 24 acres	718	681	668	37	36	158
25 to 99 acres	686	666	655	20	19	70
100 to 249 acres	219	207	200	12	9	18
250 to 499 acres	61	56	54	5	3	1
500 acres or more	29	29	29	-	-	1
Peanuts for nuts ....farms	525	485	480	40	40	38
....acres	131,638	120,307	119,405	11,331	11,331	2,026
....pounds	430,391,092	388,977,986	385,317,951	41,413,106	41,413,106	5,909,556
Irrigated ....farms	277	249	247	28	28	23
....acres	53,560	46,954	(D)	6,606	6,606	1,151

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Family or individual	Partnership	
			Total	Registered under state law
CROPS HARVESTED - Con.				
Peanuts for nuts - Con.				
Farms by acres harvested:				
1 to 24 acres	915	801	82	37
25 to 99 acres	1,909	1,571	184	84
100 to 249 acres	1,886	1,381	314	179
250 to 499 acres	920	588	213	152
500 acres or more	552	292	193	142
Rice ... farms	6,084	3,251	2,106	1,756
acres	2,758,792	1,089,437	1,398,978	1,214,141
cwt	198,538,690	76,937,581	101,691,251	88,479,269
Irrigated ... farms	6,084	3,251	2,106	1,756
acres	2,758,792	1,089,437	1,398,978	1,214,141
Farms by acres harvested:				
1 to 24 acres	132	84	34	16
25 to 99 acres	915	681	152	107
100 to 249 acres	1,459	934	298	224
250 to 499 acres	1,616	861	508	426
500 acres or more	1,962	691	1,114	983
Sorghum for grain ... farms	26,242	19,931	3,968	2,554
acres	6,769,834	4,272,465	1,675,866	1,281,213
bushels	482,452,865	296,457,920	125,720,896	97,341,144
Irrigated ... farms	4,483	2,919	964	721
acres	845,214	445,791	277,400	238,938
Farms by acres harvested:				
1 to 24 acres	2,609	2,193	245	117
25 to 99 acres	8,335	6,947	897	477
100 to 249 acres	7,302	5,626	1,076	692
250 to 499 acres	4,377	3,061	757	508
500 acres or more	3,619	2,104	993	760
Soybeans for beans ... farms	279,110	227,384	30,922	16,758
acres	63,915,821	44,017,833	12,044,808	7,950,962
bushels	2,582,423,697	1,769,878,670	476,030,575	313,947,599
Irrigated ... farms	20,333	13,823	3,708	2,708
acres	5,237,075	2,609,346	1,878,660	1,581,744
Farms by acres harvested:				
1 to 24 acres	38,458	34,252	2,933	1,234
25 to 99 acres	90,935	78,720	8,191	3,775
100 to 249 acres	70,698	58,676	7,006	3,707
250 to 499 acres	44,381	34,225	5,187	2,895
500 acres or more	34,638	21,511	7,605	5,147
Sugarbeets for sugar ... farms	4,022	2,498	741	563
acres	1,253,817	603,650	353,874	288,348
tons	31,937,325	15,195,498	9,112,703	7,510,778
Irrigated ... farms	1,595	921	312	245
acres	394,675	184,121	109,118	90,993
Sugarcane for sugar ... farms	692	312	128	96
acres	846,666	158,046	122,757	91,046
tons	31,127,405	5,479,489	4,192,146	3,058,308
Irrigated ... farms	219	95	47	42
acres	435,205	41,039	(D)	21,089
Sunflower seed, all ... farms	6,403	5,001	918	526
acres	2,000,153	1,394,852	448,079	283,846
pounds	2,820,962,445	1,953,947,904	645,932,795	409,162,564
Irrigated ... farms	608	395	108	92
acres	102,219	58,536	28,829	27,230
Farms by acres harvested:				
1 to 24 acres	502	400	57	31
25 to 99 acres	1,153	973	100	56
100 to 249 acres	2,110	1,709	253	136
250 to 499 acres	1,494	1,143	233	131
500 acres or more	1,144	776	275	172
Tobacco ... farms	16,234	13,751	1,960	763
acres	359,846	250,676	69,006	37,008
pounds	778,301,825	531,930,612	153,309,449	81,553,403
Irrigated ... farms	2,572	2,012	371	159
acres	71,578	46,884	14,020	6,915
Farms by acres harvested:				
0.1 to 0.9 acres	235	209	20	6
1.0 to 1.9 acres	1,493	1,333	145	45
2.0 to 2.9 acres	1,827	1,654	152	46
3.0 to 4.9 acres	2,772	2,492	253	72
5.0 to 9.9 acres	3,459	3,000	391	140
10.0 to 24.9 acres	3,129	2,642	411	158
25.0 acres or more	3,319	2,421	588	296
Wheat for grain, all ... farms	160,810	124,773	21,369	12,938
acres	50,932,969	32,803,063	10,600,757	7,301,591
bushels	1,993,648,378	1,213,886,508	451,941,584	327,642,988
Irrigated ... farms	15,213	9,839	2,735	2,125
acres	3,364,079	1,697,112	948,229	802,793
Farms by acres harvested:				
1 to 24 acres	26,703	23,157	2,389	1,134
25 to 99 acres	49,409	40,457	5,557	3,049
100 to 249 acres	34,703	26,928	4,605	2,824
250 to 499 acres	21,167	15,684	3,135	2,016
500 acres or more	28,828	18,547	5,683	3,915

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
CROPS HARVESTED - Con.						
Peanuts for nuts - Con.						
Farms by acres harvested:						
1 to 24 acres	19	16	16	3	3	13
25 to 99 acres	136	132	129	4	4	18
100 to 249 acres	184	173	172	11	11	7
250 to 499 acres	119	104	104	15	15	-
500 acres or more	67	60	59	7	7	-
Rice ... farms	668	597	579	71	68	59
acres	254,552	229,364	215,168	25,188	24,786	15,825
cwt	18,781,464	16,953,843	15,993,279	1,827,621	1,803,084	1,128,394
Irrigated ... farms	668	597	579	71	68	59
acres	254,552	229,364	215,168	25,188	24,786	15,825
Farms by acres harvested:						
1 to 24 acres	4	4	4	-	-	10
25 to 99 acres	70	59	55	11	9	12
100 to 249 acres	208	183	182	25	25	19
250 to 499 acres	237	212	208	25	24	10
500 acres or more	149	139	130	10	10	8
Sorghum for grain ... farms	2,027	1,920	1,890	107	97	316
acres	749,340	711,625	688,134	37,715	33,369	72,163
bushels	55,812,918	53,125,954	51,152,001	2,686,964	2,460,417	4,461,131
Irrigated ... farms	516	486	478	30	29	84
acres	111,324	104,233	101,447	7,091	(D)	10,699
Farms by acres harvested:						
1 to 24 acres	113	104	101	9	9	58
25 to 99 acres	382	359	355	23	20	109
100 to 249 acres	530	506	498	24	22	70
250 to 499 acres	519	496	488	23	20	40
500 acres or more	483	455	448	28	26	39
Soybeans for beans ... farms	18,558	17,760	17,483	798	745	2,246
acres	7,505,979	7,221,920	7,097,365	284,059	262,800	347,201
bushels	322,524,943	310,906,288	305,530,603	11,618,655	10,641,225	13,989,509
Irrigated ... farms	2,620	2,502	2,462	118	102	182
acres	726,175	696,024	681,875	30,151	28,931	22,894
Farms by acres harvested:						
1 to 24 acres	819	724	717	95	89	454
25 to 99 acres	3,074	2,870	2,815	204	186	950
100 to 249 acres	4,524	4,356	4,280	168	158	492
250 to 499 acres	4,743	4,599	4,544	144	135	226
500 acres or more	5,398	5,211	5,127	187	177	124
Sugarbeets for sugar ... farms	753	722	714	31	30	30
acres	290,507	271,341	269,671	19,166	(D)	5,786
tons	7,460,904	6,948,936	6,903,474	511,968	(D)	168,220
Irrigated ... farms	341	321	314	20	19	21
acres	98,078	89,519	88,299	8,559	(D)	3,358
Sugarcane for sugar ... farms	243	221	197	22	16	9
acres	560,916	414,162	319,956	146,754	16,323	4,947
tons	21,280,215	15,789,684	11,327,078	5,490,531	537,784	175,555
Irrigated ... farms	72	66	55	6	2	5
acres	366,132	235,215	165,633	130,917	(D)	(D)
Sunflower seed, all ... farms	446	428	427	18	16	38
acres	153,398	151,263	(D)	2,135	(D)	3,824
pounds	216,372,704	214,120,078	(D)	2,252,626	(D)	4,709,042
Irrigated ... farms	92	85	85	7	6	13
acres	14,604	13,387	13,387	1,217	(D)	250
Farms by acres harvested:						
1 to 24 acres	27	24	24	3	3	18
25 to 99 acres	70	63	63	7	6	10
100 to 249 acres	143	136	136	7	6	5
250 to 499 acres	115	115	115	-	-	3
500 acres or more	91	90	89	1	1	2
Tobacco ... farms	470	440	435	30	30	53
acres	39,447	36,474	35,994	2,974	2,974	717
pounds	91,687,086	84,237,497	83,439,963	7,449,589	7,449,589	1,374,678
Irrigated ... farms	169	155	155	14	14	20
acres	10,395	9,701	9,701	694	694	280
Farms by acres harvested:						
0.1 to 0.9 acres	3	3	3	-	-	3
1.0 to 1.9 acres	5	4	4	1	1	10
2.0 to 2.9 acres	15	13	13	2	2	6
3.0 to 4.9 acres	25	23	22	2	2	2
5.0 to 9.9 acres	56	55	55	1	1	12
10.0 to 24.9 acres	64	61	59	3	3	12
25.0 acres or more	302	281	279	21	21	8
Wheat for grain, all ... farms	13,175	12,637	12,371	538	494	1,493
acres	7,131,098	6,899,790	6,567,485	231,308	201,375	398,051
bushels	311,146,391	297,482,891	285,107,406	13,663,500	10,577,172	16,673,895
Irrigated ... farms	2,427	2,291	2,225	136	117	212
acres	670,549	604,306	579,525	66,243	44,053	48,189
Farms by acres harvested:						
1 to 24 acres	860	807	800	53	49	297
25 to 99 acres	2,895	2,751	2,706	144	134	500
100 to 249 acres	2,850	2,727	2,672	123	110	320
250 to 499 acres	2,161	2,086	2,054	75	69	187
500 acres or more	4,409	4,266	4,139	143	132	189

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Family or individual	Partnership	
			Total	Registered under state law
CROPS HARVESTED - Con.				
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ..... farms	869,534	764,283	69,473	34,883
acres	61,455,483	46,233,073	8,858,433	5,745,956
tons, dry	155,393,762	108,513,045	26,986,527	19,095,924
Irrigated ..... farms	86,007	67,336	9,985	6,976
acres	10,264,753	5,636,730	2,256,778	1,851,040
Farms by acres harvested:				
1 to 24 acres	367,533	339,111	19,529	7,972
25 to 99 acres	345,273	305,867	27,087	12,642
100 to 249 acres	111,368	89,215	14,208	8,248
250 to 499 acres	30,370	21,357	5,301	3,535
500 acres or more	14,990	8,733	3,348	2,486
Alfalfa hay ..... farms	290,726	246,705	27,547	15,166
acres	20,244,497	14,249,338	3,348,352	2,294,681
tons, dry	65,349,074	42,220,820	12,833,858	9,510,095
Irrigated ..... farms	56,390	43,780	6,736	4,753
acres	6,556,652	3,664,894	1,459,986	1,200,235
Other tame hay ..... farms	496,740	442,278	37,367	17,403
acres	26,763,972	21,688,830	3,161,714	1,804,053
tons, dry	54,347,673	43,107,871	6,830,385	4,050,767
Irrigated ..... farms	24,348	19,252	2,597	1,795
acres	1,699,864	984,583	311,310	245,269
Field and grass seed crops, all ..... farms	6,038	4,532	701	450
acres	1,178,726	574,121	220,431	176,174
Irrigated ..... farms	1,457	848	211	172
acres	323,441	129,632	70,563	59,345
Land in vegetables (see text) ..... farms	69,172	57,146	6,253	3,892
acres	4,356,880	1,531,095	1,150,714	999,940
Irrigated ..... farms	29,885	22,992	3,143	2,235
acres	3,068,485	867,639	871,726	792,225
Farms by acres harvested:				
0.1 to 4.9 acres	41,453	37,390	2,396	1,147
5.0 to 24.9 acres	13,869	11,714	1,171	687
25.0 to 99.9 acres	6,671	4,814	946	659
100.0 to 249.9 acres	3,473	1,950	708	522
250.0 acres or more	3,706	1,278	1,032	877
Snap beans ..... farms	17,300	14,567	1,417	788
acres	303,997	129,721	58,502	44,718
Harvested for processing ..... farms	1,999	1,411	262	177
acres	198,101	80,744	38,844	30,301
Peas, green ..... farms	4,532	3,457	542	385
acres	214,057	103,180	48,888	39,149
Harvested for processing ..... farms	2,047	1,367	354	260
acres	206,092	98,890	47,573	38,219
Potatoes ..... farms	15,014	12,035	1,448	918
acres	1,131,963	316,555	365,291	324,144
Harvested for processing ..... farms	1,739	1,002	331	267
acres	599,604	152,800	207,861	182,223
Farms by acres harvested:				
0.1 to 4.9 acres	12,013	10,543	788	393
5.0 to 24.9 acres	612	451	72	46
25.0 to 99.9 acres	539	337	97	68
100.0 to 249.9 acres	714	357	143	114
250.0 acres or more	1,136	347	348	297
Sweet corn ..... farms	28,241	24,261	2,144	1,239
acres	622,946	307,366	111,127	88,532
Harvested for processing ..... farms	3,670	2,806	385	253
acres	361,886	176,299	57,360	46,038
Sweet potatoes ..... farms	1,910	1,567	179	120
acres	105,284	39,281	34,346	26,920
Harvested for processing ..... farms	259	175	50	40
acres	21,360	9,691	6,617	5,810
Tomatoes in the open ..... farms	25,809	21,928	2,047	1,228
acres	442,225	128,059	144,818	134,786
Harvested for processing ..... farms	1,761	1,274	252	205
acres	319,549	86,065	113,050	104,963
Land in orchards ..... farms	115,935	94,378	10,981	7,630
acres	5,039,476	2,034,454	1,283,380	1,155,374
Irrigated ..... farms	61,189	47,022	7,062	5,330
acres	3,981,316	1,368,310	1,130,913	1,039,806
Farms by bearing and nonbearing acres:				
0.1 to 4.9 acres	52,775	47,942	2,617	1,393
5.0 to 24.9 acres	37,043	30,858	3,242	2,078
25.0 to 99.9 acres	17,119	11,679	2,789	2,138
100.0 to 249.9 acres	5,434	2,782	1,261	1,055
250.0 acres or more	3,564	1,117	1,072	966
Apples ..... farms	25,591	21,423	1,904	1,351
bearing and nonbearing acres	398,770	170,433	84,442	78,957
Grapes ..... farms	25,892	19,436	3,104	2,387
bearing and nonbearing acres	1,051,407	391,833	262,329	238,169
Peaches, all ..... farms	13,582	11,232	1,131	753
bearing and nonbearing acres	149,237	65,934	36,811	29,362

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
CROPS HARVESTED - Con.						
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ....farms	29,634	27,633	27,051	2,001	1,866	6,144
acres	5,690,715	5,301,891	5,065,533	388,824	311,294	673,262
tons, dry	17,915,883	16,429,544	15,648,422	1,486,339	1,157,640	1,978,307
Irrigated ....farms	7,550	7,046	6,810	504	440	1,136
acres	2,147,787	1,930,613	1,785,423	217,174	154,835	223,458
Farms by acres harvested:						
1 to 24 acres	6,725	6,092	6,019	633	609	2,168
25 to 99 acres	9,913	9,222	9,055	691	659	2,406
100 to 249 acres	6,948	6,598	6,470	350	323	997
250 to 499 acres	3,356	3,191	3,107	165	139	356
500 acres or more	2,692	2,530	2,400	162	136	217
Alfalfa hay ....farms	14,339	13,601	13,283	738	668	2,135
acres	2,412,193	2,225,746	2,119,952	186,447	139,318	234,614
tons, dry	9,304,623	8,417,637	7,985,782	886,986	656,853	989,773
Irrigated ....farms	5,132	4,835	4,672	297	256	742
acres	1,286,828	1,144,174	1,069,916	142,654	98,417	144,944
Other tame hay ....farms	13,751	12,710	12,474	1,041	986	3,344
acres	1,638,223	1,528,307	1,482,677	109,916	97,691	275,205
tons, dry	3,828,017	3,564,707	3,461,807	263,310	233,878	581,400
Irrigated ....farms	2,148	1,987	1,930	161	147	351
acres	373,208	346,406	326,059	26,802	23,792	30,763
Field and grass seed crops, all ....farms	744	708	691	36	34	61
acres	375,397	359,070	349,742	16,327	(D)	8,777
Irrigated ....farms	374	359	350	15	14	24
acres	119,998	112,019	104,756	7,979	(D)	3,248
Land in vegetables (see text) ....farms	4,973	4,464	4,344	509	459	800
acres	1,621,855	1,357,889	1,273,025	263,967	177,170	53,216
Irrigated ....farms	3,244	2,884	2,789	360	322	506
acres	1,285,454	1,050,478	973,169	234,976	150,954	43,666
Farms by acres harvested:						
0.1 to 4.9 acres	1,236	1,086	1,063	150	137	431
5.0 to 24.9 acres	775	684	643	91	86	209
25.0 to 99.9 acres	823	764	754	59	56	88
100.0 to 249.9 acres	782	717	710	65	55	33
250.0 acres or more	1,357	1,213	1,174	144	125	39
Snap beans ....farms	1,096	991	961	105	99	220
acres	112,868	105,296	103,034	7,572	5,001	2,906
Harvested for processing ....farms	300	278	270	22	21	26
acres	76,013	72,545	70,321	3,468	(D)	2,499
Peas, green ....farms	493	466	442	27	22	40
acres	60,748	56,444	53,978	4,304	(D)	1,241
Harvested for processing ....farms	315	297	292	18	15	11
acres	58,525	54,255	51,803	4,270	(D)	1,104
Potatoes ....farms	1,274	1,150	1,089	124	115	257
acres	436,261	372,611	349,115	63,650	(D)	13,856
Harvested for processing ....farms	379	340	326	39	35	27
acres	230,074	192,102	178,184	37,972	(D)	8,869
Farms by acres harvested:						
0.1 to 4.9 acres	490	431	399	59	57	192
5.0 to 24.9 acres	59	51	44	8	8	30
25.0 to 99.9 acres	86	80	79	6	5	19
100.0 to 249.9 acres	204	190	186	14	12	10
250.0 acres or more	435	398	381	37	33	6
Sweet corn ....farms	1,554	1,421	1,369	133	120	282
acres	197,169	165,663	155,694	31,506	13,556	7,284
Harvested for processing ....farms	446	413	406	33	27	33
acres	123,415	100,141	91,916	23,274	6,182	4,812
Sweet potatoes ....farms	134	111	109	23	20	30
acres	31,405	26,296	(D)	5,109	(D)	253
Harvested for processing ....farms	30	25	25	5	5	4
acres	5,008	4,513	4,513	495	495	44
Tomatoes in the open ....farms	1,477	1,307	1,261	170	162	357
acres	160,267	110,603	107,846	49,664	23,845	9,080
Harvested for processing ....farms	210	184	182	26	22	25
acres	112,446	75,486	(D)	36,960	11,295	7,988
Land in orchards ....farms	8,564	7,448	7,201	1,116	964	2,012
acres	1,589,562	1,236,574	1,084,194	352,988	243,450	132,081
Irrigated ....farms	5,714	4,895	4,712	819	691	1,391
acres	1,368,604	1,061,204	916,996	307,399	222,556	113,489
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres	1,604	1,420	1,394	184	169	612
5.0 to 24.9 acres	2,289	2,008	1,967	281	253	654
25.0 to 99.9 acres	2,154	1,907	1,861	247	222	497
100.0 to 249.9 acres	1,214	1,055	1,026	159	136	177
250.0 acres or more	1,303	1,058	953	245	184	72
Apples ....farms	1,897	1,666	1,638	231	212	367
bearing and nonbearing acres	138,620	113,977	109,581	24,643	21,593	5,275
Grapes ....farms	2,911	2,514	2,420	397	314	441
bearing and nonbearing acres	376,582	300,511	256,268	76,071	51,218	20,663
Peaches, all ....farms	1,008	911	896	97	90	211
bearing and nonbearing acres	41,725	39,795	38,019	1,930	1,506	4,767

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Family or individual	Partnership	
			Total	Registered under state law
CROPS HARVESTED - Con.				
Land in orchards - Con.				
Citrus fruit, all ..... farms	15,658	12,023	1,670	1,214
bearing and nonbearing acres	1,005,806	289,145	219,086	200,728
Almonds ..... farms	6,700	4,857	1,111	878
bearing and nonbearing acres	790,245	283,261	302,735	282,190
Pecans ..... farms	21,856	19,404	1,538	797
bearing and nonbearing acres	581,809	376,703	101,851	80,008
Walnuts, English ..... farms	7,161	5,839	780	526
bearing and nonbearing acres	267,751	126,744	66,942	56,309
Land in berries (see text) ..... farms	25,017	20,744	1,910	1,226
acres	261,733	103,304	33,081	27,548

See footnote(s) at end of table.

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Table 61. **Summary by Type of Organization: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Corporation					Other-cooperative, estate or trust, institutional, etc.
	Total	Family held		Other than family held		
		Total	10 or less stockholders	Total	10 or less stockholders	
CROPS HARVESTED - Con.						
Land in orchards - Con.						
Citrus fruit, all ..... farms	1,392	1,180	1,123	212	187	573
bearing and nonbearing acres	454,902	336,627	259,504	118,275	69,128	42,674
Almonds ..... farms	590	515	491	75	66	142
bearing and nonbearing acres	186,445	144,877	(D)	41,568	35,343	17,803
Pecans ..... farms	689	623	610	66	61	225
bearing and nonbearing acres	90,692	73,359	69,601	17,333	11,753	12,563
Walnuts, English ..... farms	405	360	350	45	42	137
bearing and nonbearing acres	67,227	51,029	49,483	16,197	(D)	6,839
Land in berries (see text) ..... farms	2,023	1,808	1,768	215	199	340
acres	121,020	107,754	100,177	13,266	12,441	4,329

[1] Landlord production expenses are included with total farm production expenses.
[2] Farms with a zero net cash income are included as farms with net gains of less than $1,000.

Table 62. **Summary by North American Industry Classification System: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
FARMS AND LAND IN FARMS							
Farms ..... number	2,204,792	338,237	40,589	98,281	54,889	519,893	9,626
..... percent	100.0	15.3	1.8	4.5	2.5	23.6	0.4
Land in farms ..... acres	922,095,840	266,831,616	9,272,945	12,141,683	3,974,530	124,740,766	2,518,697
Average size of farm ..... acres	418	789	228	124	72	240	262
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS							
Total ..... farms	2,204,792	338,237	40,589	98,281	54,889	519,893	9,626
..... $1,000	305,204,413	78,611,401	15,066,929	18,410,394	16,991,828	19,311,866	1,186,138
Average per farm ..... dollars	138,428	232,415	371,207	187,324	309,567	37,146	123,222
Farms by economic class:							
Less than $1,000 (see text)	499,880	4,516	2,491	12,580	7,607	126,203	41
$1,000 to $2,499	270,712	8,948	4,121	6,959	4,223	108,982	223
$2,500 to $4,999	246,309	13,747	5,538	9,860	5,230	88,847	643
$5,000 to $9,999	254,834	21,771	6,549	11,980	6,171	74,619	1,261
$10,000 to $24,999	274,274	37,861	7,866	17,590	8,524	59,352	2,097
$25,000 to $49,999	163,500	42,383	4,150	11,965	5,696	23,718	1,690
$50,000 to $99,999	129,124	49,444	2,671	8,991	4,425	12,709	1,368
$100,000 to $249,999	149,049	67,885	2,080	8,161	5,465	10,402	1,132
$250,000 to $499,999	96,251	48,253	1,286	4,262	2,628	6,429	624
$500,000 to $999,999	63,567	29,181	1,183	2,730	2,001	4,939	386
$1,000,000 or more	57,292	14,248	2,654	3,203	2,919	3,693	161
$1,000,000 to $2,499,999	41,863	12,662	1,370	2,032	1,646	2,965	132
$2,500,000 to $4,999,999	9,845	1,431	654	667	654	549	23
$5,000,000 or more	5,584	155	630	504	619	179	6
Total sales ..... farms	2,204,792	338,237	40,589	98,281	54,889	519,893	9,626
..... $1,000	297,220,491	74,559,692	14,975,322	18,351,629	16,967,123	17,067,639	1,147,173
Grains, oilseeds, dry beans, and dry peas ..... farms	479,467	337,428	6,344	1,689	1,086	33,985	2,690
..... $1,000	77,215,262	67,324,582	812,406	96,454	33,870	2,514,148	120,150
Sales of $50,000 or more ..... farms	235,343	195,781	2,145	358	158	10,156	644
..... $1,000	73,535,966	64,793,270	775,582	84,778	26,389	2,243,890	97,377
Corn ..... farms	347,540	251,992	3,590	957	632	20,119	1,840
..... $1,000	39,909,600	35,088,262	272,841	45,646	16,924	1,023,879	53,477
Sales of $50,000 or more ..... farms	151,428	129,703	951	179	85	4,628	332
..... $1,000	36,859,125	32,822,726	251,728	38,764	12,843	862,327	37,800
Wheat ..... farms	159,527	114,737	2,066	403	230	12,088	911
..... $1,000	10,623,640	8,730,213	305,418	17,061	5,124	641,131	18,727
Sales of $50,000 or more ..... farms	47,250	38,423	933	88	25	3,254	100
..... $1,000	8,944,760	7,513,471	288,752	13,394	3,064	519,787	9,148
Soybeans ..... farms	285,089	231,765	1,714	339	432	9,965	1,554
..... $1,000	20,283,986	18,039,429	71,919	5,492	9,123	389,660	46,844
Sales of $50,000 or more ..... farms	109,269	96,552	372	25	46	2,088	271
..... $1,000	17,191,360	15,539,313	56,582	2,683	4,844	287,012	29,003
Sorghum ..... farms	27,142	19,836	245	43	27	3,228	25
..... $1,000	1,651,798	1,328,441	17,559	633	971	199,477	79
Sales of $50,000 or more ..... farms	8,972	7,326	81	2	4	1,032	-
..... $1,000	1,348,798	1,097,659	15,749	(D)	(D)	165,997	-
Barley ..... farms	18,326	9,892	563	51	21	2,180	30
..... $1,000	701,047	487,060	63,453	820	(D)	86,122	93
Sales of $50,000 or more ..... farms	3,973	3,020	230	7	1	467	-
..... $1,000	526,415	367,644	59,107	(D)	(D)	67,164	-
Rice ..... farms	6,085	5,723	25	65	6	185	-
..... $1,000	2,020,231	1,942,896	6,224	16,593	(D)	42,650	-
Sales of $50,000 or more ..... farms	5,184	4,918	20	58	3	132	-
..... $1,000	1,995,322	1,920,628	6,138	16,384	(D)	41,032	-
Other grains, oilseeds, dry beans, and dry peas ..... farms	55,228	30,413	1,646	350	166	6,477	223
..... $1,000	2,024,959	1,708,283	74,991	10,210	544	131,228	930
Sales of $50,000 or more ..... farms	10,062	8,767	283	41	-	597	3
..... $1,000	1,698,514	1,481,919	65,979	8,529	-	98,450	270
Tobacco ..... farms	16,228	1,038	146	16	56	10,999	9,625
..... $1,000	1,268,114	69,053	21,716	608	2,842	1,020,679	879,747
Sales of $50,000 or more ..... farms	4,495	333	59	3	7	3,546	3,056
..... $1,000	1,076,035	57,181	20,764	499	2,215	896,316	768,827
Cotton and cottonseed ..... farms	18,591	3,920	450	128	20	13,283	242
..... $1,000	4,898,608	662,515	165,066	30,507	2,747	3,946,511	27,153
Sales of $50,000 or more ..... farms	13,232	2,629	347	98	9	9,775	149
..... $1,000	4,784,510	632,294	162,843	29,985	2,531	3,873,007	25,157
Vegetables, melons, potatoes, and sweet potatoes ..... farms	69,100	5,422	40,340	4,445	3,397	7,564	430
..... $1,000	14,683,058	358,337	12,942,258	280,611	94,385	863,765	24,317
Sales of $50,000 or more ..... farms	13,824	1,561	9,130	465	285	1,829	82
..... $1,000	14,167,307	305,772	12,617,714	253,648	72,854	817,622	21,148
Fruits, tree nuts, and berries ..... farms	112,690	1,431	6,427	89,344	2,559	5,281	111
..... $1,000	18,625,459	49,816	412,701	17,636,640	64,020	312,225	1,516
Sales of $50,000 or more ..... farms	28,824	210	601	26,710	182	702	4
..... $1,000	17,681,378	38,510	383,028	16,817,280	49,775	281,477	350
Nursery, greenhouse, floriculture, and sod (see text) ..... farms	50,784	583	3,106	1,596	41,147	2,343	224
..... $1,000	16,632,734	17,770	101,841	49,936	16,340,977	89,573	5,244
Sales of $50,000 or more ..... farms	17,039	78	320	141	16,107	255	16
..... $1,000	16,227,627	12,435	80,562	40,705	16,006,377	68,704	2,292
Cut Christmas trees and short-rotation woody crops ..... farms	13,374	201	256	426	11,045	773	17
..... $1,000	384,594	1,342	1,513	2,885	367,010	8,065	(D)
Sales of $50,000 or more ..... farms	1,088	6	8	9	1,032	19	-
..... $1,000	306,465	455	753	1,443	295,838	5,810	-

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
FARMS AND LAND IN FARMS									
Farms ..... number	9,968	500,299	656,475	31,065	57,318	30,546	64,570	67,254	245,675
..... percent	0.5	22.7	29.8	1.4	2.6	1.4	2.9	3.1	11.1
Land in farms ..... acres	13,081,671	109,140,398	376,170,540	15,820,229	21,270,780	6,949,176	7,040,000	11,963,667	65,919,908
Average size of farm ..... acres	1,312	218	573	509	371	227	109	178	268
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS									
Total ..... farms	9,968	500,299	656,475	31,065	57,318	30,546	64,570	67,254	245,675
..... $1,000	4,895,296	13,230,432	28,357,814	30,351,991	35,065,603	18,235,927	37,857,217	579,867	6,363,576
Average per farm ..... dollars	491,101	26,445	43,197	977,048	611,773	596,999	586,297	8,622	25,902
Farms by economic class:									
Less than $1,000 (see text)	17	126,145	129,216	809	103	6,826	24,903	34,244	150,382
$1,000 to $2,499	64	108,695	78,923	4,159	69	3,709	8,048	14,795	27,776
$2,500 to $4,999	165	88,039	84,650	4,104	1,643	2,255	2,855	7,685	19,895
$5,000 to $9,999	289	73,069	102,784	4,427	1,792	1,681	1,542	4,711	16,807
$10,000 to $24,999	677	56,578	116,418	4,576	2,481	1,435	1,047	3,285	13,839
$25,000 to $49,999	715	21,313	60,799	2,545	3,204	887	545	1,150	6,458
$50,000 to $99,999	930	10,411	36,825	2,243	5,879	1,092	522	601	3,722
$100,000 to $249,999	1,888	7,382	26,514	2,344	18,547	2,073	1,942	467	3,169
$250,000 to $499,999	2,055	3,750	11,366	1,585	12,034	2,340	4,422	170	1,476
$500,000 to $999,999	1,924	2,629	5,253	1,315	5,533	3,144	7,151	92	1,045
$1,000,000 or more	1,244	2,288	3,727	2,958	6,033	5,104	11,593	54	1,106
$1,000,000 to $2,499,999	1,088	1,745	2,847	1,642	3,412	3,669	8,861	37	720
$2,500,000 to $4,999,999	133	393	632	551	1,419	1,020	1,998	7	263
$5,000,000 or more	23	150	248	765	1,202	415	734	10	123
Total sales ..... farms	9,968	500,299	656,475	31,065	57,318	30,546	64,570	67,254	245,675
..... $1,000	4,357,082	11,563,384	27,535,096	30,249,303	34,754,031	18,127,114	37,797,542	554,107	6,281,894
Grains, oilseeds, dry beans, and dry peas ..... farms	5,017	26,278	46,653	9,979	22,967	9,366	4,279	1,008	4,683
..... $1,000	649,795	1,744,202	1,929,597	1,196,656	949,511	1,529,221	348,098	10,289	470,431
Sales of $50,000 or more ..... farms	2,693	6,819	8,965	4,133	5,057	5,619	1,384	41	1,546
..... $1,000	606,800	1,539,714	1,541,708	1,123,633	714,295	1,470,021	314,257	5,730	442,413
Corn ..... farms	1,968	16,311	27,556	8,727	18,015	8,466	3,445	555	3,486
..... $1,000	251,810	718,593	769,013	750,919	545,526	935,126	205,172	4,824	251,471
Sales of $50,000 or more ..... farms	1,068	3,228	3,672	3,070	2,772	4,355	979	18	1,016
..... $1,000	234,482	590,045	566,041	682,496	353,473	863,154	176,284	2,366	226,921
Wheat ..... farms	2,031	9,146	17,286	1,969	6,308	1,854	1,172	204	1,210
..... $1,000	118,400	504,004	603,095	84,914	107,194	46,719	31,524	2,236	49,011
Sales of $50,000 or more ..... farms	673	2,481	3,181	419	372	208	164	10	173
..... $1,000	92,227	418,412	416,256	64,599	42,021	26,352	17,482	981	38,600
Soybeans ..... farms	1,664	6,747	14,349	5,204	9,379	6,959	2,418	201	2,364
..... $1,000	124,180	218,636	386,523	329,157	262,820	532,180	104,202	2,076	151,404
Sales of $50,000 or more ..... farms	649	1,168	2,049	1,968	1,380	3,353	586	9	841
..... $1,000	106,306	151,703	232,817	274,504	131,988	456,513	76,117	864	128,123
Sorghum ..... farms	1,661	1,542	2,780	282	248	176	107	19	151
..... $1,000	128,300	71,098	71,580	14,606	4,961	8,149	1,518	101	3,802
Sales of $50,000 or more ..... farms	688	344	358	80	25	35	8	-	21
..... $1,000	110,219	55,778	43,946	11,497	3,178	6,474	844	-	2,368
Barley ..... farms	36	2,114	2,443	471	1,963	187	261	66	228
..... $1,000	3,144	82,884	34,185	5,444	12,653	1,435	(D)	402	7,346
Sales of $50,000 or more ..... farms	24	443	154	13	41	6	3	1	30
..... $1,000	2,935	64,228	16,222	3,735	4,663	815	210	(D)	6,169
Rice ..... farms	114	71	57	-	6	-	2	-	16
..... $1,000	16,448	26,202	7,705	-	1,070	-	(D)	-	1,959
Sales of $50,000 or more ..... farms	77	55	36	-	4	-	1	-	12
..... $1,000	15,273	25,759	7,153	-	(D)	-	(D)	-	1,853
Other grains, oilseeds, dry beans, and dry peas ..... farms	230	6,024	7,486	1,515	4,766	705	451	254	999
..... $1,000	7,514	122,784	57,496	11,616	15,286	5,612	3,608	649	5,437
Sales of $50,000 or more ..... farms	49	545	220	55	38	27	13	2	19
..... $1,000	5,413	92,767	23,842	6,959	3,914	3,691	(D)	(D)	2,693
Tobacco ..... farms	42	1,332	2,266	53	1,156	119	249	5	125
..... $1,000	5,813	135,118	46,694	1,101	31,621	23,296	41,228	41	9,235
Sales of $50,000 or more ..... farms	26	464	194	3	84	80	154	-	32
..... $1,000	5,466	122,023	19,612	293	9,433	22,625	39,370	-	7,726
Cotton and cottonseed ..... farms	9,968	3,073	412	11	32	68	225	5	37
..... $1,000	3,334,177	585,181	42,657	839	4,862	8,747	29,172	626	4,361
Sales of $50,000 or more ..... farms	7,480	2,146	156	5	21	36	134	3	19
..... $1,000	3,283,523	564,327	38,703	(D)	4,581	8,224	26,904	(D)	4,083
Vegetables, melons, potatoes, and sweet potatoes ..... farms	207	6,927	3,248	265	1,315	438	894	408	1,364
..... $1,000	98,386	741,062	34,170	13,894	35,312	13,616	32,499	1,381	12,830
Sales of $50,000 or more ..... farms	126	1,621	113	32	150	70	148	1	40
..... $1,000	96,766	699,707	19,237	12,032	22,856	9,688	28,086	(D)	(D)
Fruits, tree nuts, and berries ..... farms	193	4,977	4,269	172	783	135	652	326	1,311
..... $1,000	15,677	295,032	58,805	2,999	58,093	2,439	17,880	1,622	8,218
Sales of $50,000 or more ..... farms	54	644	143	8	160	13	67	6	22
..... $1,000	13,709	267,418	34,476	2,313	54,096	1,745	14,223	1,115	3,341
Nursery, greenhouse, floriculture, and sod (see text) ..... farms	12	2,107	733	53	354	70	279	80	440
..... $1,000	727	83,602	10,531	456	7,474	934	9,031	178	4,032
Sales of $50,000 or more ..... farms	3	236	41	-	37	1	44	-	15
..... $1,000	580	65,832	5,468	-	3,891	(D)	7,221	-	(D)
Cut Christmas trees and short-rotation woody crops ..... farms	1	755	263	36	53	33	66	40	182
..... $1,000	(D)	8,010	1,057	137	519	132	998	27	911
Sales of $50,000 or more ..... farms	-	19	3	1	1	1	5	-	3
..... $1,000	-	5,810	325	(D)	(D)	(D)	960	-	510

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.							
Total - Con.							
Total sales - Con.							
Other crops and hay (see text) ..... farms	434,502	61,541	6,091	4,816	2,717	250,499	2,070
$1,000	9,950,098	1,368,519	392,586	127,942	25,124	7,192,549	19,301
Sales of $50,000 or more ..... farms	27,831	5,256	903	323	74	18,430	76
$1,000	7,529,077	957,337	370,995	109,641	16,815	5,706,030	9,168
Cattle and calves ..... farms	798,290	78,777	3,445	3,872	1,542	44,425	3,308
$1,000	61,209,970	3,520,313	77,476	98,681	26,054	889,878	58,924
Sales of $50,000 or more ..... farms	119,983	18,791	245	255	93	3,679	243
$1,000	53,786,091	2,571,109	57,560	73,322	15,510	549,979	24,652
Milk and other dairy products from cows ..... farms	69,763	2,096	311	113	97	953	70
$1,000	31,848,029	210,067	26,096	3,471	2,043	56,617	(D)
Sales of $50,000 or more ..... farms	50,792	1,093	33	7	3	203	5
$1,000	31,558,210	193,818	24,545	2,752	(D)	49,446	(D)
Hogs and pigs ..... farms	74,789	9,885	1,169	608	331	4,427	146
$1,000	18,056,981	857,823	6,109	1,540	963	84,997	4,458
Sales of $50,000 or more ..... farms	19,956	3,706	11	8	4	200	13
$1,000	17,829,977	793,863	4,443	897	631	74,557	3,618
Sheep, goats, and their products ..... farms	121,171	7,008	2,313	1,822	840	6,848	145
$1,000	704,855	40,510	2,691	6,370	1,167	21,564	189
Sales of $50,000 or more ..... farms	1,825	121	7	4	2	53	-
$1,000	415,640	12,615	637	4,082	(D)	9,295	-
Horses, ponies, mules, burros, and donkeys ..... farms	114,317	2,364	566	602	279	6,388	99
$1,000	2,061,862	10,756	1,265	2,314	861	15,593	362
Sales of $50,000 or more ..... farms	3,638	27	2	6	3	34	1
$1,000	1,559,047	2,772	(D)	461	202	3,670	(D)
Poultry and eggs ..... farms	148,911	6,097	4,730	3,664	1,876	10,251	249
$1,000	37,065,947	39,247	9,868	7,959	3,062	37,773	4,202
Sales of $50,000 or more ..... farms	26,267	93	15	11	5	55	7
$1,000	36,932,463	32,169	5,041	5,298	(D)	29,974	(D)
Aquaculture (see text) ..... farms	6,409	348	80	143	202	216	7
$1,000	1,415,271	20,359	900	497	911	4,797	227
Sales of $50,000 or more ..... farms	2,449	127	4	2	2	18	1
$1,000	1,376,454	17,667	750	(D)	(D)	4,134	(D)
Other animals and other animal products (see text) ..... farms	43,226	1,266	1,341	1,593	675	2,997	49
$1,000	1,199,649	8,684	830	5,215	1,086	8,908	(D)
Sales of $50,000 or more ..... farms	2,294	39	1	9	4	40	-
$1,000	1,066,659	5,203	(D)	3,441	(D)	5,078	-
Value of-							
Government payments ..... farms	838,391	297,895	7,204	6,729	3,735	272,614	4,275
$1,000	7,983,922	4,051,709	91,607	58,764	24,706	2,244,227	38,965
Landlord's share of total sales (see text) ..... farms	97,706	64,823	813	1,884	529	10,817	788
$1,000	6,429,386	5,034,129	97,119	120,915	21,325	621,233	14,102
Agricultural products sold directly to individuals for human consumption (see text) ..... farms	136,817	7,052	17,961	17,161	3,834	11,551	260
$1,000	1,211,270	37,930	335,311	343,878	50,169	66,642	1,796
FARM PRODUCTION EXPENSES							
Total farm production expenses ..... farms	2,204,792	338,237	40,589	98,281	54,889	519,893	9,626
$1,000	241,113,666	53,115,329	10,895,085	14,172,329	12,474,104	16,251,560	902,317
Average per farm ..... dollars	109,359	157,036	268,425	144,202	227,261	31,259	93,737
Fertilizer, lime, and soil conditioners purchased ..... farms	1,148,218	322,963	35,884	87,966	43,270	161,291	9,501
$1,000	18,107,194	10,392,976	1,200,902	836,688	484,016	1,989,046	133,541
Farms with expenses of-							
$1 to $4,999	734,931	102,676	28,309	70,299	35,292	122,875	5,701
$5,000 to $24,999	249,546	111,274	3,241	12,394	5,226	23,202	2,516
$25,000 to $49,999	74,633	48,057	1,010	2,413	1,110	6,117	605
$50,000 or more	89,108	60,956	3,324	2,860	1,642	9,097	679
Chemicals purchased ..... farms	918,604	274,581	25,339	73,748	33,826	135,108	8,136
$1,000	10,074,914	5,002,307	1,044,913	1,201,599	297,155	1,389,171	81,967
Farms with expenses of-							
$1 to $4,999	666,084	122,143	18,906	52,624	28,638	112,106	5,995
$5,000 to $24,999	162,785	96,182	2,634	13,362	3,388	11,976	1,301
$25,000 to $49,999	46,594	31,591	911	3,421	750	4,180	425
$50,000 or more	43,141	24,665	2,888	4,341	1,050	6,846	415
Seeds, plants, vines, and trees ..... farms	775,893	288,907	33,681	39,674	36,872	99,200	7,449
$1,000	11,740,521	6,188,000	935,830	316,065	1,988,970	953,309	48,314
Farms with expenses of-							
$1 to $999	302,164	36,029	21,061	22,850	13,794	53,976	3,167
$1,000 to $4,999	192,154	74,102	6,007	9,892	8,797	23,471	2,556
$5,000 to $24,999	173,462	104,983	2,959	4,982	6,975	12,874	1,254
$25,000 to $49,999	56,320	40,084	973	941	2,493	4,015	273
$50,000 or more	51,793	33,709	2,681	1,009	4,813	4,864	199

See footnote(s) at end of table.

--continued

Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.									
Total - Con.									
Total sales - Con.									
Other crops and hay (see text) ....farms	2,070	246,359	72,389	5,146	7,332	3,645	6,673	2,709	10,944
$1,000	195,546	6,977,702	503,070	53,126	126,387	35,644	68,830	7,212	49,110
Sales of $50,000 or more ....farms	916	17,438	1,640	211	461	123	266	20	124
$1,000	176,389	5,520,472	191,418	30,590	76,833	16,282	32,944	2,507	17,686
Cattle and calves ....farms	1,476	39,641	548,361	31,065	51,686	5,314	11,490	3,277	15,036
$1,000	53,820	777,133	24,118,758	28,774,232	2,586,343	248,740	350,350	47,474	471,671
Sales of $50,000 or more ....farms	314	3,122	73,463	9,765	9,299	1,018	1,657	187	1,531
$1,000	35,848	489,480	19,157,334	28,559,557	1,950,502	199,958	220,049	32,207	399,003
Milk and other dairy products from cows ....farms	3	880	6,808	250	57,237	367	600	98	833
$1,000	(D)	55,040	457,404	17,557	30,872,020	33,991	104,707	743	63,315
Sales of $50,000 or more ....farms	1	197	1,885	72	46,822	130	349	3	192
$1,000	(D)	48,454	400,039	15,499	30,678,172	31,329	102,084	(D)	58,663
Hogs and pigs ....farms	60	4,221	12,054	1,933	2,882	30,104	2,494	1,717	7,185
$1,000	519	80,020	105,363	162,881	42,603	16,049,472	212,580	1,892	530,757
Sales of $50,000 or more ....farms	3	184	346	452	201	13,386	307	5	1,330
$1,000	286	70,653	79,620	156,506	32,792	15,968,157	209,683	455	508,373
Sheep, goats, and their products ....farms	124	6,579	22,471	1,424	2,109	2,217	5,660	57,406	11,053
$1,000	1,395	19,979	99,718	7,559	7,684	6,271	4,453	474,920	31,947
Sales of $50,000 or more ....farms	4	49	306	18	23	17	8	1,154	112
$1,000	666	8,629	45,493	4,921	3,691	2,264	(D)	318,066	13,784
Horses, ponies, mules, burros, and donkeys ....farms	49	6,240	19,750	789	1,623	568	1,451	1,627	78,310
$1,000	343	14,889	70,772	2,680	4,702	995	3,756	2,179	1,945,988
Sales of $50,000 or more ....farms	1	32	151	5	10	2	12	2	3,384
$1,000	(D)	(D)	16,848	517	862	(D)	1,034	(D)	1,532,075
Poultry and eggs ....farms	28	9,974	25,896	2,351	6,518	3,208	64,014	7,993	12,313
$1,000	143	33,428	37,750	4,940	23,923	167,062	36,564,693	3,564	166,107
Sales of $50,000 or more ....farms	1	47	69	4	84	212	25,530	1	188
$1,000	(D)	25,973	21,399	3,363	16,793	164,829	36,498,016	(D)	153,937
Aquaculture (see text) ....farms	4	205	275	12	22	34	113	37	4,927
$1,000	127	4,443	2,642	95	332	4,409	2,502	12	1,377,816
Sales of $50,000 or more ....farms	1	16	6	1	1	11	11	-	2,266
$1,000	(D)	(D)	1,860	(D)	(D)	4,338	2,009	-	1,344,951
Other animals and other animal products (see text) ....farms	21	2,927	5,418	373	919	446	2,188	2,052	23,958
$1,000	(D)	8,544	16,107	10,151	2,645	2,143	6,766	1,948	1,135,166
Sales of $50,000 or more ....farms	4	36	50	11	10	4	14	3	2,109
$1,000	323	4,755	9,346	9,761	1,491	1,646	4,915	998	1,024,216
Value of-									
Government payments ....farms	8,829	259,510	151,988	12,253	40,381	10,388	9,197	8,804	17,203
$1,000	538,214	1,667,048	822,718	102,688	311,573	108,814	59,675	25,760	81,681
Landlord's share of total sales (see text) ....farms	3,271	6,758	13,049	1,063	1,414	1,129	638	303	1,244
$1,000	357,820	249,311	249,331	71,242	70,948	83,670	17,024	2,030	40,421
Agricultural products sold directly to individuals for human consumption (see text) ....farms	42	11,249	35,984	6,659	3,221	5,227	8,833	9,127	10,207
$1,000	189	64,657	141,427	36,050	52,594	18,970	54,898	16,613	56,787
FARM PRODUCTION EXPENSES									
Total farm production expenses ....farms	9,968	500,299	656,475	31,065	57,318	30,546	64,570	67,254	245,675
$1,000	3,513,263	11,835,981	27,295,693	27,536,938	24,968,314	15,500,177	29,395,851	957,278	8,551,008
Average per farm ....dollars	352,454	23,658	41,579	886,430	435,610	507,437	455,256	14,234	34,806
Fertilizer, lime, and soil conditioners purchased ....farms	9,523	142,267	322,395	18,350	45,618	13,098	19,727	15,745	61,911
$1,000	535,440	1,320,066	1,586,304	284,640	777,255	255,376	118,435	16,561	164,996
Farms with expenses of-									
$1 to $4,999	2,065	115,109	252,331	10,771	17,306	6,304	16,026	15,300	57,442
$5,000 to $24,999	2,576	18,110	59,187	4,562	20,198	3,842	2,676	383	3,361
$25,000 to $49,999	1,795	3,717	6,921	1,479	4,887	1,523	522	43	551
$50,000 or more	3,087	5,331	3,956	1,538	3,227	1,429	503	19	557
Chemicals purchased ....farms	9,847	117,125	225,208	14,765	37,516	11,874	21,692	12,439	52,508
$1,000	540,504	766,699	396,348	120,086	315,322	128,179	94,113	5,747	79,972
Farms with expenses of-									
$1 to $4,999	2,427	103,684	210,059	10,347	23,146	6,848	18,810	12,272	50,185
$5,000 to $24,999	2,775	7,900	12,704	3,102	11,882	3,565	2,151	143	1,696
$25,000 to $49,999	1,683	2,072	1,590	826	1,596	968	376	20	365
$50,000 or more	2,962	3,469	855	490	892	493	355	4	262
Seeds, plants, vines, and trees ....farms	8,673	83,078	155,758	13,164	41,100	10,977	13,453	9,763	33,344
$1,000	411,489	493,506	401,342	167,893	440,643	198,263	65,172	6,096	78,937
Farms with expenses of-									
$1 to $999	517	50,292	98,521	4,506	5,176	2,924	8,533	8,598	26,196
$1,000 to $4,999	1,114	19,801	41,080	3,249	15,097	1,867	2,740	990	4,862
$5,000 to $24,999	2,837	8,783	13,369	3,404	17,041	3,578	1,542	159	1,596
$25,000 to $49,999	1,783	1,959	1,865	1,103	2,513	1,557	366	14	396
$50,000 or more	2,422	2,243	923	902	1,273	1,051	272	2	294

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
FARM PRODUCTION EXPENSES - Con.							
Total farm production expenses - Con.							
Livestock and poultry purchased or leased (see text) ..... farms	490,819	48,385	5,006	6,112	2,133	35,400	1,305
$1,000	38,003,682	1,113,961	21,980	65,990	6,684	262,980	9,610
Farms with expenses of-							
$1 to $4,999	306,414	25,190	4,598	5,057	1,891	28,453	939
$5,000 to $24,999	97,441	14,330	313	782	208	5,602	308
$25,000 to $99,999	42,768	6,226	67	173	25	956	50
$100,000 to $249,999	24,183	1,926	12	61	5	259	5
$250,000 or more	20,013	713	16	39	4	130	3
Breeding livestock purchased or leased (see text) ..... farms	278,572	29,863	1,687	1,957	760	19,684	913
$1,000	3,599,873	266,653	6,915	9,796	3,211	105,611	4,576
Other livestock and poultry purchased or leased (see text) ..... farms	279,155	24,532	3,944	4,702	1,565	19,832	533
$1,000	34,403,809	847,308	15,065	56,194	3,473	157,369	5,035
Feed purchased ..... farms	1,135,968	82,578	12,512	15,193	6,491	89,412	3,411
$1,000	49,095,106	919,649	51,732	70,277	22,221	326,852	15,801
Farms with expenses of-							
$1 to $4,999	766,606	52,016	11,063	13,204	5,737	78,398	2,728
$5,000 to $24,999	245,328	22,932	1,271	1,716	687	9,354	599
$25,000 to $99,999	66,394	6,197	122	212	55	1,364	71
$100,000 to $249,999	23,472	1,099	34	40	5	211	9
$250,000 or more	34,168	334	22	21	7	85	4
Gasoline, fuels, and oils ..... farms	2,148,806	333,445	39,856	95,200	53,275	497,693	9,545
$1,000	12,912,179	4,405,866	589,606	594,880	655,728	1,708,815	118,947
Farms with expenses of-							
$1 to $4,999	1,704,545	164,696	32,112	79,252	40,596	449,524	6,483
$5,000 to $24,999	336,324	121,476	4,112	11,702	8,559	35,143	1,862
$25,000 to $49,999	64,765	30,144	1,223	2,109	1,844	6,788	545
$50,000 or more	43,172	17,129	2,409	2,137	2,276	6,238	655
Utilities (see text) ..... farms	1,102,530	220,544	23,200	64,584	35,263	156,066	5,823
$1,000	5,917,615	1,056,829	443,034	655,893	419,402	677,584	26,777
Farms with expenses of-							
$1 to $999	506,560	58,893	12,137	26,761	14,004	90,261	2,521
$1,000 to $4,999	402,839	114,032	5,917	22,635	11,820	48,036	2,033
$5,000 to $24,999	157,818	41,617	2,830	11,019	6,826	13,233	1,077
$25,000 to $49,999	19,269	3,538	789	2,122	1,284	2,231	137
$50,000 or more	16,044	2,464	1,527	2,047	1,329	2,305	55
Supplies, repairs, and maintenance ..... farms	1,992,234	314,500	37,576	91,410	51,585	458,585	8,986
$1,000	15,896,723	4,229,666	861,281	1,014,705	941,770	1,942,054	78,205
Farms with expenses of-							
$1 to $4,999	1,478,317	143,166	28,913	69,274	37,824	393,529	6,067
$5,000 to $24,999	389,971	123,834	4,678	15,713	9,196	52,031	2,166
$25,000 to $49,999	73,014	31,194	1,272	3,074	1,874	7,056	450
$50,000 or more	50,932	16,306	2,713	3,349	2,691	5,969	303
Hired farm labor ..... farms	482,186	103,753	13,642	36,293	23,615	64,381	5,593
$1,000	21,877,661	2,134,728	2,201,929	3,514,033	4,698,926	1,602,859	157,354
Farms with expenses of-							
$1 to $4,999	262,262	50,537	5,416	14,498	6,853	40,548	2,843
$5,000 to $24,999	108,122	29,487	2,620	8,816	5,133	11,702	1,441
$25,000 to $99,999	75,938	19,760	2,499	7,246	5,778	8,679	954
$100,000 to $249,999	21,237	3,364	1,386	3,159	2,704	2,429	290
$250,000 or more	14,627	605	1,721	2,574	3,147	1,023	65
Contract labor ..... farms	182,701	24,914	5,265	30,075	7,638	28,797	2,492
$1,000	4,514,166	233,386	883,842	1,977,432	306,091	335,666	50,110
Farms with expenses of-							
$1 to $999	49,657	5,413	1,069	4,224	1,743	10,044	235
$1,000 to $4,999	66,104	9,730	1,186	8,489	2,649	10,551	874
$5,000 to $24,999	45,949	7,662	1,158	9,592	1,950	5,865	912
$25,000 to $49,999	9,730	1,324	453	2,923	494	1,175	238
$50,000 or more	11,261	785	1,399	4,847	802	1,162	233
Customwork and custom hauling ..... farms	362,475	112,335	4,922	17,223	3,376	46,470	1,437
$1,000	4,091,038	1,129,394	293,825	487,081	139,324	462,181	7,483
Farms with expenses of-							
$1 to $999	119,768	22,353	1,460	3,850	1,126	18,762	625
$1,000 to $4,999	131,318	44,680	1,211	5,720	1,116	16,619	497
$5,000 to $24,999	83,762	35,341	1,089	4,853	660	7,970	268
$25,000 to $49,999	14,558	6,120	375	1,238	134	1,612	33
$50,000 or more	13,069	3,841	787	1,562	340	1,507	14
Cash rent for land, buildings, and grazing fees ..... farms	490,372	169,862	9,259	7,911	7,689	50,919	3,690
$1,000	13,274,530	7,605,556	755,363	317,654	345,933	1,098,890	50,335
Farms with expenses of-							
$1 to $4,999	238,363	38,783	4,430	3,614	2,964	30,353	2,147
$5,000 to $9,999	59,281	21,235	886	1,115	1,127	5,639	500
$10,000 to $24,999	76,679	37,234	1,074	1,286	1,400	6,118	484
$25,000 or more	116,049	72,610	2,869	1,896	2,198	8,809	559

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
FARM PRODUCTION EXPENSES - Con.									
Total farm production expenses - Con.									
Livestock and poultry purchased or leased (see text) ....farms	594	33,501	213,888	18,145	23,620	22,060	40,055	23,706	52,309
$1,000	9,626	243,744	6,972,206	17,520,031	1,143,008	4,464,215	5,480,450	112,483	839,694
Farms with expenses of-									
$1 to $4,999	301	27,213	136,389	8,143	12,610	9,944	14,403	21,424	38,312
$5,000 to $24,999	213	5,081	49,958	3,109	6,367	1,844	2,235	1,941	10,752
$25,000 to $99,999	66	840	16,356	1,929	3,028	2,387	9,413	235	1,973
$100,000 to $249,999	8	246	5,792	1,429	891	2,845	10,204	65	694
$250,000 or more	6	121	5,393	3,535	724	5,040	3,800	41	578
Breeding livestock purchased or leased (see text) ....farms	463	18,308	146,918	6,115	19,745	7,087	7,895	13,212	23,649
$1,000	6,053	94,983	1,435,574	80,061	881,770	330,368	167,683	31,345	280,884
Other livestock and poultry purchased or leased (see text) ....farms	207	19,092	95,922	14,495	7,604	18,091	37,752	14,421	36,295
$1,000	3,573	148,761	5,536,632	17,439,970	261,237	4,133,847	5,312,767	81,138	558,809
Feed purchased ....farms	1,578	84,423	526,560	26,810	50,046	29,113	62,248	58,842	176,163
$1,000	14,446	296,605	4,892,615	6,573,034	10,315,257	6,806,768	17,132,739	238,518	1,745,445
Farms with expenses of-									
$1 to $4,999	1,009	74,661	377,096	14,866	6,309	11,616	31,099	49,236	115,966
$5,000 to $24,999	430	8,325	121,041	6,321	11,458	4,563	5,879	8,765	51,341
$25,000 to $99,999	117	1,176	22,194	2,707	19,753	3,416	2,633	702	7,039
$100,000 to $249,999	22	180	4,246	1,228	6,758	3,569	5,046	86	1,150
$250,000 or more	-	81	1,983	1,688	5,768	5,949	17,591	53	667
Gasoline, fuels, and oils ....farms	9,801	478,347	648,118	30,770	56,964	29,628	62,815	64,898	236,144
$1,000	327,020	1,262,848	1,886,377	342,343	987,716	349,463	705,945	78,521	606,918
Farms with expenses of-									
$1 to $4,999	2,387	440,654	560,288	22,073	20,594	18,950	42,723	62,178	211,559
$5,000 to $24,999	3,613	29,668	77,633	5,988	27,564	7,449	12,756	2,450	21,492
$25,000 to $49,999	1,967	4,276	7,490	1,497	5,057	1,915	4,619	185	1,894
$50,000 or more	1,834	3,749	2,707	1,212	3,749	1,314	2,717	85	1,199
Utilities (see text) ....farms	7,154	143,089	333,692	20,621	53,145	20,795	41,406	28,327	104,887
$1,000	137,469	513,338	613,419	146,165	762,814	254,714	564,837	30,896	292,026
Farms with expenses of-									
$1 to $999	1,040	86,700	196,511	8,765	5,370	5,469	11,917	20,236	56,236
$1,000 to $4,999	2,472	43,531	114,244	8,103	16,624	6,761	9,030	7,233	38,404
$5,000 to $24,999	2,313	9,843	20,912	2,964	26,063	6,742	15,894	805	8,913
$25,000 to $49,999	679	1,415	1,378	385	2,580	1,015	3,161	36	750
$50,000 or more	650	1,600	647	404	2,508	808	1,404	17	584
Supplies, repairs, and maintenance ....farms	9,464	440,135	602,689	29,028	54,567	27,803	58,871	56,755	208,865
$1,000	297,249	1,566,599	2,273,182	413,508	2,060,177	466,758	714,926	106,046	872,650
Farms with expenses of-									
$1 to $4,999	2,585	384,877	496,606	19,053	12,998	16,566	37,391	52,250	170,747
$5,000 to $24,999	3,548	46,317	92,684	6,804	24,019	7,405	16,271	4,135	33,201
$25,000 to $49,999	1,672	4,934	9,105	1,615	9,188	2,153	3,129	257	3,097
$50,000 or more	1,659	4,007	4,294	1,556	8,362	1,679	2,080	113	1,820
Hired farm labor ....farms	5,329	53,459	128,782	9,572	30,994	9,016	16,688	8,004	37,446
$1,000	293,204	1,152,301	1,458,359	586,769	2,837,455	747,764	990,271	53,878	1,050,687
Farms with expenses of-									
$1 to $4,999	841	36,864	92,319	4,982	8,025	3,559	7,106	6,546	21,873
$5,000 to $24,999	1,505	8,756	22,719	1,976	8,873	2,215	5,403	944	8,234
$25,000 to $99,999	2,335	5,390	11,312	1,634	8,210	1,931	3,064	423	5,402
$100,000 to $249,999	514	1,625	1,923	516	3,210	707	509	67	1,263
$250,000 or more	134	824	509	464	2,676	604	606	24	674
Contract labor ....farms	1,967	24,338	49,496	2,512	5,313	2,311	5,912	3,531	16,937
$1,000	47,516	238,040	262,662	34,789	123,747	92,079	105,833	11,741	146,898
Farms with expenses of-									
$1 to $999	191	9,618	16,992	683	749	444	1,099	1,800	5,397
$1,000 to $4,999	632	9,045	20,607	853	1,611	757	2,157	1,221	6,293
$5,000 to $24,999	804	4,149	9,979	673	1,926	702	1,932	435	4,075
$25,000 to $49,999	164	773	1,334	151	484	179	444	52	717
$50,000 or more	176	753	584	152	543	229	280	23	455
Customwork and custom hauling ....farms	3,250	41,783	105,724	9,617	30,810	5,795	6,268	4,634	15,301
$1,000	101,080	353,617	404,956	103,030	781,682	143,414	64,754	9,959	71,438
Farms with expenses of-									
$1 to $999	171	17,966	51,103	3,368	3,011	1,406	2,189	3,151	7,989
$1,000 to $4,999	716	15,406	37,920	3,076	10,360	1,890	2,547	1,163	5,016
$5,000 to $24,999	1,346	6,356	14,313	2,311	12,063	1,810	1,280	265	1,807
$25,000 to $49,999	525	1,054	1,493	505	2,325	349	119	29	259
$50,000 or more	492	1,001	895	357	3,051	340	133	26	230
Cash rent for land, buildings, and grazing fees ....farms	4,757	42,472	159,165	9,932	31,830	8,057	7,628	4,779	23,341
$1,000	260,470	788,085	1,414,495	241,176	632,443	421,470	206,396	38,964	196,189
Farms with expenses of-									
$1 to $4,999	851	27,355	112,379	4,764	14,160	2,103	3,163	3,805	17,845
$5,000 to $9,999	604	4,535	18,216	1,130	5,523	828	1,213	348	2,021
$10,000 to $24,999	1,030	4,604	16,011	1,516	6,775	1,512	1,579	304	1,870
$25,000 or more	2,272	5,978	12,559	2,522	5,372	3,614	1,673	322	1,605

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
FARM PRODUCTION EXPENSES - Con.							
Total farm production expenses - Con.							
Rent and lease expenses for machinery, equipment, and farm share of vehicles ..... farms	109,199	37,359	3,072	7,007	3,744	13,110	602
$1,000	1,385,219	557,357	147,701	113,946	81,489	164,280	4,223
Farms with expenses of-							
$1 to $999	39,280	8,136	829	2,710	1,303	5,452	253
$1,000 to $4,999	31,997	11,466	691	1,948	967	3,419	184
$5,000 to $24,999	26,656	12,355	744	1,586	938	2,898	124
$25,000 to $49,999	5,778	3,016	259	334	227	670	28
$50,000 or more	5,488	2,386	549	429	309	671	13
Interest expense ..... farms	667,454	169,229	10,101	27,543	14,724	101,913	4,188
$1,000	10,880,731	3,223,065	299,346	780,541	350,372	1,151,397	46,167
Farms with expenses of-							
$1 to $4,999	289,876	55,713	4,629	10,931	6,562	51,360	2,108
$5,000 to $24,999	275,988	75,801	3,440	10,798	5,757	40,752	1,690
$25,000 to $99,999	87,574	33,777	1,369	4,429	1,874	8,632	346
$100,000 or more	14,016	3,938	663	1,385	531	1,169	44
Secured by real estate ..... farms	519,095	122,167	7,416	23,175	10,976	82,370	3,213
$1,000	7,185,334	1,893,830	163,291	628,149	232,649	806,300	31,915
Farms with expenses of-							
$1 to $999	58,501	8,785	1,039	2,717	1,348	11,092	418
$1,000 to $4,999	171,356	33,838	2,433	6,147	3,440	31,364	1,267
$5,000 to $24,999	225,304	59,195	2,698	9,453	4,497	33,764	1,272
$25,000 to $49,999	39,515	13,381	552	2,423	873	4,032	167
$50,000 or more	24,419	6,968	694	2,435	818	2,118	89
Not secured by real estate ..... farms	413,327	120,176	6,370	14,190	8,607	55,768	2,584
$1,000	3,695,397	1,329,235	136,054	152,393	117,723	345,097	14,253
Farms with expenses of-							
$1 to $999	122,808	20,630	2,022	5,444	2,732	21,418	826
$1,000 to $4,999	153,159	40,330	2,066	4,908	3,121	20,551	1,051
$5,000 to $24,999	106,610	45,575	1,321	2,754	2,046	10,857	603
$25,000 to $49,999	18,841	9,271	375	481	369	1,879	68
$50,000 or more	11,909	4,370	586	603	339	1,063	36
Property taxes paid ..... farms	1,995,808	302,574	33,147	91,492	49,392	472,967	8,763
$1,000	6,223,048	1,502,484	172,206	542,367	199,748	1,112,290	22,047
Farms with expenses of-							
$1 to $4,999	1,717,819	216,754	27,543	70,340	40,658	427,805	7,952
$5,000 to $9,999	172,489	50,806	2,689	11,369	5,215	30,471	480
$10,000 to $24,999	80,800	27,869	1,761	6,489	2,514	11,674	226
$25,000 or more	24,700	7,145	1,154	3,294	1,005	3,017	105
All other production expenses (see text) ..... farms	1,115,703	240,326	20,018	47,311	28,242	136,338	5,621
$1,000	17,119,339	3,420,106	991,593	1,683,178	1,536,274	1,074,187	51,437
Farms with expenses of-							
$1 to $4,999	765,840	116,037	13,002	29,094	16,350	109,063	3,844
$5,000 to $24,999	234,512	88,850	3,622	10,754	6,662	19,152	1,285
$25,000 to $49,999	55,174	21,478	1,059	2,992	1,816	4,057	266
$50,000 to $99,999	32,742	9,729	818	1,915	1,520	2,325	154
$100,000 or more	27,435	4,232	1,517	2,556	1,894	1,741	72
Production expenses paid by landlords [1] ..... farms	67,427	46,182	672	1,019	410	6,158	429
$1,000	1,556,963	1,198,790	24,071	29,563	7,962	127,705	5,403
Depreciation expenses claimed (see text) ..... farms	963,340	222,696	16,819	46,074	25,356	163,618	5,313
$1,000	20,185,540	6,227,970	636,039	1,363,344	701,643	2,007,735	95,968
NET CASH FARM INCOME (SEE TEXT)							
Net cash farm income of operations (see text) ..... farms	2,204,792	338,237	40,589	98,281	54,889	519,893	9,626
$1,000	74,581,098	28,662,449	4,463,346	4,950,555	4,679,350	5,330,842	388,375
Average per farm ..... dollars	33,827	84,741	109,964	50,371	85,251	10,254	40,346
Farms with net gains [2] ..... number	1,037,041	271,225	27,056	55,669	32,061	255,671	7,587
Average net gain ..... dollars	89,479	112,362	180,622	112,948	168,296	30,770	57,267
Gain of-							
Less than $1,000	102,871	8,005	2,367	4,082	2,577	42,707	317
$1,000 to $4,999	221,477	25,229	6,163	11,090	5,922	83,289	1,322
$5,000 to $9,999	128,828	21,812	4,070	7,814	3,922	40,261	1,112
$10,000 to $24,999	170,636	43,849	5,407	11,120	5,974	41,947	1,736
$25,000 to $49,999	119,233	43,308	2,905	7,403	4,132	21,062	1,227
$50,000 or more	293,996	129,022	6,144	14,160	9,534	26,405	1,873
Farms with net losses ..... number	1,167,751	67,012	13,533	42,612	22,828	264,222	2,039
Average net loss ..... dollars	15,596	27,055	31,298	31,379	31,382	9,599	22,613
Loss of-							
Less than $1,000	134,307	7,477	2,355	4,983	3,224	49,773	292
$1,000 to $4,999	426,570	20,045	5,143	13,700	7,647	111,710	661
$5,000 to $9,999	247,156	11,784	2,335	7,518	3,853	47,512	345
$10,000 to $24,999	225,863	13,212	1,921	7,884	3,794	37,148	386
$25,000 to $49,999	76,927	6,505	715	3,796	1,718	11,108	143
$50,000 or more	56,928	7,989	1,064	4,731	2,592	6,971	212

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
FARM PRODUCTION EXPENSES - Con.									
Total farm production expenses - Con.									
Rent and lease expenses for machinery, equipment, and farm share of vehicles .....farms	1,363	11,145	21,967	1,976	8,645	2,024	2,559	1,305	6,431
$1,000	49,597	110,460	81,933	27,228	102,355	35,691	40,936	2,424	29,880
Farms with expenses of-									
$1 to $999	84	5,115	11,740	785	2,499	541	1,095	872	3,318
$1,000 to $4,999	326	2,909	6,335	566	3,070	618	728	324	1,865
$5,000 to $24,999	542	2,232	3,290	415	2,167	591	498	100	1,074
$25,000 to $49,999	182	460	423	108	433	134	72	6	96
$50,000 or more	229	429	179	102	476	140	166	3	78
Interest expense .....farms	5,185	92,540	188,282	12,698	34,066	12,699	23,863	13,286	59,050
$1,000	131,851	973,379	1,928,417	396,595	1,170,614	328,252	519,689	88,365	644,078
Farms with expenses of-									
$1 to $4,999	1,231	48,021	99,764	4,878	9,259	4,076	7,656	7,747	27,301
$5,000 to $24,999	2,301	36,761	72,345	4,703	15,667	5,074	10,252	5,055	26,344
$25,000 to $99,999	1,440	6,846	14,468	2,343	6,918	2,957	5,328	458	5,021
$100,000 or more	213	912	1,705	774	2,222	592	627	26	384
Secured by real estate .....farms	2,945	76,212	143,593	9,650	26,171	10,607	21,564	11,089	50,317
$1,000	57,513	716,872	1,341,795	163,997	745,356	211,899	428,274	71,776	498,018
Farms with expenses of-									
$1 to $999	213	10,461	20,180	932	1,524	1,074	1,693	1,911	6,206
$1,000 to $4,999	717	29,380	55,415	3,094	5,821	2,667	5,241	4,463	17,433
$5,000 to $24,999	1,369	31,123	57,624	4,095	12,760	4,483	9,504	4,343	22,888
$25,000 to $49,999	389	3,476	6,843	846	3,054	1,383	3,077	279	2,772
$50,000 or more	257	1,772	3,531	683	3,012	1,000	2,049	93	1,018
Not secured by real estate .....farms	3,959	49,225	118,312	8,310	24,195	7,566	11,567	6,897	31,369
$1,000	74,338	256,507	586,623	232,598	425,258	116,354	91,415	16,589	146,060
Farms with expenses of-									
$1 to $999	353	20,239	43,110	1,954	4,038	1,760	3,935	3,639	12,126
$1,000 to $4,999	839	18,661	49,479	2,435	8,541	2,262	4,496	2,532	12,438
$5,000 to $24,999	1,816	8,438	21,661	2,260	8,624	2,463	2,514	656	5,879
$25,000 to $49,999	630	1,181	2,614	727	1,434	582	347	52	710
$50,000 or more	321	706	1,448	934	1,558	499	275	18	216
Property taxes paid .....farms	8,392	455,812	596,434	29,176	53,347	28,650	61,180	57,479	219,970
$1,000	56,012	1,034,230	1,227,124	121,461	379,543	129,864	203,863	96,720	535,379
Farms with expenses of-									
$1 to $4,999	5,651	414,202	550,608	23,774	34,392	22,464	52,361	54,143	196,977
$5,000 to $9,999	1,397	28,594	30,312	2,958	11,150	3,432	5,922	2,462	15,703
$10,000 to $24,999	1,004	10,444	12,221	1,740	5,588	2,099	2,235	745	5,865
$25,000 or more	340	2,572	3,293	704	2,217	655	662	129	1,425
All other production expenses (see text) .....farms	8,186	122,531	354,570	22,284	52,546	20,837	41,560	33,262	118,409
$1,000	300,288	722,462	1,495,953	458,190	2,138,283	677,906	2,387,494	60,358	1,195,818
Farms with expenses of-									
$1 to $4,999	2,464	102,755	300,453	15,028	17,037	10,283	16,839	31,184	91,470
$5,000 to $24,999	3,072	14,795	43,920	4,572	21,679	6,027	5,998	1,817	21,459
$25,000 to $49,999	1,280	2,511	6,023	1,254	6,458	1,987	4,812	164	3,074
$50,000 to $99,999	742	1,429	2,665	709	3,555	1,318	6,754	52	1,382
$100,000 or more	628	1,041	1,509	721	3,817	1,222	7,157	45	1,024
Production expenses paid by landlords [1] .....farms	2,401	3,328	7,573	903	1,743	1,151	709	170	737
$1,000	63,832	58,469	72,144	21,529	26,212	28,513	8,849	1,143	10,484
Depreciation expenses claimed (see text) .....farms	7,099	151,206	290,747	17,760	43,107	16,100	26,582	18,865	75,616
$1,000	357,405	1,554,361	3,408,337	520,507	2,456,987	796,834	999,878	106,402	959,864
NET CASH FARM INCOME (SEE TEXT)									
Net cash farm income of operations (see text) .....farms	9,968	500,299	656,475	31,065	57,318	30,546	64,570	67,254	245,675
$1,000	1,588,866	3,353,602	2,611,132	2,987,946	10,555,964	2,916,832	8,669,638	-306,156	-940,799
Average per farm .....dollars	159,397	6,703	3,978	96,184	184,165	95,490	134,267	-4,552	-3,829
Farms with net gains [2] ..... number	8,189	239,895	244,039	15,361	50,440	13,203	27,558	8,770	35,988
Average net gain .....dollars	212,452	23,731	32,663	222,792	218,339	270,616	336,739	18,810	68,252
Gain of-									
Less than $1,000	126	42,264	31,600	1,272	533	579	1,091	2,502	5,556
$1,000 to $4,999	424	81,543	70,506	2,822	2,046	956	1,325	2,894	9,235
$5,000 to $9,999	419	38,730	40,012	1,627	1,833	649	685	1,128	5,015
$10,000 to $24,999	874	39,337	45,706	2,256	4,992	1,145	945	1,210	6,085
$25,000 to $49,999	909	18,926	24,263	1,657	7,405	1,311	1,731	506	3,550
$50,000 or more	5,437	19,095	31,952	5,727	33,631	8,563	21,781	530	6,547
Farms with net losses ..... number	1,779	260,404	412,436	15,704	6,878	17,343	37,012	58,484	209,687
Average net loss .....dollars	84,823	8,983	12,996	27,659	66,452	37,831	16,487	8,056	16,201
Loss of-									
Less than $1,000	84	49,397	43,021	1,507	504	1,111	2,459	6,032	11,861
$1,000 to $4,999	268	110,781	155,537	5,382	1,382	5,793	13,503	26,090	60,638
$5,000 to $9,999	163	47,004	92,122	3,468	1,088	3,995	9,568	13,673	50,240
$10,000 to $24,999	302	36,460	80,662	3,129	1,509	3,747	7,957	9,802	55,098
$25,000 to $49,999	262	10,703	25,101	1,111	976	1,049	2,193	2,116	20,539
$50,000 or more	700	6,059	15,993	1,107	1,419	1,648	1,332	771	11,311

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
NET CASH FARM INCOME (SEE TEXT) - Con.							
Net cash farm income of operators (see text) ..... farms	2,204,792	338,237	40,589	98,281	54,889	519,893	9,626
$1,000	64,197,836	24,760,677	4,168,920	4,864,959	4,665,410	4,831,394	379,175
Average per farm ..... dollars	29,117	73,205	102,711	49,500	84,997	9,293	39,391
Operators reporting net gains [2] ..... farms	1,025,783	266,125	27,054	55,493	32,020	254,690	7,514
Average net gain ..... dollars	81,061	100,830	170,350	112,093	168,153	29,179	56,895
Gain of-							
Less than $1,000	103,330	8,268	2,367	4,090	2,580	42,735	324
$1,000 to $4,999	222,713	25,972	6,186	11,101	5,941	83,311	1,337
$5,000 to $9,999	129,906	22,453	4,087	7,792	3,922	40,279	1,149
$10,000 to $24,999	173,780	45,187	5,398	11,114	5,946	41,866	1,675
$25,000 to $49,999	122,964	44,158	2,884	7,447	4,130	21,009	1,191
$50,000 or more	273,090	120,087	6,132	13,949	9,501	25,490	1,838
Operators reporting net losses ..... farms	1,179,009	72,112	13,535	42,788	22,869	265,203	2,112
Average net loss ..... dollars	16,075	28,744	32,488	31,677	31,434	9,805	22,885
Loss of-							
Less than $1,000	135,011	7,791	2,361	4,998	3,219	49,825	306
$1,000 to $4,999	428,133	20,743	5,140	13,718	7,648	111,891	671
$5,000 to $9,999	248,731	12,454	2,334	7,539	3,861	47,616	349
$10,000 to $24,999	228,206	14,262	1,911	7,915	3,824	37,349	408
$25,000 to $49,999	78,919	7,410	708	3,828	1,719	11,275	157
$50,000 or more	60,009	9,452	1,081	4,790	2,598	7,247	221
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)							
Total ..... farms	50,572	35,776	490	136	59	4,960	216
$1,000	4,445,758	3,280,413	52,955	10,358	1,580	645,851	8,446
INCOME FROM FARM-RELATED SOURCES							
Total income from farm-related sources, gross before taxes and expenses (see text) ..... farms	693,187	192,972	10,801	21,256	9,595	157,314	4,808
$1,000	10,489,874	3,166,377	291,502	712,491	161,157	2,270,537	104,553
Customwork and other agricultural services ..... farms	121,874	50,394	2,327	4,194	1,235	20,087	583
$1,000	1,875,665	795,666	67,275	189,134	28,098	299,403	6,190
Gross cash rent or share payments ..... farms	241,923	49,946	3,614	6,278	3,379	90,086	765
$1,000	2,883,897	734,017	78,989	105,717	24,339	1,156,011	4,216
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ..... farms	47,603	3,817	1,484	2,009	2,271	14,337	259
$1,000	594,944	45,797	9,496	24,225	25,811	202,511	4,078
Agri-tourism and recreational services (see text) ..... farms	23,350	2,363	889	1,363	644	4,993	44
$1,000	566,834	30,178	28,620	95,006	20,775	66,301	277
Patronage dividends and refunds from cooperatives ..... farms	288,196	126,468	2,955	7,251	1,777	30,979	1,127
$1,000	854,995	333,044	26,410	100,173	6,324	101,810	2,414
Crop and livestock insurance payments received (see text) ..... farms	82,001	47,133	867	2,301	197	8,427	1,012
$1,000	1,676,727	971,665	34,378	114,696	6,633	180,321	27,824
Amount from state and local government agricultural program payments (see text) ..... farms	34,410	6,164	413	430	265	6,849	427
$1,000	145,413	32,288	2,153	2,851	1,656	27,178	3,997
Other farm-related income sources (see text) ..... farms	118,939	20,484	1,948	2,930	1,628	22,727	3,056
$1,000	1,891,400	223,723	44,181	80,689	47,522	237,001	55,556
LAND USE							
Total cropland ..... farms	1,685,339	336,395	40,586	98,281	54,884	477,862	9,626
acres	406,424,909	220,170,247	6,905,884	6,267,198	2,158,713	69,140,484	1,538,541
Harvested cropland ..... farms	1,328,004	333,886	40,582	98,275	54,881	289,135	9,626
acres	309,607,601	194,191,397	6,018,702	5,339,755	1,698,564	36,965,418	1,219,827
Farms by acres harvested:							
1 to 49 acres	700,266	58,543	33,009	82,298	49,357	192,699	5,848
50 to 99 acres	179,055	39,957	1,856	6,814	2,509	42,380	1,361
100 to 199 acres	141,875	50,301	1,392	4,398	1,354	22,921	993
200 to 499 acres	143,776	71,753	1,592	3,045	1,091	15,331	817
500 to 999 acres	82,211	53,557	1,154	1,027	367	7,437	355
1,000 to 1,999 acres	53,728	39,139	872	427	138	5,406	206
2,000 acres or more	27,093	20,636	707	266	65	2,961	46
Cropland-							
For pasture or grazing only ..... farms	404,753	38,333	5,355	9,134	5,210	79,174	2,667
acres	35,771,154	3,742,370	228,249	319,141	119,315	6,923,777	173,510
On which all crops failed or were abandoned ..... farms	89,587	18,953	4,341	4,037	2,494	27,432	781
acres	7,405,898	2,800,363	88,002	79,742	38,094	1,621,132	38,052
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ..... farms	360,225	59,260	8,996	13,175	9,008	196,517	1,926
acres	37,968,749	8,314,586	440,062	465,562	264,568	21,856,855	81,733
In cultivated summer fallow ..... farms	67,960	26,074	2,964	2,063	1,193	15,677	999
acres	15,671,507	11,121,531	130,869	62,998	38,172	1,773,302	25,419

See footnote(s) at end of table.

--continued

Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
NET CASH FARM INCOME (SEE TEXT) - Con.									
Net cash farm income of operators (see text) ....farms	9,968	500,299	656,475	31,065	57,318	30,546	64,570	67,254	245,675
$1,000	1,294,708	3,157,511	2,133,878	3,365,181	10,512,753	2,279,172	3,922,073	-307,821	-998,758
Average per farm ....dollars	129,886	6,311	3,251	108,327	183,411	74,614	60,741	-4,577	-4,065
Operators reporting net gains [2] ....farms	7,899	239,277	242,161	15,199	50,333	12,732	25,312	8,748	35,916
Average net gain ....dollars	187,406	23,086	31,344	256,503	218,086	231,823	185,294	18,658	66,864
Gain of-									
Less than $1,000	135	42,276	31,655	1,258	542	619	1,173	2,500	5,543
$1,000 to $4,999	432	81,542	70,456	2,828	2,063	1,015	1,731	2,889	9,220
$5,000 to $9,999	425	38,705	39,794	1,641	1,834	707	1,254	1,122	5,021
$10,000 to $24,999	896	39,295	45,328	2,251	4,991	1,374	3,024	1,208	6,093
$25,000 to $49,999	984	18,834	23,888	1,618	7,456	1,573	4,757	509	3,535
$50,000 or more	5,027	18,625	31,040	5,603	33,447	7,444	13,373	520	6,504
Operators reporting net losses ....farms	2,069	261,022	414,314	15,866	6,985	17,814	39,258	58,506	209,759
Average net loss ....dollars	89,710	9,066	13,170	33,620	66,452	37,745	19,565	8,051	16,210
Loss of-									
Less than $1,000	81	49,438	43,184	1,523	508	1,156	2,540	6,041	11,865
$1,000 to $4,999	289	110,931	155,848	5,412	1,387	5,849	13,738	26,089	60,670
$5,000 to $9,999	162	47,105	92,578	3,476	1,102	4,010	9,822	13,683	50,256
$10,000 to $24,999	359	36,582	81,026	3,154	1,532	3,857	8,479	9,808	55,089
$25,000 to $49,999	338	10,780	25,378	1,116	994	1,164	2,666	2,115	20,546
$50,000 or more	840	6,186	16,300	1,185	1,462	1,778	2,013	770	11,333
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)									
Total ....farms	2,378	2,366	2,843	1,168	1,853	1,903	321	259	804
$1,000	434,420	202,985	86,971	77,137	54,205	161,388	20,831	1,116	52,953
INCOME FROM FARM-RELATED SOURCES									
Total income from farm-related sources, gross before taxes and expenses (see text) ....farms	5,998	146,508	163,097	12,349	36,379	11,228	15,190	10,679	52,327
$1,000	206,833	1,959,150	1,549,002	172,892	458,674	181,082	208,272	71,255	1,246,633
Customwork and other agricultural services ....farms	1,396	18,108	24,777	2,685	6,559	2,648	1,922	1,145	3,901
$1,000	46,094	247,119	241,882	42,726	87,571	42,145	33,590	6,660	41,514
Gross cash rent or share payments ....farms	1,392	87,929	53,313	3,726	2,980	3,108	4,701	4,238	16,554
$1,000	29,474	1,122,321	456,887	51,349	41,950	40,701	29,310	24,908	139,719
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ....farms	193	13,885	14,218	658	2,180	525	1,495	1,099	3,510
$1,000	7,211	191,222	180,924	6,236	23,851	4,619	19,906	6,959	44,610
Agri-tourism and recreational services (see text) ....farms	92	4,857	7,277	192	387	137	650	768	3,687
$1,000	883	65,140	140,839	4,842	4,076	5,013	26,141	11,162	133,883
Patronage dividends and refunds from cooperatives ....farms	3,759	26,093	61,520	6,820	28,074	6,500	6,279	2,448	7,125
$1,000	55,849	43,547	52,746	16,217	144,161	21,556	35,543	1,225	15,786
Crop and livestock insurance payments received (see text) ....farms	1,829	5,586	12,871	1,766	4,582	1,442	821	320	1,274
$1,000	54,969	97,527	192,595	31,336	79,524	24,021	17,623	2,644	21,289
Amount from state and local government agricultural program payments (see text) ....farms	148	6,274	11,594	452	5,803	258	588	579	1,015
$1,000	2,335	20,846	29,672	1,136	38,948	1,351	3,665	1,116	3,399
Other farm-related income sources (see text) ....farms	426	19,245	30,915	1,864	5,034	1,782	2,743	2,287	24,597
$1,000	10,018	171,427	253,457	19,052	38,595	41,676	42,493	16,580	846,432
LAND USE									
Total cropland ....farms	9,968	458,268	421,642	23,341	52,360	19,024	35,952	26,723	98,289
acres	10,976,689	56,625,254	64,156,251	6,378,177	14,616,513	5,141,784	2,924,144	1,123,930	7,441,584
Harvested cropland ....farms	9,967	269,542	340,934	20,475	50,149	14,688	23,848	14,168	46,983
acres	9,778,279	25,967,312	36,675,357	5,218,572	13,291,838	4,747,504	2,140,320	429,300	2,890,874
Farms by acres harvested:									
1 to 49 acres	927	185,924	194,572	8,966	7,157	5,779	16,066	12,342	39,478
50 to 99 acres	714	40,305	64,802	3,113	8,470	1,426	3,273	1,072	3,383
100 to 199 acres	951	20,977	40,141	2,507	13,019	1,611	2,116	433	1,682
200 to 499 acres	1,707	12,807	27,120	2,883	15,179	2,681	1,533	228	1,340
500 to 999 acres	2,070	5,012	9,274	1,651	4,583	1,931	556	74	600
1,000 to 1,999 acres	2,257	2,943	3,778	1,010	1,366	1,003	223	15	351
2,000 acres or more	1,341	1,574	1,247	345	375	257	81	4	149
Cropland-									
For pasture or grazing only ....farms	1,373	75,134	155,482	7,109	17,664	5,468	12,871	13,293	55,660
acres	335,555	6,414,712	17,976,893	607,024	904,264	186,953	470,935	450,509	3,841,724
On which all crops failed or were abandoned ....farms	812	25,839	21,444	1,061	2,311	812	1,934	1,238	3,530
acres	153,677	1,429,403	2,316,923	111,647	107,510	31,219	52,312	53,171	105,783
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ....farms	1,974	192,617	40,001	2,916	4,932	3,360	6,281	4,159	11,620
acres	521,594	21,253,528	5,093,338	293,560	220,805	145,649	239,676	160,224	473,864
In cultivated summer fallow ....farms	900	13,778	14,090	860	1,872	484	791	578	1,314
acres	187,584	1,560,299	2,093,740	147,374	92,096	30,459	20,901	30,726	129,339

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
LAND USE - Con.							
Total woodland ..... farms	843,294	95,947	15,505	23,516	18,315	222,176	5,362
acres	75,098,603	7,428,212	943,607	1,808,940	1,023,655	20,343,364	544,002
Woodland pastured ..... farms	370,297	24,163	3,644	4,678	2,695	53,859	2,412
acres	28,609,690	1,518,953	181,434	293,023	87,982	2,988,752	98,962
Woodland not pastured ..... farms	596,123	82,285	13,541	20,514	16,697	188,736	4,044
acres	46,488,913	5,909,259	762,173	1,515,917	935,673	17,354,612	445,040
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ..... farms	1,132,606	104,019	9,602	14,505	7,230	165,447	4,234
acres	408,832,116	31,625,261	826,453	2,855,267	361,338	28,234,757	313,185
Land in house lots, ponds, roads, wasteland, etc. ..... farms	1,126,272	181,066	21,888	45,154	28,214	251,243	5,299
acres	31,740,212	7,607,896	597,001	1,210,278	430,824	7,022,161	122,969
Irrigated land ..... farms	301,028	43,503	20,497	59,995	34,679	51,615	1,988
acres	56,599,305	23,510,091	4,159,631	4,275,451	806,310	12,329,957	69,697
Harvested cropland ..... farms	256,105	43,203	20,394	59,535	34,492	48,816	1,986
acres	51,537,104	23,299,157	4,102,108	4,196,676	778,751	11,639,566	68,802
Pastureland and other land ..... farms	72,585	2,320	1,019	3,100	1,190	10,757	27
acres	5,062,201	210,934	57,523	78,775	27,559	690,391	895
CONSERVATION PRACTICES AND CROP INSURANCE							
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ..... farms	346,231	86,421	1,725	1,970	1,383	196,461	529
acres	38,547,450	8,858,911	138,368	121,568	65,829	22,744,837	21,562
Land enrolled in crop insurance programs (see text) ..... farms	349,408	204,305	4,829	20,343	3,960	39,638	3,573
acres	222,267,817	153,117,105	2,843,400	2,725,199	293,850	19,756,242	697,637
ORGANIC AGRICULTURE							
Land used for organic production (see text) ..... farms	20,437	1,688	3,848	4,749	1,384	2,579	27
acres	2,577,418	640,668	130,410	120,762	12,004	398,673	871
Total organic product sales (see text) ..... farms	18,211	1,646	3,773	4,293	1,245	2,340	26
$1,000	1,709,111	136,060	442,336	350,591	73,749	102,547	1,259
VALUE OF LAND AND BUILDINGS							
Estimated market value of land and buildings ..... farms	2,204,792	338,237	40,589	98,281	54,889	519,893	9,626
$1,000	1,744,295,252	539,720,398	44,473,158	118,080,818	37,975,030	260,390,126	8,010,519
Average per farm ..... dollars	791,138	1,595,687	1,095,695	1,201,461	691,851	500,853	832,175
Average per acre ..... dollars	1,892	2,023	4,796	9,725	9,555	2,087	3,180
Farms by value group:							
$1 to $49,999	223,182	14,958	8,060	9,094	7,430	58,963	1,291
$50,000 to $99,999	212,783	16,847	4,438	7,368	4,988	66,349	928
$100,000 to $199,999	374,783	32,035	6,860	12,992	8,644	106,730	1,501
$200,000 to $499,999	631,939	69,598	10,190	26,787	15,988	160,642	2,501
$500,000 to $999,999	371,783	62,235	4,968	20,211	9,766	75,404	1,485
$1,000,000 to $1,999,999	206,282	60,716	2,562	11,011	4,499	32,791	877
$2,000,000 to $4,999,999	132,549	59,008	1,857	7,023	2,587	14,164	753
$5,000,000 to $9,999,999	36,072	17,251	822	2,135	648	3,328	219
$10,000,000 or more	15,419	5,589	832	1,660	339	1,522	71
VALUE OF MACHINERY AND EQUIPMENT							
Estimated market value of all machinery and equipment ..... farms	2,204,513	338,224	40,587	98,263	54,870	519,782	9,624
$1,000	194,783,471	68,823,847	5,251,159	6,707,008	4,576,326	28,769,971	1,059,190
Farms by value group:							
$1 to $4,999	195,820	9,287	4,972	11,970	7,583	58,418	371
$5,000 to $9,999	217,460	12,463	5,074	11,649	6,008	68,221	556
$10,000 to $19,999	351,088	25,433	7,629	17,507	9,097	103,395	1,253
$20,000 to $49,999	598,289	59,445	10,511	27,332	14,024	154,258	2,564
$50,000 to $99,999	366,768	59,637	4,925	15,075	7,886	76,464	2,010
$100,000 to $199,999	232,001	63,047	2,710	7,785	5,214	33,030	1,432
$200,000 to $499,999	175,152	71,953	2,398	5,037	3,709	18,235	1,020
$500,000 or more	67,935	36,959	2,368	1,908	1,349	7,761	418
SELECTED MACHINERY AND EQUIPMENT							
Trucks, including pickups (see text) ..... farms	1,783,324	299,424	32,641	73,557	41,389	363,844	8,530
number	3,512,538	849,438	89,793	137,854	95,416	610,177	22,845
Tractors ..... farms	1,844,647	309,743	32,380	76,973	38,771	435,475	8,951
number	4,389,812	1,125,374	99,770	175,266	92,692	894,775	32,071
Less than 40 horsepower (PTO) ..... farms	910,937	125,170	21,302	48,054	29,222	219,729	6,003
number	1,280,039	200,005	36,599	72,243	51,569	304,090	11,053
40 to 99 horsepower (PTO) ..... farms	1,238,101	216,487	19,192	44,221	18,446	289,545	7,568
number	1,998,508	382,716	39,683	90,710	34,095	426,408	16,025
100 horsepower (PTO) or more ..... farms	555,941	236,651	7,290	7,384	3,861	94,981	2,646
number	1,111,265	542,653	23,488	12,313	7,028	164,277	4,993
Grain and bean combines, self-propelled ..... farms	295,490	207,549	2,505	717	424	23,841	1,330
number	346,935	246,789	3,148	847	481	27,861	1,530

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
LAND USE - Con.									
Total woodland ....farms	1,882	214,932	276,839	12,287	32,367	9,672	30,317	23,402	82,951
acres	465,323	19,334,039	29,296,577	822,924	2,431,374	587,854	1,616,809	974,036	7,821,251
Woodland pastured ....farms	388	51,059	188,785	6,495	13,453	3,882	13,143	13,241	42,259
acres	41,806	2,847,984	17,472,796	401,511	598,671	161,598	429,488	443,007	4,032,475
Woodland not pastured ....farms	1,683	183,009	144,626	8,284	26,166	7,196	21,780	13,912	52,386
acres	423,517	16,486,055	11,823,781	421,413	1,832,703	426,256	1,187,321	531,029	3,788,776
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ....farms	2,489	158,724	513,197	20,633	37,808	12,311	36,230	45,565	166,059
acres	1,377,283	26,544,289	273,595,629	8,065,459	3,054,266	772,910	1,838,433	9,539,914	48,062,429
Land in house lots, ponds, roads, wasteland, etc. ....farms	3,387	242,557	305,760	19,605	42,181	20,046	42,147	37,413	131,555
acres	262,376	6,636,816	9,122,083	553,669	1,168,627	446,628	660,614	325,787	2,594,644
Irrigated land ....farms	5,267	44,360	49,104	3,619	5,364	2,896	4,158	5,433	20,165
acres	3,654,571	8,605,689	7,752,488	1,039,255	1,425,670	285,036	170,269	188,649	656,498
Harvested cropland ....farms	5,252	41,578	30,406	2,467	4,740	2,045	2,199	1,773	6,035
acres	3,634,632	7,936,132	4,568,320	920,080	1,300,916	253,395	143,566	78,943	255,626
Pastureland and other land ....farms	173	10,557	27,848	1,641	1,354	1,139	2,183	4,201	15,833
acres	19,939	669,557	3,184,168	119,175	124,754	31,641	26,703	109,706	400,872
CONSERVATION PRACTICES AND CROP INSURANCE									
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ....farms	1,765	194,167	36,731	3,053	3,519	3,396	2,911	2,058	6,603
acres	369,077	22,354,198	5,363,264	289,307	141,858	105,160	150,259	133,357	434,732
Land enrolled in crop insurance programs (see text) ....farms	7,843	28,222	39,605	6,234	16,351	6,578	2,503	986	4,076
acres	8,297,982	10,760,623	27,847,308	3,547,113	4,859,086	3,594,966	925,698	887,760	1,870,090
ORGANIC AGRICULTURE									
Land used for organic production (see text) ....farms	24	2,528	1,921	209	1,854	139	842	432	792
acres	11,235	386,567	721,160	31,865	420,795	9,638	26,155	23,246	42,042
Total organic product sales (see text) ....farms	24	2,290	1,398	173	1,617	116	723	312	575
$1,000	5,187	96,101	34,322	9,614	427,729	3,161	119,679	2,375	6,948
VALUE OF LAND AND BUILDINGS									
Estimated market value of land and buildings ....farms	9,968	500,299	656,475	31,065	57,318	30,546	64,570	67,254	245,675
$1,000	21,274,539	231,105,068	445,922,515	27,102,624	75,260,109	27,912,399	39,555,557	20,961,671	106,940,847
Average per farm ....dollars	2,134,284	461,934	679,268	872,449	1,313,027	913,782	612,600	311,679	435,294
Average per acre ....dollars	1,626	2,118	1,185	1,713	3,538	4,017	5,619	1,752	1,622
Farms by value group:									
$1 to $49,999	340	57,332	62,623	2,456	1,996	4,773	6,430	14,508	31,891
$50,000 to $99,999	501	64,920	63,054	2,248	1,772	3,052	6,507	9,371	26,789
$100,000 to $199,999	727	104,502	116,964	5,153	4,369	4,993	11,426	14,973	49,644
$200,000 to $499,999	1,565	156,576	200,655	9,220	13,957	6,856	18,656	19,057	80,333
$500,000 to $999,999	1,764	72,155	117,804	5,288	14,636	3,873	11,298	6,842	39,458
$1,000,000 to $1,999,999	2,025	29,889	56,905	3,344	11,259	3,085	6,451	1,628	12,031
$2,000,000 to $4,999,999	2,069	11,342	27,850	2,478	6,981	2,774	3,117	583	4,127
$5,000,000 to $9,999,999	715	2,394	6,906	696	1,656	947	535	189	959
$10,000,000 or more	262	1,189	3,714	182	692	193	150	103	443
VALUE OF MACHINERY AND EQUIPMENT									
Estimated market value of all machinery and equipment ....farms	9,968	500,190	656,456	31,065	57,315	30,537	64,566	67,248	245,600
$1,000	3,488,806	24,221,975	39,961,084	4,500,992	12,802,344	4,075,627	5,953,240	2,095,629	11,266,243
Farms by value group:									
$1 to $4,999	233	57,814	50,466	1,667	1,513	3,081	6,659	11,641	28,563
$5,000 to $9,999	217	67,448	60,897	2,140	1,539	2,589	6,366	11,196	29,318
$10,000 to $19,999	375	101,767	106,675	3,950	2,708	3,868	9,844	14,601	46,381
$20,000 to $49,999	1,040	150,654	199,891	7,793	7,033	6,635	16,919	18,704	75,744
$50,000 to $99,999	1,243	73,211	126,040	5,533	10,080	4,547	10,754	7,059	38,768
$100,000 to $199,999	1,777	29,821	70,762	4,263	13,988	3,971	7,281	2,640	17,310
$200,000 to $499,999	2,854	14,361	36,378	3,785	14,474	4,169	5,087	1,351	8,576
$500,000 or more	2,229	5,114	5,347	1,934	5,980	1,677	1,656	56	940
SELECTED MACHINERY AND EQUIPMENT									
Trucks, including pickups (see text) ....farms	8,662	346,652	564,263	27,674	48,397	26,163	55,340	53,973	196,659
number	26,580	560,752	1,012,172	59,355	119,772	54,992	108,514	75,234	299,821
Tractors ....farms	8,514	418,010	572,928	27,700	51,681	22,781	50,700	45,200	180,315
number	31,525	831,179	1,184,644	81,512	233,274	58,791	99,985	66,038	277,691
Less than 40 horsepower (PTO) ....farms	1,642	212,084	259,254	12,730	20,831	10,970	28,752	27,969	106,954
number	2,150	290,887	344,456	18,748	34,063	15,021	37,893	34,156	131,196
40 to 99 horsepower (PTO) ....farms	3,784	278,193	419,032	20,705	44,869	14,915	32,031	22,519	96,139
number	6,416	403,967	651,897	37,257	111,005	23,392	51,257	27,784	122,304
100 horsepower (PTO) or more ....farms	7,455	84,880	121,512	11,202	36,167	9,288	6,732	3,335	17,538
number	22,959	136,325	188,291	25,507	88,206	20,378	10,835	4,098	24,191
Grain and bean combines, self-propelled ....farms	2,353	20,158	29,731	5,812	13,196	5,974	2,200	582	2,959
number	2,731	23,600	33,940	6,417	14,418	6,515	2,481	632	3,406

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
SELECTED MACHINERY AND EQUIPMENT - Con.							
Cotton pickers and strippers, self-propelled ..... farms	12,500	3,027	183	51	22	8,656	227
number	18,162	4,125	280	88	39	12,857	294
Forage harvesters, self-propelled ..... farms	60,133	9,882	467	923	226	13,846	221
number	64,191	10,191	530	965	249	15,189	244
Hay balers ..... farms	593,543	93,579	4,706	3,441	1,981	145,606	3,732
number	727,501	112,639	5,474	3,915	2,280	177,208	4,829
FERTILIZERS AND CHEMICALS							
Commercial fertilizer, lime, and soil conditioners ..... farms	1,022,036	313,246	31,815	79,489	33,872	135,038	9,055
acres treated	265,995,497	169,128,131	5,592,233	4,859,572	1,183,849	27,109,247	1,107,029
Manure ..... farms	307,073	60,415	7,082	7,591	3,503	35,305	1,090
acres treated	22,096,315	5,318,810	224,048	226,793	50,461	1,679,503	40,556
Acres treated with chemicals to control-							
Insects ..... farms	354,357	128,427	19,458	57,386	20,575	46,050	6,726
acres	90,947,822	52,648,071	4,332,668	4,832,747	648,217	16,052,074	617,556
Weeds, grass, or brush ..... farms	703,884	252,477	14,423	48,892	23,481	97,148	4,792
acres	226,295,783	157,627,002	3,773,570	3,320,373	938,657	20,861,172	712,352
Nematodes ..... farms	34,992	13,797	2,385	5,645	1,714	6,050	1,243
acres	7,560,158	3,694,195	690,825	405,484	84,164	2,013,444	146,177
Diseases in crops and orchards ..... farms	97,333	30,094	7,535	34,735	8,825	8,385	1,390
acres	22,693,212	14,435,561	1,539,528	2,982,335	241,333	2,355,433	93,497
Chemicals used to control growth, thin fruit, ripen, or defoliate ..... farms	44,638	6,720	2,053	15,351	1,806	14,957	2,317
acres treated	12,125,799	2,671,622	579,248	1,246,604	25,005	7,291,507	168,582
TENURE							
Full owners ..... farms	1,522,033	128,713	27,345	85,681	44,668	432,955	4,430
Part owners ..... farms	542,192	163,783	8,703	8,558	5,693	69,703	4,155
Tenants ..... farms	140,567	45,741	4,541	4,042	4,528	17,235	1,041
OWNED AND RENTED LAND							
Land owned ..... farms	2,072,101	296,140	36,192	94,400	50,411	504,266	8,610
acres	646,247,118	132,194,138	5,706,233	12,024,394	3,506,868	125,427,695	1,358,644
Owned land in farms ..... farms	2,064,225	292,496	36,048	94,239	50,361	502,658	8,585
acres	571,303,487	118,615,788	5,230,641	10,495,489	3,186,816	93,874,161	1,292,066
Land rented or leased from others ..... farms	689,102	210,979	13,374	12,746	10,297	88,649	5,236
acres	355,918,954	149,472,877	4,243,642	1,734,517	809,022	32,032,425	1,243,986
Rented or leased land in farms ..... farms	682,759	209,524	13,244	12,600	10,221	86,938	5,196
acres	350,792,353	148,215,828	4,042,304	1,646,194	787,714	30,866,605	1,226,631
Land rented or leased to others ..... farms	314,140	64,905	5,005	9,184	5,080	119,750	1,169
acres	80,070,232	14,835,399	676,930	1,617,228	341,360	32,719,354	83,933
NUMBER OF OPERATORS							
Total operators ..... number	3,337,450	488,518	66,196	153,149	90,945	743,495	14,090
Farms by number of operators:							
1 operator	1,273,122	218,839	21,070	54,000	28,158	334,526	6,196
2 operators	786,598	95,820	15,778	37,000	21,314	158,026	2,678
3 operators	112,285	19,028	2,665	5,586	3,731	21,181	587
4 operators	22,529	3,228	606	1,102	960	4,115	126
5 or more operators	10,258	1,322	470	593	726	2,045	39
Total women operators ..... number	1,008,943	89,888	21,078	46,929	30,975	225,942	2,459
Farms by number of women operators:							
1 operator	894,347	82,311	17,760	41,508	25,664	202,631	2,144
2 operators	45,408	2,968	1,248	2,206	1,861	8,808	131
3 operators	5,439	371	183	227	296	1,271	16
4 operators	1,017	65	30	42	64	261	-
5 or more operators	546	35	30	26	58	140	1
PRINCIPAL OPERATOR CHARACTERISTICS							
Sex of operator:							
Male	1,898,583	321,892	33,831	84,405	44,557	436,066	9,128
Female	306,209	16,345	6,758	13,876	10,332	83,827	498
Primary occupation:							
Farming	993,881	222,975	23,322	45,020	25,408	159,949	6,121
Other	1,210,911	115,262	17,267	53,261	29,481	359,944	3,505
Place of residence:							
On farm operated	1,693,362	251,354	32,015	73,171	38,291	344,328	7,537
Not on farm operated	511,430	86,883	8,574	25,110	16,598	175,565	2,089
Days worked off farm:							
None	777,747	148,040	14,938	29,792	18,055	181,451	4,094
Any	1,427,045	190,197	25,651	68,489	36,834	338,442	5,532
1 to 49 days	238,479	38,195	4,374	14,347	6,899	69,479	893
50 to 99 days	115,578	16,651	2,999	7,812	3,834	24,830	519
100 to 199 days	196,687	28,246	4,608	10,834	5,944	39,572	945
200 days or more	876,301	107,105	13,670	35,496	20,157	204,561	3,175
Years on present farm:							
2 years or less	84,883	7,827	2,239	4,124	2,137	20,577	348
3 or 4 years	138,858	11,448	3,334	7,745	3,525	33,318	371
5 to 9 years	359,545	31,704	7,323	19,785	9,958	86,485	963

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
SELECTED MACHINERY AND EQUIPMENT - Con.									
Cotton pickers and strippers, self-propelled ....farms	6,483	1,946	317	8	12	45	142	6	31
number	9,835	2,728	443	13	18	55	195	6	43
Forage harvesters, self-propelled ....farms	107	13,518	18,415	2,321	9,985	488	660	627	2,293
number	115	14,830	19,702	2,380	10,818	495	681	647	2,344
Hay balers ....farms	820	141,054	236,968	14,131	36,858	6,142	12,098	8,282	29,751
number	960	171,419	293,894	17,736	48,023	7,234	14,406	9,678	35,014
FERTILIZERS AND CHEMICALS									
Commercial fertilizer, lime, and soil conditioners ....farms	9,454	116,529	281,170	16,744	43,021	11,565	14,874	12,086	49,116
acres treated	8,829,110	17,173,108	35,265,339	4,527,923	10,037,180	3,625,438	1,555,366	330,936	2,780,283
Manure ....farms	448	33,767	83,971	11,650	38,510	9,175	13,781	6,549	29,541
acres treated	166,266	1,472,681	4,551,280	1,032,158	5,800,128	1,155,927	1,246,991	91,315	718,901
Acres treated with chemicals to control-									
Insects ....farms	9,780	29,544	36,251	5,228	18,075	5,305	5,429	2,167	10,006
acres	8,365,482	7,069,036	5,062,508	1,481,366	3,046,177	1,452,890	634,663	78,911	677,530
Weeds, grass, or brush ....farms	6,613	85,743	159,278	12,196	33,406	9,460	12,808	6,987	33,328
acres	7,051,823	13,096,997	21,555,751	3,758,478	6,590,071	3,785,594	1,541,438	252,727	2,290,950
Nematodes ....farms	1,815	2,992	1,822	425	1,254	533	453	177	737
acres	1,156,454	710,813	177,028	84,650	181,114	118,839	67,790	1,836	40,789
Diseases in crops and orchards ....farms	1,140	5,855	3,354	602	1,301	758	717	180	847
acres	675,411	1,586,525	446,944	157,093	157,789	183,291	95,810	2,287	95,808
Chemicals used to control growth, thin fruit, ripen, or defoliate ....farms	7,391	5,249	2,085	115	514	164	395	85	393
acres treated	5,487,223	1,635,702	145,359	9,746	38,556	28,354	71,540	2,630	15,628
TENURE									
Full owners ....farms	2,819	425,706	427,384	18,490	21,660	20,272	52,660	56,595	205,610
Part owners ....farms	4,886	60,662	190,538	10,847	30,844	8,205	10,278	7,394	27,646
Tenants ....farms	2,263	13,931	38,553	1,728	4,814	2,069	1,632	3,265	12,419
OWNED AND RENTED LAND									
Land owned ....farms	7,832	487,824	619,448	29,421	52,578	28,543	62,985	64,044	233,673
acres	5,325,643	118,743,408	259,247,952	10,331,513	14,421,223	4,212,846	5,669,055	8,097,606	65,407,595
Owned land in farms ....farms	7,705	486,368	617,922	29,337	52,504	28,477	62,938	63,989	233,256
acres	4,690,140	87,891,955	243,678,245	9,429,437	13,962,330	3,739,941	5,181,593	7,361,386	56,547,660
Land rented or leased from others ....farms	7,207	76,206	230,881	12,694	35,808	10,357	12,044	10,746	40,527
acres	8,478,477	22,309,962	134,387,186	6,498,251	7,367,144	3,237,987	1,899,225	4,636,241	9,600,437
Rented or leased land in farms ....farms	7,149	74,593	229,091	12,575	35,658	10,274	11,910	10,659	40,065
acres	8,391,531	21,248,443	132,492,295	6,390,792	7,308,450	3,209,235	1,858,407	4,602,281	9,372,248
Land rented or leased to others ....farms	1,943	116,638	65,987	4,441	3,693	3,796	6,442	5,706	20,151
acres	722,449	31,912,972	17,464,598	1,009,535	517,587	501,657	528,280	770,180	9,088,124
NUMBER OF OPERATORS									
Total operators .... number	14,511	714,894	983,462	49,038	101,601	49,663	107,499	107,670	396,214
Farms by number of operators:									
1 operator	6,451	321,879	382,300	16,614	25,389	15,705	28,471	32,143	115,907
2 operators	2,775	152,573	234,208	11,963	23,058	12,039	31,396	31,163	114,833
3 operators	562	20,032	31,637	1,862	6,652	1,990	3,552	3,003	11,398
4 operators	136	3,853	6,039	426	1,532	561	771	703	2,486
5 or more operators	44	1,962	2,291	200	687	251	380	242	1,051
Total women operators .... number	2,454	221,029	284,714	13,001	26,013	13,972	41,098	45,475	169,858
Farms by number of women operators:									
1 operator	2,172	198,315	256,436	11,686	22,378	12,234	36,289	39,210	146,240
2 operators	108	8,569	11,501	515	1,416	647	1,892	2,615	9,731
3 operators	15	1,240	1,270	75	187	87	246	268	958
4 operators	4	257	231	9	39	20	33	40	183
5 or more operators	1	138	97	4	14	12	25	14	91
PRINCIPAL OPERATOR CHARACTERISTICS									
Sex of operator:									
Male	9,507	417,431	587,148	28,939	53,955	27,823	52,207	49,703	178,057
Female	461	82,868	69,327	2,126	3,363	2,723	12,363	17,551	67,618
Primary occupation:									
Farming	8,121	145,707	291,083	16,105	49,878	15,858	33,334	24,052	86,897
Other	1,847	354,592	365,392	14,960	7,440	14,688	31,236	43,202	158,778
Place of residence:									
On farm operated	5,590	331,201	526,299	26,648	52,133	25,551	58,334	59,823	205,415
Not on farm operated	4,378	169,098	130,176	4,417	5,185	4,995	6,236	7,431	40,260
Days worked off farm:									
None	5,736	171,621	215,388	11,138	38,406	10,372	24,076	18,442	67,649
Any	4,232	328,678	441,087	19,927	18,912	20,174	40,494	48,812	178,026
1 to 49 days	870	67,716	61,197	2,543	4,964	2,502	5,002	5,981	22,996
50 to 99 days	335	23,976	36,913	1,474	1,312	1,305	2,689	3,360	12,399
100 to 199 days	624	38,003	64,726	2,644	2,145	2,502	5,450	6,616	23,400
200 days or more	2,403	198,983	278,251	13,266	10,491	13,865	27,353	32,855	119,231
Years on present farm:									
2 years or less	280	19,949	24,466	943	1,701	1,473	3,213	3,726	12,457
3 or 4 years	450	32,497	38,552	1,656	2,392	2,280	5,716	6,844	22,048
5 to 9 years	1,049	84,473	102,335	4,382	6,466	5,334	13,515	15,627	56,631

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
PRINCIPAL OPERATOR CHARACTERISTICS - Con.							
Years on present farm - Con.							
10 years or more	1,621,506	287,258	27,693	66,627	39,269	379,513	7,944
Average years on present farm	21.6	27.4	19.9	18.8	18.7	21.8	24.3
Age group:							
Under 25 years	11,878	2,770	256	181	169	1,706	126
25 to 34 years	106,735	21,447	2,266	2,607	2,069	17,732	696
35 to 44 years	268,818	40,420	5,247	9,267	6,693	50,988	1,340
45 to 49 years	256,694	40,823	4,966	10,237	7,201	52,462	1,283
50 to 54 years	308,707	49,878	6,089	14,099	9,192	66,950	1,444
55 to 59 years	312,577	48,017	5,952	15,296	9,064	72,554	1,398
60 to 64 years	283,729	40,752	5,236	14,094	7,572	69,702	1,181
65 to 69 years	235,152	33,908	3,992	11,456	5,462	60,156	872
70 years and over	420,502	60,222	6,585	21,044	7,467	127,643	1,286
Average age	57.1	56.1	55.9	59.1	56.0	59.5	54.2
Spanish, Hispanic, or Latino origin (see text)	55,570	1,842	1,385	8,871	2,341	9,219	62
Race:							
American Indian or Alaska Native	34,706	957	2,981	1,304	364	4,421	33
Asian	11,214	305	1,374	4,163	1,472	935	3
Black or African American	30,599	2,398	1,727	836	320	6,405	227
Native Hawaiian or Other Pacific Islander	1,356	32	85	335	118	148	-
White	2,114,325	333,863	34,130	90,742	52,249	505,509	9,306
More than one race reported	12,592	682	292	901	366	2,475	57
Farms by number of persons living in operator's household:							
1 person	275,842	43,320	4,443	11,597	6,218	79,582	1,013
2 people	1,108,995	168,809	18,306	50,468	27,094	274,581	4,328
3 people	330,188	49,243	6,736	14,158	8,395	70,375	1,812
4 people	285,919	44,770	5,889	12,582	7,885	59,772	1,631
5 or more people	203,848	32,095	5,215	9,476	5,297	35,583	842
Percent of operator's total household income from farming:							
Less than 25 percent	1,583,710	135,485	27,762	73,082	36,121	427,346	4,186
25 to 49 percent	174,800	45,712	3,241	7,881	4,791	33,911	1,461
50 to 74 percent	187,421	61,442	3,610	8,394	5,406	30,426	1,691
75 to 99 percent	147,092	57,626	3,085	5,454	4,379	17,729	1,205
100 percent	111,769	37,972	2,891	3,470	4,192	10,481	1,083
Operator is a hired manager ... farms	59,759	11,692	1,780	6,504	4,058	10,835	262
acres	120,672,499	14,886,740	1,804,651	2,528,991	629,746	10,570,180	120,819
Farms with-							
Internet access	1,246,723	212,853	23,446	62,454	37,595	251,629	4,511
High-speed internet access	726,700	130,717	14,333	41,549	25,293	147,689	2,407
Farms by number of households sharing in net income of farm:							
1 household	1,733,827	242,789	31,048	77,772	43,510	416,800	6,450
2 households	356,707	69,909	6,792	14,492	7,988	76,823	2,391
3 households	66,438	15,212	1,468	3,206	1,867	15,010	524
4 households	30,004	6,523	759	1,554	842	7,034	184
5 households or more	17,816	3,804	522	1,257	682	4,226	77
FARMS BY TYPE OF ORGANIZATION							
Family or individual ... farms	1,906,335	279,040	34,183	79,502	39,329	449,380	8,341
acres	574,150,050	180,704,923	3,997,179	5,333,944	2,071,021	85,765,950	1,847,520
Partnership ... farms	174,247	35,317	3,318	9,326	4,410	41,810	1,041
acres	161,416,999	51,392,963	2,251,301	2,247,561	517,991	19,852,656	472,430
Registered under state law ... farms	89,739	18,862	1,937	6,573	3,264	20,794	323
acres	114,284,815	34,590,279	1,893,478	1,982,462	422,534	13,815,327	199,554
Corporation ... farms	96,074	20,420	2,672	7,801	10,365	16,254	224
acres	125,319,810	32,411,345	2,897,149	3,270,930	1,320,945	12,252,435	192,811
Family held ... farms	85,837	19,430	2,346	6,736	9,009	14,028	208
acres	114,264,200	31,282,138	2,474,127	2,592,087	1,136,134	10,762,112	180,912
More than 10 stockholders ... farms	2,041	323	41	235	106	452	-
10 or less stockholders ... farms	83,796	19,107	2,305	6,501	8,903	13,576	208
Other than family held ... farms	10,237	990	326	1,065	1,356	2,226	16
acres	11,055,610	1,129,207	423,022	678,843	184,811	1,490,323	11,899
More than 10 stockholders ... farms	907	63	35	145	52	232	-
10 or less stockholders ... farms	9,330	927	291	920	1,304	1,994	16
Other-cooperative, estate or trust, institutional, etc ... farms	28,136	3,460	416	1,652	785	12,449	20
acres	61,208,981	2,322,385	127,316	1,289,248	64,573	6,869,725	5,936
HIRED FARM LABOR							
Hired farm labor ... farms	482,186	103,753	13,642	36,293	23,615	64,381	5,593
workers	2,636,509	299,298	255,940	613,889	351,064	264,909	43,308
Workers by days worked:							
150 days or more ... farms	201,292	43,660	6,861	16,162	14,599	21,262	1,625
workers	911,439	90,009	84,987	148,705	180,850	70,349	7,454
Less than 150 days ... farms	384,051	82,825	11,566	30,619	17,899	54,821	5,125
workers	1,725,070	209,289	170,953	465,184	170,214	194,560	35,854

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
PRINCIPAL OPERATOR CHARACTERISTICS - Con.									
Years on present farm - Con.									
10 years or more	8,189	363,380	491,122	24,084	46,759	21,459	42,126	41,057	154,539
Average years on present farm	25.4	21.7	22.0	23.2	24.0	19.0	16.9	16.6	16.4
Age group:									
Under 25 years	127	1,453	3,665	241	653	351	276	598	1,012
25 to 34 years	663	16,373	32,076	1,936	5,253	2,510	3,727	3,636	11,476
35 to 44 years	1,354	48,294	76,668	4,380	10,168	6,858	11,875	10,342	35,912
45 to 49 years	1,216	49,963	70,333	4,087	9,189	5,334	9,739	9,004	33,319
50 to 54 years	1,541	63,965	84,620	4,353	9,570	4,857	10,418	9,984	38,697
55 to 59 years	1,330	69,826	88,953	4,309	7,701	3,713	9,381	9,400	38,237
60 to 64 years	1,163	67,358	85,763	3,687	5,736	2,820	7,621	8,285	32,461
65 to 69 years	957	58,327	75,527	2,985	3,661	1,903	5,585	6,711	23,806
70 years and over	1,617	124,740	138,870	5,087	5,387	2,200	5,948	9,294	30,755
Average age	55.2	59.7	57.8	55.4	51.6	50.5	53.1	54.8	55.1
Spanish, Hispanic, or Latino origin (see text)	319	8,838	19,185	494	581	478	1,831	2,676	6,667
Race:									
American Indian or Alaska Native	39	4,349	13,251	268	210	330	875	4,468	5,277
Asian	26	906	1,105	40	34	80	928	211	567
Black or African American	191	5,987	14,102	192	165	666	726	746	2,316
Native Hawaiian or Other Pacific Islander	2	146	326	14	5	32	36	83	142
White	9,656	486,547	623,174	30,402	56,764	29,267	61,476	61,212	235,537
More than one race reported	54	2,364	4,517	149	140	171	529	534	1,836
Farms by number of persons living in operator's household:									
1 person	1,140	77,429	79,470	3,035	4,496	2,391	5,227	7,358	28,705
2 people	5,041	265,212	346,086	14,927	19,703	10,806	27,414	30,481	120,320
3 people	1,585	66,978	98,781	4,810	9,654	5,224	11,280	11,335	40,197
4 people	1,411	56,730	80,507	4,338	8,845	6,146	10,787	10,331	34,067
5 or more people	791	33,950	51,631	3,955	14,620	5,979	9,862	7,749	22,386
Percent of operator's total household income from farming:									
Less than 25 percent	3,074	420,086	511,534	20,243	13,498	18,635	40,936	61,339	217,729
25 to 49 percent	1,024	31,426	55,004	2,675	4,345	2,209	3,790	2,237	9,004
50 to 74 percent	1,711	27,024	46,498	3,061	7,881	3,398	6,592	2,031	8,682
75 to 99 percent	2,330	14,194	27,266	2,868	12,408	3,350	6,841	880	5,206
100 percent	1,829	7,569	16,173	2,218	19,186	2,954	6,411	767	5,054
Operator is a hired manager ....farms	597	9,976	11,389	1,113	2,602	1,478	2,070	839	5,399
acres	1,100,730	9,348,631	54,237,710	1,996,776	1,629,154	680,400	439,596	1,036,781	30,231,774
Farms with-									
Internet access	6,413	240,705	339,946	19,022	31,286	20,921	41,736	43,390	162,445
High-speed internet access	4,393	140,889	182,405	10,655	16,172	12,313	22,860	23,806	98,908
Farms by number of households sharing in net income of farm:									
1 household	6,792	403,558	515,064	23,728	39,475	23,568	51,986	57,246	210,841
2 households	2,199	72,233	113,292	5,465	12,244	4,926	9,380	7,948	27,448
3 households	565	13,921	16,998	1,091	3,498	1,138	1,704	1,151	4,095
4 households	279	6,571	7,523	458	1,215	542	883	605	2,066
5 households or more	133	4,016	3,598	323	886	372	617	304	1,225
FARMS BY TYPE OF ORGANIZATION									
Family or individual ....farms	7,108	433,931	592,845	26,631	45,128	25,373	57,487	62,712	214,725
acres	7,652,931	76,265,499	233,399,703	8,859,141	13,213,564	4,235,508	5,235,657	7,548,482	23,784,978
Partnership ....farms	1,905	38,864	44,918	2,545	8,425	2,341	3,452	3,323	15,062
acres	3,920,571	15,459,655	66,946,957	3,426,192	5,095,834	1,056,189	840,142	2,578,806	5,210,407
Registered under state law ....farms	1,390	19,081	19,218	1,322	5,606	1,391	1,848	1,125	7,799
acres	3,121,456	10,494,317	48,559,767	2,385,005	3,872,005	683,716	552,876	1,945,570	3,581,796
Corporation ....farms	869	15,161	14,265	1,703	3,487	2,648	3,320	837	12,302
acres	1,392,142	10,667,482	57,431,276	3,345,881	2,667,614	1,589,591	908,494	1,630,733	5,593,417
Family held ....farms	795	13,025	13,039	1,478	3,334	2,268	2,921	714	10,534
acres	1,115,735	9,465,465	51,690,517	3,055,059	2,566,031	1,413,850	808,493	1,598,867	4,884,785
More than 10 stockholders ....farms	8	444	364	45	48	82	127	9	209
10 or less stockholders ....farms	787	12,581	12,675	1,433	3,286	2,186	2,794	705	10,325
Other than family held ....farms	74	2,136	1,226	225	153	380	399	123	1,768
acres	276,407	1,202,017	5,740,759	290,822	101,583	175,741	100,001	31,866	708,632
More than 10 stockholders ....farms	8	224	62	27	13	65	131	8	74
10 or less stockholders ....farms	66	1,912	1,164	198	140	315	268	115	1,694
Other-cooperative, estate or trust, institutional, etc ....farms	86	12,343	4,447	186	278	184	311	382	3,586
acres	116,027	6,747,762	18,392,604	189,015	293,768	67,888	55,707	205,646	31,331,106
HIRED FARM LABOR									
Hired farm labor ....farms	5,329	53,459	128,782	9,572	30,994	9,016	16,688	8,004	37,446
workers	24,710	196,891	338,934	51,429	176,242	48,393	85,012	21,073	130,326
Workers by days worked:									
150 days or more ....farms	4,034	15,603	38,450	4,639	23,139	5,101	9,148	1,870	16,401
workers	11,866	51,029	79,737	25,020	111,651	26,061	40,150	4,002	49,918
Less than 150 days ....farms	3,733	45,963	107,132	7,132	18,783	6,399	11,598	6,998	28,279
workers	12,844	145,862	259,197	26,409	64,591	22,332	44,862	17,071	80,408

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
HIRED FARM LABOR - Con.							
Migrant farm labor on farms with hired labor (see text) ..... farms	38,784	4,084	3,517	9,692	3,521	6,232	2,177
Migrant farm labor on farms reporting only contract labor (see text) ..... farms	8,488	580	196	3,399	328	1,151	244
FARMS BY SIZE							
1 to 9 acres	232,849	4,667	11,369	30,224	21,018	14,282	874
10 to 49 acres	620,283	34,446	14,476	38,562	19,774	162,913	1,978
50 to 69 acres	153,862	12,987	2,619	5,992	3,299	50,201	747
70 to 99 acres	192,043	22,263	2,483	5,853	2,965	64,277	893
100 to 139 acres	175,146	21,826	1,916	4,424	2,296	52,731	1,008
140 to 179 acres	139,479	22,875	1,222	2,948	1,296	42,942	698
180 to 219 acres	87,502	15,159	727	1,911	827	23,037	581
220 to 259 acres	68,313	13,985	547	1,368	582	16,865	370
260 to 499 acres	212,553	55,289	1,696	3,498	1,490	46,005	1,168
500 to 999 acres	149,713	56,678	1,439	1,926	850	25,051	752
1,000 to 1,999 acres	92,656	44,392	1,098	908	307	13,042	398
2,000 acres or more	80,393	33,670	997	667	185	8,547	159
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)							
Oilseed and grain farming (1111)	338,237	338,237	-	-	-	-	-
Vegetable and melon farming (1112)	40,589	-	40,589	-	-	-	-
Fruit and tree nut farming (1113)	98,281	-	-	98,281	-	-	-
Greenhouse, nursery, and floriculture production (1114)	54,889	-	-	-	54,889	-	-
Other crop farming (1119)	519,893	-	-	-	-	519,893	9,626
Tobacco farming (11191)	9,626	-	-	-	-	9,626	9,626
Cotton farming (11192)	9,968	-	-	-	-	9,968	-
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	500,299	-	-	-	-	500,299	-
Beef cattle ranching and farming (112111)	656,475	-	-	-	-	-	-
Cattle feedlots (112112)	31,065	-	-	-	-	-	-
Dairy cattle and milk production (11212)	57,318	-	-	-	-	-	-
Hog and pig farming (1122)	30,546	-	-	-	-	-	-
Poultry and egg production (1123)	64,570	-	-	-	-	-	-
Sheep and goat farming (1124)	67,254	-	-	-	-	-	-
Animal aquaculture and other animal production (1125, 1129)	245,675	-	-	-	-	-	-
FARM TYPOLOGY (SEE TEXT)							
Small family farms:							
Limited resource farms ..... farms	308,837	23,287	7,854	10,705	7,558	80,598	1,359
acres	42,419,764	4,342,927	284,535	381,151	252,138	10,480,147	128,537
Retirement farms ..... farms	456,093	43,618	7,330	24,019	9,947	138,910	1,390
acres	89,580,775	11,145,214	401,847	1,176,387	511,988	24,969,708	220,923
Residential/lifestyle farms ..... farms	801,844	82,301	11,245	33,212	17,431	209,913	2,514
acres	121,143,585	17,987,456	475,627	1,469,019	711,887	29,796,286	250,802
Farming occupation/lower sales ..... farms	258,899	45,866	6,456	11,034	6,606	46,405	2,124
acres	87,190,445	15,501,346	371,064	655,046	297,224	12,245,090	326,325
Farming occupation/higher sales ..... farms	100,126	46,832	1,339	3,527	2,569	7,374	896
acres	104,081,344	37,931,057	270,655	548,179	203,948	6,139,555	340,453
Large family farms ..... farms	86,551	43,988	1,129	3,319	2,084	5,674	593
acres	123,024,138	58,772,162	476,980	747,656	249,001	7,968,630	426,063
Very large family farms ..... farms	101,265	36,985	3,007	4,056	3,277	6,912	464
acres	211,224,012	103,759,574	4,959,876	3,154,889	991,035	17,988,578	689,909
Non-family farms ..... farms	91,177	15,360	2,229	8,409	5,417	24,107	286
acres	143,431,777	17,391,880	2,032,361	4,009,356	757,309	15,152,772	135,685
LIVESTOCK							
Cattle and calves inventory ..... farms	963,669	90,587	6,065	6,413	2,426	71,399	3,913
number	96,347,858	9,150,124	258,974	347,713	95,010	3,335,111	254,429
Farms with-							
1 to 9	233,078	10,489	3,075	2,817	1,108	24,291	521
10 to 49	415,493	35,951	2,221	2,564	946	32,761	1,975
50 to 99	135,117	18,250	351	526	188	7,213	783
100 to 199	91,193	14,179	183	243	118	3,965	407
200 to 499	59,234	8,987	138	158	41	2,401	183
500 or more	29,554	2,731	97	105	25	768	44
Cows and heifers that had calved ..... farms	818,992	74,776	4,608	5,226	1,914	58,678	3,663
number	42,101,375	4,173,057	143,983	210,331	56,657	1,718,157	145,824
Beef cows ..... farms	764,984	73,449	4,366	5,132	1,846	58,153	3,627
number	32,834,801	4,093,623	134,586	208,789	55,984	1,697,988	(D)
Farms with-							
1 to 9	246,863	11,749	2,431	2,475	919	24,952	660
10 to 49	360,845	36,708	1,499	2,017	711	25,416	2,137
50 to 99	84,253	13,493	193	325	123	4,403	562
100 to 199	43,575	7,850	108	145	51	2,146	192
200 to 499	23,635	3,284	104	107	28	1,028	60
500 or more	5,813	365	31	63	14	208	16

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
HIRED FARM LABOR - Con.									
Migrant farm labor on farms with hired labor (see text) ....farms	483	3,572	6,133	425	1,713	293	848	443	1,883
Migrant farm labor on farms reporting only contract labor (see text) ....farms	42	865	1,649	63	57	42	142	146	735
FARMS BY SIZE									
1 to 9 acres	63	13,345	46,553	3,350	1,662	7,410	13,456	20,810	58,048
10 to 49 acres	452	160,483	169,124	7,679	4,760	9,144	25,860	29,379	104,166
50 to 69 acres	205	49,249	50,498	2,034	2,312	1,533	4,674	4,070	13,643
70 to 99 acres	291	63,093	64,244	2,614	4,046	1,817	4,972	3,804	12,705
100 to 139 acres	383	51,340	60,575	2,470	4,842	1,494	4,081	2,813	15,678
140 to 179 acres	445	41,799	45,644	1,804	4,831	1,070	2,375	1,686	10,786
180 to 219 acres	240	22,216	30,949	1,236	4,247	827	1,719	912	5,951
220 to 259 acres	226	16,269	23,471	1,047	4,033	683	1,272	566	3,894
260 to 499 acres	1,172	43,665	69,475	3,200	14,505	2,446	3,372	1,314	10,263
500 to 999 acres	2,041	22,258	42,299	2,537	8,405	2,363	1,850	768	5,547
1,000 to 1,999 acres	2,416	10,228	23,479	1,611	2,801	1,334	692	389	2,603
2,000 acres or more	2,034	6,354	30,164	1,483	874	425	247	743	2,391
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)									
Oilseed and grain farming (1111)	-	-	-	-	-	-	-	-	-
Vegetable and melon farming (1112)	-	-	-	-	-	-	-	-	-
Fruit and tree nut farming (1113)	-	-	-	-	-	-	-	-	-
Greenhouse, nursery, and floriculture production (1114)	-	-	-	-	-	-	-	-	-
Other crop farming (1119)	9,968	500,299	-	-	-	-	-	-	-
Tobacco farming (11191)	-	-	-	-	-	-	-	-	-
Cotton farming (11192)	9,968	-	-	-	-	-	-	-	-
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	-	500,299	-	-	-	-	-	-	-
Beef cattle ranching and farming (112111)	-	-	656,475	-	-	-	-	-	-
Cattle feedlots (112112)	-	-	-	31,065	-	-	-	-	-
Dairy cattle and milk production (11212)	-	-	-	-	57,318	-	-	-	-
Hog and pig farming (1122)	-	-	-	-	-	30,546	-	-	-
Poultry and egg production (1123)	-	-	-	-	-	-	64,570	-	-
Sheep and goat farming (1124)	-	-	-	-	-	-	-	67,254	-
Animal aquaculture and other animal production (1125, 1129)	-	-	-	-	-	-	-	-	245,675
FARM TYPOLOGY (SEE TEXT)									
Small family farms:									
Limited resource farms ....farms	452	78,787	102,217	3,266	3,490	3,378	8,183	15,047	43,254
acres	95,951	10,255,659	19,713,055	424,678	456,686	175,195	354,872	1,025,546	4,528,834
Retirement farms ....farms	722	136,798	156,798	5,449	2,724	2,246	7,030	12,311	45,711
acres	274,498	24,474,287	41,737,702	989,541	575,153	166,558	407,754	1,214,387	6,284,536
Residential/lifestyle farms ....farms	1,125	206,274	260,914	11,154	4,821	10,134	19,797	30,703	110,219
acres	329,630	29,215,854	55,211,773	1,385,819	525,268	434,547	784,511	1,926,686	10,434,706
Farming occupation/lower sales ....farms	1,031	43,250	86,274	3,361	5,912	2,522	4,548	7,347	32,568
acres	374,207	11,544,558	49,306,917	896,171	999,145	194,920	237,110	1,844,456	4,641,956
Farming occupation/higher sales ....farms	1,644	4,834	16,484	1,481	16,208	1,234	1,030	305	1,743
acres	1,466,315	4,332,787	50,504,343	1,244,537	4,120,807	266,451	101,091	1,933,208	817,513
Large family farms ....farms	1,791	3,290	9,965	1,493	11,238	2,126	4,240	145	1,150
acres	2,682,085	4,860,482	45,164,271	1,699,767	4,665,253	557,824	501,608	1,372,199	848,787
Very large family farms ....farms	2,482	3,966	7,558	3,527	10,065	7,068	17,163	116	1,531
acres	6,589,703	10,708,966	52,904,858	7,014,763	8,107,467	4,360,999	4,106,147	1,509,951	2,365,875
Non-family farms ....farms	721	23,100	16,265	1,334	2,860	1,838	2,579	1,280	9,499
acres	1,269,282	13,747,805	61,627,621	2,164,953	1,821,001	792,682	546,907	1,137,234	35,997,701
LIVESTOCK									
Cattle and calves inventory ....farms	1,813	65,673	626,186	29,034	57,094	10,404	23,917	10,984	29,160
number	215,221	2,865,461	48,458,055	16,074,501	15,757,857	515,827	1,164,650	225,798	964,238
Farms with-									
1 to 9	169	23,601	141,084	6,829	3,567	4,663	10,230	7,254	17,671
10 to 49	694	30,092	300,299	10,010	8,536	3,418	7,623	2,951	8,213
50 to 99	374	6,056	85,725	3,179	14,116	1,007	2,789	407	1,366
100 to 199	252	3,306	50,436	2,438	15,876	689	1,964	185	917
200 to 499	248	1,970	32,789	2,808	9,539	477	1,115	142	639
500 or more	76	648	15,853	3,770	5,460	150	196	45	354
Cows and heifers that had calved ....farms	1,625	53,390	546,317	17,392	56,890	7,594	18,930	7,507	19,160
number	99,724	1,472,609	24,324,712	911,686	9,204,724	208,748	653,595	121,912	373,813
Beef cows ....farms	1,624	52,902	543,517	17,271	9,564	7,299	18,383	7,389	18,615
number	(D)	1,453,200	24,170,087	906,594	276,868	196,408	619,978	121,396	352,500
Farms with-									
1 to 9	235	24,057	164,537	6,269	4,394	3,761	8,082	5,101	12,193
10 to 49	762	22,517	267,778	7,202	3,666	2,470	6,545	1,863	4,970
50 to 99	326	3,515	59,387	1,673	902	595	2,181	206	772
100 to 199	191	1,763	29,755	1,093	419	349	1,135	119	405
200 to 499	101	867	17,341	777	155	112	393	85	221
500 or more	9	183	4,719	257	28	12	47	15	54

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
LIVESTOCK - Con.							
Cattle and calves inventory - Con.							
Cows and heifers that had calved - Con.							
Milk cows ..... farms	69,890	2,006	398	159	109	1,022	77
number	9,266,574	79,434	9,397	1,542	673	20,169	(D)
Farms with-							
1 to 9	14,426	626	355	144	106	712	63
10 to 49	19,912	753	17	9	2	199	8
50 to 99	18,986	443	11	1	-	67	5
100 to 199	8,975	161	7	3	-	32	1
200 to 499	4,307	23	3	2	-	9	-
500 or more	3,284	-	5	-	1	3	-
Other cattle (see text) ..... farms	788,633	78,131	4,352	4,663	1,769	55,926	3,146
number	54,246,483	4,977,067	114,991	137,382	38,353	1,616,954	108,605
Cattle and calves sold ..... farms	798,290	78,777	3,445	3,872	1,542	44,425	3,308
number	74,071,936	4,724,440	120,738	168,924	43,526	1,386,947	109,524
$1,000	61,209,970	3,520,313	77,476	98,681	26,054	889,878	58,924
Calves weighing less than 500 pounds ..... farms	414,324	26,752	1,683	2,125	823	19,587	2,132
number	13,695,252	807,265	44,175	66,917	21,322	361,726	38,867
Cattle, including calves weighing 500 pounds or more ..... farms	681,126	70,296	2,675	3,098	1,244	38,027	2,697
number	60,376,684	3,917,175	76,563	102,007	22,204	1,025,221	70,657
Cattle on feed (see text) ..... farms	76,396	17,539	276	246	134	4,500	127
number	27,595,928	913,915	5,794	5,448	1,146	106,561	2,690
Hogs and pigs inventory ..... farms	75,442	9,001	1,359	708	387	4,720	180
number	67,786,318	4,013,860	34,151	14,566	5,770	374,767	18,364
Farms with-							
1 to 24	45,047	2,753	1,194	655	363	3,900	113
25 to 49	4,292	686	113	30	14	276	12
50 to 99	3,182	766	31	6	5	166	13
100 to 199	2,590	791	8	5	1	125	22
200 to 499	4,524	1,675	4	4	2	111	14
500 or more	15,807	2,330	9	8	2	142	6
Used or to be used for breeding ..... farms	32,867	4,289	661	301	134	2,063	109
number	6,290,610	270,233	5,823	2,830	723	38,788	1,906
Other hogs and pigs ..... farms	66,441	8,356	1,072	554	326	4,006	154
number	61,495,708	3,743,627	28,328	11,736	5,047	335,979	16,458
Hogs and pigs sold ..... farms	74,789	9,885	1,169	608	331	4,427	146
number	206,807,181	8,608,364	80,005	21,021	16,174	805,770	40,687
$1,000	18,056,981	857,823	6,109	1,540	963	84,997	4,458
Sheep and lambs inventory ..... farms	83,134	6,013	2,403	1,780	759	5,695	76
number	5,819,162	402,660	44,015	79,524	10,017	249,914	1,715
Ewes 1 year old or older ..... farms	68,222	5,419	1,356	1,330	571	4,323	65
number	3,516,409	266,093	21,827	36,354	6,232	147,748	1,001
Sheep and lambs sold ..... farms	53,268	4,974	803	730	355	2,936	47
number	4,579,608	337,521	14,562	40,923	5,209	153,802	988
Horses and ponies inventory ..... farms	575,942	28,755	6,236	8,478	3,536	85,203	1,146
number	4,028,827	150,598	27,019	40,551	15,402	431,668	6,323
Owned ..... farms	501,528	21,953	5,035	6,507	2,624	70,719	871
number	3,224,964	111,453	20,449	28,306	10,637	329,439	4,632
Horses and ponies sold ..... farms	133,472	3,297	761	889	414	9,791	127
number	506,503	13,194	1,856	2,537	1,010	25,744	369
Owned ..... farms	106,050	2,199	495	520	235	5,930	84
number	400,845	9,534	1,067	1,243	563	13,530	227
Goats, all inventory ..... farms	144,466	4,337	3,192	2,853	1,269	12,472	232
number	3,140,529	95,111	33,968	36,907	12,994	167,529	4,881
Goats sold ..... farms	61,748	1,747	876	836	374	3,232	90
number	1,387,576	33,638	8,830	13,710	4,753	51,477	1,562
POULTRY							
Layers inventory (see text) ..... farms	145,615	6,192	5,122	4,615	2,181	13,112	254
number	349,772,508	855,345	222,731	156,667	59,173	619,363	106,795
Farms with-							
1 to 399	140,844	6,125	5,085	4,592	2,174	13,076	250
400 to 3,199	785	47	34	21	6	23	1
3,200 to 9,999	626	6	1	1	1	2	1
10,000 to 19,999	1,373	7	2	-	-	4	-
20,000 to 49,999	1,292	3	-	1	-	5	1
50,000 to 99,999	261	3	-	-	-	2	1
100,000 or more	434	1	-	-	-	-	-
Pullets for laying flock replacement inventory ..... farms	22,514	689	779	611	300	1,531	39
number	105,876,529	262,631	94,797	328,240	(D)	584,112	55,483
Layers sold ..... farms	24,971	710	969	659	370	1,592	36
number	194,955,057	838,794	90,477	68,713	40,482	332,320	86,096
Pullets for laying flock replacement sold (see text) ..... farms	4,169	78	105	68	34	141	5
number	161,354,686	309,223	(D)	(D)	(D)	363,148	97,803

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
LIVESTOCK - Con.									
Cattle and calves inventory - Con.									
Cows and heifers that had calved - Con.									
Milk cows ....farms	3	942	6,893	215	56,725	403	769	197	994
number	(D)	19,409	154,625	5,092	8,927,856	12,340	33,617	516	21,313
Farms with-									
1 to 9	1	648	4,484	142	6,324	228	382	189	734
10 to 49	1	190	1,405	36	17,133	83	151	8	116
50 to 99	1	61	676	25	17,517	60	123	-	63
100 to 199	-	31	255	5	8,336	24	86	-	66
200 to 499	-	9	60	7	4,156	7	25	-	15
500 or more	-	3	13	-	3,259	1	2	-	-
Other cattle (see text) ....farms	1,574	51,206	506,871	26,554	52,553	8,215	18,994	8,153	22,452
number	115,497	1,392,852	24,133,343	15,162,815	6,553,133	307,079	511,055	103,886	590,425
Cattle and calves sold ....farms	1,476	39,641	548,361	31,065	51,686	5,314	11,490	3,277	15,036
number	92,937	1,184,486	34,519,586	26,099,396	5,502,920	305,642	568,766	74,160	556,891
$1,000	53,820	777,133	24,118,758	28,774,232	2,586,343	248,740	350,350	47,474	471,671
Calves weighing less than 500 pounds ....farms	849	16,606	299,736	5,416	40,252	2,102	7,794	1,458	6,596
number	29,839	293,020	8,749,522	170,859	3,110,772	57,977	199,224	19,466	86,027
Cattle, including calves weighing 500 pounds or more ....farms	1,235	34,095	460,339	31,065	46,162	4,491	9,307	2,465	11,957
number	63,098	891,466	25,770,064	25,928,537	2,392,148	247,665	369,542	54,694	470,864
Cattle on feed (see text) ....farms	20	4,353	13,441	31,064	4,882	1,255	507	244	2,308
number	948	102,923	664,724	25,309,552	191,986	112,374	25,153	4,001	255,274
Hogs and pigs inventory ....farms	68	4,472	12,841	1,591	3,210	27,279	4,299	2,121	7,926
number	2,315	354,088	575,243	686,907	226,515	58,833,386	790,323	12,309	2,218,521
Farms with-									
1 to 24	41	3,746	10,959	870	2,394	10,526	3,806	2,043	5,584
25 to 49	16	248	702	81	265	1,592	101	48	384
50 to 99	6	147	450	64	168	1,144	63	23	296
100 to 199	3	100	276	74	133	880	23	5	269
200 to 499	1	96	242	151	142	1,679	44	1	469
500 or more	1	135	212	351	108	11,458	262	1	924
Used or to be used for breeding ....farms	45	1,909	5,455	491	1,468	12,236	1,670	725	3,374
number	621	36,261	57,958	32,548	27,444	5,625,321	75,106	2,843	150,993
Other hogs and pigs ....farms	57	3,795	10,854	1,525	2,812	24,878	3,455	1,729	6,874
number	1,694	317,827	517,285	654,359	199,071	53,208,065	715,217	9,466	2,067,528
Hogs and pigs sold ....farms	60	4,221	12,054	1,933	2,882	30,104	2,494	1,717	7,185
number	5,058	760,025	1,076,184	1,448,895	466,393	186,451,005	2,744,752	21,439	5,067,179
$1,000	519	80,020	105,363	162,881	42,603	16,049,472	212,580	1,892	530,757
Sheep and lambs inventory ....farms	52	5,567	16,159	992	1,957	1,735	4,998	31,991	8,652
number	14,305	233,894	1,219,409	98,247	56,459	48,737	61,878	3,264,922	283,380
Ewes 1 year old or older ....farms	40	4,218	12,637	867	1,594	1,276	3,862	28,576	6,411
number	9,613	137,134	786,011	41,250	34,310	31,333	35,855	1,940,642	168,754
Sheep and lambs sold ....farms	34	2,855	10,053	801	1,137	1,010	1,548	24,650	4,271
number	8,090	144,724	835,952	62,444	34,350	41,155	18,742	2,831,153	203,795
Horses and ponies inventory ....farms	639	83,418	183,334	8,279	12,748	7,573	25,247	22,732	183,821
number	3,624	421,721	1,007,868	43,300	76,290	36,821	137,131	95,535	1,966,644
Owned ....farms	515	69,333	153,008	6,972	10,330	6,605	22,457	19,709	175,609
number	2,743	322,064	795,228	33,286	61,191	30,123	111,156	76,763	1,616,933
Horses and ponies sold ....farms	60	9,604	25,443	1,059	2,015	854	2,446	2,308	84,195
number	285	25,090	86,494	3,243	5,165	1,934	6,945	6,355	352,026
Owned ....farms	43	5,803	17,669	734	1,503	525	1,249	1,149	73,842
number	205	13,098	60,522	2,232	3,836	1,135	3,451	2,890	300,842
Goats, all inventory ....farms	155	12,085	33,393	1,479	2,662	3,456	13,272	41,970	24,111
number	12,360	150,288	758,258	17,944	34,522	43,720	150,190	1,538,321	251,065
Goats sold ....farms	89	3,053	12,136	563	795	1,116	3,155	29,968	6,950
number	5,230	44,685	294,396	7,062	13,242	14,565	28,945	825,829	91,129
POULTRY									
Layers inventory (see text) ....farms	33	12,825	34,042	2,566	6,923	3,508	38,243	11,107	18,004
number	904	511,664	1,221,210	61,472	508,669	544,001	343,284,166	178,009	2,061,702
Farms with-									
1 to 399	33	12,793	33,961	2,557	6,817	3,470	34,031	11,099	17,857
400 to 3,199	-	22	52	9	83	19	399	8	84
3,200 to 9,999	-	1	17	-	16	4	555	-	23
10,000 to 19,999	-	4	5	-	6	10	1,317	-	22
20,000 to 49,999	-	4	5	-	1	3	1,263	-	11
50,000 to 99,999	-	1	1	-	-	1	253	-	1
100,000 or more	-	-	1	-	-	1	425	-	6
Pullets for laying flock replacement inventory ....farms	4	1,488	4,343	300	1,139	490	8,045	1,658	2,629
number	45	528,584	871,066	(D)	382,933	804,359	101,119,018	27,181	1,271,633
Layers sold ....farms	4	1,552	4,151	425	1,104	602	9,285	1,836	3,268
number	59	246,165	708,339	19,753	694,666	278,365	190,834,257	62,626	986,265
Pullets for laying flock replacement sold (see text) ....farms	-	136	390	32	129	67	2,524	212	389
number	-	265,345	650,069	43,588	531,609	1,289,479	155,478,862	9,531	1,990,805

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
							Total	Tobacco farming (11191)
POULTRY - Con.								
Broilers and other meat-type chickens sold	farms	27,091	852	547	192	174	840	18
	number	8,914,828,122	5,955,300	1,264,043	417,850	148,435	6,205,672	(D)
Farms with-								
1 to 1,999		9,743	807	534	188	166	804	15
2,000 to 59,999		618	22	8	1	7	18	2
60,000 to 99,999		623	2	1	1	-	2	-
100,000 or more		16,107	21	4	2	1	16	1
Turkeys inventory (see text)	farms	17,226	488	595	485	205	1,069	28
	number	107,173,804	544,728	(D)	111,282	(D)	210,985	182
Turkeys sold (see text)	farms	8,284	251	276	128	106	441	6
	number	295,793,159	662,594	11,109	(D)	(D)	328,773	(D)
CROPS HARVESTED								
Barley for grain	farms	19,848	9,971	584	52	26	2,271	32
	acres	3,521,957	2,511,990	178,096	3,581	659	296,151	634
	bushels	207,089,232	136,663,792	17,706,159	219,499	45,221	24,511,526	38,950
Irrigated	farms	4,241	1,427	356	18	3	1,261	-
	acres	741,475	270,918	145,232	1,483	182	204,136	-
Farms by acres harvested:								
1 to 24 acres		5,742	1,423	158	25	16	769	23
25 to 99 acres		5,405	2,229	133	17	9	715	8
100 to 249 acres		4,469	2,977	123	7	1	457	1
250 to 499 acres		2,552	2,005	70	2	-	216	-
500 acres or more		1,680	1,337	100	1	-	114	-
Corn for grain	farms	347,760	242,999	3,355	766	608	17,644	1,818
	acres	86,248,542	71,977,023	464,703	46,553	41,157	2,102,946	187,784
	bushels	12,738,519,330	10,764,791,556	67,757,738	6,054,305	5,109,741	264,118,324	16,256,702
Irrigated	farms	38,911	28,097	1,000	189	87	3,637	89
	acres	13,156,769	10,909,318	201,264	20,958	7,070	667,273	4,222
Farms by acres harvested:								
1 to 24 acres		68,008	32,010	1,777	480	362	7,439	741
25 to 99 acres		101,672	68,454	638	170	154	4,952	517
100 to 249 acres		78,166	58,321	436	74	53	2,886	329
250 to 499 acres		50,807	41,613	254	24	24	1,445	166
500 acres or more		49,107	42,601	250	18	15	922	65
Corn for silage or greenchop	farms	84,317	18,917	661	272	117	5,599	328
	acres	5,979,661	1,265,809	79,052	31,493	4,120	387,457	8,618
	tons	104,224,795	22,176,827	1,859,288	826,163	71,496	7,984,311	107,934
Irrigated	farms	9,664	2,603	274	196	23	1,561	6
	acres	1,497,288	370,772	60,488	29,438	2,404	246,028	48
Farms by acres harvested:								
1 to 24 acres		34,207	8,809	340	112	94	2,908	237
25 to 99 acres		34,878	7,168	156	83	10	1,746	77
100 to 249 acres		10,855	2,027	84	49	8	619	11
250 to 499 acres		2,859	564	38	15	5	208	2
500 acres or more		1,518	349	43	13	-	118	1
Cotton, all	farms	18,605	3,929	452	130	20	13,282	243
	acres	10,493,238	1,608,070	208,184	33,164	4,792	8,410,537	89,735
	bales	18,898,128	2,735,063	502,937	87,343	8,547	15,220,455	106,815
Irrigated	farms	8,776	1,635	324	106	11	6,455	22
	acres	4,035,610	583,590	137,582	27,710	1,820	3,230,547	2,595
Farms by acres harvested:								
1 to 24 acres		961	130	31	11	2	683	10
25 to 99 acres		3,043	684	62	33	7	2,050	48
100 to 249 acres		3,886	1,028	115	41	5	2,502	55
250 to 499 acres		3,738	994	121	29	3	2,441	61
500 acres or more		6,977	1,093	123	16	3	5,606	69
Dry edible beans, excluding limas	farms	6,236	4,564	433	72	12	774	-
	acres	1,455,549	1,199,151	56,536	4,162	(D)	153,908	-
	cwt	25,353,900	20,231,632	1,164,479	95,457	(D)	3,009,046	-
Irrigated	farms	2,456	1,361	323	58	9	503	-
	acres	353,503	229,934	34,180	3,908	9	61,469	-
Farms by acres harvested:								
1 to 24 acres		818	332	222	33	12	124	-
25 to 99 acres		1,709	1,192	77	26	-	269	-
100 to 249 acres		1,856	1,454	61	12	-	227	-
250 to 499 acres		1,066	902	43	-	-	94	-
500 acres or more		787	684	30	1	-	60	-
Oats for grain	farms	42,558	15,132	717	165	112	4,961	135
	acres	1,509,149	674,414	54,679	4,928	2,844	144,378	3,094
	bushels	89,508,669	40,321,677	3,870,686	396,233	149,073	8,327,795	185,208
Irrigated	farms	1,620	458	88	30	7	453	6
	acres	78,214	23,946	7,114	1,931	230	22,874	9
Farms by acres harvested:								
1 to 24 acres		27,044	8,760	443	119	82	3,424	96
25 to 99 acres		12,167	4,633	128	38	22	1,224	31
100 to 249 acres		2,643	1,339	80	4	7	258	8
250 to 499 acres		552	306	44	3	1	46	-
500 acres or more		152	94	22	1	-	9	-
Peanuts for nuts	farms	6,182	747	256	68	25	4,594	142
	acres	1,200,564	90,649	59,756	2,973	4,349	987,023	19,026
	pounds	3,703,138,887	264,930,955	199,389,020	8,611,854	14,076,807	3,058,210,992	49,168,268
Irrigated	farms	2,381	216	107	28	13	1,867	29
	acres	418,789	23,986	20,387	1,041	2,412	356,043	2,612

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
POULTRY - Con.									
Broilers and other meat-type chickens sold ....farms	-	822	1,718	414	658	515	19,220	607	1,354
....number	-	(D)	4,682,154	211,637	2,704,217	21,806,666	8,857,716,294	80,665	13,635,189
Farms with-									
1 to 1,999	-	789	1,663	411	607	431	2,285	602	1,245
2,000 to 59,999	-	16	34	2	37	14	397	5	73
60,000 to 99,999	-	2	4	-	5	9	597	-	2
100,000 or more	-	15	17	1	9	61	15,941	-	34
Turkeys inventory (see text) ....farms	4	1,037	2,732	219	721	586	6,651	1,171	2,304
....number	9	210,794	365,559	(D)	142,211	2,210,195	100,846,142	111,492	2,495,932
Turkeys sold (see text) ....farms	1	434	785	128	285	356	4,170	343	1,015
....number	(D)	328,495	290,525	(D)	372,801	6,051,573	282,252,716	3,228	5,413,327
CROPS HARVESTED									
Barley for grain ....farms	36	2,203	2,691	566	2,845	221	295	80	246
....acres	10,633	284,884	270,756	29,462	126,015	13,176	13,471	2,599	76,001
....bushels	871,001	23,601,575	12,818,423	2,150,602	8,612,462	549,463	980,771	166,049	2,665,265
Irrigated ....farms	33	1,228	689	53	323	17	19	32	43
....acres	9,196	194,940	61,851	12,856	34,445	1,091	917	1,477	6,887
Farms by acres harvested:									
1 to 24 acres	2	744	992	351	1,536	138	153	50	131
25 to 99 acres	6	701	868	164	1,024	72	99	24	51
100 to 249 acres	16	440	581	33	219	5	38	4	24
250 to 499 acres	5	211	178	11	49	3	4	2	12
500 acres or more	7	107	72	7	17	3	1	-	28
Corn for grain ....farms	1,837	13,989	28,413	9,158	28,154	8,776	3,544	692	3,651
....acres	526,226	1,388,936	2,716,730	2,210,033	2,801,444	2,608,043	543,861	18,404	717,645
....bushels	72,769,566	175,092,056	344,285,989	340,909,902	360,842,963	411,505,835	65,026,781	2,313,008	105,803,188
Irrigated ....farms	868	2,680	2,659	1,147	801	622	381	54	237
....acres	225,167	437,884	496,735	503,886	101,085	133,804	56,710	1,933	56,733
Farms by acres harvested:									
1 to 24 acres	154	6,544	12,637	2,215	6,688	1,214	1,176	534	1,476
25 to 99 acres	449	3,986	8,621	2,398	12,579	1,783	1,037	127	759
100 to 249 acres	567	1,990	4,404	1,900	6,471	2,328	684	15	594
250 to 499 acres	360	919	1,718	1,287	1,771	1,866	390	12	403
500 acres or more	307	550	1,033	1,358	645	1,585	257	4	419
Corn for silage or greenchop ....farms	138	5,133	15,827	4,652	35,031	927	1,025	124	1,165
....acres	26,658	352,181	828,233	348,872	2,890,524	45,550	50,236	4,035	44,280
....tons	612,236	7,264,141	12,106,788	5,965,537	51,054,457	704,597	725,815	61,336	688,180
Irrigated ....farms	123	1,432	1,852	594	2,386	33	45	28	69
....acres	25,112	220,868	171,381	88,445	516,242	2,954	3,019	1,487	4,630
Farms by acres harvested:									
1 to 24 acres	15	2,656	7,833	1,765	10,510	526	519	80	711
25 to 99 acres	38	1,631	5,756	1,902	16,966	307	396	33	355
100 to 249 acres	54	554	1,772	717	5,345	64	87	10	73
250 to 499 acres	22	184	349	177	1,443	22	18	1	19
500 acres or more	9	108	117	91	767	8	5	-	7
Cotton, all ....farms	9,967	3,072	412	11	32	68	227	5	37
....acres	7,092,374	1,228,428	109,871	1,988	6,457	20,020	76,822	1,726	11,607
....bales	12,954,739	2,158,901	171,592	3,532	16,579	29,900	102,158	2,925	17,097
Irrigated ....farms	4,996	1,437	138	4	26	9	54	1	13
....acres	2,755,532	472,420	29,465	824	5,577	(D)	13,602	(D)	4,232
Farms by acres harvested:									
1 to 24 acres	554	119	71	3	2	8	14	1	5
25 to 99 acres	1,437	565	128	2	8	17	41	-	11
100 to 249 acres	1,573	874	101	2	14	9	61	2	6
250 to 499 acres	1,719	661	58	3	6	17	57	1	8
500 acres or more	4,684	853	54	1	2	17	54	1	7
Dry edible beans, excluding limas ....farms	19	755	186	53	75	20	12	9	26
....acres	2,382	151,526	17,961	9,416	6,207	3,688	2,476	(D)	1,779
....cwt	53,790	2,955,256	380,252	197,086	115,662	72,219	46,896	(D)	36,756
Irrigated ....farms	15	488	125	34	15	4	5	7	12
....acres	1,879	59,590	11,564	6,927	1,849	605	1,653	195	1,210
Farms by acres harvested:									
1 to 24 acres	2	122	49	1	12	2	6	6	19
25 to 99 acres	6	263	73	19	43	4	-	3	3
100 to 249 acres	9	218	51	20	16	11	2	-	2
250 to 499 acres	2	92	7	11	4	2	2	-	1
500 acres or more	-	60	6	2	-	1	2	-	1
Oats for grain ....farms	63	4,763	7,775	1,567	9,680	718	357	293	1,081
....acres	5,436	135,848	288,442	36,170	253,308	13,834	7,354	5,884	22,914
....bushels	274,362	7,868,225	15,204,166	2,305,606	16,148,305	858,786	370,543	266,058	1,289,741
Irrigated ....farms	18	429	372	20	100	21	10	21	40
....acres	1,338	21,527	12,323	531	7,520	303	228	501	713
Farms by acres harvested:									
1 to 24 acres	16	3,312	4,858	1,203	6,243	558	282	239	833
25 to 99 acres	31	1,162	2,167	314	3,173	150	61	46	211
100 to 249 acres	8	242	627	36	234	9	13	5	31
250 to 499 acres	7	39	107	12	25	1	-	2	5
500 acres or more	1	8	16	2	5	-	1	1	1
Peanuts for nuts ....farms	1,235	3,217	230	7	21	37	177	1	19
....acres	193,689	774,308	19,055	(D)	2,845	5,368	26,623	(D)	1,394
....pounds	591,159,085	2,417,883,639	52,869,754	(D)	9,456,713	15,408,923	74,981,723	(D)	3,803,323
Irrigated ....farms	589	1,249	78	5	13	6	42	-	6
....acres	90,258	263,173	6,797	322	1,637	676	5,448	-	40

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
CROPS HARVESTED - Con.							
Peanuts for nuts - Con.							
Farms by acres harvested:							
1 to 24 acres	915	143	89	46	7	501	27
25 to 99 acres	1,909	296	54	12	7	1,377	50
100 to 249 acres	1,886	219	39	8	5	1,478	40
250 to 499 acres	920	69	35	2	3	761	20
500 acres or more	552	20	39	-	3	477	5
Rice ... farms	6,084	5,722	25	65	6	185	-
acres	2,758,792	2,653,390	7,841	18,140	(D)	61,009	-
cwt	198,538,690	190,756,939	532,052	1,489,331	(D)	4,600,590	-
Irrigated ... farms	6,084	5,722	25	65	6	185	-
acres	2,758,792	2,653,390	7,841	18,140	(D)	61,009	-
Farms by acres harvested:							
1 to 24 acres	132	115	3	-	2	5	-
25 to 99 acres	915	829	7	15	1	45	-
100 to 249 acres	1,459	1,346	4	21	2	59	-
250 to 499 acres	1,616	1,523	6	21	-	44	-
500 acres or more	1,962	1,909	5	8	1	32	-
Sorghum for grain ... farms	26,242	19,370	223	33	22	2,902	21
acres	6,769,834	5,267,900	63,656	2,150	3,407	863,608	569
bushels	482,452,865	384,408,239	4,555,056	153,170	270,333	55,110,110	18,018
Irrigated ... farms	4,483	2,996	113	13	6	1,006	-
acres	845,214	578,098	34,214	1,071	851	189,088	-
Farms by acres harvested:							
1 to 24 acres	2,609	1,530	51	16	8	322	13
25 to 99 acres	8,335	6,036	50	13	8	780	8
100 to 249 acres	7,302	5,483	53	3	3	798	-
250 to 499 acres	4,377	3,462	27	-	2	498	-
500 acres or more	3,619	2,859	42	1	1	504	-
Soybeans for beans ... farms	279,110	225,386	1,642	316	410	9,588	1,532
acres	63,915,821	56,010,348	272,241	23,902	34,425	1,801,026	347,834
bushels	2,582,423,697	2,284,421,545	9,247,169	687,588	1,098,987	50,150,125	5,606,252
Irrigated ... farms	20,333	17,220	281	33	44	932	59
acres	5,237,075	4,779,012	37,249	(D)	1,926	180,266	2,059
Farms by acres harvested:							
1 to 24 acres	38,458	26,354	491	129	167	2,344	228
25 to 99 acres	90,935	70,792	524	131	142	3,031	470
100 to 249 acres	70,698	58,535	312	38	73	1,998	365
250 to 499 acres	44,381	38,402	163	13	16	1,200	278
500 acres or more	34,638	31,303	152	5	12	1,015	191
Sugarbeets for sugar ... farms	4,022	1,999	149	6	1	1,647	-
acres	1,253,817	572,878	58,250	(D)	(D)	580,014	-
tons	31,937,325	13,366,200	1,937,268	(D)	(D)	15,489,383	-
Irrigated ... farms	1,595	434	131	6	1	887	-
acres	394,675	78,509	51,372	(D)	(D)	238,632	-
Sugarcane for sugar ... farms	692	48	24	14	1	592	-
acres	846,666	10,538	37,910	(D)	(D)	783,423	-
tons	31,127,405	357,854	1,328,378	(D)	(D)	(D)	-
Irrigated ... farms	219	24	21	11	-	154	-
acres	435,205	3,571	35,383	(D)	-	381,567	-
Sunflower seed, all ... farms	6,403	5,534	84	22	18	281	6
acres	2,000,153	1,855,499	13,747	1,360	90	51,906	70
pounds	2,820,962,445	2,644,603,993	15,284,825	1,431,062	(D)	61,148,023	23,450
Irrigated ... farms	608	444	40	10	5	73	-
acres	102,219	74,574	11,488	583	(D)	12,380	-
Farms by acres harvested:							
1 to 24 acres	502	281	39	18	17	68	6
25 to 99 acres	1,153	918	11	-	1	68	-
100 to 249 acres	2,110	1,867	18	2	-	87	-
250 to 499 acres	1,494	1,389	10	1	-	33	-
500 acres or more	1,144	1,079	6	1	-	25	-
Tobacco ... farms	16,234	1,039	147	16	57	10,996	9,624
acres	359,846	21,058	7,268	198	862	282,697	240,668
pounds	778,301,825	43,502,926	15,284,283	358,292	1,720,799	613,724,010	519,574,282
Irrigated ... farms	2,572	143	42	4	12	2,034	1,779
acres	71,578	3,384	1,617	(D)	250	60,897	53,327
Farms by acres harvested:							
0.1 to 0.9 acres	235	22	2	4	2	128	102
1.0 to 1.9 acres	1,493	82	20	2	5	961	851
2.0 to 2.9 acres	1,827	103	13	2	10	1,136	1,008
3.0 to 4.9 acres	2,772	160	28	-	7	1,725	1,500
5.0 to 9.9 acres	3,459	220	9	2	18	2,100	1,866
10.0 to 24.9 acres	3,129	212	26	4	8	2,286	2,036
25.0 acres or more	3,319	240	49	2	7	2,660	2,261
Wheat for grain, all ... farms	160,810	114,900	2,078	412	235	12,277	915
acres	50,932,969	41,678,251	683,326	46,617	19,670	2,714,975	108,993
bushels	1,993,648,378	1,624,971,774	56,206,551	3,292,417	1,017,238	124,418,531	3,998,157
Irrigated ... farms	15,213	8,756	1,002	166	37	3,161	24
acres	3,364,079	1,955,600	456,547	27,461	4,039	615,780	754
Farms by acres harvested:							
1 to 24 acres	26,703	15,881	411	138	101	2,647	264
25 to 99 acres	49,409	33,977	512	165	81	3,605	326
100 to 249 acres	34,703	24,899	473	59	33	2,915	189
250 to 499 acres	21,167	16,130	312	33	12	1,632	105
500 acres or more	28,828	24,013	370	17	8	1,478	31

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
CROPS HARVESTED - Con.									
Peanuts for nuts - Con.									
Farms by acres harvested:									
1 to 24 acres	119	355	76	1	3	13	23	1	12
25 to 99 acres	451	876	90	4	2	8	58	-	1
100 to 249 acres	446	992	50	2	13	7	60	-	5
250 to 499 acres	150	591	9	-	3	6	32	-	-
500 acres or more	69	403	5	-	-	3	4	-	1
Rice ....farms	114	71	57	-	6	-	2	-	16
acres	28,011	32,998	12,651	-	1,061	-	(D)	-	3,324
cwt	1,972,283	2,628,307	771,105	-	95,116	-	(D)	-	203,517
Irrigated ....farms	114	71	57	-	6	-	2	-	16
acres	28,011	32,998	12,651	-	1,061	-	(D)	-	3,324
Farms by acres harvested:									
1 to 24 acres	2	3	4	-	2	-	-	-	1
25 to 99 acres	32	13	14	-	1	-	1	-	2
100 to 249 acres	38	21	17	-	1	-	1	-	8
250 to 499 acres	27	17	17	-	2	-	-	-	3
500 acres or more	15	17	5	-	-	-	-	-	2
Sorghum for grain ....farms	1,620	1,261	2,714	260	256	198	96	23	145
acres	573,291	289,748	424,639	62,104	25,334	30,669	7,383	2,126	16,858
bushels	37,174,207	17,917,885	27,212,803	4,793,815	1,557,752	2,651,207	359,632	109,186	1,271,562
Irrigated ....farms	619	387	255	38	22	14	10	2	8
acres	104,340	84,748	29,457	5,994	3,783	1,865	(D)	(D)	426
Farms by acres harvested:									
1 to 24 acres	67	242	475	22	60	43	32	9	41
25 to 99 acres	356	416	1,075	74	118	82	41	10	48
100 to 249 acres	496	302	732	83	55	37	15	3	37
250 to 499 acres	352	146	272	54	16	23	8	-	15
500 acres or more	349	155	160	27	7	13	-	1	4
Soybeans for beans ....farms	1,641	6,415	13,659	5,012	11,427	6,790	2,383	211	2,286
acres	555,525	897,667	1,451,230	896,558	1,031,139	1,498,175	441,025	8,766	446,986
bushels	16,273,655	28,270,218	53,960,332	41,192,571	39,902,239	68,892,411	13,206,572	347,663	19,316,495
Irrigated ....farms	514	359	576	404	192	335	192	2	122
acres	145,762	32,445	71,898	68,383	15,114	40,300	19,043	(D)	22,287
Farms by acres harvested:									
1 to 24 acres	161	1,955	3,774	881	2,581	635	451	129	522
25 to 99 acres	342	2,219	5,681	1,625	5,620	1,885	781	62	661
100 to 249 acres	448	1,185	2,686	1,342	2,418	2,134	617	14	531
250 to 499 acres	305	617	1,099	736	621	1,444	333	5	349
500 acres or more	385	439	419	428	187	692	201	1	223
Sugarbeets for sugar ....farms	12	1,635	91	40	52	25	1	5	6
acres	1,669	578,345	15,179	8,725	9,812	4,869	(D)	300	1,888
tons	57,055	15,432,328	386,291	221,520	298,540	123,061	(D)	8,069	47,835
Irrigated ....farms	12	875	76	21	28	3	-	5	3
acres	1,669	236,963	13,432	3,553	5,303	(D)	-	300	1,533
Sugarcane for sugar ....farms	1	591	7	-	1	-	-	-	5
acres	(D)	(D)	(D)	-	(D)	-	-	-	5
tons	(D)	(D)	(D)	-	(D)	-	-	-	150
Irrigated ....farms	1	153	3	-	1	-	-	-	5
acres	(D)	(D)	(D)	-	(D)	-	-	-	5
Sunflower seed, all ....farms	42	233	334	30	43	13	8	8	28
acres	8,615	43,221	59,922	5,534	4,531	1,657	1,419	298	4,190
pounds	13,058,299	48,066,274	74,072,862	8,300,633	4,985,421	2,316,252	(D)	361,000	6,370,275
Irrigated ....farms	22	51	22	6	1	3	1	3	-
acres	3,359	9,021	2,200	592	(D)	323	(D)	(D)	-
Farms by acres harvested:									
1 to 24 acres	7	55	47	2	12	2	3	3	10
25 to 99 acres	8	60	111	7	20	4	3	4	6
100 to 249 acres	17	70	105	11	5	6	-	1	8
250 to 499 acres	5	28	44	9	5	1	1	-	1
500 acres or more	5	20	27	1	1	-	1	-	3
Tobacco ....farms	42	1,330	2,268	53	1,160	119	249	6	124
acres	2,092	39,937	15,138	336	8,791	8,272	12,430	14	2,781
pounds	3,807,227	90,342,501	31,318,024	752,461	20,171,032	16,989,168	28,122,351	31,950	6,326,529
Irrigated ....farms	5	250	198	5	42	20	60	1	11
acres	297	7,273	1,780	25	408	535	2,224	(D)	319
Farms by acres harvested:									
0.1 to 0.9 acres	-	26	59	1	9	-	3	2	3
1.0 to 1.9 acres	-	110	359	7	35	3	7	-	12
2.0 to 2.9 acres	4	124	402	14	111	6	11	2	17
3.0 to 4.9 acres	1	224	541	8	253	12	19	2	17
5.0 to 9.9 acres	3	231	474	10	562	7	36	-	21
10.0 to 24.9 acres	14	236	328	12	157	17	49	-	30
25.0 acres or more	20	379	105	1	33	74	124	-	24
Wheat for grain, all ....farms	2,059	9,303	17,900	1,999	6,457	1,886	1,189	228	1,249
acres	636,497	1,969,485	4,325,160	393,981	429,316	208,516	146,075	19,327	267,755
bushels	24,098,811	96,321,563	121,230,538	15,966,097	21,323,642	9,059,641	6,511,275	489,042	9,161,632
Irrigated ....farms	591	2,546	1,384	206	226	109	76	23	67
acres	123,806	491,220	203,359	39,739	35,737	15,586	4,352	907	4,972
Farms by acres harvested:									
1 to 24 acres	89	2,294	3,058	529	2,520	547	310	111	450
25 to 99 acres	535	2,744	5,806	649	2,870	847	431	65	401
100 to 249 acres	652	2,074	4,287	412	766	314	293	32	220
250 to 499 acres	415	1,112	2,335	206	204	103	108	10	82
500 acres or more	368	1,079	2,414	203	97	75	47	10	96

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
							Total	Tobacco farming (11191)
CROPS HARVESTED - Con.								
Forage-land used for all hay and haylage, grass silage, and greenchop (see text)	farms	869,534	107,060	7,848	6,806	3,682	267,713	4,658
	acres	61,455,483	7,758,185	522,182	272,174	115,561	16,374,848	284,823
	tons, dry	155,393,762	20,546,184	2,289,611	967,670	248,083	48,587,324	468,103
Irrigated	farms	86,007	7,957	1,800	1,700	436	35,809	83
	acres	10,264,753	790,434	316,871	108,165	18,208	4,449,337	2,138
Farms by acres harvested:								
1 to 24 acres		367,533	42,491	5,042	4,426	2,542	128,633	1,786
25 to 99 acres		345,273	42,611	1,813	1,782	924	103,542	1,994
100 to 249 acres		111,368	15,881	560	455	156	25,063	714
250 to 499 acres		30,370	4,382	240	84	44	6,585	135
500 acres or more		14,990	1,695	193	59	16	3,890	29
Alfalfa hay	farms	290,726	67,819	2,806	1,756	838	82,015	1,274
	acres	20,244,497	3,810,635	271,099	92,381	21,514	6,133,287	30,151
	tons, dry	65,349,074	12,026,727	1,538,207	531,252	61,599	25,090,763	59,040
Irrigated	farms	56,390	6,063	1,244	912	169	25,775	21
	acres	6,556,652	565,469	225,757	74,763	7,661	3,391,162	195
Other tame hay	farms	496,740	37,720	3,806	3,383	1,988	154,417	3,724
	acres	26,763,972	2,293,699	155,090	111,955	65,174	7,461,224	225,207
	tons, dry	54,347,673	4,569,203	411,599	260,681	130,756	17,306,728	357,664
Irrigated	farms	24,348	1,324	426	459	193	9,349	49
	acres	1,699,864	80,216	44,948	13,053	5,687	628,345	1,677
Field and grass seed crops, all	farms	6,038	1,124	197	89	70	2,626	15
	acres	1,178,726	157,761	49,136	10,292	8,955	776,535	893
Irrigated	farms	1,457	153	138	45	32	992	-
	acres	323,441	17,444	35,202	4,731	5,320	250,162	-
Land in vegetables (see text)	farms	69,172	5,432	40,300	4,555	3,144	7,497	439
	acres	4,356,880	413,245	3,252,292	80,061	24,504	473,416	13,180
Irrigated	farms	29,885	1,348	18,398	2,487	1,533	3,384	117
	acres	3,068,485	127,069	2,499,746	61,910	12,158	327,783	1,562
Farms by acres harvested:								
0.1 to 4.9 acres		41,453	1,662	23,601	3,334	2,361	4,320	230
5.0 to 24.9 acres		13,869	936	9,127	801	584	1,236	119
25.0 to 99.9 acres		6,671	1,627	3,084	276	166	905	61
100.0 to 249.9 acres		3,473	829	1,761	88	23	567	18
250.0 acres or more		3,706	378	2,727	56	10	469	11
Snap beans	farms	17,300	782	11,313	924	831	1,658	67
	acres	303,997	56,980	187,839	4,785	944	34,957	566
Harvested for processing	farms	1,999	478	838	64	30	284	8
	acres	198,101	52,048	97,192	3,058	306	28,109	(D)
Peas, green	farms	4,532	1,111	2,186	156	119	437	4
	acres	214,057	97,878	69,172	1,039	930	25,416	(D)
Harvested for processing	farms	2,047	1,038	452	16	4	209	-
	acres	206,092	96,501	63,850	874	859	24,726	-
Potatoes	farms	15,014	563	9,880	646	593	1,667	76
	acres	1,131,963	49,810	965,391	4,130	3,234	99,001	233
Harvested for processing	farms	1,739	138	1,176	40	16	246	1
	acres	599,604	22,130	506,141	(D)	2,061	61,122	(D)
Farms by acres harvested:								
0.1 to 4.9 acres		12,013	288	7,693	609	568	1,280	71
5.0 to 24.9 acres		612	44	411	26	16	75	2
25.0 to 99.9 acres		539	90	332	5	2	85	3
100.0 to 249.9 acres		714	77	500	2	4	112	-
250.0 acres or more		1,136	64	944	4	3	115	-
Sweet corn	farms	28,241	2,670	16,642	1,364	888	2,998	172
	acres	622,946	121,007	376,525	11,273	5,623	79,645	901
Harvested for processing	farms	3,670	1,238	1,317	88	46	518	10
	acres	361,886	104,886	178,570	4,755	479	52,884	13
Sweet potatoes	farms	1,910	91	1,286	78	77	250	68
	acres	105,284	687	85,021	2,571	145	15,362	7,083
Harvested for processing	farms	259	12	184	5	3	45	18
	acres	21,360	223	17,556	3	(D)	3,218	647
Tomatoes in the open	farms	25,809	617	17,131	1,872	1,413	2,329	100
	acres	442,225	10,107	337,993	18,559	1,684	71,834	118
Harvested for processing	farms	1,761	65	1,071	113	57	244	7
	acres	319,549	8,917	229,417	15,541	193	64,828	3
Land in orchards	farms	115,935	1,620	4,889	89,236	2,538	6,290	70
	acres	5,039,476	49,125	107,626	4,485,650	21,859	151,208	398
Irrigated	farms	61,189	460	2,030	52,791	1,161	2,086	11
	acres	3,981,316	24,376	90,337	3,702,272	15,173	97,355	32
Farms by bearing and nonbearing acres:								
0.1 to 4.9 acres		52,775	752	3,775	36,034	1,900	3,837	45
5.0 to 24.9 acres		37,043	486	677	30,938	501	1,463	22
25.0 to 99.9 acres		17,119	255	223	14,494	112	642	3
100.0 to 249.9 acres		5,434	98	111	4,598	18	233	-
250.0 acres or more		3,564	29	103	3,172	7	115	-
Apples	farms	25,591	390	2,198	17,101	779	2,167	34
	bearing and nonbearing acres	398,770	3,400	9,539	367,739	1,979	10,054	(D)
Grapes	farms	25,892	361	994	21,263	405	1,194	16
	bearing and nonbearing acres	1,051,407	3,705	14,201	1,004,873	1,854	17,310	73
Peaches, all	farms	13,582	232	1,336	8,752	413	1,173	32
	bearing and nonbearing acres	149,237	3,911	9,029	128,231	746	3,351	(D)

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
CROPS HARVESTED - Con.									
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) .....farms	1,631	261,424	327,500	17,605	47,832	8,142	19,649	12,726	42,971
acres	197,996	15,892,029	26,137,066	1,286,287	6,125,873	340,672	886,603	358,995	1,277,037
tons, dry	736,855	47,382,366	51,047,407	3,389,873	22,353,016	854,546	2,087,898	638,933	2,383,214
Irrigated .....farms	509	35,217	25,717	1,566	3,222	1,285	829	1,299	4,387
acres	88,593	4,358,606	3,418,849	190,029	679,906	56,850	25,652	69,591	140,861
Farms by acres harvested:									
1 to 24 acres	362	126,485	116,705	7,054	5,717	4,671	10,262	9,211	30,779
25 to 99 acres	707	100,841	143,854	7,291	21,084	2,654	6,976	2,911	9,831
100 to 249 acres	379	23,970	46,579	2,252	15,559	654	1,989	437	1,783
250 to 499 acres	131	6,319	13,273	698	4,061	119	356	113	415
500 acres or more	52	3,809	7,089	310	1,411	44	66	54	163
Alfalfa hay .....farms	337	80,404	72,924	9,672	30,441	3,449	3,075	4,045	11,886
acres	67,915	6,035,221	6,449,361	571,616	2,251,107	110,194	59,453	124,297	349,553
tons, dry	443,151	24,588,572	15,199,210	1,857,982	7,333,601	369,156	159,168	297,570	883,839
Irrigated .....farms	281	25,473	15,654	1,134	1,715	277	313	799	2,335
acres	63,150	3,327,817	1,704,276	121,112	328,244	8,487	5,798	43,653	80,270
Other tame hay .....farms	977	149,716	223,044	7,292	15,202	4,018	13,862	6,737	25,271
acres	80,475	7,155,542	13,422,454	422,008	1,150,674	179,387	689,506	150,886	661,915
tons, dry	170,542	16,778,522	24,938,054	788,922	2,685,420	362,682	1,627,059	218,636	1,047,933
Irrigated .....farms	168	9,132	8,432	342	593	918	409	366	1,537
acres	9,982	616,686	740,478	34,899	49,473	42,160	15,498	12,250	32,857
Field and grass seed crops, all .....farms	28	2,583	1,543	52	110	52	84	14	77
acres	9,297	766,345	145,534	4,561	9,163	3,410	6,883	699	5,797
Irrigated .....farms	27	965	60	-	15	2	1	2	17
acres	9,274	240,888	6,698	-	2,984	(D)	(D)	(D)	595
Land in vegetables (see text) .....farms	206	6,852	3,391	268	1,321	449	950	450	1,415
acres	42,858	417,378	26,791	12,823	31,881	13,911	18,959	757	8,239
Irrigated .....farms	129	3,138	1,122	79	311	107	371	187	558
acres	39,027	287,194	10,836	8,826	5,872	1,660	9,337	373	2,914
Farms by acres harvested:									
0.1 to 4.9 acres	28	4,062	2,733	171	740	242	655	422	1,212
5.0 to 24.9 acres	37	1,080	455	42	284	67	142	26	169
25.0 to 99.9 acres	63	781	143	33	211	105	98	1	22
100.0 to 249.9 acres	52	497	50	15	68	27	37	1	7
250.0 acres or more	26	432	10	7	18	8	18	-	5
Snap beans .....farms	7	1,584	770	44	275	70	206	65	362
acres	806	33,584	4,342	1,261	8,167	1,606	2,604	19	494
Harvested for processing .....farms	3	273	99	13	112	13	36	10	22
acres	(D)	27,443	4,019	1,256	8,050	1,576	2,111	4	372
Peas, green .....farms	2	431	160	27	161	81	32	5	57
acres	(D)	25,411	3,174	1,586	8,787	3,979	(D)	(D)	1,262
Harvested for processing .....farms	-	209	63	25	147	73	9	2	9
acres	-	24,726	2,964	1,579	8,741	3,966	724	(D)	(D)
Potatoes .....farms	4	1,587	694	63	248	56	173	67	364
acres	131	98,637	2,333	4,237	2,485	138	826	29	351
Harvested for processing .....farms	2	243	54	11	19	4	10	10	15
acres	(D)	60,950	1,072	4,076	1,417	1	(D)	2	29
Farms by acres harvested:									
0.1 to 4.9 acres	1	1,208	663	53	226	52	162	67	352
5.0 to 24.9 acres	1	72	12	2	7	3	5	-	11
25.0 to 99.9 acres	2	80	11	2	7	1	3	-	1
100.0 to 249.9 acres	-	112	7	5	5	-	2	-	-
250.0 acres or more	-	115	1	1	3	-	1	-	-
Sweet corn .....farms	16	2,810	1,583	132	589	209	317	230	619
acres	200	78,544	6,613	2,399	7,867	5,181	4,250	187	2,377
Harvested for processing .....farms	4	504	144	34	121	70	35	10	49
acres	17	52,855	3,629	1,953	5,665	4,544	3,135	4	1,382
Sweet potatoes .....farms	7	175	63	-	17	11	20	4	13
acres	646	7,634	105	-	11	(D)	839	4	(D)
Harvested for processing .....farms	4	23	1	-	-	4	5	-	-
acres	341	2,231	(D)	-	-	(D)	(D)	-	-
Tomatoes in the open .....farms	45	2,184	1,004	49	284	107	320	118	565
acres	30,411	41,305	577	16	503	279	356	40	277
Harvested for processing .....farms	36	201	82	9	21	10	20	18	51
acres	30,180	34,645	97	1	340	110	32	5	67
Land in orchards .....farms	229	5,991	6,646	188	615	226	1,167	658	1,862
acres	12,142	138,668	171,387	2,545	24,581	1,484	10,279	3,913	9,819
Irrigated .....farms	133	1,942	1,116	45	247	56	356	200	641
acres	10,407	86,916	20,714	1,024	21,544	379	4,040	1,310	2,794
Farms by bearing and nonbearing acres:									
0.1 to 4.9 acres	53	3,739	3,000	136	309	174	837	539	1,482
5.0 to 24.9 acres	77	1,364	2,128	28	142	40	241	91	308
25.0 to 99.9 acres	60	579	1,129	13	87	9	73	21	61
100.0 to 249.9 acres	28	205	283	10	56	3	10	5	9
250.0 acres or more	11	104	106	1	21	-	6	2	2
Apples .....farms	3	2,130	1,115	77	232	76	474	219	763
bearing and nonbearing acres	(D)	9,991	2,408	241	1,347	271	785	204	803
Grapes .....farms	34	1,144	724	29	123	53	242	133	371
bearing and nonbearing acres	1,042	16,195	3,828	179	4,140	111	548	155	504
Peaches, all .....farms	3	1,138	733	27	127	29	283	121	356
bearing and nonbearing acres	(D)	3,181	1,416	11	683	197	1,205	92	365

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture production (1114)	Other crop farming (1119)	
						Total	Tobacco farming (11191)
CROPS HARVESTED - Con.							
Land in orchards - Con.							
Citrus fruit, all ..... farms	15,658	26	314	14,348	377	175	-
bearing and nonbearing acres	1,005,806	639	12,603	970,079	6,391	6,147	-
Almonds ..... farms	6,700	74	157	5,985	19	232	-
bearing and nonbearing acres	790,245	5,979	32,274	702,956	340	33,407	-
Pecans ..... farms	21,856	543	566	12,631	259	2,238	17
bearing and nonbearing acres	581,809	16,765	4,809	345,813	2,080	46,836	139
Walnuts, English ..... farms	7,161	165	218	6,021	75	259	-
bearing and nonbearing acres	267,751	10,750	7,639	232,572	1,059	11,393	-
Land in berries (see text) ..... farms	25,017	555	4,189	13,780	1,304	2,362	90
acres	261,733	1,567	12,505	233,257	2,877	7,348	334

See footnote(s) at end of table.

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Table 62. **Summary by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other crop farming - con. (1119)		Beef cattle ranching and farming (112111)	Cattle feedlots (112112)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
	Cotton farming (11192)	Sugarcane farming, hay farming, and all other crop farming (11193, 11194 11199)							
CROPS HARVESTED - Con.									
Land in orchards - Con.									
Citrus fruit, all .....farms	2	173	204	2	14	5	50	34	109
bearing and nonbearing acres	(D)	(D)	8,342	(D)	740	2	149	(D)	584
Almonds .....farms	24	208	38	4	95	2	36	19	39
bearing and nonbearing acres	2,937	30,470	1,537	(D)	10,683	(D)	2,196	179	552
Pecans .....farms	150	2,071	4,341	64	76	70	354	213	501
bearing and nonbearing acres	4,168	42,529	149,329	1,651	1,805	692	3,809	2,758	5,462
Walnuts, English .....farms	7	252	158	12	52	3	48	43	107
bearing and nonbearing acres	202	11,192	1,196	(D)	2,348	(D)	439	100	236
Land in berries (see text) .....farms	7	2,265	1,036	79	372	87	441	196	616
acres	29	6,985	1,212	75	518	300	1,007	308	759

[1] Landlord production expenses are included with total farm production expenses.
[2] Farms with a zero net cash income are included as farms with net gains of less than $1,000.

Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
FARMS AND LAND IN FARMS								
Farms ..... number	2,204,792	993,881	5,988	44,591	97,508	211,039	260,056	374,699
percent	100.0	45.1	0.3	2.0	4.4	9.6	11.8	17.0
Land in farms ..... acres	922,095,840	697,743,712	1,942,131	25,642,428	83,555,397	191,919,056	191,479,391	203,205,309
Average size of farm ..... acres	418	702	324	575	857	909	736	542
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS								
Total ..... farms	2,204,792	993,881	5,988	44,591	97,508	211,039	260,056	374,699
$1,000	305,204,413	258,435,454	840,324	12,374,300	40,413,442	84,159,391	70,535,555	50,112,441
Average per farm ..... dollars	138,428	260,027	140,335	277,507	414,463	398,786	271,232	133,741
Farms by economic class:								
Less than $1,000 (see text)	499,880	142,888	743	4,806	13,395	27,238	39,176	57,530
$1,000 to $2,499	270,712	73,989	388	2,440	6,166	12,243	19,489	33,263
$2,500 to $4,999	246,309	75,712	493	2,223	5,531	11,251	19,323	36,891
$5,000 to $9,999	254,834	91,211	463	2,878	6,003	13,149	22,607	46,111
$10,000 to $24,999	274,274	120,743	662	4,208	8,079	17,615	29,626	60,553
$25,000 to $49,999	163,500	89,872	658	4,179	6,930	14,956	22,122	41,027
$50,000 to $99,999	129,124	84,774	687	4,814	7,952	17,470	21,794	32,057
$100,000 to $249,999	149,049	118,767	1,063	8,243	14,134	31,268	31,822	32,237
$250,000 to $499,999	96,251	85,812	514	5,309	11,942	27,411	23,844	16,792
$500,000 to $999,999	63,567	58,072	176	2,954	8,815	20,010	16,367	9,750
$1,000,000 or more	57,292	52,041	141	2,537	8,561	18,428	13,886	8,488
$1,000,000 to $2,499,999	41,863	38,440	120	1,967	6,373	13,737	10,176	6,067
$2,500,000 to $4,999,999	9,845	8,859	13	406	1,398	3,083	2,470	1,489
$5,000,000 or more	5,584	4,742	8	164	790	1,608	1,240	932
Total sales ..... farms	2,204,792	993,881	5,988	44,591	97,508	211,039	260,056	374,699
$1,000	297,220,491	252,231,332	816,268	12,099,558	39,652,124	82,290,350	68,806,683	48,566,349
Grains, oilseeds, dry beans, and dry peas ..... farms	479,467	331,478	2,487	19,027	37,668	87,230	86,135	98,931
$1,000	77,215,262	69,855,243	290,307	3,555,335	9,569,275	23,789,346	19,427,344	13,223,635
Sales of $50,000 or more ..... farms	235,343	198,719	1,280	11,419	24,428	59,794	54,485	47,313
$1,000	73,535,966	67,634,265	270,159	3,430,084	9,352,481	23,326,464	18,894,773	12,360,304
Corn ..... farms	347,540	247,063	1,808	14,446	29,209	67,601	64,712	69,287
$1,000	39,909,600	35,985,230	146,151	1,864,928	5,014,168	12,472,540	9,922,508	6,564,935
Sales of $50,000 or more ..... farms	151,428	131,084	736	7,579	16,915	41,651	36,332	27,871
$1,000	36,859,125	33,994,444	127,209	1,747,047	4,803,311	12,010,531	9,428,658	5,877,688
Wheat ..... farms	159,527	124,427	797	6,779	14,278	34,362	32,782	35,429
$1,000	10,623,640	9,747,221	43,863	490,616	1,287,900	3,198,085	2,707,257	2,019,500
Sales of $50,000 or more ..... farms	47,250	43,532	217	2,329	5,647	13,867	12,166	9,306
$1,000	8,944,760	8,413,072	34,526	413,590	1,137,077	2,835,418	2,356,201	1,636,262
Soybeans ..... farms	285,089	204,994	1,364	10,959	23,423	55,627	54,329	59,292
$1,000	20,283,986	18,184,525	67,791	826,580	2,344,516	6,151,652	5,205,216	3,588,770
Sales of $50,000 or more ..... farms	109,269	98,327	421	4,775	12,672	32,350	28,424	19,685
$1,000	17,191,360	16,067,686	49,745	702,364	2,123,398	5,657,428	4,676,115	2,858,635
Sorghum ..... farms	27,142	21,780	144	1,357	2,484	6,049	5,700	6,046
$1,000	1,651,798	1,507,075	6,515	84,974	197,998	497,502	397,266	322,820
Sales of $50,000 or more ..... farms	8,972	8,242	32	516	1,052	2,715	2,206	1,721
$1,000	1,348,798	1,262,717	4,652	69,319	171,048	435,118	331,123	251,457
Barley ..... farms	18,326	15,703	123	934	2,119	4,880	4,244	3,403
$1,000	701,047	658,780	3,211	39,640	95,774	235,086	183,658	101,412
Sales of $50,000 or more ..... farms	3,973	3,773	18	254	569	1,390	1,030	512
$1,000	526,415	503,199	1,527	28,830	74,422	188,726	140,596	69,098
Rice ..... farms	6,085	5,284	55	499	788	1,491	1,444	1,007
$1,000	2,020,231	1,864,152	11,118	123,305	313,283	563,715	504,539	348,192
Sales of $50,000 or more ..... farms	5,184	4,674	40	419	725	1,368	1,306	816
$1,000	1,995,322	1,846,491	10,704	120,713	311,491	559,961	500,765	342,857
Other grains, oilseeds, dry beans, and dry peas ..... farms	55,228	43,668	275	2,327	5,375	12,441	11,857	11,393
$1,000	2,024,959	1,908,259	11,658	125,292	315,635	670,766	506,900	278,007
Sales of $50,000 or more ..... farms	10,062	9,570	73	671	1,568	3,331	2,536	1,391
$1,000	1,698,514	1,627,869	8,554	108,464	282,377	588,990	427,234	212,249
Tobacco ..... farms	16,228	11,339	158	936	1,496	3,130	2,910	2,709
$1,000	1,268,114	1,149,435	8,851	64,333	163,694	393,970	302,516	216,071
Sales of $50,000 or more ..... farms	4,495	4,049	43	262	586	1,373	1,089	696
$1,000	1,076,035	1,014,810	6,274	50,949	145,343	358,594	270,354	183,296
Cotton and cottonseed ..... farms	18,591	15,879	163	1,057	2,133	4,535	4,215	3,776
$1,000	4,898,608	4,652,855	24,761	238,397	676,357	1,552,838	1,256,543	903,959
Sales of $50,000 or more ..... farms	13,232	12,253	111	767	1,777	3,729	3,244	2,625
$1,000	4,784,510	4,567,839	23,626	231,060	667,698	1,532,785	1,233,381	879,290
Vegetables, melons, potatoes, and sweet potatoes ..... farms	69,100	43,107	266	2,392	5,258	11,289	11,658	12,244
$1,000	14,683,058	12,922,934	13,974	404,505	1,671,487	4,510,323	3,628,297	2,694,348
Sales of $50,000 or more ..... farms	13,824	12,267	50	671	1,682	4,150	3,337	2,377
$1,000	14,167,307	12,581,539	11,555	381,704	1,628,959	4,423,122	3,536,800	2,599,398
Fruits, tree nuts, and berries ..... farms	112,690	57,177	127	1,643	4,923	12,523	15,935	22,026
$1,000	18,625,459	15,020,434	21,132	406,541	1,450,593	4,593,491	4,384,858	4,163,818
Sales of $50,000 or more ..... farms	28,824	20,450	28	629	2,021	5,488	5,827	6,457
$1,000	17,681,378	14,561,567	20,302	394,987	1,416,447	4,502,667	4,258,831	3,968,332
Nursery, greenhouse, floriculture, and sod (see text) ..... farms	50,784	27,797	120	1,383	3,551	8,186	8,233	6,324
$1,000	16,632,734	12,288,042	9,263	330,468	1,644,653	4,093,299	4,113,337	2,097,022
Sales of $50,000 or more ..... farms	17,039	11,874	31	488	1,700	4,001	3,500	2,154
$1,000	16,227,627	12,072,542	7,947	317,276	1,618,556	4,031,894	4,051,206	2,045,662
Cut Christmas trees and short-rotation woody crops ..... farms	13,374	5,490	11	102	398	1,002	1,644	2,333
$1,000	384,594	270,512	42	3,029	27,317	72,497	98,362	69,266
Sales of $50,000 or more ..... farms	1,088	772	-	17	89	202	250	214
$1,000	306,465	230,074	-	2,156	24,455	65,016	86,084	52,363

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
FARMS AND LAND IN FARMS							
Farms ..... number	1,210,911	5,890	62,144	171,310	354,362	336,250	280,955
percent	54.9	0.3	2.8	7.8	16.1	15.3	12.7
Land in farms ..... acres	224,352,128	743,308	8,106,948	25,339,326	57,442,163	68,668,228	64,052,155
Average size of farm ..... acres	185	126	130	148	162	204	228
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS							
Total ..... farms	1,210,911	5,890	62,144	171,310	354,362	336,250	280,955
$1,000	46,768,959	131,851	1,980,667	7,568,544	14,194,097	13,061,057	9,832,744
Average per farm ..... dollars	38,623	22,386	31,872	44,180	40,055	38,843	34,998
Farms by economic class:							
Less than $1,000 (see text)	356,992	1,380	16,660	52,330	107,924	100,531	78,167
$1,000 to $2,499	196,723	1,045	9,728	28,858	57,057	53,341	46,694
$2,500 to $4,999	170,597	834	7,991	23,153	48,452	47,149	43,018
$5,000 to $9,999	163,623	814	8,195	21,938	45,736	45,689	41,251
$10,000 to $24,999	153,531	861	8,397	20,229	43,810	43,160	37,074
$25,000 to $49,999	73,628	505	4,825	9,993	21,442	20,678	16,185
$50,000 to $99,999	44,350	235	3,102	6,689	13,512	12,050	8,762
$100,000 to $249,999	30,282	148	2,145	4,685	9,687	8,014	5,603
$250,000 to $499,999	10,439	41	618	1,719	3,428	2,709	1,924
$500,000 to $999,999	5,495	18	286	863	1,728	1,484	1,116
$1,000,000 or more	5,251	9	197	853	1,586	1,445	1,161
$1,000,000 to $2,499,999	3,423	8	141	589	1,052	885	748
$2,500,000 to $4,999,999	986	-	27	144	289	297	229
$5,000,000 or more	842	1	29	120	245	263	184
Total sales ..... farms	1,210,911	5,890	62,144	171,310	354,362	336,250	280,955
$1,000	44,989,159	126,260	1,916,238	7,387,039	13,754,505	12,580,550	9,224,568
Grains, oilseeds, dry beans, and dry peas ..... farms	147,989	1,191	11,057	22,543	44,911	39,226	29,061
$1,000	7,360,020	43,486	512,661	1,145,262	2,375,718	1,940,006	1,342,887
Sales of $50,000 or more ..... farms	36,624	215	2,851	5,963	12,197	9,342	6,056
$1,000	5,901,701	28,360	393,301	931,482	1,948,163	1,555,591	1,044,804
Corn ..... farms	100,477	838	7,887	16,015	31,259	26,448	18,030
$1,000	3,924,370	25,973	288,689	625,820	1,277,989	1,035,325	670,574
Sales of $50,000 or more ..... farms	20,344	148	1,621	3,461	6,922	5,139	3,053
$1,000	2,864,681	16,991	199,329	458,476	951,687	761,760	476,437
Wheat ..... farms	35,100	247	2,521	5,196	10,784	9,201	7,151
$1,000	876,419	4,434	51,919	128,902	256,681	227,648	206,835
Sales of $50,000 or more ..... farms	3,718	21	210	584	1,084	933	886
$1,000	531,688	2,024	26,349	79,042	148,582	138,286	137,405
Soybeans ..... farms	80,095	557	5,971	12,165	24,881	21,177	15,344
$1,000	2,099,461	9,091	138,561	315,394	710,507	554,196	371,712
Sales of $50,000 or more ..... farms	10,942	29	702	1,700	3,935	2,909	1,667
$1,000	1,123,674	2,448	61,817	165,218	399,226	299,404	195,561
Sorghum ..... farms	5,362	50	387	795	1,648	1,337	1,145
$1,000	144,724	1,601	9,492	21,403	44,111	36,721	31,396
Sales of $50,000 or more ..... farms	730	6	40	114	236	178	156
$1,000	86,080	938	5,097	12,616	26,379	21,693	19,358
Barley ..... farms	2,623	10	181	386	850	729	467
$1,000	42,267	232	3,987	5,684	13,331	11,249	7,783
Sales of $50,000 or more ..... farms	200	-	23	20	65	55	37
$1,000	23,216	-	2,599	2,440	7,578	6,168	4,431
Rice ..... farms	801	7	56	124	236	229	149
$1,000	156,079	1,275	10,230	29,969	38,309	46,484	29,811
Sales of $50,000 or more ..... farms	510	5	38	86	143	140	98
$1,000	148,831	(D)	(D)	29,087	35,665	44,438	28,769
Other grains, oilseeds, dry beans, and dry peas ..... farms	11,560	58	751	1,798	3,692	3,205	2,056
$1,000	116,701	880	9,782	18,089	34,791	28,384	24,775
Sales of $50,000 or more ..... farms	492	6	51	87	136	117	95
$1,000	70,644	515	5,513	10,821	20,666	16,819	16,310
Tobacco ..... farms	4,889	67	422	831	1,525	1,243	801
$1,000	118,680	549	10,643	16,743	36,943	32,882	20,919
Sales of $50,000 or more ..... farms	446	-	26	67	133	132	88
$1,000	61,225	-	5,185	7,508	18,606	18,090	11,836
Cotton and cottonseed ..... farms	2,712	22	153	377	749	662	749
$1,000	245,754	1,167	11,452	32,862	74,378	56,824	69,071
Sales of $50,000 or more ..... farms	979	13	56	142	250	238	280
$1,000	216,672	1,017	9,953	28,473	65,930	49,639	61,661
Vegetables, melons, potatoes, and sweet potatoes ..... farms	25,993	129	1,494	4,157	8,397	7,331	4,485
$1,000	1,760,125	1,586	57,739	297,326	612,792	541,208	249,473
Sales of $50,000 or more ..... farms	1,557	9	70	224	507	409	338
$1,000	1,585,768	721	47,896	269,556	556,401	490,726	220,469
Fruits, tree nuts, and berries ..... farms	55,513	118	1,529	6,082	15,733	17,494	14,557
$1,000	3,605,025	2,351	108,420	417,908	914,409	1,027,150	1,134,788
Sales of $50,000 or more ..... farms	8,374	13	232	888	2,124	2,598	2,519
$1,000	3,119,811	1,372	94,882	365,497	778,572	874,617	1,004,872
Nursery, greenhouse, floriculture, and sod (see text) ..... farms	22,987	71	1,031	3,190	7,594	6,946	4,155
$1,000	4,344,692	4,301	164,063	630,601	1,378,552	1,172,082	995,093
Sales of $50,000 or more ..... farms	5,165	14	230	725	1,805	1,461	930
$1,000	4,155,085	3,928	155,465	602,928	1,316,165	1,114,874	961,725
Cut Christmas trees and short-rotation woody crops ..... farms	7,884	14	190	753	2,403	2,550	1,974
$1,000	114,081	(D)	(D)	8,940	27,127	38,823	36,464
Sales of $50,000 or more ..... farms	316	1	12	30	97	102	74
$1,000	76,391	(D)	(D)	5,543	15,427	26,661	26,909

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.								
Total - Con.								
Total sales - Con.								
Other crops and hay (see text) ..... farms	434,502	208,485	980	8,384	18,757	43,169	55,649	81,546
$1,000	9,950,098	8,122,685	28,699	413,349	1,091,638	2,630,080	2,272,452	1,686,468
Sales of $50,000 or more ..... farms	27,831	23,995	127	1,557	3,217	7,459	6,544	5,091
$1,000	7,529,077	6,706,700	21,489	349,182	958,997	2,317,081	1,888,382	1,171,569
Cattle and calves ..... farms	798,290	436,069	2,585	20,293	41,913	89,527	110,948	170,803
$1,000	61,209,970	49,568,257	115,923	2,115,221	7,487,339	14,269,999	14,045,331	11,534,443
Sales of $50,000 or more ..... farms	119,983	99,688	379	4,887	12,184	27,452	27,541	27,245
$1,000	53,786,091	45,014,973	90,379	1,900,513	7,068,485	13,350,216	12,898,690	9,706,690
Milk and other dairy products from cows ..... farms	69,763	59,536	650	5,317	10,281	19,433	14,094	9,761
$1,000	31,848,029	29,773,474	148,746	1,648,925	6,055,677	10,314,864	7,184,304	4,420,959
Sales of $50,000 or more ..... farms	50,792	48,012	506	4,268	8,479	16,517	11,441	6,801
$1,000	31,558,210	29,564,532	145,959	1,631,104	6,025,106	10,259,464	7,134,615	4,368,283
Hogs and pigs ..... farms	74,789	40,737	352	2,802	7,298	12,982	9,591	7,712
$1,000	18,056,981	15,196,729	70,949	1,025,377	3,388,061	5,370,675	3,526,342	1,815,325
Sales of $50,000 or more ..... farms	19,956	16,871	98	1,067	3,166	6,317	4,000	2,223
$1,000	17,829,977	15,046,130	69,175	1,015,413	3,365,673	5,325,289	3,488,482	1,782,097
Sheep, goats, and their products ..... farms	121,171	52,363	473	2,519	6,340	11,560	13,523	17,948
$1,000	704,855	493,938	3,251	18,484	55,490	103,992	154,289	158,432
Sales of $50,000 or more ..... farms	1,825	1,532	9	68	204	410	424	417
$1,000	415,640	326,562	1,970	10,227	35,253	65,317	107,399	106,396
Horses, ponies, mules, burros, and donkeys ..... farms	114,317	47,939	301	2,982	6,488	11,352	13,597	13,219
$1,000	2,061,862	1,233,266	1,610	39,446	252,607	388,134	302,932	248,538
Sales of $50,000 or more ..... farms	3,638	2,354	2	96	332	659	696	569
$1,000	1,559,047	989,301	(D)	(D)	219,875	328,306	231,093	183,915
Poultry and eggs ..... farms	148,911	72,496	443	4,494	11,805	19,007	18,696	18,051
$1,000	37,065,947	29,748,726	76,287	1,764,649	5,829,573	9,499,194	7,605,817	4,973,206
Sales of $50,000 or more ..... farms	26,267	21,428	88	1,398	4,011	6,467	5,645	3,819
$1,000	36,932,463	29,677,395	75,762	1,759,388	5,817,622	9,480,135	7,587,405	4,957,083
Aquaculture (see text) ..... farms	6,409	3,549	11	183	549	1,070	1,029	707
$1,000	1,415,271	1,149,709	1,359	54,499	147,053	435,047	314,268	197,483
Sales of $50,000 or more ..... farms	2,449	1,774	8	110	319	583	492	262
$1,000	1,376,454	1,127,532	1,301	53,280	143,757	428,324	307,894	192,976
Other animals and other animal products (see text) ..... farms	43,226	18,866	145	969	2,549	4,650	5,140	5,413
$1,000	1,199,649	785,094	1,114	16,999	141,311	272,602	189,692	163,376
Sales of $50,000 or more ..... farms	2,294	1,643	5	69	221	563	478	307
$1,000	1,066,659	716,587	586	14,417	133,233	253,220	169,525	145,605
Value of-								
Government payments ..... farms	838,391	457,639	2,704	21,589	46,150	108,806	119,191	159,199
$1,000	7,983,922	6,204,122	24,056	274,742	761,318	1,869,041	1,728,872	1,546,092
Landlord's share of total sales (see text) ..... farms	97,706	75,251	689	4,685	9,207	22,677	21,319	16,674
$1,000	6,429,386	5,952,389	26,017	316,027	816,610	2,185,400	1,703,911	904,424
Agricultural products sold directly to individuals for human consumption (see text) ..... farms	136,817	62,262	393	3,136	7,266	14,955	17,255	19,257
$1,000	1,211,270	920,223	2,544	50,389	126,102	292,765	237,585	210,837
FARM PRODUCTION EXPENSES								
Total farm production expenses ..... farms	2,204,792	993,881	5,988	44,591	97,508	211,039	260,056	374,699
$1,000	241,113,666	198,107,215	644,640	9,559,607	30,992,213	63,850,282	54,468,539	38,591,934
Average per farm ..... dollars	109,359	199,327	107,655	214,384	317,843	302,552	209,449	102,994
Fertilizer, lime, and soil conditioners purchased ..... farms	1,148,218	639,854	3,778	30,569	64,954	145,941	170,121	224,491
$1,000	18,107,194	15,694,750	56,354	734,882	2,057,661	5,163,610	4,392,665	3,289,579
Farms with expenses of-								
$1 to $4,999	734,931	316,971	1,821	13,007	26,783	56,058	82,413	136,889
$5,000 to $24,999	249,546	174,915	1,331	9,681	18,382	41,343	45,597	58,581
$25,000 to $49,999	74,633	64,611	333	3,679	8,167	19,536	18,428	14,468
$50,000 or more	89,108	83,357	293	4,202	11,622	29,004	23,683	14,553
Chemicals purchased ..... farms	918,604	531,160	3,311	26,480	56,080	127,075	143,509	174,705
$1,000	10,074,914	8,889,615	30,748	406,898	1,193,229	3,002,228	2,494,930	1,761,583
Farms with expenses of-								
$1 to $4,999	666,084	318,250	2,099	14,473	28,475	61,061	84,284	127,858
$5,000 to $24,999	162,785	129,816	924	7,812	15,858	37,275	35,546	32,401
$25,000 to $49,999	46,594	42,602	174	2,267	5,948	14,344	12,197	7,672
$50,000 or more	43,141	40,492	114	1,928	5,799	14,395	11,482	6,774
Seeds, plants, vines, and trees ..... farms	775,893	477,379	3,109	25,254	53,092	119,991	128,767	147,166
$1,000	11,740,521	10,186,613	37,521	465,646	1,406,586	3,514,557	2,863,663	1,898,639
Farms with expenses of-								
$1 to $999	302,164	128,571	675	4,562	10,766	22,985	35,519	54,064
$1,000 to $4,999	192,154	114,732	911	6,991	11,766	25,249	28,943	40,872
$5,000 to $24,999	173,462	134,457	1,142	8,511	16,255	36,849	36,083	35,617
$25,000 to $49,999	56,320	51,220	246	2,856	7,057	17,202	14,701	9,158
$50,000 or more	51,793	48,399	135	2,334	7,248	17,706	13,521	7,455

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.							
Total - Con.							
Total sales - Con.							
Other crops and hay (see text) ..... farms	226,017	849	11,296	32,182	68,557	64,910	48,223
$1,000	1,827,413	4,710	75,547	206,001	458,421	666,762	415,973
Sales of $50,000 or more ..... farms	3,836	13	209	527	1,059	1,107	921
$1,000	822,377	1,015	24,001	67,882	159,905	376,364	193,210
Cattle and calves ..... farms	362,221	2,431	23,247	57,390	111,715	98,131	69,307
$1,000	11,641,713	28,537	412,943	2,352,758	3,707,538	3,068,519	2,071,417
Sales of $50,000 or more ..... farms	20,295	80	1,418	2,984	5,918	5,494	4,401
$1,000	8,771,118	11,277	229,475	1,927,448	2,837,804	2,263,949	1,501,164
Milk and other dairy products from cows ..... farms	10,227	88	941	2,023	3,239	2,318	1,618
$1,000	2,074,555	3,220	56,278	389,003	600,092	540,993	484,969
Sales of $50,000 or more ..... farms	2,780	14	179	454	885	661	587
$1,000	1,993,678	2,520	48,892	374,701	574,260	521,166	472,139
Hogs and pigs ..... farms	34,052	310	3,007	9,347	12,268	6,209	2,911
$1,000	2,860,251	15,664	169,863	598,264	908,050	927,824	240,587
Sales of $50,000 or more ..... farms	3,085	38	301	694	1,098	670	284
$1,000	2,783,847	14,806	162,065	580,727	881,709	911,485	233,055
Sheep, goats, and their products ..... farms	68,808	633	4,680	14,096	23,289	16,707	9,403
$1,000	210,917	1,230	10,917	26,543	56,296	41,049	74,882
Sales of $50,000 or more ..... farms	293	1	14	41	76	66	95
$1,000	89,078	(D)	(D)	4,696	15,553	9,876	56,807
Horses, ponies, mules, burros, and donkeys ..... farms	66,378	321	4,585	12,463	22,072	18,208	8,729
$1,000	828,596	1,459	19,432	79,312	308,861	217,651	201,881
Sales of $50,000 or more ..... farms	1,284	1	40	193	374	391	285
$1,000	569,746	(D)	(D)	35,459	223,272	142,781	163,844
Poultry and eggs ..... farms	76,415	396	5,070	16,807	27,089	18,069	8,984
$1,000	7,317,221	17,673	289,666	1,110,769	2,116,174	2,078,234	1,704,705
Sales of $50,000 or more ..... farms	4,839	10	289	975	1,622	1,277	666
$1,000	7,255,068	17,210	285,444	1,097,822	2,094,024	2,063,501	1,697,067
Aquaculture (see text) ..... farms	2,860	13	181	483	935	801	447
$1,000	265,561	107	8,768	44,567	87,512	85,375	39,233
Sales of $50,000 or more ..... farms	675	-	46	135	223	156	115
$1,000	248,923	-	7,579	41,271	82,284	80,635	37,153
Other animals and other animal products (see text) ..... farms	24,360	76	1,349	4,205	8,189	6,775	3,766
$1,000	414,555	(D)	(D)	30,179	91,642	145,168	142,226
Sales of $50,000 or more ..... farms	651	-	17	99	206	209	120
$1,000	350,073	-	2,418	20,416	69,202	125,400	132,636
Value of-							
Government payments ..... farms	380,752	1,599	17,332	46,094	101,508	103,254	110,965
$1,000	1,779,800	5,591	64,429	181,505	439,593	480,506	608,176
Landlord's share of total sales (see text) ..... farms	22,455	285	2,164	3,994	7,676	5,663	2,673
$1,000	476,997	2,931	32,411	82,512	173,788	120,598	64,758
Agricultural products sold directly to individuals for human consumption (see text) ..... farms	74,555	355	4,246	14,140	26,585	19,265	9,964
$1,000	291,047	992	14,320	60,168	95,506	74,298	45,763
FARM PRODUCTION EXPENSES							
Total farm production expenses ..... farms	1,210,911	5,890	62,144	171,310	354,362	336,250	280,955
$1,000	43,006,451	126,566	1,865,002	7,070,118	13,294,139	12,157,577	8,493,050
Average per farm ..... dollars	35,516	21,488	30,011	41,271	37,516	36,156	30,229
Fertilizer, lime, and soil conditioners purchased ..... farms	508,364	2,517	28,556	75,105	157,176	145,826	99,184
$1,000	2,412,444	10,020	138,275	336,459	753,527	680,996	493,166
Farms with expenses of-							
$1 to $4,999	417,960	2,041	22,496	61,960	129,078	120,614	81,771
$5,000 to $24,999	74,631	423	5,079	10,784	22,985	21,092	14,268
$25,000 to $49,999	10,022	34	675	1,565	3,316	2,604	1,828
$50,000 or more	5,751	19	306	796	1,797	1,516	1,317
Chemicals purchased ..... farms	387,444	1,920	22,803	58,876	122,720	110,737	70,388
$1,000	1,185,299	4,212	59,872	162,447	367,202	332,961	258,605
Farms with expenses of-							
$1 to $4,999	347,834	1,731	20,116	52,936	109,871	100,163	63,017
$5,000 to $24,999	32,969	164	2,341	5,077	10,729	8,797	5,861
$25,000 to $49,999	3,992	19	237	540	1,332	1,048	816
$50,000 or more	2,649	6	109	323	788	729	694
Seeds, plants, vines, and trees ..... farms	298,514	1,669	18,891	47,004	95,994	83,854	51,102
$1,000	1,553,908	5,417	86,262	243,860	520,870	414,196	283,303
Farms with expenses of-							
$1 to $999	173,593	796	9,699	27,624	56,336	50,045	29,093
$1,000 to $4,999	77,422	581	5,596	11,808	23,944	21,339	14,154
$5,000 to $24,999	39,005	263	3,136	6,260	12,717	10,303	6,326
$25,000 to $49,999	5,100	23	315	812	1,882	1,254	814
$50,000 or more	3,394	6	145	500	1,115	913	715

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
FARM PRODUCTION EXPENSES - Con.								
Total farm production expenses - Con.								
Livestock and poultry purchased or leased (see text) ..... farms	490,819	265,968	2,127	16,181	35,129	66,549	70,854	75,128
$1,000	38,003,682	30,884,509	91,369	1,645,218	5,642,094	9,540,443	8,421,162	5,544,222
Farms with expenses of-								
$1 to $4,999	306,414	135,828	1,098	7,120	15,702	30,074	36,385	45,449
$5,000 to $24,999	97,441	59,380	532	4,183	7,718	14,923	15,962	16,062
$25,000 to $99,999	42,768	32,914	295	2,322	4,854	9,279	8,844	7,320
$100,000 to $249,999	24,183	20,314	128	1,416	3,709	6,457	5,172	3,432
$250,000 or more	20,013	17,532	74	1,140	3,146	5,816	4,491	2,865
Breeding livestock purchased or leased (see text) ..... farms	278,572	156,674	1,311	9,453	19,185	38,043	42,073	46,609
$1,000	3,599,873	2,756,105	19,774	181,338	573,012	798,825	685,148	498,010
Other livestock and poultry purchased or leased (see text) ..... farms	279,155	148,046	1,230	9,866	22,412	39,264	38,650	36,624
$1,000	34,403,809	28,128,404	71,595	1,463,881	5,069,082	8,741,619	7,736,015	5,046,212
Feed purchased ..... farms	1,135,968	545,401	3,262	25,387	58,337	118,685	144,553	195,177
$1,000	49,095,106	40,207,404	151,313	2,298,269	7,716,122	12,803,830	10,328,062	6,909,808
Farms with expenses of-								
$1 to $4,999	766,606	300,474	1,623	11,063	25,228	53,007	79,099	130,454
$5,000 to $24,999	245,328	140,826	929	6,944	15,847	32,894	38,832	45,380
$25,000 to $99,999	66,394	54,519	463	4,197	8,232	16,562	13,986	11,079
$100,000 to $249,999	23,472	20,132	118	1,337	3,503	6,523	5,106	3,545
$250,000 or more	34,168	29,450	129	1,846	5,527	9,699	7,530	4,719
Gasoline, fuels, and oils ..... farms	2,148,806	980,047	5,837	43,824	96,026	208,033	256,720	369,607
$1,000	12,912,179	10,432,583	36,674	479,950	1,412,476	3,284,245	2,878,204	2,341,034
Farms with expenses of-								
$1 to $4,999	1,704,545	627,764	3,917	24,548	50,739	104,912	160,239	283,409
$5,000 to $24,999	336,324	254,704	1,640	14,591	31,018	69,671	69,500	68,284
$25,000 to $49,999	64,765	58,191	190	2,985	8,352	19,911	15,987	10,766
$50,000 or more	43,172	39,388	90	1,700	5,917	13,539	10,994	7,148
Utilities (see text) ..... farms	1,102,530	637,637	3,134	28,907	66,721	149,440	171,805	217,630
$1,000	5,917,615	4,817,655	15,242	213,314	682,979	1,535,252	1,316,632	1,054,236
Farms with expenses of-								
$1 to $999	506,560	211,184	1,094	7,692	15,669	33,518	55,273	97,938
$1,000 to $4,999	402,839	262,069	1,329	12,526	26,878	62,195	71,702	87,439
$5,000 to $24,999	157,818	133,461	612	7,268	19,587	43,268	36,446	26,280
$25,000 to $49,999	19,269	16,879	61	798	2,480	5,684	4,641	3,215
$50,000 or more	16,044	14,044	38	623	2,107	4,775	3,743	2,758
Supplies, repairs, and maintenance ..... farms	1,992,234	923,973	5,314	41,179	90,989	198,362	243,367	344,762
$1,000	15,896,723	12,524,115	38,482	529,904	1,696,298	3,904,016	3,555,862	2,799,554
Farms with expenses of-								
$1 to $4,999	1,478,317	546,432	3,538	21,745	44,495	90,883	138,654	247,117
$5,000 to $24,999	389,971	267,452	1,464	14,563	31,084	69,886	73,597	76,858
$25,000 to $49,999	73,014	64,079	224	3,008	8,839	21,549	18,077	12,382
$50,000 or more	50,932	46,010	88	1,863	6,571	16,044	13,039	8,405
Hired farm labor ..... farms	482,186	318,878	1,551	14,355	36,242	85,579	86,570	94,581
$1,000	21,877,661	18,113,858	27,392	583,872	2,483,068	5,858,356	5,404,216	3,756,954
Farms with expenses of-								
$1 to $4,999	262,262	143,642	957	6,788	13,899	30,894	37,439	53,665
$5,000 to $24,999	108,122	81,363	348	3,924	10,144	24,310	21,899	20,738
$25,000 to $99,999	75,938	63,156	190	2,609	8,047	19,914	18,361	14,035
$100,000 to $249,999	21,237	18,279	44	643	2,400	6,206	5,280	3,706
$250,000 or more	14,627	12,438	12	391	1,752	4,255	3,591	2,437
Contract labor ..... farms	182,701	106,849	452	4,650	11,435	26,656	30,212	33,444
$1,000	4,514,166	3,542,160	6,462	114,796	399,414	1,096,888	986,348	938,252
Farms with expenses of-								
$1 to $999	49,657	21,851	104	801	1,738	4,322	6,175	8,711
$1,000 to $4,999	66,104	37,382	170	1,648	3,772	8,816	10,503	12,473
$5,000 to $24,999	45,949	31,470	119	1,506	3,816	8,702	8,914	8,413
$25,000 to $49,999	9,730	7,242	27	330	942	2,137	2,052	1,754
$50,000 or more	11,261	8,904	32	365	1,167	2,679	2,568	2,093
Customwork and custom hauling ..... farms	362,475	228,329	1,363	11,637	24,097	55,790	60,534	74,908
$1,000	4,091,038	3,407,107	12,604	170,939	463,836	1,089,734	914,500	755,494
Farms with expenses of-								
$1 to $999	119,768	56,088	290	2,315	4,316	9,879	14,353	24,935
$1,000 to $4,999	131,318	82,339	577	4,266	8,520	19,368	21,484	28,124
$5,000 to $24,999	83,762	65,805	393	3,753	7,958	18,841	17,987	16,873
$25,000 to $49,999	14,558	12,505	60	709	1,637	3,948	3,510	2,641
$50,000 or more	13,069	11,592	43	594	1,666	3,754	3,200	2,335
Cash rent for land, buildings, and grazing fees ..... farms	490,372	331,568	2,782	21,795	42,446	91,803	89,146	83,596
$1,000	13,274,530	11,848,327	59,815	728,228	1,902,449	4,216,814	3,120,512	1,820,511
Farms with expenses of-								
$1 to $4,999	238,363	124,718	1,069	6,920	12,518	26,184	33,427	44,600
$5,000 to $9,999	59,281	41,876	396	2,948	5,062	11,203	11,333	10,934
$10,000 to $24,999	76,679	60,330	679	4,749	8,030	17,746	16,437	12,689
$25,000 or more	116,049	104,644	638	7,178	16,836	36,670	27,949	15,373

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
FARM PRODUCTION EXPENSES - Con.							
Total farm production expenses - Con.							
Livestock and poultry purchased or leased (see text) ..... farms	224,851	1,740	18,646	46,204	76,533	55,243	26,485
$1,000	7,119,173	25,733	284,184	1,613,247	2,303,230	1,852,169	1,040,609
Farms with expenses of-							
$1 to $4,999	170,586	1,294	13,399	35,686	58,679	41,850	19,678
$5,000 to $24,999	38,061	357	3,764	7,466	12,610	9,348	4,516
$25,000 to $99,999	9,854	59	1,018	1,796	3,193	2,435	1,353
$100,000 to $249,999	3,869	20	331	789	1,309	931	489
$250,000 or more	2,481	10	134	467	742	679	449
Breeding livestock purchased or leased (see text) ..... farms	121,898	1,108	10,348	23,938	40,900	30,791	14,813
$1,000	843,768	4,296	62,719	166,753	243,661	247,703	118,636
Other livestock and poultry purchased or leased (see text) ..... farms	131,109	989	11,216	29,328	45,633	30,051	13,892
$1,000	6,275,405	21,436	221,465	1,446,494	2,059,570	1,604,466	921,974
Feed purchased ..... farms	590,567	3,448	36,693	100,934	192,280	161,268	95,944
$1,000	8,887,701	22,248	359,825	1,622,570	2,727,455	2,504,142	1,651,461
Farms with expenses of-							
$1 to $4,999	466,132	2,865	29,049	80,363	151,531	126,761	75,563
$5,000 to $24,999	104,502	505	6,319	17,025	34,540	29,306	16,807
$25,000 to $99,999	11,875	42	821	1,956	3,611	3,198	2,247
$100,000 to $249,999	3,340	18	245	653	1,055	773	596
$250,000 or more	4,718	18	259	937	1,543	1,230	731
Gasoline, fuels, and oils ..... farms	1,168,759	5,543	59,921	165,758	342,955	324,923	269,659
$1,000	2,479,596	9,301	120,890	339,532	731,338	688,678	589,857
Farms with expenses of-							
$1 to $4,999	1,076,781	5,177	54,684	152,434	315,013	300,270	249,203
$5,000 to $24,999	81,620	339	4,854	11,975	25,063	21,761	17,628
$25,000 to $49,999	6,574	19	274	862	1,800	1,842	1,777
$50,000 or more	3,784	8	109	487	1,079	1,050	1,051
Utilities (see text) ..... farms	464,893	1,655	23,566	69,324	148,117	134,758	87,473
$1,000	1,099,961	2,513	41,067	152,582	337,882	317,490	248,427
Farms with expenses of-							
$1 to $999	295,376	1,085	14,952	44,041	93,735	85,773	55,790
$1,000 to $4,999	140,770	474	7,416	21,303	45,602	40,836	25,139
$5,000 to $24,999	24,357	92	1,062	3,411	7,545	6,948	5,299
$25,000 to $49,999	2,390	3	73	312	718	618	666
$50,000 or more	2,000	1	63	257	517	583	579
Supplies, repairs, and maintenance ..... farms	1,068,261	4,873	54,515	151,444	315,283	298,373	243,773
$1,000	3,372,608	10,846	141,584	464,832	985,982	971,766	797,597
Farms with expenses of-							
$1 to $4,999	931,885	4,403	47,687	132,506	273,332	259,626	214,331
$5,000 to $24,999	122,519	443	6,352	17,192	37,953	34,703	25,876
$25,000 to $49,999	8,935	20	329	1,153	2,629	2,628	2,176
$50,000 or more	4,922	7	147	593	1,369	1,416	1,390
Hired farm labor ..... farms	163,308	563	7,344	22,666	52,202	47,002	33,531
$1,000	3,763,804	4,255	117,018	451,532	1,157,030	1,106,710	927,259
Farms with expenses of-							
$1 to $4,999	118,620	468	5,770	17,005	38,659	33,895	22,823
$5,000 to $24,999	26,759	69	1,083	3,537	8,468	7,764	5,838
$25,000 to $99,999	12,782	21	364	1,527	3,612	3,805	3,453
$100,000 to $249,999	2,958	2	68	328	823	874	863
$250,000 or more	2,189	3	59	269	640	664	554
Contract labor ..... farms	75,852	209	3,213	9,900	23,103	23,337	16,090
$1,000	972,005	747	25,039	152,097	241,210	310,526	242,386
Farms with expenses of-							
$1 to $999	27,806	98	1,225	3,733	8,658	8,540	5,552
$1,000 to $4,999	28,722	79	1,276	3,868	8,916	8,791	5,792
$5,000 to $24,999	14,479	26	543	1,754	4,268	4,528	3,360
$25,000 to $49,999	2,488	4	102	289	679	721	693
$50,000 or more	2,357	2	67	256	582	757	693
Customwork and custom hauling ..... farms	134,146	585	7,316	18,796	41,239	39,574	26,636
$1,000	683,931	2,253	26,725	105,053	191,714	206,953	151,233
Farms with expenses of-							
$1 to $999	63,680	300	3,426	9,142	19,647	18,542	12,623
$1,000 to $4,999	48,979	199	2,741	6,803	15,339	14,583	9,314
$5,000 to $24,999	17,957	66	962	2,407	5,277	5,443	3,802
$25,000 to $49,999	2,053	17	126	253	578	564	515
$50,000 or more	1,477	3	61	191	398	442	382
Cash rent for land, buildings, and grazing fees ..... farms	158,804	1,497	14,462	27,964	51,580	40,889	22,412
$1,000	1,426,203	9,954	115,198	247,680	458,959	378,411	216,000
Farms with expenses of-							
$1 to $4,999	113,645	1,103	9,764	19,680	36,354	30,164	16,580
$5,000 to $9,999	17,405	167	1,835	3,083	5,738	4,224	2,358
$10,000 to $24,999	16,349	148	1,814	3,071	5,597	3,747	1,972
$25,000 or more	11,405	79	1,049	2,130	3,891	2,754	1,502

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
FARM PRODUCTION EXPENSES - Con.								
Total farm production expenses - Con.								
Rent and lease expenses for machinery, equipment, and farm share of vehicles ..... farms	109,199	76,234	740	6,272	11,136	22,523	19,681	15,882
$1,000	1,385,219	1,210,918	8,012	83,445	196,540	401,985	326,215	194,721
Farms with expenses of-								
$1 to $999	39,280	21,417	173	1,470	2,539	5,393	5,725	6,117
$1,000 to $4,999	31,997	22,537	266	1,863	3,285	6,638	5,768	4,717
$5,000 to $24,999	26,656	22,068	215	2,123	3,532	7,054	5,570	3,574
$25,000 to $49,999	5,778	5,194	57	483	886	1,763	1,301	704
$50,000 or more	5,488	5,018	29	333	894	1,675	1,317	770
Interest expense ..... farms	667,454	379,239	2,205	21,841	48,094	104,743	106,840	95,516
$1,000	10,880,731	8,238,540	26,254	386,353	1,214,163	2,696,036	2,333,339	1,582,395
Farms with expenses of-								
$1 to $4,999	289,876	134,649	1,003	7,357	13,581	29,900	37,771	45,037
$5,000 to $24,999	275,988	160,833	948	10,451	21,873	46,464	45,337	35,760
$25,000 to $99,999	87,574	71,413	234	3,610	10,850	24,093	20,194	12,432
$100,000 or more	14,016	12,344	20	423	1,790	4,286	3,538	2,287
Secured by real estate ..... farms	519,095	285,007	1,055	14,431	36,512	80,853	82,115	70,041
$1,000	7,185,334	5,157,125	13,689	220,606	743,223	1,660,792	1,484,313	1,034,502
Farms with expenses of-								
$1 to $999	58,501	25,291	123	1,061	2,594	5,349	6,861	9,303
$1,000 to $4,999	171,356	79,697	330	3,922	8,725	20,171	23,339	23,210
$5,000 to $24,999	225,304	128,938	472	7,306	17,672	38,377	37,226	27,885
$25,000 to $49,999	39,515	30,651	81	1,362	4,530	10,123	8,779	5,776
$50,000 or more	24,419	20,430	49	780	2,991	6,833	5,910	3,867
Not secured by real estate ..... farms	413,327	254,177	1,770	15,764	32,009	70,663	70,160	63,811
$1,000	3,695,397	3,081,415	12,566	165,747	470,939	1,035,243	849,026	547,893
Farms with expenses of-								
$1 to $999	122,808	54,882	355	2,601	5,236	11,395	15,049	20,246
$1,000 to $4,999	153,159	87,873	698	5,758	10,366	22,648	24,495	23,908
$5,000 to $24,999	106,610	83,336	620	5,957	11,976	26,503	22,975	15,305
$25,000 to $49,999	18,841	17,083	69	952	2,658	6,211	4,582	2,611
$50,000 or more	11,909	11,003	28	496	1,773	3,906	3,059	1,741
Property taxes paid ..... farms	1,995,808	895,001	3,729	35,240	87,670	196,037	247,525	324,800
$1,000	6,223,048	3,946,876	8,459	121,442	414,601	1,048,598	1,141,855	1,211,921
Farms with expenses of-								
$1 to $4,999	1,717,819	702,120	3,343	29,761	67,930	143,171	190,696	267,219
$5,000 to $9,999	172,489	112,074	267	3,425	11,488	30,061	32,408	34,425
$10,000 to $24,999	80,800	61,063	102	1,527	6,076	17,040	18,569	17,749
$25,000 or more	24,700	19,744	17	527	2,176	5,765	5,852	5,407
All other production expenses (see text) ..... farms	1,115,703	654,203	3,710	31,980	71,237	156,679	176,900	213,697
$1,000	17,119,339	14,162,182	37,938	596,450	2,110,698	4,693,692	3,990,372	2,733,031
Farms with expenses of-								
$1 to $4,999	765,840	369,553	2,310	16,298	32,860	69,450	97,254	151,381
$5,000 to $24,999	234,512	183,119	1,094	10,737	23,042	52,865	51,068	44,313
$25,000 to $49,999	55,174	48,344	190	2,493	6,966	16,135	13,702	8,858
$50,000 to $99,999	32,742	28,935	67	1,377	4,411	9,780	8,210	5,090
$100,000 or more	27,435	24,252	49	1,075	3,958	8,449	6,666	4,055
Production expenses paid by landlords [1] ..... farms	67,427	55,181	422	3,193	6,978	17,499	15,748	11,341
$1,000	1,556,963	1,437,173	5,570	67,964	206,235	526,456	418,685	212,263
Depreciation expenses claimed (see text) ..... farms	963,340	552,622	2,642	25,831	58,363	131,817	151,263	182,706
$1,000	20,185,540	16,167,815	54,940	798,735	2,352,387	5,108,831	4,447,618	3,405,303
NET CASH FARM INCOME (SEE TEXT)								
Net cash farm income of operations (see text) ..... farms	2,204,792	993,881	5,988	44,591	97,508	211,039	260,056	374,699
$1,000	74,581,098	68,033,725	226,346	3,199,959	10,388,195	22,518,174	18,197,985	13,503,067
Average per farm ..... dollars	33,827	68,453	37,800	71,762	106,537	106,701	69,977	36,037
Farms with net gains [2] ..... number	1,037,041	580,192	3,651	28,497	59,685	132,598	147,157	208,604
Average net gain ..... dollars	89,479	134,925	74,327	129,871	196,862	190,208	142,925	78,172
Gain of-								
Less than $1,000	102,871	31,423	192	957	1,958	4,261	7,473	16,582
$1,000 to $4,999	221,477	77,888	453	2,506	5,076	10,982	18,099	40,772
$5,000 to $9,999	128,828	55,141	345	2,074	3,864	8,402	12,973	27,483
$10,000 to $24,999	170,636	89,333	693	4,193	7,228	16,012	21,822	39,385
$25,000 to $49,999	119,233	77,579	568	4,302	7,636	17,038	19,822	28,213
$50,000 or more	293,996	248,828	1,400	14,465	33,923	75,903	66,968	56,169
Farms with net losses ..... number	1,167,751	413,689	2,337	16,094	37,823	78,441	112,899	166,095
Average net loss ..... dollars	15,596	24,774	19,264	31,129	35,997	34,459	25,105	16,882
Loss of-								
Less than $1,000	134,307	38,898	215	1,074	2,591	5,512	9,338	20,168
$1,000 to $4,999	426,570	129,309	759	4,098	9,717	20,340	34,035	60,360
$5,000 to $9,999	247,156	82,980	466	3,158	7,248	15,131	23,149	33,828
$10,000 to $24,999	225,863	88,006	514	3,894	8,936	17,931	25,440	31,291
$25,000 to $49,999	76,927	37,373	212	1,814	4,423	9,077	10,509	11,338
$50,000 or more	56,928	37,123	171	2,056	4,908	10,450	10,428	9,110

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
FARM PRODUCTION EXPENSES - Con.							
Total farm production expenses - Con.							
Rent and lease expenses for machinery, equipment, and farm share of vehicles ..... farms	32,965	224	2,990	6,069	10,980	8,315	4,387
$1,000	174,301	1,023	13,798	30,648	49,527	51,987	27,317
Farms with expenses of-							
$1 to $999	17,863	83	1,401	3,153	6,202	4,667	2,357
$1,000 to $4,999	9,460	101	950	1,854	3,017	2,298	1,240
$5,000 to $24,999	4,588	31	541	869	1,455	1,078	614
$25,000 to $49,999	584	5	69	124	161	141	84
$50,000 or more	470	4	29	69	145	131	92
Interest expense ..... farms	288,215	1,367	19,790	50,970	98,386	78,760	38,942
$1,000	2,642,190	6,954	148,815	433,626	875,597	760,317	416,882
Farms with expenses of-							
$1 to $4,999	155,227	912	10,717	26,088	52,044	43,193	22,273
$5,000 to $24,999	115,155	418	8,208	22,152	40,475	30,354	13,548
$25,000 to $99,999	16,161	34	821	2,544	5,404	4,651	2,707
$100,000 or more	1,672	3	44	186	463	562	414
Secured by real estate ..... farms	234,088	825	15,185	42,016	81,171	64,096	30,795
$1,000	2,028,208	5,041	114,005	340,014	678,366	583,713	307,070
Farms with expenses of-							
$1 to $999	33,210	172	1,967	5,287	10,669	9,262	5,853
$1,000 to $4,999	91,659	320	5,884	16,003	32,083	25,665	11,704
$5,000 to $24,999	96,366	303	6,756	18,763	34,230	25,298	11,016
$25,000 to $49,999	8,864	24	452	1,421	3,036	2,573	1,358
$50,000 or more	3,989	6	126	542	1,153	1,298	864
Not secured by real estate ..... farms	159,150	953	11,435	26,745	52,721	43,420	23,876
$1,000	613,982	1,913	34,810	93,611	197,232	176,604	109,812
Farms with expenses of-							
$1 to $999	67,926	459	4,429	10,973	22,190	18,811	11,064
$1,000 to $4,999	65,286	398	5,134	11,369	21,783	17,728	8,874
$5,000 to $24,999	23,274	93	1,754	4,063	7,964	6,094	3,306
$25,000 to $49,999	1,758	3	93	234	517	506	405
$50,000 or more	906	-	25	106	267	281	227
Property taxes paid ..... farms	1,100,807	4,120	53,281	159,547	337,063	324,078	222,718
$1,000	2,276,172	5,326	83,661	295,452	674,795	702,292	514,646
Farms with expenses of-							
$1 to $4,999	1,015,699	3,963	50,732	149,269	311,862	297,691	202,182
$5,000 to $9,999	60,415	120	1,863	7,612	18,352	18,610	13,858
$10,000 to $24,999	19,737	33	552	2,180	5,654	6,192	5,126
$25,000 or more	4,956	4	134	486	1,195	1,585	1,552
All other production expenses (see text) ..... farms	461,500	2,280	26,766	73,200	147,563	130,882	80,809
$1,000	2,957,157	5,764	102,787	418,500	917,820	877,982	634,303
Farms with expenses of-							
$1 to $4,999	396,287	2,075	23,265	63,335	126,512	112,231	68,869
$5,000 to $24,999	51,393	174	2,928	7,808	16,840	14,723	8,920
$25,000 to $49,999	6,830	15	323	972	2,093	1,934	1,493
$50,000 to $99,999	3,807	14	148	601	1,149	1,093	802
$100,000 or more	3,183	2	102	484	969	901	725
Production expenses paid by landlords [1] ..... farms	12,246	178	1,207	2,123	4,249	3,136	1,353
$1,000	119,790	680	7,803	21,450	42,651	31,976	15,230
Depreciation expenses claimed (see text) ..... farms	410,718	1,507	21,565	60,318	127,292	118,092	81,944
$1,000	4,017,726	9,340	192,145	586,976	1,208,548	1,170,401	850,315
NET CASH FARM INCOME (SEE TEXT)							
Net cash farm income of operations (see text) ..... farms	1,210,911	5,890	62,144	171,310	354,362	336,250	280,955
$1,000	6,547,373	12,094	216,577	797,378	1,615,247	1,708,443	2,197,634
Average per farm ..... dollars	5,407	2,053	3,485	4,655	4,558	5,081	7,822
Farms with net gains [2] ..... number	456,849	2,424	22,082	55,787	120,603	123,609	132,344
Average net gain ..... dollars	31,762	16,576	28,052	35,700	34,093	32,640	28,057
Gain of-							
Less than $1,000	71,448	405	3,249	8,819	18,808	19,547	20,620
$1,000 to $4,999	143,589	781	6,561	17,268	36,709	38,666	43,604
$5,000 to $9,999	73,687	404	3,466	8,538	19,011	19,993	22,275
$10,000 to $24,999	81,303	464	4,209	9,554	21,487	21,973	23,616
$25,000 to $49,999	41,654	203	2,312	5,276	11,284	11,188	11,391
$50,000 or more	45,168	167	2,285	6,332	13,304	12,242	10,838
Farms with net losses ..... number	754,062	3,466	40,062	115,523	233,759	212,641	148,611
Average net loss ..... dollars	10,560	8,103	10,056	10,337	10,680	10,939	10,198
Loss of-							
Less than $1,000	95,409	500	4,725	12,577	26,229	26,084	25,294
$1,000 to $4,999	297,261	1,493	15,157	44,059	89,851	84,447	62,254
$5,000 to $9,999	164,176	779	8,968	26,601	53,447	46,277	28,104
$10,000 to $24,999	137,857	530	8,265	23,457	45,248	38,567	21,790
$25,000 to $49,999	39,554	109	2,145	6,296	12,921	11,361	6,722
$50,000 or more	19,805	55	802	2,533	6,063	5,905	4,447

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
NET CASH FARM INCOME (SEE TEXT) - Con.								
Net cash farm income of operators (see text) ... farms	2,204,792	993,881	5,988	44,591	97,508	211,039	260,056	374,699
$1,000	64,197,836	58,778,638	191,529	2,668,283	8,844,491	19,310,214	15,668,119	12,096,002
Average per farm ... dollars	29,117	59,141	31,986	59,839	90,705	91,501	60,249	32,282
Operators reporting net gains [2] ... farms	1,025,783	572,116	3,562	27,910	58,519	130,219	144,985	206,921
Average net gain ... dollars	81,061	121,800	67,586	114,801	176,068	170,998	128,727	72,515
Gain of-								
Less than $1,000	103,330	31,720	183	991	2,019	4,328	7,566	16,633
$1,000 to $4,999	222,713	78,889	496	2,518	5,244	11,240	18,348	41,043
$5,000 to $9,999	129,906	56,032	339	2,105	3,981	8,673	13,232	27,702
$10,000 to $24,999	173,780	92,236	706	4,341	7,514	16,945	22,592	40,138
$25,000 to $49,999	122,964	81,308	614	4,596	8,301	18,200	20,900	28,697
$50,000 or more	273,090	231,931	1,224	13,359	31,460	70,833	62,347	52,708
Operators reporting net losses ... farms	1,179,009	421,765	2,426	16,681	38,989	80,820	115,071	167,778
Average net loss ... dollars	16,075	25,856	20,286	32,121	37,417	36,587	26,031	17,338
Loss of-								
Less than $1,000	135,011	39,245	230	1,117	2,640	5,574	9,451	20,233
$1,000 to $4,999	428,133	130,186	781	4,174	9,849	20,566	34,210	60,606
$5,000 to $9,999	248,731	83,913	470	3,233	7,351	15,368	23,389	34,102
$10,000 to $24,999	228,206	89,631	525	4,003	9,181	18,401	25,857	31,664
$25,000 to $49,999	78,919	38,905	222	1,926	4,660	9,559	10,956	11,582
$50,000 or more	60,009	39,885	198	2,228	5,308	11,352	11,208	9,591
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)								
Total ... farms	50,572	41,980	312	2,795	5,694	13,567	11,337	8,275
$1,000	4,445,758	4,168,801	15,016	233,292	611,133	1,524,895	1,154,802	629,663
INCOME FROM FARM-RELATED SOURCES								
Total income from farm-related sources, gross before taxes and expenses (see text) ... farms	693,187	406,992	2,418	20,030	43,417	98,290	107,881	134,956
$1,000	10,489,874	7,705,008	30,662	385,265	966,966	2,208,597	2,130,968	1,982,550
Customwork and other agricultural services ... farms	121,874	90,533	945	6,822	12,516	26,503	24,515	19,232
$1,000	1,875,665	1,633,670	13,816	128,791	250,557	525,852	448,199	266,454
Gross cash rent or share payments ... farms	241,923	105,736	339	3,037	7,815	18,935	26,673	48,937
$1,000	2,883,897	1,611,538	2,803	56,461	122,119	306,646	413,676	709,833
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ... farms	47,603	23,752	72	769	1,928	4,417	6,525	10,041
$1,000	594,944	314,567	600	6,961	22,499	58,651	87,587	138,270
Agri-tourism and recreational services (see text) ... farms	23,350	13,759	66	482	1,382	3,412	3,996	4,421
$1,000	566,834	373,618	906	11,414	46,705	120,221	114,064	80,307
Patronage dividends and refunds from cooperatives ... farms	288,196	212,362	1,060	10,233	23,563	56,947	57,322	63,237
$1,000	854,995	758,172	1,482	30,674	102,219	250,872	209,915	163,009
Crop and livestock insurance payments received (see text) ... farms	82,001	66,606	467	3,847	8,425	19,925	18,112	15,830
$1,000	1,676,727	1,518,646	6,494	85,610	208,125	493,133	422,391	302,893
Amount from state and local government agricultural program payments (see text) ... farms	34,410	21,993	135	960	2,195	5,166	5,981	7,556
$1,000	145,413	113,009	429	5,181	14,100	31,449	30,841	31,009
Other farm-related income sources (see text) ... farms	118,939	73,004	326	3,416	7,789	17,272	20,364	23,837
$1,000	1,891,400	1,381,788	4,132	60,173	200,640	421,774	404,294	290,775
LAND USE								
Total cropland ... farms	1,685,339	816,810	4,598	36,478	78,667	176,452	213,175	307,440
acres	406,424,909	328,048,904	1,278,211	15,280,720	40,641,498	100,769,837	90,752,895	79,325,743
Harvested cropland ... farms	1,328,004	716,788	4,094	33,012	70,126	159,548	188,496	261,512
acres	309,607,601	267,618,346	1,107,791	13,049,836	35,047,139	85,981,383	74,355,213	58,076,984
Farms by acres harvested:								
1 to 49 acres	700,266	268,314	1,337	9,745	21,362	45,661	69,383	120,826
50 to 99 acres	179,055	94,949	625	4,687	7,685	16,213	23,310	42,429
100 to 199 acres	141,875	90,915	695	4,611	8,662	19,168	23,039	34,740
200 to 499 acres	143,776	111,726	806	6,204	12,124	28,590	29,792	34,210
500 to 999 acres	82,211	73,804	385	4,071	9,244	22,582	21,270	16,252
1,000 to 1,999 acres	53,728	51,018	181	2,583	7,202	17,778	14,422	8,852
2,000 acres or more	27,093	26,062	65	1,111	3,847	9,556	7,280	4,203
Cropland-								
For pasture or grazing only ... farms	404,753	193,760	1,004	8,216	18,551	38,708	49,453	77,828
acres	35,771,154	22,087,484	76,326	965,598	2,088,979	4,655,786	5,762,709	8,538,086
On which all crops failed or were abandoned ... farms	89,587	49,443	287	2,169	4,751	11,389	13,487	17,360
acres	7,405,898	5,799,007	18,048	244,562	614,301	1,608,358	1,656,700	1,657,038
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ... farms	360,225	140,041	395	4,076	11,380	30,479	37,808	55,903
acres	37,968,749	19,008,698	41,551	485,947	1,522,077	4,432,331	4,995,955	7,530,837
In cultivated summer fallow ... farms	67,960	46,146	192	1,962	4,251	11,317	12,308	16,116
acres	15,671,507	13,535,369	34,495	534,777	1,369,002	4,091,979	3,982,318	3,522,798

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
NET CASH FARM INCOME (SEE TEXT) - Con.							
Net cash farm income of operators (see text) ..... farms	1,210,911	5,890	62,144	171,310	354,362	336,250	280,955
$1,000	5,419,198	8,081	156,943	606,455	1,231,272	1,386,070	2,030,376
Average per farm ..... dollars	4,475	1,372	2,525	3,540	3,475	4,122	7,227
Operators reporting net gains [2] ..... farms	453,667	2,385	21,800	55,115	119,513	122,845	132,009
Average net gain ..... dollars	29,684	15,373	25,840	32,913	31,452	30,401	26,963
Gain of-							
Less than $1,000	71,610	412	3,284	8,826	18,830	19,596	20,662
$1,000 to $4,999	143,824	782	6,569	17,278	36,821	38,728	43,646
$5,000 to $9,999	73,874	401	3,483	8,603	19,065	20,039	22,283
$10,000 to $24,999	81,544	465	4,172	9,582	21,652	22,018	23,655
$25,000 to $49,999	41,656	176	2,265	5,283	11,260	11,281	11,391
$50,000 or more	41,159	149	2,027	5,543	11,885	11,183	10,372
Operators reporting net losses ..... farms	757,244	3,505	40,344	116,195	234,849	213,405	148,946
Average net loss ..... dollars	10,628	8,155	10,073	10,392	10,763	11,005	10,265
Loss of-							
Less than $1,000	95,766	510	4,765	12,672	26,338	26,162	25,319
$1,000 to $4,999	297,947	1,504	15,202	44,213	90,075	84,641	62,312
$5,000 to $9,999	164,818	782	9,054	26,748	53,688	46,379	28,167
$10,000 to $24,999	138,575	542	8,332	23,583	45,452	38,783	21,883
$25,000 to $49,999	40,014	111	2,183	6,383	13,131	11,435	6,771
$50,000 or more	20,124	56	808	2,596	6,165	6,005	4,494
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)							
Total ..... farms	8,592	81	680	1,389	2,852	2,100	1,490
$1,000	276,958	1,867	20,074	41,560	92,843	74,121	46,493
INCOME FROM FARM-RELATED SOURCES							
Total income from farm-related sources, gross before taxes and expenses (see text) ..... farms	286,195	1,094	13,738	37,293	81,097	80,488	72,485
$1,000	2,784,866	6,810	100,912	298,952	715,289	804,963	857,940
Customwork and other agricultural services ..... farms	31,341	234	2,836	5,768	9,895	7,975	4,633
$1,000	241,995	1,474	17,814	45,131	66,354	72,065	39,157
Gross cash rent or share payments ..... farms	136,187	328	4,248	14,418	35,023	37,872	44,298
$1,000	1,272,359	2,289	28,869	96,971	281,223	349,258	513,749
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ..... farms	23,851	95	937	2,901	6,734	7,071	6,113
$1,000	280,377	563	5,523	24,401	70,252	87,804	91,835
Agri-tourism and recreational services (see text) ..... farms	9,591	9	337	1,133	2,682	2,971	2,459
$1,000	193,216	88	4,695	23,142	56,602	72,169	36,520
Patronage dividends and refunds from cooperatives ..... farms	75,834	288	4,160	10,599	23,185	22,088	15,514
$1,000	96,822	123	5,848	12,617	26,711	25,691	25,832
Crop and livestock insurance payments received (see text) ..... farms	15,395	121	1,260	2,483	4,651	4,124	2,756
$1,000	158,080	1,322	11,865	25,279	46,112	42,558	30,943
Amount from state and local government agricultural program payments (see text) ..... farms	12,417	62	643	1,708	3,424	3,441	3,139
$1,000	32,405	174	1,398	3,873	8,098	9,080	9,782
Other farm-related income sources (see text) ..... farms	45,935	155	2,198	6,345	14,042	13,762	9,433
$1,000	509,611	777	24,900	67,539	159,936	146,338	110,121
LAND USE							
Total cropland ..... farms	868,529	3,639	42,637	117,110	250,649	244,065	210,429
acres	78,376,005	297,650	3,601,941	9,422,582	21,187,935	21,528,866	22,337,031
Harvested cropland ..... farms	611,216	2,834	32,742	87,826	186,207	174,604	127,003
acres	41,989,255	195,241	2,445,185	6,080,738	12,895,454	11,675,362	8,697,275
Farms by acres harvested:							
1 to 49 acres	431,952	1,861	21,390	61,938	131,099	124,614	91,050
50 to 99 acres	84,106	485	5,004	11,696	25,176	24,112	17,633
100 to 199 acres	50,960	280	3,409	7,463	15,658	14,171	9,979
200 to 499 acres	32,050	163	2,244	4,872	10,381	8,606	5,784
500 to 999 acres	8,407	30	522	1,358	2,818	2,097	1,582
1,000 to 1,999 acres	2,710	13	138	361	795	714	689
2,000 acres or more	1,031	2	35	138	280	290	286
Cropland-							
For pasture or grazing only ..... farms	210,993	941	10,981	29,957	60,981	57,640	50,493
acres	13,683,670	48,908	551,410	1,431,076	3,418,519	3,630,794	4,602,963
On which all crops failed or were abandoned ..... farms	40,144	166	1,917	5,610	12,206	11,725	8,520
acres	1,606,891	7,546	73,180	189,367	447,265	476,756	412,777
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ..... farms	220,184	471	6,839	23,041	56,230	62,543	71,060
acres	18,960,051	34,009	466,963	1,405,273	3,923,879	5,196,657	7,933,270
In cultivated summer fallow ..... farms	21,814	99	833	2,674	5,976	6,366	5,866
acres	2,136,138	11,946	65,203	316,128	502,818	549,297	690,746

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
LAND USE - Con.								
Total woodland ..... farms	843,294	372,498	1,274	11,673	31,101	73,301	102,373	152,776
acres	75,098,603	39,671,631	82,252	886,397	3,163,358	8,293,874	12,122,521	15,123,229
Woodland pastured ..... farms	370,297	172,910	669	5,519	13,920	31,819	46,312	74,671
acres	28,609,690	17,006,825	33,185	390,849	1,472,936	3,093,301	5,649,674	6,366,880
Woodland not pastured ..... farms	596,123	261,913	811	7,949	22,272	53,593	73,286	104,002
acres	46,488,913	22,664,806	49,067	495,548	1,690,422	5,200,573	6,472,847	8,756,349
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ..... farms	1,132,606	523,336	2,676	21,182	48,499	106,580	139,291	205,108
acres	408,832,116	309,078,454	529,676	8,836,808	37,764,850	76,655,443	83,135,738	102,155,939
Land in house lots, ponds, roads, wasteland, etc. ..... farms	1,126,272	544,269	2,142	19,601	50,757	117,628	146,979	207,162
acres	31,740,212	20,944,723	51,992	638,503	1,985,691	6,199,902	5,468,237	6,600,398
Irrigated land ..... farms	301,028	177,362	949	8,755	19,626	45,504	48,494	54,034
acres	56,599,305	49,821,856	198,008	2,478,325	6,764,243	15,841,807	13,855,488	10,683,985
Harvested cropland ..... farms	256,105	159,754	837	8,104	17,845	41,883	43,692	47,393
acres	51,537,104	46,178,930	183,669	2,355,191	6,369,654	15,013,862	12,751,188	9,505,366
Pastureland and other land ..... farms	72,585	33,996	163	1,271	3,226	7,636	9,591	12,109
acres	5,062,201	3,642,926	14,339	123,134	394,589	827,945	1,104,300	1,178,619
CONSERVATION PRACTICES AND CROP INSURANCE								
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ..... farms	346,231	138,223	344	3,717	11,518	30,869	36,380	55,395
acres	38,547,450	18,106,128	39,206	379,434	1,281,780	3,898,910	4,637,934	7,868,864
Land enrolled in crop insurance programs (see text) ..... farms	349,408	258,703	1,763	14,450	30,356	72,074	69,124	70,936
acres	222,267,817	201,532,654	801,346	9,992,168	26,899,598	67,608,278	56,524,681	39,706,583
ORGANIC AGRICULTURE								
Land used for organic production (see text) ..... farms	20,437	12,260	79	1,007	1,757	3,581	3,567	2,269
acres	2,577,418	2,071,722	8,148	112,603	322,624	658,894	556,618	412,835
Total organic product sales (see text) ..... farms	18,211	11,158	70	944	1,627	3,296	3,217	2,004
$1,000	1,709,111	1,432,770	5,200	87,839	241,579	485,845	395,150	217,156
VALUE OF LAND AND BUILDINGS								
Estimated market value of land and buildings ..... farms	2,204,792	993,881	5,988	44,591	97,508	211,039	260,056	374,699
$1,000	1,744,295,252	1,220,945,923	3,997,457	50,530,096	140,754,458	344,484,998	344,321,897	336,857,017
Average per farm ..... dollars	791,138	1,228,463	667,578	1,133,190	1,443,517	1,632,329	1,324,030	899,007
Average per acre ..... dollars	1,892	1,750	2,058	1,971	1,685	1,795	1,798	1,658
Farms by value group:								
$1 to $49,999	223,182	69,715	886	3,576	7,178	12,952	16,242	28,881
$50,000 to $99,999	212,783	66,076	497	3,009	6,005	11,493	16,312	28,760
$100,000 to $199,999	374,783	125,093	910	5,747	10,966	21,326	30,849	55,295
$200,000 to $499,999	631,939	251,683	1,560	10,976	21,833	44,879	64,206	108,229
$500,000 to $999,999	371,783	190,995	1,045	8,394	18,111	38,854	50,244	74,347
$1,000,000 to $1,999,999	206,282	137,251	671	6,505	14,442	33,936	37,929	43,768
$2,000,000 to $4,999,999	132,549	107,956	336	4,825	13,250	32,693	31,124	25,728
$5,000,000 to $9,999,999	36,072	31,820	63	1,136	4,101	10,572	9,302	6,646
$10,000,000 or more	15,419	13,292	20	423	1,622	4,334	3,848	3,045
VALUE OF MACHINERY AND EQUIPMENT								
Estimated market value of all machinery and equipment ..... farms	2,204,513	993,789	5,988	44,588	97,499	211,019	260,042	374,653
$1,000	194,783,471	139,738,752	699,146	7,078,546	17,852,815	40,677,781	38,094,223	35,336,241
Farms by value group:								
$1 to $4,999	195,820	55,272	403	2,042	4,557	9,016	13,029	26,225
$5,000 to $9,999	217,460	65,161	437	2,323	5,198	10,780	15,598	30,825
$10,000 to $19,999	351,088	115,302	732	4,121	9,197	18,982	28,645	53,625
$20,000 to $49,999	598,289	229,098	1,383	9,365	19,088	39,313	58,602	101,347
$50,000 to $99,999	366,768	180,649	1,140	8,492	16,681	34,953	48,304	71,079
$100,000 to $199,999	232,001	149,335	959	7,748	16,127	36,305	41,002	47,194
$200,000 to $499,999	175,152	137,151	628	7,215	17,739	40,796	37,933	32,840
$500,000 or more	67,935	61,821	306	3,282	8,912	20,874	16,929	11,518
SELECTED MACHINERY AND EQUIPMENT								
Trucks, including pickups (see text) ..... farms	1,783,324	867,717	4,948	37,561	84,682	187,481	230,737	322,308
number	3,512,538	2,102,281	9,728	85,762	219,942	531,495	583,459	671,895
Tractors ..... farms	1,844,647	865,451	4,382	35,154	81,885	183,416	229,708	330,906
number	4,389,812	2,588,564	10,502	94,627	254,421	623,770	709,743	895,501
Less than 40 horsepower (PTO) ..... farms	910,937	404,194	1,618	12,355	34,428	81,021	108,971	165,801
number	1,280,039	614,092	2,321	17,842	51,320	125,460	165,607	251,542
40 to 99 horsepower (PTO) ..... farms	1,238,101	614,939	2,624	21,819	55,153	129,618	166,146	239,579
number	1,998,508	1,125,001	3,982	36,388	99,930	249,564	310,704	424,433
100 horsepower (PTO) or more ..... farms	555,941	374,562	2,258	19,524	42,818	98,923	99,776	111,263
number	1,111,265	849,471	4,199	40,397	103,171	248,746	233,432	219,526
Grain and bean combines, self-propelled ..... farms	295,490	228,002	1,136	10,748	25,745	63,818	62,241	64,314
number	346,935	271,592	1,382	12,655	30,821	77,012	74,281	75,441

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Other occupations						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
LAND USE - Con.								
Total woodland	farms	470,796	1,490	19,242	63,649	140,598	137,817	108,000
	acres	35,426,972	69,677	948,180	3,468,118	9,475,825	11,666,113	9,799,059
Woodland pastured	farms	197,387	807	9,409	28,932	60,841	56,820	40,578
	acres	11,602,865	27,967	404,693	1,207,200	3,007,984	4,251,679	2,703,342
Woodland not pastured	farms	334,210	853	12,308	43,204	98,998	98,884	79,963
	acres	23,824,107	41,710	543,487	2,260,918	6,467,841	7,414,434	7,095,717
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text)	farms	609,270	3,091	32,278	91,844	188,334	170,834	122,889
	acres	99,753,662	352,616	3,229,725	11,320,717	23,991,500	32,234,132	28,624,972
Land in house lots, ponds, roads, wasteland, etc.	farms	582,003	2,083	26,285	82,561	177,296	165,852	127,926
	acres	10,795,489	23,365	327,102	1,127,909	2,786,903	3,239,117	3,291,093
Irrigated land	farms	123,666	408	5,582	16,300	38,441	36,943	25,992
	acres	6,777,449	19,794	261,546	817,135	1,848,738	2,103,397	1,726,839
Harvested cropland	farms	96,351	314	4,117	12,365	29,482	29,117	20,956
	acres	5,358,174	15,796	200,017	639,498	1,457,034	1,707,440	1,338,389
Pastureland and other land	farms	38,589	120	1,898	5,391	12,708	11,390	7,082
	acres	1,419,275	3,998	61,529	177,637	391,704	395,957	388,450
CONSERVATION PRACTICES AND CROP INSURANCE								
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text)	farms	208,008	485	6,060	20,845	49,586	56,054	74,978
	acres	20,441,322	41,179	460,771	1,438,193	4,129,626	5,386,811	8,984,742
Land enrolled in crop insurance programs (see text)	farms	90,705	702	6,575	13,177	26,641	24,115	19,495
	acres	20,735,163	108,039	1,281,503	3,066,166	6,313,075	5,695,653	4,270,727
ORGANIC AGRICULTURE								
Land used for organic production (see text)	farms	8,177	30	429	1,228	2,885	2,557	1,048
	acres	505,696	1,325	14,736	72,572	139,605	197,441	80,017
Total organic product sales (see text)	farms	7,053	28	380	1,072	2,493	2,214	866
	$1,000	276,342	569	4,908	42,793	102,875	91,813	33,383
VALUE OF LAND AND BUILDINGS								
Estimated market value of land and buildings	farms	1,210,911	5,890	62,144	171,310	354,362	336,250	280,955
	$1,000	523,349,329	1,580,797	21,283,410	65,434,057	149,316,525	155,467,875	130,266,665
Average per farm	dollars	432,195	268,387	342,485	381,963	421,367	462,358	463,657
Average per acre	dollars	2,333	2,127	2,625	2,582	2,599	2,264	2,034
Farms by value group:								
$1 to $49,999		153,467	1,426	9,745	22,724	43,359	38,931	37,282
$50,000 to $99,999		146,707	896	8,241	21,376	41,788	38,777	35,629
$100,000 to $199,999		249,690	1,346	14,312	37,437	72,996	67,062	56,537
$200,000 to $499,999		380,256	1,433	18,641	55,216	114,317	108,020	82,629
$500,000 to $999,999		180,788	541	7,447	22,955	53,457	53,703	42,685
$1,000,000 to $1,999,999		69,031	177	2,620	8,184	20,045	20,308	17,697
$2,000,000 to $4,999,999		24,593	57	980	2,799	6,835	7,367	6,555
$5,000,000 to $9,999,999		4,252	13	109	420	1,076	1,357	1,277
$10,000,000 or more		2,127	1	49	199	489	725	664
VALUE OF MACHINERY AND EQUIPMENT								
Estimated market value of all machinery and equipment	farms	1,210,724	5,890	62,135	171,288	354,337	336,194	280,880
	$1,000	55,044,719	271,573	3,194,621	8,070,254	16,378,804	15,227,152	11,902,315
Farms by value group:								
$1 to $4,999		140,548	864	6,818	18,167	38,470	37,798	38,431
$5,000 to $9,999		152,299	749	6,796	20,406	42,552	41,765	40,031
$10,000 to $19,999		235,786	1,034	10,861	32,445	68,113	65,776	57,557
$20,000 to $49,999		369,191	1,758	19,328	53,752	109,979	103,659	80,715
$50,000 to $99,999		186,119	879	10,435	27,407	56,318	52,203	38,877
$100,000 to $199,999		82,666	383	4,950	12,424	25,814	23,179	15,916
$200,000 to $499,999		38,001	175	2,494	5,814	11,350	10,200	7,968
$500,000 or more		6,114	48	453	873	1,741	1,614	1,385
SELECTED MACHINERY AND EQUIPMENT								
Trucks, including pickups (see text)	farms	915,607	4,584	49,290	134,794	273,520	255,567	197,852
	number	1,410,257	7,017	76,176	207,453	427,902	395,014	296,695
Tractors	farms	979,196	3,897	45,666	135,369	289,840	279,123	225,301
	number	1,801,248	7,090	82,190	239,365	533,809	522,610	416,184
Less than 40 horsepower (PTO)	farms	506,743	1,679	20,531	67,132	149,115	147,494	120,792
	number	665,947	2,204	26,327	85,664	194,070	194,915	162,767
40 to 99 horsepower (PTO)	farms	623,162	2,411	28,912	85,617	185,853	180,140	140,229
	number	873,507	3,380	39,032	115,751	259,973	257,209	198,162
100 horsepower (PTO) or more	farms	181,379	1,022	11,462	26,259	55,145	48,727	38,764
	number	261,794	1,506	16,831	37,950	79,766	70,486	55,255
Grain and bean combines, self-propelled	farms	67,488	481	4,775	10,383	21,961	18,114	11,774
	number	75,343	525	5,258	11,518	24,508	20,297	13,237

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
SELECTED MACHINERY AND EQUIPMENT - Con.								
Cotton pickers and strippers, self-propelled ... farms	12,500	11,299	94	711	1,636	3,412	2,974	2,472
number	18,162	16,579	108	922	2,333	5,078	4,396	3,742
Forage harvesters, self-propelled ... farms	60,133	41,586	239	2,201	5,153	11,502	10,728	11,763
number	64,191	45,018	254	2,354	5,620	12,500	11,623	12,667
Hay balers ... farms	593,543	333,322	1,507	13,399	30,865	71,481	88,356	127,714
number	727,501	415,260	1,819	16,198	38,433	90,008	111,288	157,514
FERTILIZERS AND CHEMICALS								
Commercial fertilizer, lime, and soil conditioners ... farms	1,022,036	586,700	3,502	28,455	59,884	135,846	156,475	202,538
acres treated	265,995,497	230,625,710	971,207	11,526,700	30,212,937	74,009,547	63,882,923	50,022,396
Manure ... farms	307,073	195,051	1,144	10,918	24,539	52,215	52,339	53,896
acres treated	22,096,315	18,601,976	74,471	988,472	2,750,424	5,938,935	4,994,040	3,855,634
Acres treated with chemicals to control-								
Insects ... farms	354,357	240,113	1,652	13,925	29,190	65,173	64,510	65,663
acres	90,947,822	81,604,517	352,471	4,332,892	11,488,407	26,967,832	22,528,880	15,934,035
Weeds, grass, or brush ... farms	703,884	423,934	2,801	22,549	45,952	105,327	115,640	131,665
acres	226,295,783	200,200,960	918,591	10,606,562	27,274,877	66,358,571	56,205,552	38,836,807
Nematodes ... farms	34,992	24,212	184	1,412	3,080	6,767	6,645	6,124
acres	7,560,158	6,663,805	37,022	343,109	936,744	2,209,434	1,875,432	1,262,064
Diseases in crops and orchards ... farms	97,333	66,379	506	4,400	8,639	18,990	17,834	16,010
acres	22,693,212	20,730,976	129,832	1,462,505	3,392,220	7,069,954	5,485,959	3,190,506
Chemicals used to control growth, thin fruit, ripen, or defoliate ... farms	44,638	32,022	218	1,910	3,974	9,128	8,828	7,964
acres treated	12,125,799	11,261,841	52,277	638,481	1,585,435	3,703,753	3,182,628	2,099,267
TENURE								
Full owners ... farms	1,522,033	574,660	2,053	17,073	45,366	100,028	147,972	262,168
Part owners ... farms	542,192	344,151	1,358	16,044	39,615	92,147	97,095	97,892
Tenants ... farms	140,567	75,070	2,577	11,474	12,527	18,864	14,989	14,639
OWNED AND RENTED LAND								
Land owned ... farms	2,072,101	923,048	3,442	33,328	85,376	192,925	245,995	361,982
acres	646,247,118	440,442,393	658,347	9,849,032	45,112,048	103,373,655	119,170,134	162,279,177
Owned land in farms ... farms	2,064,225	918,811	3,411	33,117	84,981	192,175	245,067	360,060
acres	571,303,487	403,894,511	593,563	8,967,374	43,022,212	97,786,282	110,114,116	143,410,964
Land rented or leased from others ... farms	689,102	422,458	3,943	27,632	52,349	111,584	112,870	114,080
acres	355,918,954	297,355,142	1,354,760	16,853,348	40,857,115	95,036,245	82,314,503	60,939,171
Rented or leased land in farms ... farms	682,759	419,221	3,935	27,518	52,142	111,011	112,084	112,531
acres	350,792,353	293,849,201	1,348,568	16,675,054	40,533,185	94,132,774	81,365,275	59,794,345
Land rented or leased to others ... farms	314,140	130,084	450	3,586	9,342	22,625	32,531	61,550
acres	80,070,232	40,053,823	70,976	1,059,952	2,413,766	6,490,844	10,005,246	20,013,039
NUMBER OF OPERATORS								
Total operators ... number	3,337,450	1,522,053	9,299	69,458	154,307	332,578	403,630	552,781
Farms by number of operators:								
1 operator	1,273,122	570,236	3,570	24,181	51,465	114,817	143,942	232,261
2 operators	786,598	347,833	1,783	17,176	38,665	78,322	96,262	115,625
3 operators	112,285	58,980	500	2,526	5,468	13,612	15,386	21,488
4 operators	22,529	11,510	74	490	1,245	2,866	3,066	3,769
5 or more operators	10,258	5,322	61	218	665	1,422	1,400	1,556
Total women operators ... number	1,008,943	421,909	2,322	18,725	45,405	94,738	115,412	145,307
Farms by number of women operators:								
1 operator	894,347	373,101	1,662	16,599	39,564	82,607	103,062	129,607
2 operators	45,408	19,641	251	839	2,275	4,884	5,039	6,353
3 operators	5,439	2,229	39	100	271	543	562	714
4 operators	1,017	383	1	16	66	107	83	110
5 or more operators	546	214	5	13	38	52	40	66
PRINCIPAL OPERATOR CHARACTERISTICS								
Sex of operator:								
Male	1,898,583	872,082	5,242	39,908	83,570	182,175	229,242	331,945
Female	306,209	121,799	746	4,683	13,938	28,864	30,814	42,754
Primary occupation:								
Farming	993,881	993,881	5,988	44,591	97,508	211,039	260,056	374,699
Other	1,210,911	-	-	-	-	-	-	-
Place of residence:								
On farm operated	1,693,362	818,964	3,874	32,313	77,384	172,969	218,620	313,804
Not on farm operated	511,430	174,917	2,114	12,278	20,124	38,070	41,436	60,895
Days worked off farm:								
None	777,747	570,531	1,669	15,825	41,633	102,217	145,699	263,488
Any	1,427,045	423,350	4,319	28,766	55,875	108,822	114,357	111,211
1 to 49 days	238,479	105,203	1,099	6,494	12,604	24,739	28,758	31,509
50 to 99 days	115,578	54,459	528	2,995	6,133	12,791	15,488	16,524
100 to 199 days	196,687	75,372	721	4,550	9,425	19,582	21,808	19,286
200 days or more	876,301	188,316	1,971	14,727	27,713	51,710	48,303	43,892
Years on present farm:								
2 years or less	84,883	27,834	1,941	4,959	5,058	6,011	5,796	4,069
3 or 4 years	138,858	45,042	1,888	7,586	8,467	10,176	10,155	6,770
5 to 9 years	359,545	120,613	2,159	17,863	21,517	28,639	28,374	22,061

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
SELECTED MACHINERY AND EQUIPMENT - Con.							
Cotton pickers and strippers, self-propelled ... farms	1,201	6	70	170	365	312	278
number	1,583	6	83	218	495	403	378
Forage harvesters, self-propelled ... farms	18,547	86	1,143	3,116	6,207	4,817	3,178
number	19,173	87	1,174	3,203	6,457	4,953	3,299
Hay balers ... farms	260,221	1,146	13,212	38,205	82,517	74,853	50,288
number	312,241	1,371	15,735	46,016	99,981	90,025	59,113
FERTILIZERS AND CHEMICALS							
Commercial fertilizer, lime, and soil conditioners ... farms	435,336	2,156	24,879	64,266	134,949	124,994	84,092
acres treated	35,369,787	170,017	2,112,590	5,093,873	10,825,496	9,867,958	7,299,853
Manure ... farms	112,022	523	7,343	19,258	38,640	30,866	15,392
acres treated	3,494,339	11,747	215,025	537,788	1,169,901	954,739	605,139
Acres treated with chemicals to control-							
Insects ... farms	114,244	642	7,235	17,108	35,324	32,059	21,876
acres	9,343,305	48,255	572,635	1,318,985	2,786,842	2,616,454	2,000,134
Weeds, grass, or brush ... farms	279,950	1,532	17,742	43,664	89,894	79,362	47,756
acres	26,094,823	147,697	1,733,827	3,836,384	8,327,400	7,154,615	4,894,900
Nematodes ... farms	10,780	50	645	1,590	3,363	3,077	2,055
acres	896,353	2,494	48,687	127,936	276,506	262,201	178,529
Diseases in crops and orchards ... farms	30,954	147	1,847	4,278	9,371	9,010	6,301
acres	1,962,236	11,180	151,171	302,851	580,358	529,325	387,351
Chemicals used to control growth, thin fruit, ripen, or defoliate ... farms	12,616	61	648	1,735	3,753	3,508	2,911
acres treated	863,958	3,126	42,372	108,316	234,607	260,613	214,924
TENURE							
Full owners ... farms	947,373	3,118	38,260	123,117	268,431	269,643	244,804
Part owners ... farms	198,041	878	14,015	34,998	66,732	53,569	27,849
Tenants ... farms	65,497	1,894	9,869	13,195	19,199	13,038	8,302
OWNED AND RENTED LAND							
Land owned ... farms	1,149,053	4,029	52,435	158,587	336,136	324,160	273,706
acres	205,804,725	343,283	4,662,820	19,229,953	47,049,675	64,540,851	69,978,143
Owned land in farms ... farms	1,145,414	3,996	52,275	158,115	335,163	323,212	272,653
acres	167,408,976	294,285	3,873,831	16,440,514	39,801,105	53,312,751	53,686,490
Land rented or leased from others ... farms	266,644	2,782	24,009	48,559	86,787	67,474	37,033
acres	58,563,812	456,741	4,293,044	9,060,384	18,020,909	15,938,109	10,794,625
Rented or leased land in farms ... farms	263,538	2,772	23,884	48,193	85,931	66,607	36,151
acres	56,943,152	449,023	4,233,117	8,898,812	17,641,058	15,355,477	10,365,665
Land rented or leased to others ... farms	184,056	440	5,709	18,977	46,451	51,670	60,809
acres	40,016,409	56,716	848,916	2,951,011	7,628,421	11,810,732	16,720,613
NUMBER OF OPERATORS							
Total operators ... number	1,815,397	9,010	96,551	268,855	546,318	501,436	393,227
Farms by number of operators:							
1 operator ...	702,886	3,531	32,505	87,040	191,681	196,671	191,458
2 operators ...	438,765	1,804	26,239	75,224	141,871	121,138	72,489
3 operators ...	53,305	448	2,611	6,553	15,638	14,301	13,754
4 operators ...	11,019	56	554	1,713	3,698	2,803	2,195
5 or more operators ...	4,936	51	235	780	1,474	1,337	1,059
Total women operators ... number	587,034	2,732	29,658	90,439	181,745	158,978	123,482
Farms by number of women operators:							
1 operator ...	521,246	2,064	26,971	81,080	161,160	141,362	108,609
2 operators ...	25,767	258	1,064	3,579	8,029	6,909	5,928
3 operators ...	3,210	24	118	464	999	894	711
4 operators ...	634	11	26	137	181	165	114
5 or more operators ...	332	6	16	39	122	74	75
PRINCIPAL OPERATOR CHARACTERISTICS							
Sex of operator:							
Male ...	1,026,501	4,836	55,541	149,804	306,210	289,909	220,201
Female ...	184,410	1,054	6,603	21,506	48,152	46,341	60,754
Primary occupation:							
Farming ...	-	-	-	-	-	-	-
Other ...	1,210,911	5,890	62,144	171,310	354,362	336,250	280,955
Place of residence:							
On farm operated ...	874,398	3,369	42,710	131,082	268,494	246,922	181,821
Not on farm operated ...	336,513	2,521	19,434	40,228	85,868	89,328	99,134
Days worked off farm:							
None ...	207,216	457	3,253	10,966	26,135	47,244	119,161
Any ...	1,003,695	5,433	58,891	160,344	328,227	289,006	161,794
1 to 49 days ...	133,276	683	6,088	16,586	34,357	36,938	38,624
50 to 99 days ...	61,119	335	2,986	8,074	15,873	18,157	15,694
100 to 199 days ...	121,315	772	6,161	16,559	34,986	38,364	24,473
200 days or more ...	687,985	3,643	43,656	119,125	243,011	195,547	83,003
Years on present farm:							
2 years or less ...	57,049	1,858	9,618	13,382	16,260	11,273	4,658
3 or 4 years ...	93,816	1,904	13,742	23,054	28,856	18,805	7,455
5 to 9 years ...	238,932	2,128	24,942	54,419	79,240	53,733	24,470

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
PRINCIPAL OPERATOR CHARACTERISTICS - Con.								
Years on present farm - Con.								
10 years or more	1,621,506	800,392	-	14,183	62,466	166,213	215,731	341,799
Average years on present farm	21.6	25.5	3.9	7.6	13.2	19.9	24.6	35.0
Age group:								
Under 25 years	11,878	5,988	5,988	-	-	-	-	-
25 to 34 years	106,735	44,591	-	44,591	-	-	-	-
35 to 44 years	268,818	97,508	-	-	97,508	-	-	-
45 to 49 years	256,694	94,177	-	-	-	94,177	-	-
50 to 54 years	308,707	116,862	-	-	-	116,862	-	-
55 to 59 years	312,577	125,892	-	-	-	-	125,892	-
60 to 64 years	283,729	134,164	-	-	-	-	134,164	-
65 to 69 years	235,152	130,683	-	-	-	-	-	130,683
70 years and over	420,502	244,016	-	-	-	-	-	244,016
Average age	57.1	59.2	22.0	30.3	40.3	49.8	59.6	73.2
Spanish, Hispanic, or Latino origin (see text)	55,570	24,933	144	1,102	2,964	5,627	6,510	8,586
Race:								
American Indian or Alaska Native	34,706	17,682	110	768	1,806	3,466	4,272	7,260
Asian	11,214	6,398	48	240	812	1,665	1,853	1,780
Black or African American	30,599	13,588	75	281	822	2,202	3,953	6,255
Native Hawaiian or Other Pacific Islander	1,356	631	-	10	74	155	208	184
White	2,114,325	949,809	5,736	43,084	93,508	202,470	248,062	356,949
More than one race reported	12,592	5,773	19	208	486	1,081	1,708	2,271
Farms by number of persons living in operator's household:								
1 person	275,842	128,832	1,619	5,939	8,140	20,459	30,400	62,275
2 people	1,108,995	540,435	1,595	9,990	16,617	75,850	170,153	266,230
3 people	330,188	134,657	1,309	8,918	15,570	44,008	35,258	29,594
4 people	285,919	104,837	839	10,479	28,405	40,052	15,127	9,935
5 or more people	203,848	85,120	626	9,265	28,776	30,670	9,118	6,665
Percent of operator's total household income from farming:								
Less than 25 percent	1,583,710	513,042	2,746	18,131	41,591	85,608	131,023	233,943
25 to 49 percent	174,800	101,743	577	4,687	8,699	19,144	24,206	44,430
50 to 74 percent	187,421	139,992	842	7,002	14,245	31,015	32,862	54,026
75 to 99 percent	147,092	131,383	1,045	7,739	15,660	34,546	31,562	40,831
100 percent	111,769	107,721	778	7,032	17,313	40,726	40,403	1,469
Operator is a hired manager ... farms	59,759	40,781	357	2,837	6,192	12,704	10,477	8,214
acres	120,672,499	100,730,304	189,245	3,547,327	21,899,746	32,019,671	23,821,219	19,253,096
Farms with-								
Internet access	1,246,723	557,275	3,848	30,151	68,315	146,580	160,059	148,322
High-speed internet access	726,700	319,409	2,553	19,504	42,258	88,475	90,461	76,158
Farms by number of households sharing in net income of farm:								
1 household	1,733,827	740,613	4,846	35,302	74,784	157,849	194,077	273,755
2 households	356,707	192,037	819	6,690	15,535	36,853	50,274	81,866
3 households	66,438	37,133	204	1,335	3,524	9,471	9,902	12,697
4 households	30,004	14,736	76	701	2,111	4,124	3,580	4,144
5 households or more	17,816	9,362	43	563	1,554	2,742	2,223	2,237
FARMS BY TYPE OF ORGANIZATION								
Family or individual ... farms	1,906,335	829,119	5,309	37,963	79,712	169,000	215,891	321,244
acres	574,150,050	419,234,058	1,555,916	18,021,543	45,022,316	112,033,202	115,481,115	127,119,966
Partnership ... farms	174,247	93,302	482	3,874	9,337	21,257	23,992	34,360
acres	161,416,999	129,443,797	253,483	4,100,498	13,822,829	35,789,869	36,543,832	38,933,286
Registered under state law ... farms	89,739	51,918	211	2,260	5,763	13,535	13,890	16,259
acres	114,284,815	92,238,034	165,048	2,867,436	10,421,128	26,542,895	26,173,752	26,067,775
Corporation ... farms	96,074	61,348	152	2,366	7,557	18,641	17,715	14,917
acres	125,319,810	104,281,352	89,929	2,675,897	11,155,233	30,649,115	32,526,818	27,184,360
Family held ... farms	85,837	56,216	136	2,058	6,789	17,065	16,378	13,790
acres	114,264,200	96,802,958	80,307	2,340,888	10,157,946	28,394,539	30,093,013	25,736,265
More than 10 stockholders ... farms	2,041	1,245	6	52	156	342	356	333
10 or less stockholders ... farms	83,796	54,971	130	2,006	6,633	16,723	16,022	13,457
Other than family held ... farms	10,237	5,132	16	308	768	1,576	1,337	1,127
acres	11,055,610	7,478,394	9,622	335,009	997,287	2,254,576	2,433,805	1,448,095
More than 10 stockholders ... farms	907	435	-	33	63	163	115	61
10 or less stockholders ... farms	9,330	4,697	16	275	705	1,413	1,222	1,066
Other-cooperative, estate or trust, institutional, etc ... farms	28,136	10,112	45	388	902	2,141	2,458	4,178
acres	61,208,981	44,784,505	42,803	844,490	13,555,019	13,446,870	6,927,626	9,967,697
HIRED FARM LABOR								
Hired farm labor ... farms	482,186	318,878	1,551	14,355	36,242	85,579	86,570	94,581
workers	2,636,509	2,001,512	5,494	73,477	256,283	619,106	563,368	483,784
Workers by days worked:								
150 days or more ... farms	201,292	158,101	605	6,704	19,989	48,293	44,142	38,368
workers	911,439	744,080	1,425	25,225	100,375	240,334	218,004	158,717
Less than 150 days ... farms	384,051	243,975	1,246	11,089	26,997	64,259	65,105	75,279
workers	1,725,070	1,257,432	4,069	48,252	155,908	378,772	345,364	325,067

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
PRINCIPAL OPERATOR CHARACTERISTICS - Con.							
Years on present farm - Con.							
10 years or more	821,114	-	13,842	80,455	230,006	252,439	244,372
Average years on present farm	18.4	4.0	6.6	10.2	14.7	19.5	29.7
Age group:							
Under 25 years	5,890	5,890	-	-	-	-	-
25 to 34 years	62,144	-	62,144	-	-	-	-
35 to 44 years	171,310	-	-	171,310	-	-	-
45 to 49 years	162,517	-	-	-	162,517	-	-
50 to 54 years	191,845	-	-	-	191,845	-	-
55 to 59 years	186,685	-	-	-	-	186,685	-
60 to 64 years	149,565	-	-	-	-	149,565	-
65 to 69 years	104,469	-	-	-	-	-	104,469
70 years and over	176,486	-	-	-	-	-	176,486
Average age	55.4	21.9	30.7	40.3	49.8	59.1	73.3
Spanish, Hispanic, or Latino origin (see text)	30,637	154	1,598	5,247	9,368	7,822	6,448
Race:							
American Indian or Alaska Native	17,024	117	1,207	2,839	5,394	4,314	3,153
Asian	4,816	29	199	699	1,411	1,435	1,043
Black or African American	17,011	83	441	1,706	4,275	5,534	4,972
Native Hawaiian or Other Pacific Islander	725	7	31	126	242	183	136
White	1,164,516	5,617	59,938	164,987	340,912	322,815	270,247
More than one race reported	6,819	37	328	953	2,128	1,969	1,404
Farms by number of persons living in operator's household:							
1 person	147,010	1,419	6,754	12,344	31,413	39,306	55,774
2 people	568,560	1,528	13,951	29,185	128,735	213,422	181,739
3 people	195,531	1,371	13,276	30,332	78,050	48,600	23,902
4 people	181,082	952	17,221	56,156	71,946	22,678	12,129
5 or more people	118,728	620	10,942	43,293	44,218	12,244	7,411
Percent of operator's total household income from farming:							
Less than 25 percent	1,070,668	4,787	54,750	153,669	316,340	299,085	242,037
25 to 49 percent	73,057	495	4,132	9,560	20,191	19,455	19,224
50 to 74 percent	47,429	398	2,445	5,835	12,624	12,222	13,905
75 to 99 percent	15,709	171	616	1,691	3,754	3,948	5,529
100 percent	4,048	39	201	555	1,453	1,540	260
Operator is a hired manager ... farms	18,978	127	1,178	2,872	5,645	5,064	4,092
acres	19,942,195	164,540	303,216	2,052,494	4,970,338	8,283,264	4,168,343
Farms with-							
Internet access	689,448	3,683	40,015	116,888	229,639	191,109	108,114
High-speed internet access	407,291	2,268	24,573	69,203	136,410	112,116	62,721
Farms by number of households sharing in net income of farm:							
1 household	993,214	5,021	52,716	145,847	296,281	273,322	220,027
2 households	164,670	669	7,095	17,998	42,234	48,940	47,734
3 households	29,305	131	1,163	3,311	8,425	8,295	7,980
4 households	15,268	49	696	2,678	4,933	3,705	3,207
5 households or more	8,454	20	474	1,476	2,489	1,988	2,007
FARMS BY TYPE OF ORGANIZATION							
Family or individual ... farms	1,077,216	5,350	56,796	156,095	319,059	298,675	241,241
acres	154,915,992	519,397	6,548,549	18,444,821	42,134,010	44,437,094	42,832,121
Partnership ... farms	80,945	341	3,564	9,318	20,728	22,557	24,437
acres	31,973,202	55,386	838,701	3,109,431	7,370,080	9,850,749	10,748,855
Registered under state law ... farms	37,821	99	1,490	4,476	10,233	10,860	10,663
acres	22,046,781	18,259	483,989	2,165,081	5,088,102	7,091,433	7,199,917
Corporation ... farms	34,726	95	1,175	4,263	10,518	10,008	8,667
acres	21,038,458	(D)	(D)	1,578,217	6,063,606	5,843,791	7,207,297
Family held ... farms	29,621	74	979	3,581	8,909	8,571	7,507
acres	17,461,242	8,927	283,813	1,310,027	4,900,104	4,787,622	6,170,749
More than 10 stockholders ... farms	796	5	26	56	247	216	246
10 or less stockholders ... farms	28,825	69	953	3,525	8,662	8,355	7,261
Other than family held ... farms	5,105	21	196	682	1,609	1,437	1,160
acres	3,577,216	(D)	(D)	268,190	1,163,502	1,056,169	1,036,548
More than 10 stockholders ... farms	472	-	10	72	128	135	127
10 or less stockholders ... farms	4,633	21	186	610	1,481	1,302	1,033
Other-cooperative, estate or trust, institutional, etc ... farms	18,024	104	609	1,634	4,057	5,010	6,610
acres	16,424,476	(D)	(D)	2,206,857	1,874,467	8,536,594	3,263,882
HIRED FARM LABOR							
Hired farm labor ... farms	163,308	563	7,344	22,666	52,202	47,002	33,531
workers	634,997	1,453	25,455	84,419	204,213	184,578	134,879
Workers by days worked:							
150 days or more ... farms	43,191	116	1,606	5,749	12,975	12,446	10,299
workers	167,359	253	5,662	21,713	50,983	48,654	40,094
Less than 150 days ... farms	140,076	484	6,446	19,504	45,312	40,369	27,961
workers	467,638	1,200	19,793	62,706	153,230	135,924	94,785

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
HIRED FARM LABOR - Con.								
Migrant farm labor on farms with hired labor (see text) ..... farms	38,784	28,744	123	1,279	3,349	8,066	7,914	8,013
Migrant farm labor on farms reporting only contract labor (see text) ..... farms	8,488	4,428	23	199	433	864	1,138	1,771
FARMS BY SIZE								
1 to 9 acres	232,849	76,144	773	4,020	9,522	17,052	19,948	24,829
10 to 49 acres	620,283	199,185	1,218	8,502	20,557	39,549	53,154	76,205
50 to 69 acres	153,862	55,241	388	2,464	4,795	9,050	14,411	24,133
70 to 99 acres	192,043	72,735	492	3,439	5,861	11,590	17,919	33,434
100 to 139 acres	175,146	72,011	497	3,195	5,676	11,751	17,707	33,185
140 to 179 acres	139,479	61,049	392	2,684	4,647	9,990	14,755	28,581
180 to 219 acres	87,502	42,539	245	1,783	3,563	7,509	10,473	18,966
220 to 259 acres	68,313	35,459	210	1,534	2,908	6,617	8,831	15,359
260 to 499 acres	212,553	125,581	766	5,521	11,285	26,374	32,235	49,400
500 to 999 acres	149,713	108,603	559	5,206	11,254	27,765	29,611	34,208
1,000 to 1,999 acres	92,656	76,054	298	3,606	9,194	22,671	21,174	19,111
2,000 acres or more	80,393	69,280	150	2,637	8,246	21,121	19,838	17,288
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)								
Oilseed and grain farming (1111)	338,237	222,975	1,777	12,668	23,411	56,438	58,218	70,463
Vegetable and melon farming (1112)	40,589	23,322	155	1,247	2,594	5,649	6,265	7,412
Fruit and tree nut farming (1113)	98,281	45,020	90	1,148	3,491	9,400	12,480	18,411
Greenhouse, nursery, and floriculture production (1114)	54,889	25,408	91	948	2,869	6,899	7,662	6,939
Other crop farming (1119)	519,893	159,949	770	5,294	11,849	27,781	40,971	73,284
Tobacco farming (11191)	9,626	6,121	91	392	741	1,656	1,658	1,583
Cotton farming (11192)	9,968	8,121	110	561	1,095	2,243	2,055	2,057
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	500,299	145,707	569	4,341	10,013	23,882	37,258	69,644
Beef cattle ranching and farming (112111)	656,475	291,083	1,433	10,122	21,136	45,346	74,104	138,942
Cattle feedlots (112112)	31,065	16,105	110	812	1,732	3,486	4,133	5,832
Dairy cattle and milk production (11212)	57,318	49,878	592	4,629	8,784	16,419	11,683	7,771
Hog and pig farming (1122)	30,546	15,858	163	1,166	2,962	5,099	3,742	2,726
Poultry and egg production (1123)	64,570	33,334	136	1,843	5,543	9,243	9,045	7,524
Sheep and goat farming (1124)	67,254	24,052	219	963	2,448	4,572	6,549	9,301
Animal aquaculture and other animal production (1125, 1129)	245,675	86,897	452	3,751	10,689	20,707	25,204	26,094
FARM TYPOLOGY (SEE TEXT)								
Small family farms:								
Limited resource farms ..... farms	308,837	154,378	1,454	5,471	12,424	27,818	38,325	68,886
acres	42,419,764	26,385,696	156,405	867,502	2,047,721	5,121,929	6,806,576	11,385,563
Retirement farms ..... farms	456,093	258,254	-	-	1,280	7,956	66,196	182,822
acres	89,580,775	57,637,537	-	-	233,959	1,373,113	12,536,314	43,494,151
Residential/lifestyle farms ..... farms	801,844	-	-	-	-	-	-	-
acres	121,143,585	-	-	-	-	-	-	-
Farming occupation/lower sales ..... farms	258,899	258,899	2,423	18,818	37,929	73,741	67,613	58,375
acres	87,190,445	87,190,445	460,181	4,396,343	9,135,376	21,897,296	23,632,518	27,668,731
Farming occupation/higher sales ..... farms	100,126	100,126	1,012	7,752	13,293	29,449	27,714	20,906
acres	104,081,344	104,081,344	461,207	4,898,180	11,184,063	29,846,821	30,981,758	26,709,315
Large family farms ..... farms	86,551	77,597	439	4,781	10,810	24,905	21,531	15,131
acres	123,024,138	111,900,512	343,321	4,909,800	12,854,482	33,819,081	32,312,624	27,661,204
Very large family farms ..... farms	101,265	92,535	257	4,579	14,598	32,161	25,405	15,535
acres	211,224,012	196,602,398	288,061	6,833,779	25,335,121	65,411,589	56,771,036	41,962,812
Non-family farms ..... farms	91,177	52,092	403	3,190	7,174	15,009	13,272	13,044
acres	143,431,777	113,945,780	232,956	3,736,824	22,764,675	34,449,227	28,438,565	24,323,533
LIVESTOCK								
Cattle and calves inventory ..... farms	963,669	493,909	2,991	23,023	48,328	101,641	125,834	192,092
number	96,347,858	75,762,523	275,995	3,375,882	10,247,008	20,896,586	20,625,913	20,341,139
Farms with-								
1 to 9	233,078	74,805	588	3,269	7,652	14,100	19,176	30,020
10 to 49	415,493	185,760	1,092	7,233	14,128	29,415	45,604	88,288
50 to 99	135,117	86,405	678	4,849	8,399	17,595	21,845	33,039
100 to 199	91,193	70,074	404	3,996	8,190	18,052	18,274	21,158
200 to 499	59,234	50,441	175	2,532	6,342	14,490	13,569	13,333
500 or more	29,554	26,424	54	1,144	3,617	7,989	7,366	6,254
Cows and heifers that had calved ..... farms	818,992	428,789	2,514	19,479	40,559	87,228	109,082	169,927
number	42,101,375	32,225,027	120,281	1,369,885	4,026,223	8,540,966	8,603,519	9,564,153
Beef cows ..... farms	764,984	380,994	1,935	14,759	31,844	71,358	98,038	163,060
number	32,834,801	23,579,637	72,195	884,002	2,287,024	5,546,099	6,536,447	8,253,870
Farms with-								
1 to 9	246,863	85,805	579	3,380	7,675	15,399	21,732	37,040
10 to 49	360,845	177,409	909	6,476	12,795	28,357	44,053	84,819
50 to 99	84,253	57,765	285	2,441	5,034	11,852	15,334	22,819
100 to 199	43,575	34,635	123	1,548	3,492	8,798	9,625	11,049
200 to 499	23,635	20,324	33	753	2,303	5,640	5,803	5,792
500 or more	5,813	5,056	6	161	545	1,312	1,491	1,541

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
HIRED FARM LABOR - Con.							
Migrant farm labor on farms with hired labor (see text) ... farms	10,040	42	408	1,163	2,892	3,121	2,414
Migrant farm labor on farms reporting only contract labor (see text) ... farms	4,060	12	171	452	1,134	1,324	967
FARMS BY SIZE							
1 to 9 acres	156,705	1,295	10,418	27,391	50,799	40,372	26,430
10 to 49 acres	421,098	2,081	23,075	67,338	128,973	115,147	84,484
50 to 69 acres	98,621	496	4,717	13,127	28,510	28,141	23,630
70 to 99 acres	119,308	514	5,815	15,300	33,541	34,056	30,082
100 to 139 acres	103,135	442	4,578	12,503	28,448	29,595	27,569
140 to 179 acres	78,430	266	3,580	9,169	20,671	22,018	22,726
180 to 219 acres	44,963	170	1,948	5,332	12,237	13,234	12,042
220 to 259 acres	32,854	125	1,364	3,781	9,045	9,456	9,083
260 to 499 acres	86,972	324	3,974	9,878	23,512	24,646	24,638
500 to 999 acres	41,110	97	1,704	4,546	11,456	11,613	11,694
1,000 to 1,999 acres	16,602	60	628	1,773	4,323	4,753	5,065
2,000 acres or more	11,113	20	343	1,172	2,847	3,219	3,512
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)							
Oilseed and grain farming (1111)	115,262	993	8,779	17,009	34,263	30,551	23,667
Vegetable and melon farming (1112)	17,267	101	1,019	2,653	5,406	4,923	3,165
Fruit and tree nut farming (1113)	53,261	91	1,459	5,776	14,936	16,910	14,089
Greenhouse, nursery, and floriculture production (1114)	29,481	78	1,121	3,824	9,494	8,974	5,990
Other crop farming (1119)	359,944	936	12,438	39,139	91,631	101,285	114,515
Tobacco farming (11191)	3,505	35	304	599	1,071	921	575
Cotton farming (11192)	1,847	17	102	259	514	438	517
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	354,592	884	12,032	38,281	90,046	99,926	113,423
Beef cattle ranching and farming (112111)	365,392	2,232	21,954	55,532	109,607	100,612	75,455
Cattle feedlots (112112)	14,960	131	1,124	2,648	4,954	3,863	2,240
Dairy cattle and milk production (11212)	7,440	61	624	1,384	2,340	1,754	1,277
Hog and pig farming (1122)	14,688	188	1,344	3,896	5,092	2,791	1,377
Poultry and egg production (1123)	31,236	140	1,884	6,332	10,914	7,957	4,009
Sheep and goat farming (1124)	43,202	379	2,673	7,894	14,416	11,136	6,704
Animal aquaculture and other animal production (1125, 1129)	158,778	560	7,725	25,223	51,309	45,494	28,467
FARM TYPOLOGY (SEE TEXT)							
Small family farms:							
Limited resource farms ... farms	154,459	1,740	6,675	17,326	36,502	40,331	51,885
acres	16,034,068	117,912	625,782	1,421,286	3,519,237	4,091,606	6,258,245
Retirement farms ... farms	197,839	-	-	1,177	7,304	55,782	133,576
acres	31,943,238	-	-	140,480	978,278	7,225,788	23,598,692
Residential/lifestyle farms ... farms	801,844	3,858	52,744	145,238	294,629	224,843	80,532
acres	121,143,585	407,882	6,239,797	17,628,285	40,780,083	37,179,044	18,908,494
Farming occupation/lower sales ... farms	-	-	-	-	-	-	-
acres	-	-	-	-	-	-	-
Farming occupation/higher sales ... farms	-	-	-	-	-	-	-
acres	-	-	-	-	-	-	-
Large family farms ... farms	8,954	30	542	1,494	2,922	2,296	1,670
acres	11,123,626	13,371	344,100	1,381,517	2,743,180	3,131,780	3,509,678
Very large family farms ... farms	8,730	22	400	1,364	2,683	2,368	1,893
acres	14,621,614	20,524	239,959	1,324,247	3,031,711	5,114,715	4,890,458
Non-family farms ... farms	39,085	240	1,783	4,711	10,322	10,630	11,399
acres	29,485,997	183,619	657,310	3,443,511	6,389,674	11,925,295	6,886,588
LIVESTOCK							
Cattle and calves inventory ... farms	469,760	2,951	29,996	75,948	145,536	126,094	89,235
number	20,585,335	75,365	1,008,105	3,157,612	6,299,005	5,650,732	4,394,516
Farms with-							
1 to 9	158,273	1,141	11,068	29,508	51,441	39,100	26,015
10 to 49	229,733	1,461	13,941	34,792	69,331	63,793	46,415
50 to 99	48,712	243	3,015	7,036	14,855	13,867	9,696
100 to 199	21,119	89	1,306	3,028	6,560	5,998	4,138
200 to 499	8,793	9	574	1,205	2,561	2,470	1,974
500 or more	3,130	8	92	379	788	866	997
Cows and heifers that had calved ... farms	390,203	2,436	23,517	61,029	120,202	106,635	76,384
number	9,876,348	39,109	484,366	1,363,829	2,911,983	2,800,968	2,276,093
Beef cows ... farms	383,990	2,377	22,886	59,825	118,232	105,253	75,417
number	9,255,164	37,513	463,432	1,247,030	2,737,504	2,633,261	2,136,424
Farms with-							
1 to 9	161,058	1,170	10,299	28,264	51,608	41,479	28,238
10 to 49	183,436	1,088	10,564	26,305	54,618	52,394	38,467
50 to 99	26,488	98	1,487	3,644	8,165	7,647	5,447
100 to 199	8,940	14	405	1,139	2,752	2,572	2,058
200 to 499	3,311	6	122	392	900	957	934
500 or more	757	1	9	81	189	204	273

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
LIVESTOCK - Con.								
Cattle and calves inventory - Con.								
Cows and heifers that had calved - Con.								
Milk cows ... farms	69,890	59,100	650	5,338	10,310	19,268	13,853	9,681
number	9,266,574	8,645,390	48,086	485,883	1,739,199	2,994,867	2,067,072	1,310,283
Farms with-								
1 to 9	14,426	7,378	70	679	1,197	1,677	1,699	2,056
10 to 49	19,912	17,670	296	2,025	3,035	5,603	3,978	2,733
50 to 99	18,986	18,141	225	1,800	3,349	6,370	4,117	2,280
100 to 199	8,975	8,691	35	518	1,473	3,095	2,171	1,399
200 to 499	4,307	4,166	11	183	635	1,486	1,123	728
500 or more	3,284	3,054	13	133	621	1,037	765	485
Other cattle (see text) ... farms	788,633	422,255	2,544	20,060	41,943	88,748	108,357	160,603
number	54,246,483	43,537,496	155,714	2,005,997	6,220,785	12,355,620	12,022,394	10,776,986
Cattle and calves sold ... farms	798,290	436,069	2,585	20,293	41,913	89,527	110,948	170,803
number	74,071,936	59,367,329	179,572	2,634,069	8,778,681	16,806,860	16,552,042	14,416,105
$1,000	61,209,970	49,568,257	115,923	2,115,221	7,487,339	14,269,999	14,045,331	11,534,443
Calves weighing less than 500 pounds ... farms	414,324	228,366	1,369	10,801	21,836	45,186	57,641	91,533
number	13,695,252	10,414,008	69,849	547,426	1,638,589	2,825,233	2,643,286	2,689,625
Cattle, including calves weighing 500 pounds or more ... farms	681,126	382,027	2,225	17,758	36,861	79,598	98,111	147,474
number	60,376,684	48,953,321	109,723	2,086,643	7,140,092	13,981,627	13,908,756	11,726,480
Cattle on feed (see text) ... farms	76,396	48,420	314	2,426	5,791	12,759	12,740	14,390
number	27,595,928	22,513,665	20,885	852,804	3,833,069	6,905,653	6,657,987	4,243,267
Hogs and pigs inventory ... farms	75,442	41,168	384	2,852	7,433	12,929	9,719	7,851
number	67,786,318	56,926,674	260,064	3,517,237	12,296,052	20,755,626	13,060,882	7,036,813
Farms with-								
1 to 24	45,047	17,607	215	1,338	3,324	4,757	4,065	3,908
25 to 49	4,292	2,393	9	120	354	690	574	646
50 to 99	3,182	2,070	17	163	260	524	543	563
100 to 199	2,590	1,953	35	152	277	581	474	434
200 to 499	4,524	3,606	30	200	630	1,258	927	561
500 or more	15,807	13,539	78	879	2,588	5,119	3,136	1,739
Used or to be used for breeding ... farms	32,867	18,579	165	1,110	3,169	5,610	4,576	3,949
number	6,290,610	5,155,037	11,179	290,985	1,168,456	1,753,007	1,207,433	723,977
Other hogs and pigs ... farms	66,441	37,304	326	2,623	6,770	11,891	8,770	6,924
number	61,495,708	51,771,637	248,885	3,226,252	11,127,596	19,002,619	11,853,449	6,312,836
Hogs and pigs sold ... farms	74,789	40,737	352	2,802	7,298	12,982	9,591	7,712
number	206,807,181	173,185,867	814,722	11,368,267	38,401,165	61,577,036	40,666,650	20,358,027
$1,000	18,056,981	15,196,729	70,949	1,025,377	3,388,061	5,370,675	3,526,342	1,815,325
Sheep and lambs inventory ... farms	83,134	38,650	305	1,605	4,399	8,557	9,753	14,031
number	5,819,162	4,330,816	14,654	119,207	387,928	940,829	1,331,550	1,536,648
Ewes 1 year old or older ... farms	68,222	32,161	261	1,334	3,589	7,122	8,327	11,528
number	3,516,409	2,592,761	9,278	81,020	242,159	594,191	785,782	880,331
Sheep and lambs sold ... farms	53,268	25,031	196	1,153	2,887	5,675	6,420	8,700
number	4,579,608	3,342,265	12,625	89,957	318,266	679,054	1,146,150	1,096,213
Horses and ponies inventory ... farms	575,942	239,633	1,414	12,478	28,864	55,591	66,706	74,580
number	4,028,827	1,971,242	9,070	92,360	252,295	488,844	572,350	556,323
Owned ... farms	501,528	205,981	1,198	10,898	25,523	48,344	57,871	62,147
number	3,224,964	1,538,127	6,594	70,832	193,371	376,580	450,660	440,090
Horses and ponies sold ... farms	133,472	57,151	395	3,603	8,038	13,774	16,028	15,313
number	506,503	267,893	1,371	13,427	34,679	68,692	78,377	71,347
Owned ... farms	106,050	44,601	285	2,857	6,207	10,688	12,601	11,963
number	400,845	211,943	982	10,285	27,356	53,433	63,115	56,772
Goats, all inventory ... farms	144,466	55,776	433	2,841	7,564	12,583	14,804	17,551
number	3,140,529	1,629,839	12,171	69,435	188,250	364,233	438,296	557,454
Goats sold ... farms	61,748	24,258	261	1,342	3,325	5,283	6,405	7,642
number	1,387,576	738,667	9,308	50,237	81,545	157,530	195,220	244,827
POULTRY								
Layers inventory (see text) ... farms	145,615	61,148	395	3,611	9,260	15,296	15,653	16,933
number	349,772,508	261,155,113	247,906	13,189,663	47,688,260	89,817,622	68,895,046	41,316,616
Farms with-								
1 to 399	140,844	57,324	377	3,317	8,505	14,064	14,710	16,351
400 to 3,199	785	545	4	52	91	150	126	122
3,200 to 9,999	626	487	3	38	98	139	120	89
10,000 to 19,999	1,373	1,115	8	90	217	341	294	165
20,000 to 49,999	1,292	1,100	3	86	248	358	271	134
50,000 to 99,999	261	225	-	11	40	99	48	27
100,000 or more	434	352	-	17	61	145	84	45
Pullets for laying flock replacement inventory ... farms	22,514	10,639	89	671	1,647	2,654	2,660	2,918
number	105,876,529	80,238,321	209,615	4,663,187	12,646,275	24,401,356	21,849,642	16,468,246
Layers sold ... farms	24,971	11,785	96	919	2,156	3,179	2,915	2,520
number	194,955,057	155,379,547	237,348	7,386,691	34,874,221	51,711,091	38,905,249	22,264,947
Pullets for laying flock replacement sold (see text) ... farms	4,169	2,459	30	186	447	708	580	508
number	161,354,686	125,910,863	272,785	8,677,911	20,301,483	42,101,354	28,485,413	26,071,917

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
LIVESTOCK - Con.							
Cattle and calves inventory - Con.							
Cows and heifers that had calved - Con.							
Milk cows ..... farms	10,790	96	985	2,122	3,447	2,451	1,689
number	621,184	1,596	20,934	116,799	174,479	167,707	139,669
Farms with-							
1 to 9	7,048	70	709	1,513	2,269	1,540	947
10 to 49	2,242	15	204	389	725	544	365
50 to 99	845	10	55	129	277	186	188
100 to 199	284	-	9	29	83	86	77
200 to 499	141	1	2	23	29	37	49
500 or more	230	-	6	39	64	58	63
Other cattle (see text) ..... farms	366,378	2,289	24,062	59,847	114,528	98,629	67,023
number	10,708,987	36,256	523,739	1,793,783	3,387,022	2,849,764	2,118,423
Cattle and calves sold ..... farms	362,221	2,431	23,247	57,390	111,715	98,131	69,307
number	14,704,607	46,184	609,986	2,710,965	4,624,756	3,955,005	2,757,711
$1,000	11,641,713	28,537	412,943	2,352,758	3,707,538	3,068,519	2,071,417
Calves weighing less than 500 pounds ..... farms	185,958	1,269	11,533	28,716	56,167	51,064	37,209
number	3,281,244	18,654	180,703	514,172	991,719	896,019	679,977
Cattle, including calves weighing 500 pounds or more ..... farms	299,099	1,917	19,116	47,158	92,933	81,640	56,335
number	11,423,363	27,530	429,283	2,196,793	3,633,037	3,058,986	2,077,734
Cattle on feed (see text) ..... farms	27,976	216	2,023	5,193	9,819	6,903	3,822
number	5,082,263	4,852	83,790	1,280,977	1,808,406	1,268,989	635,249
Hogs and pigs inventory ..... farms	34,274	314	3,158	9,173	12,055	6,443	3,131
number	10,859,644	59,251	634,800	2,306,911	3,219,243	3,709,773	929,666
Farms with-							
1 to 24	27,440	245	2,463	7,689	9,702	4,922	2,419
25 to 49	1,899	15	193	436	648	419	188
50 to 99	1,112	8	97	238	376	254	139
100 to 199	637	7	72	102	211	152	93
200 to 499	918	10	103	211	326	198	70
500 or more	2,268	29	230	497	792	498	222
Used or to be used for breeding ..... farms	14,288	142	1,270	3,652	4,853	2,914	1,457
number	1,135,573	1,086	35,228	192,901	293,767	483,466	129,125
Other hogs and pigs ..... farms	29,137	274	2,717	7,867	10,310	5,375	2,594
number	9,724,071	58,165	599,572	2,114,010	2,925,476	3,226,307	800,541
Hogs and pigs sold ..... farms	34,052	310	3,007	9,347	12,268	6,209	2,911
number	33,621,314	138,381	2,113,004	8,058,192	10,456,367	9,872,569	2,982,801
$1,000	2,860,251	15,664	169,863	598,264	908,050	927,824	240,587
Sheep and lambs inventory ..... farms	44,484	337	2,456	8,196	15,149	11,394	6,952
number	1,488,346	6,942	67,845	199,245	450,159	364,420	399,735
Ewes 1 year old or older ..... farms	36,061	290	1,983	6,398	12,367	9,415	5,608
number	923,648	4,463	42,804	122,903	281,898	232,811	238,769
Sheep and lambs sold ..... farms	28,237	274	1,680	5,593	9,885	6,778	4,027
number	1,237,343	7,762	53,252	125,816	334,953	236,071	479,489
Horses and ponies inventory ..... farms	336,309	1,494	19,993	59,466	113,688	93,063	48,605
number	2,057,585	6,971	102,619	341,582	673,634	595,900	336,879
Owned ..... farms	295,547	1,267	18,024	53,579	101,322	81,289	40,066
number	1,686,837	5,809	85,576	287,087	557,263	489,889	261,213
Horses and ponies sold ..... farms	76,321	383	5,273	14,417	25,527	20,654	10,067
number	238,610	1,198	14,037	41,015	74,051	69,009	39,300
Owned ..... farms	61,449	294	4,326	11,656	20,559	16,731	7,883
number	188,902	934	11,325	33,025	58,359	54,834	30,425
Goats, all inventory ..... farms	88,690	609	6,311	18,892	30,100	21,296	11,482
number	1,510,690	8,746	91,558	270,621	477,130	378,585	284,050
Goats sold ..... farms	37,490	368	2,963	8,359	12,524	8,705	4,571
number	648,909	6,698	46,804	126,054	198,434	165,366	105,553
POULTRY							
Layers inventory (see text) ..... farms	84,467	425	5,545	18,331	30,186	20,060	9,920
number	88,617,395	19,124	1,392,097	8,993,989	18,831,563	41,169,659	18,210,963
Farms with-							
1 to 399	83,520	424	5,473	18,147	29,875	19,805	9,796
400 to 3,199	240	-	29	36	84	62	29
3,200 to 9,999	139	-	9	29	45	35	21
10,000 to 19,999	258	1	15	58	89	70	25
20,000 to 49,999	192	-	13	51	59	41	28
50,000 to 99,999	36	-	3	3	13	12	5
100,000 or more	82	-	3	7	21	35	16
Pullets for laying flock replacement inventory ..... farms	11,875	103	767	2,509	4,157	2,886	1,453
number	25,638,208	60,997	644,174	3,809,733	6,997,026	9,635,457	4,490,821
Layers sold ..... farms	13,186	74	1,049	3,267	4,749	2,805	1,242
number	39,575,510	11,670	1,025,809	5,212,669	10,657,973	18,488,005	4,179,384
Pullets for laying flock replacement sold (see text) ..... farms	1,710	16	140	414	581	388	171
number	35,443,823	93,900	1,157,378	7,193,350	9,758,053	12,445,254	4,795,888

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
POULTRY - Con.								
Broilers and other meat-type chickens sold ... farms	27,091	18,479	112	1,322	3,533	5,385	4,769	3,358
number	8,914,828,122	7,351,438,784	23,292,867	466,780,835	1,502,319,770	2,259,417,550	1,948,535,143	1,151,092,619
Farms with-								
1 to 1,999	9,743	4,217	49	411	865	1,238	948	706
2,000 to 59,999	618	481	5	51	114	113	91	107
60,000 to 99,999	623	419	2	32	52	74	121	138
100,000 or more	16,107	13,362	56	828	2,502	3,960	3,609	2,407
Turkeys inventory (see text) ... farms	17,226	8,232	65	488	1,405	2,462	2,134	1,678
number	107,173,804	88,977,454	186,584	4,736,446	14,575,637	28,749,458	21,391,716	19,337,613
Turkeys sold (see text) ... farms	8,284	4,697	20	323	908	1,518	1,121	807
number	295,793,159	247,428,537	396,232	12,685,225	42,152,277	84,327,456	59,227,787	48,639,560
CROPS HARVESTED								
Barley for grain ... farms	19,848	17,041	127	1,013	2,332	5,350	4,561	3,658
acres	3,521,957	3,294,352	20,864	191,744	463,157	1,165,931	893,738	558,918
bushels	207,089,232	194,296,976	997,577	11,510,542	28,005,650	69,072,524	53,045,314	31,665,369
Irrigated ... farms	4,241	3,525	17	186	418	1,103	1,044	757
acres	741,475	688,496	1,984	34,500	84,335	231,583	217,428	118,666
Farms by acres harvested:								
1 to 24 acres	5,742	4,339	31	252	612	1,251	1,075	1,118
25 to 99 acres	5,405	4,619	27	232	575	1,391	1,258	1,136
100 to 249 acres	4,469	4,060	44	256	540	1,258	1,138	824
250 to 499 acres	2,552	2,409	21	174	368	837	665	344
500 acres or more	1,680	1,614	4	99	237	613	425	236
Corn for grain ... farms	347,760	250,872	1,868	15,232	30,579	69,644	65,412	68,137
acres	86,248,542	77,457,568	328,231	4,026,642	10,786,620	26,622,502	21,331,132	14,362,441
bushels	12,738,519,330	11,509,259,314	48,470,794	600,606,490	1,618,456,466	3,998,065,630	3,167,818,638	2,075,841,296
Irrigated ... farms	38,911	33,756	252	2,361	4,594	10,362	9,001	7,186
acres	13,156,769	12,385,436	57,591	765,466	1,872,380	4,220,576	3,337,933	2,131,490
Farms by acres harvested:								
1 to 24 acres	68,008	33,109	379	2,559	3,785	6,530	7,730	12,126
25 to 99 acres	101,672	64,304	635	3,931	6,837	14,930	15,301	22,670
100 to 249 acres	78,166	61,221	435	3,653	7,031	16,628	16,314	17,160
250 to 499 acres	50,807	45,294	253	2,783	5,989	14,424	12,855	8,990
500 acres or more	49,107	46,944	166	2,306	6,937	17,132	13,212	7,191
Corn for silage or greenchop ... farms	84,317	72,137	566	5,283	11,186	22,711	18,170	14,221
acres	5,979,661	5,516,829	23,533	275,638	846,500	1,813,298	1,476,579	1,081,281
tons	104,224,795	96,637,384	416,980	4,710,294	14,972,751	32,062,900	25,891,633	18,582,826
Irrigated ... farms	9,664	8,485	44	433	1,120	2,714	2,255	1,919
acres	1,497,288	1,364,892	6,311	55,658	195,733	444,426	366,961	295,803
Farms by acres harvested:								
1 to 24 acres	34,207	26,193	293	2,404	4,145	7,565	6,158	5,628
25 to 99 acres	34,878	31,617	232	2,274	4,964	10,366	7,994	5,787
100 to 249 acres	10,855	10,210	33	452	1,470	3,376	2,886	1,993
250 to 499 acres	2,859	2,683	4	99	360	937	756	527
500 acres or more	1,518	1,434	4	54	247	467	376	286
Cotton, all ... farms	18,605	15,892	163	1,058	2,134	4,541	4,220	3,776
acres	10,493,238	9,934,945	59,651	545,846	1,428,415	3,231,064	2,650,227	2,019,742
bales	18,898,128	17,941,156	101,559	971,183	2,615,846	5,905,877	4,826,463	3,520,228
Irrigated ... farms	8,776	7,928	66	552	1,165	2,339	2,033	1,773
acres	4,035,610	3,852,639	19,657	219,934	587,889	1,295,920	983,187	746,052
Farms by acres harvested:								
1 to 24 acres	961	475	6	20	40	96	136	177
25 to 99 acres	3,043	2,089	32	176	212	467	515	687
100 to 249 acres	3,886	3,209	36	269	399	831	844	830
250 to 499 acres	3,738	3,447	53	228	468	996	944	758
500 acres or more	6,977	6,672	36	365	1,015	2,151	1,781	1,324
Dry edible beans, excluding limas ... farms	6,236	5,628	51	422	824	1,899	1,493	939
acres	1,455,549	1,401,579	8,337	86,356	241,060	534,993	348,271	182,562
cwt	25,353,900	24,431,529	141,381	1,506,232	4,115,121	9,350,152	6,070,577	3,248,066
Irrigated ... farms	2,456	2,185	10	133	273	721	627	421
acres	353,503	333,361	1,018	17,355	42,386	119,980	94,230	58,392
Farms by acres harvested:								
1 to 24 acres	818	558	12	40	45	122	161	178
25 to 99 acres	1,709	1,500	13	115	189	483	414	286
100 to 249 acres	1,856	1,767	13	157	265	623	455	254
250 to 499 acres	1,066	1,036	11	67	180	377	272	129
500 acres or more	787	767	2	43	145	294	191	92
Oats for grain ... farms	42,558	32,963	156	1,546	3,896	9,217	8,812	9,336
acres	1,509,149	1,308,611	5,544	50,496	156,044	388,355	373,653	334,519
bushels	89,508,669	78,997,631	405,618	3,306,430	9,868,722	23,647,199	22,443,430	19,326,232
Irrigated ... farms	1,620	1,256	5	51	150	347	347	356
acres	78,214	66,181	960	3,322	9,239	17,800	18,872	15,988
Farms by acres harvested:								
1 to 24 acres	27,044	19,496	105	1,044	2,340	5,160	4,948	5,899
25 to 99 acres	12,167	10,407	32	388	1,179	3,147	2,967	2,694
100 to 249 acres	2,643	2,410	17	96	296	723	697	581
250 to 499 acres	552	509	2	15	59	151	154	128
500 acres or more	152	141	-	3	22	36	46	34
Peanuts for nuts ... farms	6,182	5,209	37	368	712	1,415	1,465	1,212
acres	1,200,564	1,121,091	4,875	61,209	175,779	351,497	302,194	225,537
pounds	3,703,138,887	3,471,185,710	17,796,056	195,891,407	539,861,206	1,121,622,352	918,707,260	677,307,429
Irrigated ... farms	2,381	2,120	17	146	314	651	586	406
acres	418,789	397,300	2,658	21,915	68,249	133,900	101,265	69,313

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
POULTRY - Con.							
Broilers and other meat-type chickens sold ... farms	8,612	54	634	2,226	3,145	1,802	751
number	1,563,389,338	1,667,777	59,486,842	266,867,098	457,541,090	367,095,723	410,730,808
Farms with-							
1 to 1,999	5,526	45	468	1,595	2,119	986	313
2,000 to 59,999	137	3	10	29	42	43	10
60,000 to 99,999	204	-	12	34	57	44	57
100,000 or more	2,745	6	144	568	927	729	371
Turkeys inventory (see text) ... farms	8,994	47	606	2,004	3,419	2,012	906
number	18,196,350	256	461,227	1,756,087	5,868,904	4,945,341	5,164,535
Turkeys sold (see text) ... farms	3,587	19	235	876	1,426	735	296
number	48,364,622	306	1,660,182	5,670,778	15,105,871	13,902,539	12,024,946
CROPS HARVESTED							
Barley for grain ... farms	2,807	10	192	416	920	758	511
acres	227,605	1,390	24,296	27,864	68,518	65,456	40,081
bushels	12,792,256	65,200	1,197,821	1,639,308	3,962,149	3,346,632	2,581,146
Irrigated ... farms	716	2	43	97	224	191	159
acres	52,979	(D)	(D)	6,584	16,673	11,342	12,837
Farms by acres harvested:							
1 to 24 acres	1,403	2	86	208	473	391	243
25 to 99 acres	786	1	48	114	263	206	154
100 to 249 acres	409	6	36	68	116	105	78
250 to 499 acres	143	1	16	23	47	33	23
500 acres or more	66	-	6	3	21	23	13
Corn for grain ... farms	96,888	835	7,760	15,584	30,506	25,295	16,908
acres	8,790,974	59,923	673,871	1,427,904	2,850,278	2,271,215	1,507,783
bushels	1,229,260,016	8,221,394	95,558,984	199,378,790	402,985,020	316,797,268	206,318,560
Irrigated ... farms	5,155	27	359	821	1,610	1,425	913
acres	771,333	2,635	38,153	106,374	210,801	234,372	178,998
Farms by acres harvested:							
1 to 24 acres	34,899	298	2,558	5,682	10,743	9,251	6,367
25 to 99 acres	37,368	391	3,124	5,735	11,404	9,865	6,849
100 to 249 acres	16,945	102	1,496	2,847	5,694	4,336	2,470
250 to 499 acres	5,513	35	439	984	1,976	1,283	796
500 acres or more	2,163	9	143	336	689	560	426
Corn for silage or greenchop ... farms	12,180	79	856	2,261	3,909	3,087	1,988
acres	462,832	1,132	22,949	68,155	141,557	123,852	105,187
tons	7,587,411	17,394	356,381	1,134,968	2,273,566	1,999,085	1,806,017
Irrigated ... farms	1,179	4	51	187	335	326	276
acres	132,396	58	4,964	15,987	41,729	36,875	32,783
Farms by acres harvested:							
1 to 24 acres	8,014	67	634	1,590	2,661	1,999	1,063
25 to 99 acres	3,261	10	190	541	1,015	834	671
100 to 249 acres	645	2	24	98	169	185	167
250 to 499 acres	176	-	4	24	39	46	63
500 acres or more	84	-	4	8	25	23	24
Cotton, all ... farms	2,713	22	153	378	749	662	749
acres	558,293	2,691	28,091	78,709	156,139	140,570	152,093
bales	956,972	4,755	42,415	130,112	280,374	239,427	259,889
Irrigated ... farms	848	5	42	125	250	209	217
acres	182,971	389	5,875	23,718	58,800	45,667	48,522
Farms by acres harvested:							
1 to 24 acres	486	4	35	61	133	104	149
25 to 99 acres	954	4	60	129	264	246	251
100 to 249 acres	677	11	27	110	188	154	187
250 to 499 acres	291	3	17	32	84	81	74
500 acres or more	305	-	14	46	80	77	88
Dry edible beans, excluding limas ... farms	608	2	48	99	178	174	107
acres	53,970	(D)	(D)	5,961	16,877	15,640	11,861
cwt	922,371	(D)	(D)	111,088	252,710	253,676	236,657
Irrigated ... farms	271	-	5	42	79	98	47
acres	20,142	-	741	1,376	4,724	8,405	4,896
Farms by acres harvested:							
1 to 24 acres	260	-	22	48	59	89	42
25 to 99 acres	209	2	12	36	75	52	32
100 to 249 acres	89	-	12	9	29	20	19
250 to 499 acres	30	-	2	3	7	8	10
500 acres or more	20	-	-	3	8	5	4
Oats for grain ... farms	9,595	34	565	1,483	3,184	2,656	1,673
acres	200,538	399	12,161	27,530	65,547	55,780	39,121
bushels	10,511,038	16,520	675,756	1,509,840	3,467,111	2,795,257	2,046,554
Irrigated ... farms	364	-	19	42	115	107	81
acres	12,033	-	417	901	4,103	3,542	3,070
Farms by acres harvested:							
1 to 24 acres	7,548	31	417	1,196	2,558	2,075	1,271
25 to 99 acres	1,760	3	130	254	530	502	341
100 to 249 acres	233	-	17	30	77	65	44
250 to 499 acres	43	-	1	3	14	11	14
500 acres or more	11	-	-	-	5	3	3
Peanuts for nuts ... farms	973	1	71	133	289	252	227
acres	79,473	(D)	(D)	11,513	23,774	18,406	20,622
pounds	231,953,177	(D)	(D)	33,847,436	66,934,101	49,872,634	66,576,609
Irrigated ... farms	261	-	16	31	92	68	54
acres	21,489	-	1,157	2,496	8,325	3,890	5,621

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
CROPS HARVESTED - Con.								
Peanuts for nuts - Con.								
Farms by acres harvested:								
1 to 24 acres	915	576	7	36	55	110	145	223
25 to 99 acres	1,909	1,519	18	138	165	379	437	382
100 to 249 acres	1,886	1,696	9	120	235	487	502	343
250 to 499 acres	920	885	1	55	165	260	237	167
500 acres or more	552	533	2	19	92	179	144	97
Rice ... farms	6,084	5,283	55	499	787	1,491	1,444	1,007
acres	2,758,792	2,552,797	15,379	175,958	428,563	775,459	693,288	464,150
cwt	198,538,690	183,723,349	1,019,189	12,406,972	30,527,478	56,005,163	49,711,850	34,052,697
Irrigated ... farms	6,084	5,283	55	499	787	1,491	1,444	1,007
acres	2,758,792	2,552,797	15,379	175,958	428,563	775,459	693,288	464,150
Farms by acres harvested:								
1 to 24 acres	132	72	5	11	9	8	14	25
25 to 99 acres	915	645	12	78	63	143	168	181
100 to 249 acres	1,459	1,244	25	151	171	318	350	229
250 to 499 acres	1,616	1,467	7	146	200	447	417	250
500 acres or more	1,962	1,855	6	113	344	575	495	322
Sorghum for grain ... farms	26,242	21,099	131	1,308	2,385	5,866	5,536	5,873
acres	6,769,834	6,141,490	26,544	337,079	790,202	1,948,634	1,661,724	1,377,307
bushels	482,452,865	441,143,224	1,880,459	24,889,235	58,122,017	142,624,375	117,904,974	95,722,164
Irrigated ... farms	4,483	3,915	26	276	513	1,160	958	982
acres	845,214	785,138	3,375	42,770	127,006	252,378	177,473	182,136
Farms by acres harvested:								
1 to 24 acres	2,609	1,551	15	75	149	319	394	599
25 to 99 acres	8,335	5,934	40	396	584	1,448	1,397	2,069
100 to 249 acres	7,302	6,225	37	416	714	1,710	1,748	1,600
250 to 499 acres	4,377	3,970	29	224	480	1,245	1,090	902
500 acres or more	3,619	3,419	10	197	458	1,144	907	703
Soybeans for beans ... farms	279,110	202,517	1,366	10,966	23,491	55,429	53,733	57,532
acres	63,915,821	57,138,383	225,358	2,668,391	7,416,202	19,164,798	16,320,187	11,343,447
bushels	2,582,423,697	2,318,061,765	8,813,243	105,996,029	301,065,012	785,914,831	662,369,979	453,902,671
Irrigated ... farms	20,333	17,993	140	1,194	2,399	5,664	4,872	3,724
acres	5,237,075	4,962,348	27,243	305,973	704,662	1,652,317	1,419,446	852,707
Farms by acres harvested:								
1 to 24 acres	38,458	17,796	184	1,159	1,934	3,461	3,996	7,062
25 to 99 acres	90,935	55,186	484	3,202	5,414	11,664	13,018	21,404
100 to 249 acres	70,698	55,776	459	3,090	6,363	14,767	15,036	16,061
250 to 499 acres	44,381	40,395	155	2,078	5,158	13,189	11,995	7,820
500 acres or more	34,638	33,364	84	1,437	4,622	12,348	9,688	5,185
Sugarbeets for sugar ... farms	4,022	3,734	32	362	601	1,355	942	442
acres	1,253,817	1,218,514	5,837	83,658	215,536	481,764	296,640	135,079
tons	31,937,325	30,999,412	147,552	2,091,198	5,410,640	12,253,443	7,603,269	3,493,310
Irrigated ... farms	1,595	1,472	7	128	183	528	393	233
acres	394,675	379,008	2,036	22,065	47,225	150,084	101,575	56,023
Sugarcane for sugar ... farms	692	582	-	24	99	185	144	130
acres	846,666	637,028	-	21,649	99,523	271,629	171,300	72,927
tons	31,127,405	23,294,960	-	690,310	3,340,659	10,101,994	6,622,741	2,539,256
Irrigated ... farms	219	167	-	1	15	45	48	58
acres	435,205	244,598	-	(D)	26,208	130,201	(D)	26,265
Sunflower seed, all ... farms	6,403	5,732	54	478	902	1,858	1,475	965
acres	2,000,153	1,898,318	12,023	158,425	343,460	660,174	470,258	253,978
pounds	2,820,962,445	2,688,466,122	17,161,381	232,887,680	503,126,569	928,609,261	656,885,794	349,795,437
Irrigated ... farms	608	555	3	30	81	195	155	91
acres	102,219	97,341	210	3,779	16,883	32,961	29,997	13,511
Farms by acres harvested:								
1 to 24 acres	502	317	-	19	36	86	87	89
25 to 99 acres	1,153	985	7	84	114	268	265	247
100 to 249 acres	2,110	1,916	34	154	282	600	522	324
250 to 499 acres	1,494	1,410	10	139	264	477	330	190
500 acres or more	1,144	1,104	3	82	206	427	271	115
Tobacco ... farms	16,234	11,344	158	938	1,496	3,131	2,910	2,711
acres	359,846	322,488	2,324	18,165	46,061	112,183	87,670	56,085
pounds	778,301,825	701,813,315	5,284,189	39,402,269	100,015,318	245,839,861	191,263,232	120,008,446
Irrigated ... farms	2,572	2,058	24	152	271	683	527	401
acres	71,578	66,180	522	3,178	8,879	24,713	18,218	10,671
Farms by acres harvested:								
0.1 to 0.9 acres	235	101	2	4	11	15	24	45
1.0 to 1.9 acres	1,493	653	7	36	55	127	170	258
2.0 to 2.9 acres	1,827	990	16	82	99	208	250	335
3.0 to 4.9 acres	2,772	1,662	25	167	199	388	395	488
5.0 to 9.9 acres	3,459	2,345	43	277	332	596	580	517
10.0 to 24.9 acres	3,129	2,512	34	191	341	738	648	560
25.0 acres or more	3,319	3,081	31	181	459	1,059	843	508
Wheat for grain, all ... farms	160,810	125,283	804	6,817	14,358	34,548	32,994	35,762
acres	50,932,969	46,165,519	207,139	2,317,617	5,845,365	14,552,063	12,935,659	10,307,676
bushels	1,993,648,378	1,822,028,834	7,954,779	92,381,245	240,335,091	591,210,520	507,658,800	382,488,399
Irrigated ... farms	15,213	13,203	73	767	1,629	3,928	3,585	3,221
acres	3,364,079	3,069,958	12,455	142,990	393,892	989,078	842,577	688,966
Farms by acres harvested:								
1 to 24 acres	26,703	16,215	126	893	1,613	3,639	4,003	5,941
25 to 99 acres	49,409	35,378	247	1,886	3,705	9,129	8,969	11,442
100 to 249 acres	34,703	28,210	206	1,612	3,415	7,599	7,447	7,931
250 to 499 acres	21,167	18,583	102	1,070	2,219	5,423	4,918	4,851
500 acres or more	28,828	26,897	123	1,356	3,406	8,758	7,657	5,597

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Other occupations						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
CROPS HARVESTED - Con.								
Peanuts for nuts - Con.								
Farms by acres harvested:								
1 to 24 acres		339	1	20	46	95	86	91
25 to 99 acres		390	-	46	59	120	99	66
100 to 249 acres		190	-	3	18	55	55	59
250 to 499 acres		35	-	1	6	13	10	5
500 acres or more		19	-	1	4	6	2	6
Rice	farms	801	7	56	124	236	229	149
	acres	205,995	3,076	11,911	35,942	52,174	58,664	44,228
	cwt	14,815,341	236,991	925,303	2,587,073	3,668,558	4,376,146	3,021,270
Irrigated	farms	801	7	56	124	236	229	149
	acres	205,995	3,076	11,911	35,942	52,174	58,664	44,228
Farms by acres harvested:								
1 to 24 acres		60	-	2	13	7	23	15
25 to 99 acres		270	2	17	32	99	79	41
100 to 249 acres		215	1	15	36	65	59	39
250 to 499 acres		149	-	19	26	38	36	30
500 acres or more		107	4	3	17	27	32	24
Sorghum for grain	farms	5,143	50	370	749	1,589	1,288	1,097
	acres	628,344	6,923	38,796	90,506	190,172	160,606	141,341
	bushels	41,309,641	478,174	2,724,114	6,215,991	12,481,339	10,577,048	8,832,975
Irrigated	farms	568	6	35	88	167	146	126
	acres	60,076	230	1,876	8,432	17,604	20,159	11,775
Farms by acres harvested:								
1 to 24 acres		1,058	12	52	152	365	266	211
25 to 99 acres		2,401	20	223	351	696	610	501
100 to 249 acres		1,077	12	67	152	328	265	253
250 to 499 acres		407	2	19	66	139	93	88
500 acres or more		200	4	9	28	61	54	44
Soybeans for beans	farms	76,593	534	5,748	11,694	23,936	20,251	14,430
	acres	6,777,438	32,653	443,500	1,014,932	2,265,351	1,811,001	1,210,001
	bushels	264,361,932	1,263,716	17,531,958	39,526,228	89,275,129	69,825,857	46,939,044
Irrigated	farms	2,340	12	148	310	777	671	422
	acres	274,727	852	13,223	32,897	80,820	88,610	58,325
Farms by acres harvested:								
1 to 24 acres		20,662	167	1,440	3,257	6,027	5,524	4,247
25 to 99 acres		35,749	286	2,963	5,239	10,812	9,380	7,069
100 to 249 acres		14,922	60	1,047	2,402	5,225	3,985	2,203
250 to 499 acres		3,986	20	247	648	1,449	989	633
500 acres or more		1,274	1	51	148	423	373	278
Sugarbeets for sugar	farms	288	4	30	70	80	63	41
	acres	35,303	216	1,925	5,736	8,444	11,921	7,061
	tons	937,913	5,124	46,925	133,259	210,562	335,247	206,796
Irrigated	farms	123	-	9	25	29	35	25
	acres	15,667	-	380	2,086	2,559	6,200	4,442
Sugarcane for sugar	farms	110	-	7	10	32	30	31
	acres	209,638	-	1,956	894	14,631	174,513	17,644
	tons	7,832,445	-	63,490	31,158	502,129	6,678,993	556,675
Irrigated	farms	52	-	2	2	9	19	20
	acres	190,607	-	(D)	(D)	4,052	170,917	14,826
Sunflower seed, all	farms	671	6	78	115	196	164	112
	acres	101,835	1,213	14,214	19,268	27,517	23,573	16,050
	pounds	132,496,323	1,610,600	19,324,948	28,308,744	37,394,982	27,095,053	18,761,996
Irrigated	farms	53	-	2	5	14	17	15
	acres	4,878	-	(D)	(D)	857	591	3,098
Farms by acres harvested:								
1 to 24 acres		185	-	13	27	59	53	33
25 to 99 acres		168	2	19	25	54	43	25
100 to 249 acres		194	3	31	32	50	43	35
250 to 499 acres		84	-	10	22	20	14	18
500 acres or more		40	1	5	9	13	11	1
Tobacco	farms	4,890	67	424	831	1,524	1,242	802
	acres	37,359	190	2,934	5,263	11,064	10,992	6,916
	pounds	76,488,510	367,823	6,382,019	10,801,307	23,570,013	21,696,117	13,671,231
Irrigated	farms	514	13	58	75	144	140	84
	acres	5,398	39	473	760	1,212	1,741	1,174
Farms by acres harvested:								
0.1 to 0.9 acres		134	5	5	17	45	40	22
1.0 to 1.9 acres		840	12	73	141	245	215	154
2.0 to 2.9 acres		837	22	65	155	275	197	123
3.0 to 4.9 acres		1,110	13	127	203	358	241	168
5.0 to 9.9 acres		1,114	15	99	184	351	289	176
10.0 to 24.9 acres		617	-	42	100	183	185	107
25.0 acres or more		238	-	13	31	67	75	52
Wheat for grain, all	farms	35,527	247	2,540	5,258	10,905	9,315	7,262
	acres	4,767,450	25,272	287,327	691,118	1,392,088	1,221,495	1,150,150
	bushels	171,619,544	868,029	10,171,985	25,405,676	50,028,804	45,009,480	40,135,570
Irrigated	farms	2,010	16	97	289	589	555	464
	acres	294,121	1,455	10,149	44,169	78,966	82,172	77,210
Farms by acres harvested:								
1 to 24 acres		10,488	64	669	1,624	3,228	2,878	2,025
25 to 99 acres		14,031	114	1,122	2,067	4,409	3,630	2,689
100 to 249 acres		6,493	44	480	900	1,959	1,668	1,442
250 to 499 acres		2,584	16	166	377	769	652	604
500 acres or more		1,931	9	103	290	540	487	502

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
CROPS HARVESTED - Con.								
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ..... farms	869,534	452,930	1,982	18,112	41,784	94,572	118,910	177,570
acres	61,455,483	44,542,177	146,737	1,799,356	4,914,076	11,655,960	12,319,552	13,706,496
tons, dry	155,393,762	120,630,399	402,836	5,166,038	14,615,884	33,941,596	33,398,400	33,105,645
Irrigated ..... farms	86,007	52,401	198	2,218	5,115	12,739	14,202	17,929
acres	10,264,753	8,523,145	25,446	350,637	1,037,875	2,442,089	2,449,718	2,217,380
Farms by acres harvested:								
1 to 24 acres	367,533	141,682	686	5,486	12,062	24,952	36,113	62,383
25 to 99 acres	345,273	190,256	888	7,653	16,362	37,020	49,032	79,301
100 to 249 acres	111,368	82,116	299	3,329	8,707	21,183	22,738	25,860
250 to 499 acres	30,370	25,576	78	1,108	2,951	7,363	7,236	6,840
500 acres or more	14,990	13,300	31	536	1,702	4,054	3,791	3,186
Alfalfa hay ..... farms	290,726	182,295	916	9,318	20,704	47,239	47,750	56,368
acres	20,244,497	16,575,412	52,140	741,040	2,017,399	4,903,191	4,642,037	4,219,605
tons, dry	65,349,074	55,480,743	178,101	2,515,856	7,064,501	16,918,728	15,597,912	13,205,645
Irrigated ..... farms	56,390	35,673	151	1,583	3,476	8,907	9,698	11,858
acres	6,556,652	5,511,326	18,305	243,690	668,113	1,620,290	1,594,811	1,366,117
Other tame hay ..... farms	496,740	244,335	879	7,970	19,265	44,711	65,623	105,887
acres	26,763,972	17,046,856	57,611	609,948	1,573,126	3,770,277	4,705,526	6,330,368
tons, dry	54,347,673	35,785,173	107,941	1,331,438	3,437,458	8,169,086	9,913,777	12,825,473
Irrigated ..... farms	24,348	14,215	43	552	1,307	3,353	3,903	5,057
acres	1,699,864	1,316,579	2,470	51,683	145,392	369,043	361,161	386,830
Field and grass seed crops, all ..... farms	6,038	4,316	30	249	501	1,196	1,174	1,166
acres	1,178,726	1,062,317	2,683	54,698	129,779	345,484	310,341	219,332
Irrigated ..... farms	1,457	1,220	4	86	154	400	336	240
acres	323,441	304,702	57	17,651	34,961	105,523	84,492	62,018
Land in vegetables (see text) ..... farms	69,172	43,032	265	2,393	5,227	11,177	11,609	12,361
acres	4,356,880	3,900,303	5,522	149,771	510,508	1,396,075	1,070,059	768,368
Irrigated ..... farms	29,885	20,824	137	1,304	2,793	5,912	5,583	5,095
acres	3,068,485	2,751,107	3,385	101,146	359,864	1,019,560	743,848	523,306
Farms by acres harvested:								
0.1 to 4.9 acres	41,453	21,187	139	1,189	2,357	4,638	5,793	7,071
5.0 to 24.9 acres	13,869	9,516	71	602	1,265	2,399	2,404	2,775
25.0 to 99.9 acres	6,671	5,649	43	306	689	1,832	1,535	1,244
100.0 to 249.9 acres	3,473	3,198	10	146	461	1,066	900	615
250.0 acres or more	3,706	3,482	2	150	455	1,242	977	656
Snap beans ..... farms	17,300	10,768	91	636	1,338	2,802	2,913	2,988
acres	303,997	278,560	579	11,296	34,984	90,035	76,209	65,456
Harvested for processing ..... farms	1,999	1,473	9	76	158	445	430	355
acres	198,101	182,780	516	8,990	20,851	57,481	52,677	42,264
Peas, green ..... farms	4,532	3,307	11	185	433	1,036	848	794
acres	214,057	195,029	126	6,385	28,977	73,557	52,294	33,691
Harvested for processing ..... farms	2,047	1,756	3	78	238	624	480	333
acres	206,092	188,186	123	6,302	28,142	71,146	50,309	32,165
Potatoes ..... farms	15,014	9,915	51	686	1,311	2,602	2,605	2,660
acres	1,131,963	1,041,997	667	55,955	130,906	405,529	263,571	185,368
Harvested for processing ..... farms	1,739	1,392	5	101	188	431	384	283
acres	599,604	558,030	382	36,084	71,473	215,811	135,527	98,753
Farms by acres harvested:								
0.1 to 4.9 acres	12,013	7,224	43	525	943	1,687	1,892	2,134
5.0 to 24.9 acres	612	463	3	14	55	140	145	106
25.0 to 99.9 acres	539	483	1	48	66	140	120	108
100.0 to 249.9 acres	714	676	4	41	106	236	168	121
250.0 acres or more	1,136	1,069	-	58	141	399	280	191
Sweet corn ..... farms	28,241	17,691	76	876	2,050	4,560	4,528	5,601
acres	622,946	556,934	612	16,885	70,133	201,841	148,065	119,398
Harvested for processing ..... farms	3,670	2,671	10	126	298	848	745	644
acres	361,886	327,379	213	10,389	37,098	133,710	86,558	59,413
Sweet potatoes ..... farms	1,910	1,303	18	82	152	319	358	374
acres	105,284	94,643	369	7,258	12,407	29,726	22,287	22,597
Harvested for processing ..... farms	259	200	5	15	34	56	49	41
acres	21,360	18,878	75	1,759	2,657	5,708	4,240	4,438
Tomatoes in the open ..... farms	25,809	15,423	111	860	1,983	3,843	4,202	4,424
acres	442,225	392,447	622	7,630	46,547	143,533	124,870	69,245
Harvested for processing ..... farms	1,761	1,123	10	61	129	294	340	289
acres	319,549	284,098	465	5,140	34,339	100,040	92,039	52,075
Land in orchards ..... farms	115,935	55,595	104	1,486	4,357	11,681	15,600	22,367
acres	5,039,476	3,855,292	4,954	86,080	358,317	1,052,785	1,139,654	1,213,502
Irrigated ..... farms	61,189	31,246	49	885	2,619	6,985	8,759	11,949
acres	3,981,316	3,135,637	4,276	69,371	303,664	864,942	932,270	961,115
Farms by bearing and nonbearing acres:								
0.1 to 4.9 acres	52,775	19,608	45	464	1,430	3,766	5,602	8,301
5.0 to 24.9 acres	37,043	17,631	23	504	1,192	3,374	4,778	7,760
25.0 to 99.9 acres	17,119	11,076	28	329	1,017	2,460	3,077	4,165
100.0 to 249.9 acres	5,434	4,281	2	113	432	1,190	1,232	1,312
250.0 acres or more	3,564	2,999	6	76	286	891	911	829
Apples ..... farms	25,591	12,818	21	386	1,151	3,174	3,618	4,468
bearing and nonbearing acres	398,770	335,562	230	9,196	30,743	105,012	96,379	94,002
Grapes ..... farms	25,892	12,868	27	388	1,074	2,918	3,931	4,530
bearing and nonbearing acres	1,051,407	830,725	3,023	22,497	95,556	208,882	256,853	243,915
Peaches, all ..... farms	13,582	7,348	11	227	689	1,752	2,097	2,572
bearing and nonbearing acres	149,237	124,664	66	3,674	17,145	35,240	32,479	36,060

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
CROPS HARVESTED - Con.							
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ..... farms	416,604	1,551	21,082	61,249	128,874	119,622	84,226
acres	16,913,306	56,510	819,242	2,340,479	5,103,543	4,910,452	3,683,080
tons, dry	34,763,362	139,702	1,649,431	4,757,320	10,394,286	10,067,692	7,754,932
Irrigated ..... farms	33,606	100	1,437	4,314	10,519	10,033	7,203
acres	1,741,608	5,750	66,760	197,115	489,119	513,593	469,271
Farms by acres harvested:							
1 to 24 acres	225,851	854	11,736	34,550	70,727	63,554	44,430
25 to 99 acres	155,017	596	7,553	21,621	47,174	45,724	32,349
100 to 249 acres	29,252	84	1,489	4,212	9,175	8,455	5,837
250 to 499 acres	4,794	15	232	669	1,363	1,411	1,104
500 acres or more	1,690	2	72	197	435	478	506
Alfalfa hay ..... farms	108,431	448	6,290	17,493	35,788	29,720	18,692
acres	3,669,085	13,364	180,934	512,065	1,164,763	1,041,929	756,030
tons, dry	9,868,331	58,567	478,642	1,348,595	3,009,801	2,786,766	2,185,960
Irrigated ..... farms	20,717	52	913	2,745	6,572	6,069	4,366
acres	1,045,326	4,538	41,433	122,258	292,607	306,726	277,764
Other tame hay ..... farms	252,405	913	12,326	36,224	77,354	74,068	51,520
acres	9,717,116	32,355	467,010	1,351,027	2,904,980	2,874,032	2,087,712
tons, dry	18,562,500	62,731	864,340	2,521,071	5,517,855	5,538,581	4,057,922
Irrigated ..... farms	10,133	34	378	1,279	3,184	3,150	2,108
acres	383,285	898	13,424	42,386	115,029	113,128	98,420
Field and grass seed crops, all ..... farms	1,722	17	137	305	526	469	268
acres	116,409	883	6,629	19,862	35,083	30,376	23,576
Irrigated ..... farms	237	2	9	38	73	67	48
acres	18,739	(D)	(D)	1,093	4,001	6,254	6,720
Land in vegetables (see text) ..... farms	26,140	124	1,513	4,162	8,440	7,373	4,528
acres	456,576	679	13,357	62,632	159,741	147,306	72,862
Irrigated ..... farms	9,061	40	546	1,458	2,989	2,628	1,400
acres	317,378	251	6,731	43,277	115,948	106,648	44,523
Farms by acres harvested:							
0.1 to 4.9 acres	20,266	93	1,172	3,231	6,479	5,765	3,526
5.0 to 24.9 acres	4,353	23	269	702	1,464	1,190	705
25.0 to 99.9 acres	1,022	8	58	171	339	261	185
100.0 to 249.9 acres	275	-	6	37	84	84	64
250.0 acres or more	224	-	8	21	74	73	48
Snap beans ..... farms	6,532	36	370	1,087	2,141	1,794	1,104
acres	25,436	149	1,139	2,034	5,667	9,601	6,846
Harvested for processing ..... farms	526	7	35	73	172	150	89
acres	15,321	129	666	1,173	2,237	7,330	3,787
Peas, green ..... farms	1,225	7	78	193	435	315	197
acres	19,029	(D)	(D)	2,287	7,743	4,743	3,299
Harvested for processing ..... farms	291	1	21	55	120	66	28
acres	17,907	(D)	(D)	2,166	7,471	4,333	3,018
Potatoes ..... farms	5,099	36	271	813	1,653	1,412	914
acres	89,966	81	414	11,028	32,570	30,966	14,907
Harvested for processing ..... farms	347	1	9	49	105	121	62
acres	41,574	(D)	(D)	4,884	18,085	11,637	6,772
Farms by acres harvested:							
0.1 to 4.9 acres	4,789	31	262	773	1,549	1,325	849
5.0 to 24.9 acres	149	4	4	21	55	43	22
25.0 to 99.9 acres	56	1	4	7	13	15	16
100.0 to 249.9 acres	38	-	1	3	11	13	10
250.0 acres or more	67	-	-	9	25	16	17
Sweet corn ..... farms	10,550	41	634	1,796	3,417	2,835	1,827
acres	66,012	103	3,312	8,083	22,744	20,914	10,855
Harvested for processing ..... farms	999	4	71	141	357	276	150
acres	34,506	(D)	(D)	3,960	12,345	11,068	5,943
Sweet potatoes ..... farms	607	-	25	108	169	194	111
acres	10,641	-	140	735	704	6,866	2,197
Harvested for processing ..... farms	59	-	2	8	17	16	16
acres	2,483	-	(D)	(D)	364	1,010	861
Tomatoes in the open ..... farms	10,386	43	561	1,628	3,390	2,978	1,786
acres	49,777	15	2,146	1,777	23,183	13,293	9,362
Harvested for processing ..... farms	638	3	42	99	181	204	109
acres	35,452	(Z)	(D)	(D)	19,301	9,670	4,775
Land in orchards ..... farms	60,340	92	1,717	6,637	17,361	19,076	15,457
acres	1,184,184	875	34,104	130,865	300,613	339,814	377,914
Irrigated ..... farms	29,943	47	763	3,177	8,447	9,549	7,960
acres	845,679	556	25,183	96,068	216,102	234,147	273,622
Farms by bearing and nonbearing acres:							
0.1 to 4.9 acres	33,167	53	903	3,750	10,042	10,498	7,921
5.0 to 24.9 acres	19,412	31	561	2,136	5,415	6,127	5,142
25.0 to 99.9 acres	6,043	8	204	610	1,496	1,930	1,795
100.0 to 249.9 acres	1,153	-	33	93	268	383	376
250.0 acres or more	565	-	16	48	140	138	223
Apples ..... farms	12,773	18	436	1,583	4,108	4,045	2,583
bearing and nonbearing acres	63,208	28	1,598	6,700	16,659	18,425	19,798
Grapes ..... farms	13,024	28	366	1,518	3,996	4,197	2,919
bearing and nonbearing acres	220,682	389	8,477	27,502	60,248	66,849	57,218
Peaches, all ..... farms	6,234	12	233	850	1,961	1,892	1,286
bearing and nonbearing acres	24,573	28	955	3,672	6,487	6,699	6,733

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total farming and other occupations	Farming						
		Total	Age of operator (years)					
			Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
CROPS HARVESTED - Con.								
Land in orchards - Con.								
Citrus fruit, all ..... farms	15,658	7,145	9	172	547	1,439	1,873	3,105
bearing and nonbearing acres	1,005,806	727,085	540	7,396	53,755	241,157	127,939	296,299
Almonds ..... farms	6,700	4,171	6	132	419	1,038	1,187	1,389
bearing and nonbearing acres	790,245	655,078	183	13,067	69,244	185,631	219,996	166,956
Pecans ..... farms	21,856	9,547	20	196	508	1,421	2,588	4,814
bearing and nonbearing acres	581,809	364,703	188	11,118	24,129	66,254	107,630	155,384
Walnuts, English ..... farms	7,161	3,680	5	101	308	743	1,001	1,522
bearing and nonbearing acres	267,751	208,696	8	5,945	17,624	56,438	67,378	61,302
Land in berries (see text) ..... farms	25,017	13,830	63	655	1,691	3,678	3,808	3,935
acres	261,733	188,077	217	6,687	18,983	68,882	52,934	40,374

See footnote(s) at end of table.

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Table 63. **Summary by Age and Primary Occupation of Principal Operator: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Other occupations						
	Total	Age of operator (years)					
		Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
CROPS HARVESTED - Con.							
Land in orchards - Con.							
Citrus fruit, all ..... farms	8,513	11	194	740	2,150	2,627	2,791
bearing and nonbearing acres	278,721	13	6,040	35,986	68,186	63,595	104,902
Almonds ..... farms	2,529	7	125	359	697	792	549
bearing and nonbearing acres	135,167	96	3,737	16,715	33,391	43,248	37,980
Pecans ..... farms	12,309	23	339	1,209	3,358	3,919	3,461
bearing and nonbearing acres	217,106	146	6,735	19,509	52,773	62,151	75,792
Walnuts, English ..... farms	3,481	8	83	432	930	1,116	912
bearing and nonbearing acres	59,055	8	1,549	4,956	15,644	20,702	16,196
Land in berries (see text) ..... farms	11,187	42	510	1,594	3,665	3,385	1,991
acres	73,657	118	1,837	6,949	14,831	27,321	22,601

[1] Landlord production expenses are included with total farm production expenses.
[2] Farms with a zero net cash income are included as farms with net gains of less than $1,000.

Table 64. **Summary by Farm Typology: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
FARMS AND LAND IN FARMS				
Farms ..... number	2,204,792	308,837	456,093	801,844
percent	100.0	14.0	20.7	36.4
Land in farms ..... acres	922,095,840	42,419,764	89,580,775	121,143,585
Average size of farm ..... acres	418	137	196	151
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS				
Total ..... farms	2,204,792	308,837	456,093	801,844
$1,000	305,204,413	2,750,900	7,514,848	11,580,682
Average per farm ..... dollars	138,428	8,907	16,477	14,443
Farms by economic class:				
Less than $1,000 (see text)	499,880	98,673	106,984	233,051
$1,000 to $2,499	270,712	49,614	64,362	126,983
$2,500 to $4,999	246,309	44,179	62,997	109,992
$5,000 to $9,999	254,834	44,000	67,734	108,648
$10,000 to $24,999	274,274	41,755	75,053	107,103
$25,000 to $49,999	163,500	18,335	40,181	55,170
$50,000 to $99,999	129,124	11,594	23,097	35,116
$100,000 to $249,999	149,049	687	15,300	25,118
$250,000 to $499,999	96,251	-	385	663
$500,000 to $999,999	63,567	-	-	-
$1,000,000 or more	57,292	-	-	-
$1,000,000 to $2,499,999	41,863	-	-	-
$2,500,000 to $4,999,999	9,845	-	-	-
$5,000,000 or more	5,584	-	-	-
Total sales ..... farms	2,204,792	308,837	456,093	801,844
$1,000	297,220,491	2,486,902	6,722,575	10,618,352
Grains, oilseeds, dry beans, and dry peas ..... farms	479,467	33,245	57,533	105,759
$1,000	77,215,262	549,757	1,960,924	3,788,436
Sales of $50,000 or more ..... farms	235,343	2,946	12,923	25,339
$1,000	73,535,966	203,340	1,330,035	2,690,391
Corn ..... farms	347,540	21,079	37,491	72,615
$1,000	39,909,600	254,780	942,067	1,991,913
Sales of $50,000 or more ..... farms	151,428	700	5,809	13,020
$1,000	36,859,125	43,689	509,517	1,172,990
Wheat ..... farms	159,527	7,906	15,370	25,106
$1,000	10,623,640	81,035	264,829	417,703
Sales of $50,000 or more ..... farms	47,250	185	1,209	1,859
$1,000	8,944,760	12,088	110,122	163,696
Soybeans ..... farms	285,089	15,307	32,003	57,830
$1,000	20,283,986	179,127	662,897	1,217,017
Sales of $50,000 or more ..... farms	109,269	240	3,191	6,172
$1,000	17,191,360	14,873	238,358	455,383
Sorghum ..... farms	27,142	1,204	1,979	3,767
$1,000	1,651,798	12,856	36,228	69,945
Sales of $50,000 or more ..... farms	8,972	24	173	333
$1,000	1,348,798	1,496	13,929	26,389
Barley ..... farms	18,326	895	1,155	1,813
$1,000	701,047	5,666	11,126	18,560
Sales of $50,000 or more ..... farms	3,973	12	43	74
$1,000	526,415	852	3,641	5,495
Rice ..... farms	6,085	121	222	387
$1,000	2,020,231	3,769	14,433	27,669
Sales of $50,000 or more ..... farms	5,184	31	98	184
$1,000	1,995,322	1,947	11,351	22,246
Other grains, oilseeds, dry beans, and dry peas ..... farms	55,228	4,248	5,313	8,389
$1,000	2,024,959	12,523	29,344	45,629
Sales of $50,000 or more ..... farms	10,062	19	122	163
$1,000	1,698,514	1,107	8,988	13,002
Tobacco ..... farms	16,228	1,875	2,063	3,539
$1,000	1,268,114	23,860	49,732	68,022
Sales of $50,000 or more ..... farms	4,495	58	238	289
$1,000	1,076,035	3,936	22,651	24,769
Cotton and cottonseed ..... farms	18,591	602	1,077	1,584
$1,000	4,898,608	12,928	43,127	60,021
Sales of $50,000 or more ..... farms	13,232	76	302	393
$1,000	4,784,510	5,023	29,359	38,954
Vegetables, melons, potatoes, and sweet potatoes ..... farms	69,100	11,471	11,239	17,394
$1,000	14,683,058	89,169	145,106	185,725
Sales of $50,000 or more ..... farms	13,824	170	619	743
$1,000	14,167,307	11,100	58,340	64,487
Fruits, tree nuts, and berries ..... farms	112,690	12,318	26,505	34,878
$1,000	18,625,459	138,102	610,247	761,074
Sales of $50,000 or more ..... farms	28,824	492	3,499	4,284
$1,000	17,681,378	32,932	356,382	440,646
Nursery, greenhouse, floriculture, and sod (see text) ..... farms	50,784	7,040	7,063	13,507
$1,000	16,632,734	94,707	180,769	377,942
Sales of $50,000 or more ..... farms	17,039	439	1,063	2,308
$1,000	16,227,627	29,087	115,527	253,759
Cut Christmas trees and short-rotation woody crops ..... farms	13,374	1,563	4,097	4,954
$1,000	384,594	9,509	44,176	41,057
Sales of $50,000 or more ..... farms	1,088	21	205	182
$1,000	306,465	1,397	19,960	16,485

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
FARMS AND LAND IN FARMS					
Farms ....number	258,899	100,126	86,551	101,265	91,177
....percent	11.7	4.5	3.9	4.6	4.1
Land in farms .... acres	87,190,445	104,081,344	123,024,138	211,224,012	143,431,777
Average size of farm .... acres	337	1,040	1,421	2,086	1,573
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS					
Total ....farms	258,899	100,126	86,551	101,265	91,177
....$1,000	6,987,206	17,658,728	32,242,539	159,734,341	66,735,169
Average per farm .... dollars	26,988	176,365	372,526	1,577,389	731,930
Farms by economic class:					
Less than $1,000 (see text)	46,875	-	-	-	14,297
$1,000 to $2,499	22,328	-	-	-	7,425
$2,500 to $4,999	21,734	-	-	-	7,407
$5,000 to $9,999	26,290	-	-	-	8,162
$10,000 to $24,999	40,722	-	-	-	9,641
$25,000 to $49,999	43,189	-	-	-	6,625
$50,000 to $99,999	52,739	-	-	-	6,578
$100,000 to $249,999	5,012	94,138	-	-	8,794
$250,000 to $499,999	9	5,984	82,268	-	6,942
$500,000 to $999,999	1	4	4,281	53,179	6,102
$1,000,000 or more	-	-	2	48,086	9,204
$1,000,000 to $2,499,999	-	-	2	36,725	5,136
$2,500,000 to $4,999,999	-	-	-	7,848	1,997
$5,000,000 or more	-	-	-	3,513	2,071
Total sales ....farms	258,899	100,126	86,551	101,265	91,177
....$1,000	6,413,249	16,782,351	30,958,920	157,092,105	66,146,037
Grains, oilseeds, dry beans, and dry peas ....farms	65,188	67,765	62,722	64,748	22,507
....$1,000	2,131,535	7,864,175	15,623,306	39,547,062	5,750,068
Sales of $50,000 or more ....farms	17,742	52,120	53,618	57,236	13,419
....$1,000	1,273,465	7,590,441	15,451,659	39,399,291	5,597,344
Corn ....farms	43,524	52,395	50,767	53,453	16,216
....$1,000	954,275	3,759,280	7,844,235	21,210,255	2,952,793
Sales of $50,000 or more ....farms	4,476	33,071	40,280	45,120	8,952
....$1,000	284,033	3,354,150	7,630,749	21,035,351	2,828,647
Wheat ....farms	20,628	26,405	26,473	29,721	7,918
....$1,000	366,409	1,211,758	2,183,923	5,241,556	856,427
Sales of $50,000 or more ....farms	1,706	8,524	12,389	18,137	3,241
....$1,000	114,730	878,152	1,895,194	4,993,138	777,641
Soybeans ....farms	35,129	44,180	43,731	44,152	12,757
....$1,000	676,992	2,346,037	4,394,502	9,438,925	1,368,489
Sales of $50,000 or more ....farms	1,497	22,019	33,204	36,608	6,338
....$1,000	94,211	1,749,152	4,131,193	9,256,392	1,251,798
Sorghum ....farms	3,344	4,785	4,714	5,695	1,654
....$1,000	53,708	198,943	343,819	796,159	140,141
Sales of $50,000 or more ....farms	147	1,467	2,479	3,653	696
....$1,000	9,404	127,596	294,579	752,068	123,336
Barley ....farms	2,165	3,762	3,736	3,894	906
....$1,000	19,959	84,015	155,824	347,121	58,777
Sales of $50,000 or more ....farms	47	464	1,140	1,904	289
....$1,000	3,036	38,338	111,549	312,535	50,969
Rice ....farms	320	729	1,325	2,318	663
....$1,000	13,649	88,975	312,880	1,315,174	243,684
Sales of $50,000 or more ....farms	111	645	1,267	2,258	590
....$1,000	7,803	86,032	310,861	1,313,442	241,640
Other grains, oilseeds, dry beans, and dry peas ....farms	8,065	9,233	8,429	9,287	2,264
....$1,000	46,544	175,168	388,123	1,197,871	129,757
Sales of $50,000 or more ....farms	91	1,176	2,949	4,986	556
....$1,000	5,924	92,755	321,437	1,142,025	113,275
Tobacco .... farms	3,350	2,264	1,217	1,397	523
....$1,000	88,104	161,684	209,658	582,331	84,724
Sales of $50,000 or more ....farms	443	1,113	958	1,184	212
....$1,000	29,939	135,274	203,456	577,257	78,752
Cotton and cottonseed ....farms	1,526	2,879	3,433	6,052	1,438
....$1,000	49,888	291,671	692,678	3,121,858	626,438
Sales of $50,000 or more ....farms	336	2,213	3,091	5,707	1,114
....$1,000	23,371	272,248	683,339	3,112,435	619,781
Vegetables, melons, potatoes, and sweet potatoes ....farms	11,106	3,953	3,398	6,640	3,899
....$1,000	183,844	246,514	467,087	8,687,825	4,677,789
Sales of $50,000 or more ....farms	951	1,827	2,126	5,523	1,865
....$1,000	63,464	209,773	443,061	8,665,017	4,652,066
Fruits, tree nuts, and berries ....farms	14,120	5,050	4,348	5,940	9,531
....$1,000	335,214	572,426	1,159,933	8,380,767	6,667,695
Sales of $50,000 or more ....farms	2,481	3,730	3,639	5,175	5,524
....$1,000	175,203	554,416	1,149,422	8,367,616	6,604,761
Nursery, greenhouse, floriculture, and sod (see text) ....farms	7,457	3,457	2,586	3,903	5,771
....$1,000	180,549	386,000	694,922	7,668,655	7,049,191
Sales of $50,000 or more ....farms	1,273	2,586	2,210	3,559	3,601
....$1,000	87,686	370,895	688,401	7,662,870	7,019,402
Cut Christmas trees and short-rotation woody crops ....farms	1,485	298	206	235	536
....$1,000	21,566	22,079	30,429	157,943	57,835
Sales of $50,000 or more ....farms	123	155	109	157	136
....$1,000	8,175	20,286	29,111	156,806	54,245

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.				
Total - Con.				
Total sales - Con.				
Other crops and hay (see text) ....farms	434,502	56,774	93,298	156,158
$1,000	9,950,098	283,334	622,819	901,285
Sales of $50,000 or more ....farms	27,831	356	1,689	2,280
$1,000	7,529,077	22,541	144,804	195,076
Cattle and calves ....farms	798,290	98,920	162,393	264,239
$1,000	61,209,970	960,290	2,503,773	3,386,251
Sales of $50,000 or more ....farms	119,983	2,764	9,979	13,054
$1,000	53,786,091	185,483	900,371	1,216,989
Milk and other dairy products from cows ....farms	69,763	4,893	3,702	6,840
$1,000	31,848,029	115,268	193,539	223,072
Sales of $50,000 or more ....farms	50,792	913	1,375	1,458
$1,000	31,558,210	62,051	158,145	164,130
Hogs and pigs ....farms	74,789	8,668	6,211	25,454
$1,000	18,056,981	31,536	45,677	173,254
Sales of $50,000 or more ....farms	19,956	84	236	1,000
$1,000	17,829,977	5,688	25,776	112,695
Sheep, goats, and their products ....farms	121,171	22,610	20,442	51,189
$1,000	704,855	46,967	54,551	109,142
Sales of $50,000 or more ....farms	1,825	66	98	165
$1,000	415,640	4,505	9,166	15,576
Horses, ponies, mules, burros, and donkeys ....farms	114,317	16,962	18,896	50,529
$1,000	2,061,862	75,708	121,785	275,613
Sales of $50,000 or more ....farms	3,638	129	407	823
$1,000	1,559,047	8,509	37,790	75,942
Poultry and eggs ....farms	148,911	22,719	20,017	54,500
$1,000	37,065,947	26,659	85,929	140,315
Sales of $50,000 or more ....farms	26,267	50	398	589
$1,000	36,932,463	3,387	65,997	94,031
Aquaculture (see text) ....farms	6,409	654	736	1,650
$1,000	1,415,271	7,342	16,890	42,105
Sales of $50,000 or more ....farms	2,449	35	105	267
$1,000	1,376,454	2,440	12,336	31,619
Other animals and other animal products (see text) ....farms	43,226	6,916	8,221	17,327
$1,000	1,199,649	21,764	43,530	85,039
Sales of $50,000 or more ....farms	2,294	41	204	382
$1,000	1,066,659	2,651	20,254	37,150
Value of-				
Government payments ....farms	838,391	81,786	160,498	238,170
$1,000	7,983,922	263,998	792,273	962,330
Landlord's share of total sales (see text) ....farms	97,706	4,572	7,239	17,025
$1,000	6,429,386	33,351	101,144	243,287
Agricultural products sold directly to individuals for human consumption (see text) ....farms	136,817	20,492	26,298	56,203
$1,000	1,211,270	72,502	116,228	176,599
FARM PRODUCTION EXPENSES				
Total farm production expenses ....farms	2,204,792	308,837	456,093	801,844
$1,000	241,113,666	4,074,820	7,688,514	13,990,351
Average per farm ....dollars	109,359	13,194	16,857	17,448
Fertilizer, lime, and soil conditioners purchased ....farms	1,148,218	121,304	218,126	360,827
$1,000	18,107,194	302,712	766,341	1,209,449
Farms with expenses of-				
$1 to $4,999	734,931	105,643	177,260	297,388
$5,000 to $24,999	249,546	14,555	36,737	56,368
$25,000 to $49,999	74,633	945	3,349	5,982
$50,000 or more	89,108	161	780	1,089
Chemicals purchased ....farms	918,604	80,981	164,716	278,798
$1,000	10,074,914	96,695	260,311	461,224
Farms with expenses of-				
$1 to $4,999	666,084	76,555	151,711	254,283
$5,000 to $24,999	162,785	4,212	12,059	22,906
$25,000 to $49,999	46,594	167	805	1,364
$50,000 or more	43,141	47	141	245
Seeds, plants, vines, and trees ....farms	775,893	70,448	121,140	216,783
$1,000	11,740,521	130,725	290,878	568,818
Farms with expenses of-				
$1 to $999	302,164	44,740	71,708	126,925
$1,000 to $4,999	192,154	19,016	33,968	58,328
$5,000 to $24,999	173,462	6,283	14,346	29,117
$25,000 to $49,999	56,320	341	912	1,954
$50,000 or more	51,793	68	206	459

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
		Farming occupation/ lower sales	Farming occupation/ higher sales			
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.						
Total - Con.						
Total sales - Con.						
Other crops and hay (see text)	farms	54,482	21,873	17,258	20,834	13,825
	$1,000	530,178	718,396	1,025,471	4,341,268	1,527,346
Sales of $50,000 or more	farms	1,840	4,922	5,302	8,789	2,653
	$1,000	123,882	523,565	887,047	4,199,242	1,432,921
Cattle and calves	farms	107,854	54,308	41,946	44,534	24,096
	$1,000	2,196,287	3,333,961	4,766,195	23,579,644	20,483,568
Sales of $50,000 or more	farms	12,762	23,000	21,418	28,333	8,673
	$1,000	869,541	2,777,441	4,332,937	23,234,505	20,268,824
Milk and other dairy products from cows	farms	8,129	18,246	12,797	11,753	3,403
	$1,000	317,551	2,470,965	3,490,479	20,333,830	4,703,325
Sales of $50,000 or more	farms	3,081	17,069	12,423	11,558	2,915
	$1,000	217,223	2,445,279	3,484,208	20,331,211	4,695,964
Hogs and pigs	farms	8,781	4,639	5,551	11,976	3,509
	$1,000	58,525	243,474	864,214	12,046,328	4,593,971
Sales of $50,000 or more	farms	276	1,852	3,808	10,656	2,044
	$1,000	18,190	208,846	840,304	12,031,458	4,587,020
Sheep, goats, and their products	farms	16,261	3,530	2,241	1,955	2,943
	$1,000	68,511	71,845	71,424	201,271	81,145
Sales of $50,000 or more	farms	200	486	326	321	163
	$1,000	13,393	50,354	58,949	192,625	71,072
Horses, ponies, mules, burros, and donkeys	farms	18,210	2,851	1,687	1,877	3,305
	$1,000	141,802	87,384	97,204	823,804	438,563
Sales of $50,000 or more	farms	543	565	329	438	404
	$1,000	36,089	76,982	89,715	815,883	418,136
Poultry and eggs	farms	17,884	4,695	5,955	18,463	4,678
	$1,000	39,324	191,884	1,587,575	26,756,617	8,237,644
Sales of $50,000 or more	farms	172	1,086	4,316	17,650	2,006
	$1,000	11,938	185,012	1,584,554	26,755,084	8,232,460
Aquaculture (see text)	farms	797	401	400	470	1,301
	$1,000	20,140	50,012	97,001	497,736	684,045
Sales of $50,000 or more	farms	160	324	324	390	844
	$1,000	11,264	48,970	95,803	496,564	677,460
Other animals and other animal products (see text)	farms	6,430	1,202	744	857	1,529
	$1,000	50,230	69,881	81,345	365,168	482,691
Sales of $50,000 or more	farms	318	460	273	290	326
	$1,000	21,716	66,863	79,275	362,270	476,480
Value of-						
Government payments	farms	101,580	78,355	68,148	69,414	40,440
	$1,000	573,957	876,377	1,283,618	2,642,235	589,132
Landlord's share of total sales (see text)	farms	10,803	16,042	18,374	18,990	4,661
	$1,000	127,177	612,479	1,400,981	3,451,999	458,969
Agricultural products sold directly to individuals for human consumption (see text)	farms	19,844	4,796	2,864	2,386	3,934
	$1,000	154,378	131,733	130,727	281,486	147,618
FARM PRODUCTION EXPENSES						
Total farm production expenses	farms	258,899	100,126	86,551	101,265	91,177
	$1,000	7,833,100	13,033,789	23,006,971	117,148,519	54,337,603
Average per farm	dollars	30,255	130,174	265,820	1,156,851	595,957
Fertilizer, lime, and soil conditioners purchased	farms	149,242	88,376	77,325	83,874	49,144
	$1,000	759,817	1,752,040	3,065,476	8,187,603	2,063,756
Farms with expenses of-						
$1 to $4,999		100,824	16,617	7,380	7,644	22,175
$5,000 to $24,999		44,720	46,192	23,423	14,410	13,141
$25,000 to $49,999		3,132	19,584	23,277	13,261	5,103
$50,000 or more		566	5,983	23,245	48,559	8,725
Chemicals purchased	farms	118,680	80,143	71,131	80,522	43,633
	$1,000	296,795	837,208	1,537,183	5,027,713	1,557,783
Farms with expenses of-						
$1 to $4,999		101,431	30,895	14,312	14,021	22,876
$5,000 to $24,999		16,402	42,004	34,237	20,037	10,928
$25,000 to $49,999		687	5,929	16,358	17,091	4,193
$50,000 or more		160	1,315	6,224	29,373	5,636
Seeds, plants, vines, and trees	farms	104,665	79,440	70,438	76,744	36,235
	$1,000	363,433	1,019,279	1,849,274	5,705,397	1,812,716
Farms with expenses of-						
$1 to $999		40,959	4,831	2,286	2,574	8,141
$1,000 to $4,999		40,107	19,072	7,660	5,611	8,392
$5,000 to $24,999		22,571	45,469	29,134	16,930	9,612
$25,000 to $49,999		807	8,676	23,043	16,522	4,065
$50,000 or more		221	1,392	8,315	35,107	6,025

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
FARM PRODUCTION EXPENSES - Con.				
Total farm production expenses - Con.				
Livestock and poultry purchased or leased (see text) ....farms	490,819	50,956	72,911	172,695
$1,000	38,003,682	188,556	398,110	887,209
Farms with expenses of-				
$1 to $4,999	306,414	41,544	55,867	134,633
$5,000 to $24,999	97,441	8,152	13,817	31,037
$25,000 to $99,999	42,768	1,223	2,920	6,274
$100,000 to $249,999	24,183	36	301	740
$250,000 or more	20,013	1	6	11
Breeding livestock purchased or leased (see text) ....farms	278,572	28,015	44,555	97,073
$1,000	3,599,873	101,926	195,230	435,240
Other livestock and poultry purchased or leased (see text) ....farms	279,155	29,482	35,707	98,370
$1,000	34,403,809	86,629	202,880	451,969
Feed purchased ....farms	1,135,968	158,983	216,351	431,735
$1,000	49,095,106	603,354	928,877	1,749,393
Farms with expenses of-				
$1 to $4,999	766,606	126,091	168,001	342,432
$5,000 to $24,999	245,328	30,120	43,532	80,769
$25,000 to $99,999	66,394	2,703	4,434	7,837
$100,000 to $249,999	23,472	67	371	657
$250,000 or more	34,168	2	13	40
Gasoline, fuels, and oils ....farms	2,148,806	298,001	444,652	777,825
$1,000	12,912,179	470,977	804,491	1,243,530
Farms with expenses of-				
$1 to $4,999	1,704,545	277,095	407,746	722,096
$5,000 to $24,999	336,324	20,018	35,110	53,087
$25,000 to $49,999	64,765	692	1,398	2,101
$50,000 or more	43,172	196	398	541
Utilities (see text) ....farms	1,102,530	116,332	204,294	331,096
$1,000	5,917,615	146,910	267,531	408,360
Farms with expenses of-				
$1 to $999	506,560	72,334	128,562	214,353
$1,000 to $4,999	402,839	39,419	67,447	103,989
$5,000 to $24,999	157,818	4,446	7,905	12,226
$25,000 to $49,999	19,269	112	298	436
$50,000 or more	16,044	21	82	92
Supplies, repairs, and maintenance ....farms	1,992,234	270,876	409,689	711,999
$1,000	15,896,723	601,526	1,061,904	1,697,923
Farms with expenses of-				
$1 to $4,999	1,478,317	240,175	354,008	624,116
$5,000 to $24,999	389,971	29,128	52,446	83,070
$25,000 to $49,999	73,014	1,273	2,632	3,939
$50,000 or more	50,932	300	603	874
Hired farm labor ....farms	482,186	35,319	71,645	110,412
$1,000	21,877,661	174,874	422,939	677,226
Farms with expenses of-				
$1 to $4,999	262,262	28,040	55,727	86,006
$5,000 to $24,999	108,122	5,573	11,677	17,468
$25,000 to $99,999	75,938	1,619	3,859	6,303
$100,000 to $249,999	21,237	80	357	578
$250,000 or more	14,627	7	25	57
Contract labor ....farms	182,701	14,364	31,927	51,807
$1,000	4,514,166	54,033	152,709	244,009
Farms with expenses of-				
$1 to $999	49,657	5,862	11,654	19,871
$1,000 to $4,999	66,104	5,731	12,980	20,620
$5,000 to $24,999	45,949	2,414	6,125	9,439
$25,000 to $49,999	9,730	283	825	1,266
$50,000 or more	11,261	74	343	611
Customwork and custom hauling ....farms	362,475	27,055	61,263	96,575
$1,000	4,091,038	51,864	166,038	265,619
Farms with expenses of-				
$1 to $999	119,768	14,961	29,316	46,449
$1,000 to $4,999	131,318	9,697	23,450	36,630
$5,000 to $24,999	83,762	2,267	7,864	12,385
$25,000 to $49,999	14,558	108	503	893
$50,000 or more	13,069	22	130	218
Cash rent for land, buildings, and grazing fees ....farms	490,372	35,923	55,019	119,500
$1,000	13,274,530	155,877	263,020	674,231
Farms with expenses of-				
$1 to $4,999	238,363	28,296	42,993	87,905
$5,000 to $9,999	59,281	3,830	5,906	13,738
$10,000 to $24,999	76,679	2,888	4,322	12,305
$25,000 or more	116,049	909	1,798	5,552

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
FARM PRODUCTION EXPENSES - Con.					
Total farm production expenses - Con.					
Livestock and poultry purchased or leased (see text) ....farms	64,587	31,923	30,861	49,822	17,064
$1,000	415,082	701,929	1,818,795	18,715,418	14,878,583
Farms with expenses of-					
$1 to $4,999	44,263	12,396	7,279	3,941	6,491
$5,000 to $24,999	16,586	11,185	7,779	5,292	3,593
$25,000 to $99,999	3,586	6,993	8,646	10,788	2,338
$100,000 to $249,999	147	1,312	6,151	13,617	1,879
$250,000 or more	5	37	1,006	16,184	2,763
Breeding livestock purchased or leased (see text) ....farms	41,323	22,707	17,570	18,260	9,069
$1,000	243,250	290,338	353,986	1,399,485	580,418
Other livestock and poultry purchased or leased (see text) ....farms	33,200	14,388	18,260	39,431	10,317
$1,000	171,832	411,591	1,464,809	17,315,933	14,298,165
Feed purchased ....farms	144,031	51,040	42,632	57,730	33,466
$1,000	943,124	1,299,967	2,608,201	29,415,159	11,547,030
Farms with expenses of-					
$1 to $4,999	90,995	13,106	7,290	4,200	14,491
$5,000 to $24,999	46,291	19,283	10,723	6,068	8,542
$25,000 to $99,999	6,520	17,181	15,101	8,308	4,310
$100,000 to $249,999	201	1,391	8,517	10,288	1,980
$250,000 or more	24	79	1,001	28,866	4,143
Gasoline, fuels, and oils ....farms	253,850	99,833	86,301	101,062	87,282
$1,000	786,924	1,094,266	1,642,478	5,086,073	1,783,438
Farms with expenses of-					
$1 to $4,999	204,328	23,897	9,325	6,577	53,481
$5,000 to $24,999	47,720	69,087	56,548	34,176	20,578
$25,000 to $49,999	1,519	5,883	16,485	30,440	6,247
$50,000 or more	283	966	3,943	29,869	6,976
Utilities (see text) ....farms	146,578	85,138	75,779	93,267	50,046
$1,000	285,232	385,560	578,587	2,587,877	1,257,558
Farms with expenses of-					
$1 to $999	63,148	10,373	4,303	1,816	11,671
$1,000 to $4,999	71,894	50,211	33,964	19,493	16,422
$5,000 to $24,999	11,225	23,461	34,229	49,706	14,620
$25,000 to $49,999	270	821	2,385	11,829	3,118
$50,000 or more	41	272	898	10,423	4,215
Supplies, repairs, and maintenance ....farms	234,044	96,826	86,528	101,237	81,035
$1,000	935,895	1,238,809	1,848,869	6,042,423	2,469,373
Farms with expenses of-					
$1 to $4,999	175,344	22,088	10,157	7,249	45,180
$5,000 to $24,999	55,450	63,774	49,832	35,234	21,037
$25,000 to $49,999	2,604	9,384	20,465	26,261	6,456
$50,000 or more	646	1,580	6,074	32,493	8,362
Hired farm labor ....farms	57,448	44,742	49,897	74,357	38,366
$1,000	464,256	717,125	1,433,000	10,733,098	7,255,144
Farms with expenses of-					
$1 to $4,999	38,876	20,088	14,624	9,935	8,966
$5,000 to $24,999	13,673	15,739	17,858	17,650	8,484
$25,000 to $99,999	4,518	8,159	14,379	26,167	10,934
$100,000 to $249,999	346	691	2,768	11,571	4,846
$250,000 or more	35	65	268	9,034	5,136
Contract labor ....farms	23,000	12,451	13,162	21,839	14,151
$1,000	134,273	145,743	254,605	2,033,227	1,495,568
Farms with expenses of-					
$1 to $999	6,300	1,764	1,275	1,189	1,742
$1,000 to $4,999	9,547	4,769	4,178	4,736	3,543
$5,000 to $24,999	6,147	4,355	5,029	7,984	4,456
$25,000 to $49,999	768	988	1,335	2,750	1,515
$50,000 or more	238	575	1,345	5,180	2,895
Customwork and custom hauling ....farms	44,014	39,239	35,030	41,624	17,675
$1,000	146,448	281,037	443,869	1,903,449	832,713
Farms with expenses of-					
$1 to $999	16,069	5,279	2,853	1,957	2,884
$1,000 to $4,999	19,944	16,998	11,323	8,325	4,951
$5,000 to $24,999	7,476	15,112	16,295	16,677	5,686
$25,000 to $49,999	400	1,482	3,119	6,385	1,668
$50,000 or more	125	368	1,440	8,280	2,486
Cash rent for land, buildings, and grazing fees ....farms	66,014	63,022	60,178	67,102	23,614
$1,000	457,181	1,213,016	2,250,937	6,752,160	1,508,107
Farms with expenses of-					
$1 to $4,999	41,977	16,631	8,399	5,063	7,099
$5,000 to $9,999	11,474	10,685	6,601	4,249	2,798
$10,000 to $24,999	9,525	19,272	14,229	10,142	3,996
$25,000 or more	3,038	16,434	30,949	47,648	9,721

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
FARM PRODUCTION EXPENSES - Con.				
Total farm production expenses - Con.				
Rent and lease expenses for machinery, equipment, and farm share of vehicles ....farms	109,199	6,484	10,597	23,855
$1,000	1,385,219	13,858	22,531	56,362
Farms with expenses of-				
$1 to $999	39,280	3,797	6,395	13,820
$1,000 to $4,999	31,997	1,864	3,057	6,934
$5,000 to $24,999	26,656	771	1,061	2,851
$25,000 to $49,999	5,778	50	62	202
$50,000 or more	5,488	2	22	48
Interest expense ....farms	667,454	57,744	83,380	220,121
$1,000	10,880,731	391,331	587,658	1,619,425
Farms with expenses of-				
$1 to $4,999	289,876	34,728	49,636	119,382
$5,000 to $24,999	275,988	20,390	29,635	90,763
$25,000 to $99,999	87,574	2,545	3,965	9,603
$100,000 or more	14,016	81	144	373
Secured by real estate ....farms	519,095	44,511	64,438	179,842
$1,000	7,185,334	304,041	458,249	1,314,532
Farms with expenses of-				
$1 to $999	58,501	7,797	11,015	24,412
$1,000 to $4,999	171,356	18,425	26,465	71,790
$5,000 to $24,999	225,304	16,345	23,961	76,165
$25,000 to $49,999	39,515	1,470	2,284	5,779
$50,000 or more	24,419	474	713	1,696
Not secured by real estate ....farms	413,327	35,914	49,715	118,987
$1,000	3,695,397	87,290	129,408	304,893
Farms with expenses of-				
$1 to $999	122,808	16,864	22,558	51,004
$1,000 to $4,999	153,159	14,384	20,406	51,102
$5,000 to $24,999	106,610	4,447	6,335	16,259
$25,000 to $49,999	18,841	216	389	587
$50,000 or more	11,909	3	27	35
Property taxes paid ....farms	1,995,808	262,900	399,112	750,512
$1,000	6,223,048	452,730	813,373	1,402,279
Farms with expenses of-				
$1 to $4,999	1,717,819	246,817	366,475	697,847
$5,000 to $9,999	172,489	12,074	24,463	39,506
$10,000 to $24,999	80,800	3,392	7,043	11,227
$25,000 or more	24,700	617	1,131	1,932
All other production expenses (see text) ....farms	1,115,703	108,633	191,900	334,228
$1,000	17,119,339	238,797	481,801	825,292
Farms with expenses of-				
$1 to $4,999	765,840	97,644	169,739	295,875
$5,000 to $24,999	234,512	10,070	20,147	35,021
$25,000 to $49,999	55,174	722	1,421	2,419
$50,000 to $99,999	32,742	145	474	706
$100,000 or more	27,435	52	119	207
Production expenses paid by landlords [1] ....farms	67,427	2,457	3,499	9,072
$1,000	1,556,963	11,245	23,770	62,073
Depreciation expenses claimed (see text) ....farms	963,340	87,968	174,223	292,790
$1,000	20,185,540	545,213	1,281,671	2,111,462
NET CASH FARM INCOME (SEE TEXT)				
Net cash farm income of operations (see text) ....farms	2,204,792	308,837	456,093	801,844
$1,000	74,581,098	-946,881	1,060,640	-873,803
Average per farm ....dollars	33,827	-3,066	2,325	-1,090
Farms with net gains [2] .... number	1,037,041	111,733	206,473	280,087
Average net gain ....dollars	89,479	7,636	16,825	15,695
Gain of-				
Less than $1,000	102,871	20,302	27,890	42,756
$1,000 to $4,999	221,477	41,530	60,703	86,843
$5,000 to $9,999	128,828	21,323	35,052	46,269
$10,000 to $24,999	170,636	22,378	41,960	53,095
$25,000 to $49,999	119,233	5,371	23,387	29,292
$50,000 or more	293,996	829	17,481	21,832
Farms with net losses .... number	1,167,751	197,104	249,620	521,757
Average net loss ....dollars	15,596	9,133	9,668	10,100
Loss of-				
Less than $1,000	134,307	27,304	34,175	58,381
$1,000 to $4,999	426,570	80,630	98,050	198,870
$5,000 to $9,999	247,156	41,258	52,712	118,353
$10,000 to $24,999	225,863	33,168	44,936	103,615
$25,000 to $49,999	76,927	10,012	13,393	29,744
$50,000 or more	56,928	4,732	6,354	12,794

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
FARM PRODUCTION EXPENSES - Con.					
Total farm production expenses - Con.					
Rent and lease expenses for machinery, equipment, and farm share of vehicles ..... farms	12,139	11,850	13,898	22,002	8,374
$1,000	36,846	71,695	143,773	727,235	312,919
Farms with expenses of-					
$1 to $999	5,780	3,464	2,525	1,985	1,514
$1,000 to $4,999	4,187	4,432	4,631	4,823	2,069
$5,000 to $24,999	2,011	3,379	5,206	8,609	2,768
$25,000 to $49,999	128	444	1,074	3,046	772
$50,000 or more	33	131	462	3,539	1,251
Interest expense ..... farms	84,314	61,385	58,668	74,288	27,554
$1,000	691,014	841,328	1,293,117	4,252,995	1,203,863
Farms with expenses of-					
$1 to $4,999	43,001	18,006	9,955	6,646	8,522
$5,000 to $24,999	36,478	34,405	30,281	23,631	10,405
$25,000 to $99,999	4,658	8,710	17,632	34,102	6,359
$100,000 or more	177	264	800	9,909	2,268
Secured by real estate ..... farms	64,038	44,092	44,205	58,478	19,491
$1,000	522,677	542,428	796,829	2,522,234	724,344
Farms with expenses of-					
$1 to $999	7,836	2,480	1,683	1,500	1,778
$1,000 to $4,999	24,237	11,857	8,086	6,177	4,319
$5,000 to $24,999	28,468	24,591	24,510	23,399	7,865
$25,000 to $49,999	2,724	4,051	7,315	13,302	2,590
$50,000 or more	773	1,113	2,611	14,100	2,939
Not secured by real estate ..... farms	52,801	44,182	42,365	51,230	18,133
$1,000	168,337	298,900	496,288	1,730,760	479,519
Farms with expenses of-					
$1 to $999	17,720	5,732	3,115	2,258	3,557
$1,000 to $4,999	24,868	17,707	11,063	8,206	5,423
$5,000 to $24,999	9,807	19,285	23,398	21,290	5,789
$25,000 to $49,999	389	1,309	3,983	10,385	1,583
$50,000 or more	17	149	806	9,091	1,781
Property taxes paid ..... farms	236,320	91,403	80,710	95,718	79,133
$1,000	589,715	440,205	551,222	1,322,823	650,700
Farms with expenses of-					
$1 to $4,999	208,736	60,848	42,869	38,289	55,938
$5,000 to $9,999	20,665	21,620	21,409	22,050	10,702
$10,000 to $24,999	6,033	8,065	14,140	23,001	7,899
$25,000 or more	886	870	2,292	12,378	4,594
All other production expenses (see text) ..... farms	142,282	99,598	86,433	101,135	51,494
$1,000	527,065	994,580	1,687,584	8,655,869	3,708,352
Farms with expenses of-					
$1 to $4,999	114,853	40,081	17,843	7,643	22,162
$5,000 to $24,999	24,982	52,077	46,429	30,668	15,118
$25,000 to $49,999	1,764	5,867	16,358	21,420	5,203
$50,000 to $99,999	523	1,298	4,665	21,136	3,795
$100,000 or more	160	275	1,138	20,268	5,216
Production expenses paid by landlords [1] ..... farms	5,974	11,295	14,274	17,519	3,337
$1,000	35,225	151,111	338,953	830,492	104,094
Depreciation expenses claimed (see text) ..... farms	123,603	78,284	73,477	88,694	44,301
$1,000	1,209,355	1,714,488	2,644,122	7,917,241	2,761,989
NET CASH FARM INCOME (SEE TEXT)					
Net cash farm income of operations (see text) ..... farms	258,899	100,126	86,551	101,265	91,177
$1,000	562,961	5,548,427	10,374,821	45,142,837	13,712,096
Average per farm ..... dollars	2,174	55,414	119,869	445,789	150,390
Farms with net gains [2] ..... number	127,538	86,838	77,474	93,239	53,659
Average net gain ..... dollars	22,613	73,805	146,433	508,840	297,967
Gain of-					
Less than $1,000	8,473	278	124	41	3,007
$1,000 to $4,999	22,871	1,323	519	253	7,435
$5,000 to $9,999	18,404	1,910	705	256	4,909
$10,000 to $24,999	34,324	7,505	2,348	1,004	8,022
$25,000 to $49,999	29,695	17,684	5,615	1,871	6,318
$50,000 or more	13,771	58,138	68,163	89,814	23,968
Farms with net losses ..... number	131,361	13,288	9,077	8,026	37,518
Average net loss ..... dollars	17,669	64,767	106,853	286,675	60,679
Loss of-					
Less than $1,000	10,448	263	138	46	3,552
$1,000 to $4,999	37,415	1,097	439	189	9,880
$5,000 to $9,999	26,949	1,174	519	218	5,973
$10,000 to $24,999	32,477	2,761	1,414	577	6,915
$25,000 to $49,999	14,323	2,870	1,682	897	4,006
$50,000 or more	9,749	5,123	4,885	6,099	7,192

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
NET CASH FARM INCOME (SEE TEXT) - Con.				
Net cash farm income of operators (see text) ....farms	2,204,792	308,837	456,093	801,844
$1,000	64,197,836	-970,505	975,707	-1,072,360
Average per farm ....dollars	29,117	-3,142	2,139	-1,337
Operators reporting net gains [2] ....farms	1,025,783	111,198	205,702	278,027
Average net gain ....dollars	81,061	7,505	16,525	15,201
Gain of-				
Less than $1,000	103,330	20,306	27,947	42,867
$1,000 to $4,999	222,713	41,584	60,794	87,017
$5,000 to $9,999	129,906	21,258	35,127	46,358
$10,000 to $24,999	173,780	22,243	41,916	52,833
$25,000 to $49,999	122,964	5,055	23,114	28,584
$50,000 or more	273,090	752	16,804	20,368
Operators reporting net losses ....farms	1,179,009	197,639	250,391	523,817
Average net loss ....dollars	16,075	9,133	9,679	10,115
Loss of-				
Less than $1,000	135,011	27,372	34,227	58,636
$1,000 to $4,999	428,133	80,811	98,257	199,378
$5,000 to $9,999	248,731	41,358	52,901	118,866
$10,000 to $24,999	228,206	33,305	45,144	104,034
$25,000 to $49,999	78,919	10,051	13,445	30,009
$50,000 or more	60,009	4,742	6,417	12,894
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)				
Total ....farms	50,572	1,618	2,694	5,819
$1,000	4,445,758	14,763	40,011	102,035
INCOME FROM FARM-RELATED SOURCES				
Total income from farm-related sources, gross before taxes and expenses (see text) ....farms	693,187	65,849	128,479	188,467
$1,000	10,489,874	377,029	1,234,305	1,535,866
Customwork and other agricultural services ....farms	121,874	8,231	13,165	22,813
$1,000	1,875,665	41,004	81,296	129,020
Gross cash rent or share payments ....farms	241,923	27,172	61,240	81,708
$1,000	2,883,897	132,036	652,490	668,796
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ....farms	47,603	5,754	13,137	15,493
$1,000	594,944	32,659	165,596	160,856
Agri-tourism and recreational services (see text) ....farms	23,350	2,240	4,472	6,114
$1,000	566,834	17,868	46,447	96,080
Patronage dividends and refunds from cooperatives ....farms	288,196	16,234	36,852	53,966
$1,000	854,995	7,271	26,995	41,012
Crop and livestock insurance payments received (see text) ....farms	82,001	3,580	6,494	11,038
$1,000	1,676,727	26,890	55,772	90,057
Amount from state and local government agricultural program payments (see text) ....farms	34,410	3,630	6,730	8,141
$1,000	145,413	6,070	18,264	19,636
Other farm-related income sources (see text) ....farms	118,939	13,874	22,551	31,945
$1,000	1,891,400	113,231	187,445	330,410
LAND USE				
Total cropland ....farms	1,685,339	218,458	349,193	570,455
acres	406,424,909	14,650,189	32,625,419	44,552,133
Harvested cropland ....farms	1,328,004	156,737	256,099	423,930
acres	309,607,601	7,318,929	15,772,823	24,788,581
Farms by acres harvested:				
1 to 49 acres	700,266	114,707	170,363	294,322
50 to 99 acres	179,055	22,475	42,116	61,683
100 to 199 acres	141,875	12,779	25,907	38,924
200 to 499 acres	143,776	5,979	14,743	24,387
500 to 999 acres	82,211	690	2,587	4,077
1,000 to 1,999 acres	53,728	103	368	494
2,000 acres or more	27,093	4	15	43
Cropland-				
For pasture or grazing only ....farms	404,753	62,286	86,694	139,238
acres	35,771,154	3,470,832	6,318,330	7,942,785
On which all crops failed or were abandoned ....farms	89,587	12,423	16,881	26,983
acres	7,405,898	523,923	702,133	1,007,341
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ....farms	360,225	47,883	86,880	127,045
acres	37,968,749	2,949,354	8,947,341	9,627,469
In cultivated summer fallow ....farms	67,960	7,196	10,409	14,066
acres	15,671,507	387,151	884,792	1,185,957

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
NET CASH FARM INCOME (SEE TEXT) - Con.					
Net cash farm income of operators (see text) ..... farms	258,899	100,126	86,551	101,265	91,177
$1,000	474,784	5,074,160	9,100,341	37,570,364	13,045,345
Average per farm ..... dollars	1,834	50,678	105,144	371,010	143,077
Operators reporting net gains [2] ..... farms	126,579	85,340	75,695	90,201	53,041
Average net gain ..... dollars	22,218	70,141	134,505	446,135	291,651
Gain of-					
Less than $1,000	8,573	336	181	107	3,013
$1,000 to $4,999	23,109	1,489	690	500	7,530
$5,000 to $9,999	18,483	2,160	948	610	4,962
$10,000 to $24,999	34,412	8,328	3,517	2,402	8,129
$25,000 to $49,999	28,911	18,821	7,175	4,816	6,488
$50,000 or more	13,091	54,206	63,184	81,766	22,919
Operators reporting net losses ..... farms	132,320	14,786	10,856	11,064	38,136
Average net loss ..... dollars	17,666	61,658	99,574	241,459	63,565
Loss of-					
Less than $1,000	10,544	333	198	111	3,590
$1,000 to $4,999	37,559	1,213	581	410	9,924
$5,000 to $9,999	27,185	1,376	618	390	6,037
$10,000 to $24,999	32,699	3,134	1,740	1,136	7,014
$25,000 to $49,999	14,523	3,254	2,052	1,466	4,119
$50,000 or more	9,810	5,476	5,667	7,551	7,452
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)					
Total ..... farms	4,034	8,412	10,574	14,621	2,800
$1,000	60,021	355,644	818,741	2,717,626	336,917
INCOME FROM FARM-RELATED SOURCES					
Total income from farm-related sources, gross before taxes and expenses (see text) ..... farms	92,859	62,533	56,805	64,145	34,050
$1,000	1,408,856	923,020	1,139,253	2,557,015	1,314,530
Customwork and other agricultural services ..... farms	16,608	15,780	17,408	21,896	5,973
$1,000	185,913	197,361	282,971	753,666	204,433
Gross cash rent or share payments ..... farms	29,360	10,244	8,522	9,805	13,872
$1,000	383,376	174,651	168,114	312,565	391,869
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ..... farms	6,481	1,877	1,313	1,644	1,904
$1,000	76,142	27,101	23,580	42,516	66,495
Agri-tourism and recreational services (see text) ..... farms	4,165	1,632	1,348	1,240	2,139
$1,000	123,534	41,594	32,220	46,027	163,064
Patronage dividends and refunds from cooperatives ..... farms	35,642	43,516	41,612	46,666	13,708
$1,000	32,353	76,542	141,040	424,539	105,243
Crop and livestock insurance payments received (see text) ..... farms	10,227	14,427	14,845	17,088	4,302
$1,000	129,216	247,366	336,766	651,425	139,235
Amount from state and local government agricultural program payments (see text) ..... farms	4,683	3,823	2,988	2,888	1,527
$1,000	14,499	17,018	21,387	37,367	11,171
Other farm-related income sources (see text) ..... farms	20,594	8,783	7,466	8,548	5,178
$1,000	463,822	141,387	133,175	288,911	233,019
LAND USE					
Total cropland ..... farms	202,587	96,021	82,567	92,651	73,407
acres	29,915,508	46,633,064	67,608,704	138,341,568	32,098,324
Harvested cropland ..... farms	171,398	94,411	80,985	89,661	54,783
acres	17,957,142	37,446,025	57,908,732	124,624,983	23,790,386
Farms by acres harvested:					
1 to 49 acres	78,725	7,499	4,942	7,913	21,795
50 to 99 acres	31,396	7,363	3,570	4,045	6,407
100 to 199 acres	33,380	13,114	5,996	5,305	6,470
200 to 499 acres	23,924	39,665	16,324	10,949	7,805
500 to 999 acres	3,504	21,373	30,444	14,089	5,447
1,000 to 1,999 acres	433	4,968	17,102	25,969	4,291
2,000 acres or more	36	429	2,607	21,391	2,568
Cropland-					
For pasture or grazing only ..... farms	52,922	19,062	14,268	15,342	14,941
acres	4,935,401	3,149,602	3,021,316	3,933,412	2,999,476
On which all crops failed or were abandoned ..... farms	12,568	6,265	5,118	5,620	3,729
acres	1,178,566	1,073,216	1,043,831	1,416,753	460,135
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ..... farms	34,374	13,971	13,283	16,367	20,422
acres	4,426,100	2,407,357	2,426,799	3,730,025	3,454,304
In cultivated summer fallow ..... farms	10,657	8,111	6,509	7,199	3,813
acres	1,418,299	2,556,864	3,208,026	4,636,395	1,394,023

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
LAND USE - Con.				
Total woodland ....farms	843,294	120,463	200,362	313,835
acres	75,098,603	6,838,842	15,546,446	20,037,531
Woodland pastured ....farms	370,297	57,121	87,496	137,593
acres	28,609,690	2,532,450	5,014,959	6,646,026
Woodland not pastured ....farms	596,123	81,088	142,203	218,736
acres	46,488,913	4,306,392	10,531,487	13,391,505
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ....farms	1,132,606	161,944	235,436	429,019
acres	408,832,116	18,719,562	36,840,233	50,651,096
Land in house lots, ponds, roads, wasteland, etc. ....farms	1,126,272	148,760	234,471	394,598
acres	31,740,212	2,211,171	4,568,677	5,902,825
Irrigated land ....farms	301,028	32,282	48,342	80,590
acres	56,599,305	841,049	1,696,330	2,623,748
Harvested cropland ....farms	256,105	25,227	38,707	61,511
acres	51,537,104	541,074	1,160,014	1,812,949
Pastureland and other land ....farms	72,585	9,896	14,460	27,110
acres	5,062,201	299,975	536,316	810,799
CONSERVATION PRACTICES AND CROP INSURANCE				
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ....farms	346,231	37,572	85,281	114,944
acres	38,547,450	2,872,395	10,065,242	10,247,956
Land enrolled in crop insurance programs (see text) ....farms	349,408	18,180	35,353	62,563
acres	222,267,817	2,695,471	6,261,516	11,091,007
ORGANIC AGRICULTURE				
Land used for organic production (see text) ....farms	20,437	3,471	2,585	5,680
acres	2,577,418	155,576	167,405	305,150
Total organic product sales (see text) ....farms	18,211	2,988	2,196	4,963
$1,000	1,709,111	25,733	29,309	54,380
VALUE OF LAND AND BUILDINGS				
Estimated market value of land and buildings ....farms	2,204,792	308,837	456,093	801,844
$1,000	1,744,295,252	103,417,149	207,400,087	315,712,625
Average per farm ....dollars	791,138	334,860	454,732	393,733
Average per acre ....dollars	1,892	2,438	2,315	2,606
Farms by value group:				
$1 to $49,999	223,182	50,956	43,131	94,781
$50,000 to $99,999	212,783	42,404	46,628	92,876
$100,000 to $199,999	374,783	64,816	86,478	166,419
$200,000 to $499,999	631,939	90,318	151,488	262,067
$500,000 to $999,999	371,783	41,882	82,861	124,179
$1,000,000 to $1,999,999	206,282	14,199	33,642	45,787
$2,000,000 to $4,999,999	132,549	3,631	10,201	13,337
$5,000,000 to $9,999,999	36,072	491	1,235	1,770
$10,000,000 or more	15,419	140	429	628
VALUE OF MACHINERY AND EQUIPMENT				
Estimated market value of all machinery and equipment ....farms	2,204,513	308,806	456,033	801,765
$1,000	194,783,471	11,424,579	21,150,983	34,987,021
Farms by value group:				
$1 to $4,999	195,820	43,008	44,722	84,269
$5,000 to $9,999	217,460	44,150	50,566	94,287
$10,000 to $19,999	351,088	63,468	83,943	152,442
$20,000 to $49,999	598,289	89,804	142,129	253,286
$50,000 to $99,999	366,768	42,810	81,029	132,352
$100,000 to $199,999	232,001	18,058	37,296	59,023
$200,000 to $499,999	175,152	6,959	14,887	23,836
$500,000 or more	67,935	549	1,461	2,270
SELECTED MACHINERY AND EQUIPMENT				
Trucks, including pickups (see text) ....farms	1,783,324	234,175	364,657	622,543
number	3,512,538	354,092	572,822	950,197
Tractors ....farms	1,844,647	242,418	392,187	656,627
number	4,389,812	454,248	789,808	1,205,723
Less than 40 horsepower (PTO) ....farms	910,937	131,857	209,489	333,069
number	1,280,039	178,003	288,236	434,102
40 to 99 horsepower (PTO) ....farms	1,238,101	152,274	263,685	425,639
number	1,998,508	221,747	398,720	595,152
100 horsepower (PTO) or more ....farms	555,941	40,101	73,004	126,645
number	1,111,265	54,498	102,852	176,469
Grain and bean combines, self-propelled ....farms	295,490	16,198	28,549	49,347
number	346,935	18,046	31,792	54,540

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
LAND USE - Con.					
Total woodland ....farms	94,476	31,930	25,183	29,968	27,077
acres	8,181,690	3,971,462	3,796,581	5,450,431	11,275,620
Woodland pastured ....farms	46,242	12,724	9,237	10,158	9,726
acres	3,562,513	1,844,601	1,609,565	1,996,422	5,403,154
Woodland not pastured ....farms	63,691	25,050	20,207	24,289	20,859
acres	4,619,177	2,126,861	2,187,016	3,454,009	5,872,466
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ....farms	144,233	50,491	38,053	38,573	34,857
acres	46,100,967	50,881,104	48,866,570	62,518,116	94,254,468
Land in house lots, ponds, roads, wasteland, etc. ....farms	131,639	60,064	51,266	61,473	44,001
acres	2,992,280	2,595,714	2,752,283	4,913,897	5,803,365
Irrigated land ....farms	38,185	21,597	21,895	33,983	24,154
acres	2,137,323	4,182,199	7,434,217	28,656,288	9,028,151
Harvested cropland ....farms	32,389	21,082	21,483	33,348	22,358
acres	1,504,215	3,682,352	7,003,032	27,635,637	8,197,831
Pastureland and other land ....farms	9,818	2,685	2,070	2,892	3,654
acres	633,108	499,847	431,185	1,020,651	830,320
CONSERVATION PRACTICES AND CROP INSURANCE					
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ....farms	31,049	17,547	18,372	20,523	20,943
acres	4,485,592	2,414,528	2,252,100	2,947,142	3,262,495
Land enrolled in crop insurance programs (see text) ....farms	44,343	54,797	54,102	59,259	20,811
acres	10,775,527	29,315,790	46,752,766	98,451,201	16,924,539
ORGANIC AGRICULTURE					
Land used for organic production (see text) ....farms	3,873	1,578	885	932	1,433
acres	345,824	420,296	390,583	500,534	292,050
Total organic product sales (see text) ....farms	3,564	1,467	833	894	1,306
$1,000	73,605	154,473	179,932	711,712	479,969
VALUE OF LAND AND BUILDINGS					
Estimated market value of land and buildings ....farms	258,899	100,126	86,551	101,265	91,177
$1,000	155,697,110	144,449,053	198,494,734	436,879,624	182,244,870
Average per farm .... dollars	601,382	1,442,673	2,293,385	4,314,221	1,998,803
Average per acre .... dollars	1,786	1,388	1,613	2,068	1,271
Farms by value group:					
$1 to $49,999	23,056	1,046	711	1,043	8,458
$50,000 to $99,999	21,001	1,198	726	883	7,067
$100,000 to $199,999	39,035	3,386	1,890	1,871	10,888
$200,000 to $499,999	80,346	15,126	7,227	6,228	19,139
$500,000 to $999,999	57,467	26,650	12,997	10,628	15,119
$1,000,000 to $1,999,999	26,549	32,868	24,105	17,303	11,829
$2,000,000 to $4,999,999	9,239	17,257	33,022	34,535	11,327
$5,000,000 to $9,999,999	1,574	1,866	4,727	20,078	4,331
$10,000,000 or more	632	729	1,146	8,696	3,019
VALUE OF MACHINERY AND EQUIPMENT					
Estimated market value of all machinery and equipment ....farms	258,860	100,122	86,548	101,262	91,117
$1,000	17,306,976	17,584,380	23,899,439	51,695,583	16,734,509
Farms by value group:					
$1 to $4,999	16,378	261	113	141	6,928
$5,000 to $9,999	19,931	516	312	399	7,299
$10,000 to $19,999	35,611	1,960	1,097	1,228	11,339
$20,000 to $49,999	74,622	9,249	4,356	5,068	19,775
$50,000 to $99,999	58,548	21,372	8,414	7,954	14,289
$100,000 to $199,999	35,968	34,909	21,504	13,576	11,667
$200,000 to $499,999	15,744	27,025	39,399	35,221	12,081
$500,000 or more	2,058	4,830	11,353	37,675	7,739
SELECTED MACHINERY AND EQUIPMENT					
Trucks, including pickups (see text) ....farms	214,977	93,986	83,554	98,983	70,449
number	406,346	268,167	283,721	470,279	206,914
Tractors ....farms	218,055	91,922	79,769	91,847	71,822
number	524,420	358,992	346,324	484,623	225,674
Less than 40 horsepower (PTO) ....farms	105,402	34,736	28,914	33,471	33,999
number	151,713	57,207	48,514	65,418	56,846
40 to 99 horsepower (PTO) ....farms	152,351	69,609	58,407	67,591	48,545
number	255,671	145,033	120,627	164,195	97,363
100 horsepower (PTO) or more ....farms	74,697	73,572	67,481	71,450	28,991
number	117,036	156,752	177,183	255,010	71,465
Grain and bean combines, self-propelled ....farms	36,553	49,051	50,902	51,503	13,387
number	41,514	56,523	59,763	68,143	16,614

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
SELECTED MACHINERY AND EQUIPMENT - Con.				
Cotton pickers and strippers, self-propelled ....farms	12,500	366	500	640
number	18,162	427	603	795
Forage harvesters, self-propelled ....farms	60,133	5,324	7,555	13,425
number	64,191	5,517	7,833	13,822
Hay balers ....farms	593,543	76,598	119,448	187,508
number	727,501	91,982	145,714	226,749
FERTILIZERS AND CHEMICALS				
Commercial fertilizer, lime, and soil conditioners ....farms	1,022,036	100,529	188,496	311,678
acres treated	265,995,497	5,402,635	13,686,433	20,837,463
Manure ....farms	307,073	30,436	45,109	84,770
acres treated	22,096,315	793,720	1,411,657	2,167,188
Acres treated with chemicals to control-				
Insects ....farms	354,357	22,431	47,693	78,462
acres	90,947,822	870,206	2,596,531	4,241,982
Weeds, grass, or brush ....farms	703,884	53,672	116,984	205,421
acres	226,295,783	3,266,052	8,985,231	15,151,045
Nematodes ....farms	34,992	2,037	4,044	7,155
acres	7,560,158	91,681	221,449	399,610
Diseases in crops and orchards ....farms	97,333	5,584	13,141	20,126
acres	22,693,212	126,721	348,890	678,469
Chemicals used to control growth, thin fruit, ripen, or defoliate ....farms	44,638	2,562	5,468	7,842
acres treated	12,125,799	68,911	172,198	247,656
TENURE				
Full owners ....farms	1,522,033	246,023	368,883	603,331
Part owners ....farms	542,192	44,811	74,500	151,112
Tenants ....farms	140,567	18,003	12,710	47,401
OWNED AND RENTED LAND				
Land owned ....farms	2,072,101	291,651	445,113	756,726
acres	646,247,118	36,084,995	90,565,605	103,621,924
Owned land in farms ....farms	2,064,225	290,834	443,383	754,443
acres	571,303,487	31,400,688	71,996,596	85,691,707
Land rented or leased from others ....farms	689,102	63,629	88,697	200,483
acres	355,918,954	11,287,886	18,236,963	36,304,625
Rented or leased land in farms ....farms	682,759	62,814	87,210	198,513
acres	350,792,353	11,019,076	17,584,179	35,451,878
Land rented or leased to others ....farms	314,140	37,917	81,357	108,252
acres	80,070,232	4,953,117	19,221,793	18,782,964
NUMBER OF OPERATORS				
Total operators .... number	3,337,450	444,578	657,763	1,219,122
Farms by number of operators:				
1 operator	1,273,122	196,388	284,682	440,814
2 operators	786,598	94,832	147,938	319,408
3 operators	112,285	14,323	19,185	31,931
4 operators	22,529	2,199	3,093	7,093
5 or more operators	10,258	1,095	1,195	2,598
Total women operators .... number	1,008,943	153,794	199,622	395,425
Farms by number of women operators:				
1 operator	894,347	134,987	179,153	355,913
2 operators	45,408	7,504	8,323	16,021
3 operators	5,439	887	930	1,827
4 operators	1,017	134	153	346
5 or more operators	546	102	71	110
PRINCIPAL OPERATOR CHARACTERISTICS				
Sex of operator:				
Male	1,898,583	232,628	390,466	702,910
Female	306,209	76,209	65,627	98,934
Primary occupation:				
Farming	993,881	154,378	258,254	-
Other	1,210,911	154,459	197,839	801,844
Place of residence:				
On farm operated	1,693,362	242,401	351,995	602,926
Not on farm operated	511,430	66,436	104,098	198,918
Days worked off farm:				
None	777,747	135,158	274,472	50,292
Any	1,427,045	173,679	181,621	751,552
1 to 49 days	238,479	40,229	56,464	74,041
50 to 99 days	115,578	18,659	27,935	35,343
100 to 199 days	196,687	26,409	34,316	81,121
200 days or more	876,301	88,382	62,906	561,047
Years on present farm:				
2 years or less	84,883	14,000	9,404	41,781
3 or 4 years	138,858	20,261	16,584	70,722
5 to 9 years	359,545	50,837	49,072	177,165

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
SELECTED MACHINERY AND EQUIPMENT - Con.					
Cotton pickers and strippers, self-propelled ....farms	872	1,974	2,538	4,678	932
number	1,106	2,581	3,520	7,614	1,516
Forage harvesters, self-propelled ....farms	8,825	8,026	6,664	7,178	3,136
number	9,198	8,603	7,236	8,397	3,585
Hay balers ....farms	85,673	45,933	32,490	28,336	17,557
number	107,015	57,654	40,704	35,776	21,907
FERTILIZERS AND CHEMICALS					
Commercial fertilizer, lime, and soil conditioners ....farms	133,242	86,157	75,722	81,502	44,710
acres treated	14,778,368	31,098,982	49,531,103	109,062,652	21,597,861
Manure ....farms	41,104	32,048	27,514	34,951	11,141
acres treated	1,589,577	2,467,041	3,195,067	8,606,373	1,865,692
Acres treated with chemicals to control-					
Insects ....farms	42,602	41,818	42,951	53,990	24,410
acres	2,937,577	8,384,590	15,648,932	46,319,580	9,948,424
Weeds, grass, or brush ....farms	89,739	71,740	63,895	68,922	33,511
acres	10,578,758	27,234,260	44,913,115	97,803,460	18,363,862
Nematodes ....farms	3,794	4,198	4,405	6,255	3,104
acres	239,775	754,771	1,249,443	3,699,496	903,933
Diseases in crops and orchards ....farms	10,345	9,572	11,531	17,626	9,408
acres	418,456	1,482,859	3,432,813	13,149,857	3,055,147
Chemicals used to control growth, thin fruit, ripen, or defoliate ....farms	4,623	4,836	5,402	9,390	4,515
acres treated	210,371	876,128	1,826,227	7,050,510	1,673,798
TENURE					
Full owners ....farms	165,273	27,785	19,784	28,932	62,022
Part owners ....farms	71,957	59,864	57,602	62,655	19,691
Tenants ....farms	21,669	12,477	9,165	9,678	9,464
OWNED AND RENTED LAND					
Land owned ....farms	238,558	88,263	77,764	91,884	82,142
acres	64,968,294	58,617,492	64,007,970	101,841,914	126,538,924
Owned land in farms ....farms	237,230	87,649	77,386	91,587	81,713
acres	55,568,362	55,142,547	61,035,817	98,125,391	112,342,379
Land rented or leased from others ....farms	94,544	72,654	66,985	72,605	29,505
acres	32,321,263	49,392,308	62,524,981	113,984,464	31,866,464
Rented or leased land in farms ....farms	93,626	72,341	66,767	72,333	29,155
acres	31,622,083	48,938,797	61,988,321	113,098,621	31,089,398
Land rented or leased to others ....farms	36,944	11,186	9,204	11,013	18,267
acres	10,099,112	3,928,456	3,508,813	4,602,366	14,973,611
NUMBER OF OPERATORS					
Total operators ....number	391,378	148,552	137,277	183,576	155,204
Farms by number of operators:					
1 operator	147,145	60,610	47,346	45,307	50,830
2 operators	96,151	32,544	30,267	38,425	27,033
3 operators	12,361	5,641	7,148	12,461	9,235
4 operators	2,306	972	1,356	3,367	2,143
5 or more operators	936	359	434	1,705	1,936
Total women operators ....number	122,330	32,363	28,638	36,397	40,374
Farms by number of women operators:					
1 operator	108,268	29,375	25,418	30,684	30,549
2 operators	5,800	1,212	1,271	2,097	3,180
3 operators	625	139	144	318	569
4 operators	94	29	28	67	166
5 or more operators	38	6	15	45	159
PRINCIPAL OPERATOR CHARACTERISTICS					
Sex of operator:					
Male	217,933	96,290	83,330	97,518	77,508
Female	40,966	3,836	3,221	3,747	13,669
Primary occupation:					
Farming	258,899	100,126	77,597	92,535	52,092
Other	-	-	8,954	8,730	39,085
Place of residence:					
On farm operated	207,186	85,493	72,334	80,487	50,540
Not on farm operated	51,713	14,633	14,217	20,778	40,637
Days worked off farm:					
None	97,257	60,353	53,261	69,208	37,746
Any	161,642	39,773	33,290	32,057	53,431
1 to 49 days	28,887	11,252	8,810	7,544	11,252
50 to 99 days	18,349	4,984	3,335	2,628	4,345
100 to 199 days	31,955	7,322	4,956	3,795	6,813
200 days or more	82,451	16,215	16,189	18,090	31,021
Years on present farm:					
2 years or less	10,865	1,549	1,124	1,422	4,738
3 or 4 years	18,073	2,836	1,745	2,413	6,224
5 to 9 years	45,150	8,153	6,184	7,304	15,680

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
PRINCIPAL OPERATOR CHARACTERISTICS - Con.				
Years on present farm - Con.				
10 years or more	1,621,506	223,739	381,033	512,176
Average years on present farm	21.6	22.4	27.5	16.1
Age group:				
Under 25 years	11,878	3,194	-	3,858
25 to 34 years	106,735	12,146	-	52,744
35 to 44 years	268,818	29,750	2,457	145,238
45 to 49 years	256,694	28,417	3,884	136,898
50 to 54 years	308,707	35,903	11,376	157,731
55 to 59 years	312,577	38,580	40,848	137,535
60 to 64 years	283,729	40,076	81,130	87,308
65 to 69 years	235,152	35,941	110,351	37,090
70 years and over	420,502	84,830	206,047	43,442
Average age	57.1	59.9	68.9	51.4
Spanish, Hispanic, or Latino origin (see text)	55,570	9,750	11,255	19,813
Race:				
American Indian or Alaska Native	34,706	10,997	4,962	11,121
Asian	11,214	1,690	1,898	2,884
Black or African American	30,599	7,143	8,283	9,528
Native Hawaiian or Other Pacific Islander	1,356	216	299	493
White	2,114,325	286,481	437,675	773,337
More than one race reported	12,592	2,310	2,976	4,481
Farms by number of persons living in operator's household:				
1 person	275,842	63,219	71,261	72,455
2 people	1,108,995	152,089	324,975	334,486
3 people	330,188	42,063	38,697	148,616
4 people	285,919	29,923	13,207	149,204
5 or more people	203,848	21,543	7,953	97,083
Percent of operator's total household income from farming:				
Less than 25 percent	1,583,710	247,819	366,714	719,499
25 to 49 percent	174,800	20,637	40,378	47,196
50 to 74 percent	187,421	19,755	33,248	26,453
75 to 99 percent	147,092	10,557	13,793	7,100
100 percent	111,769	10,069	1,960	1,596
Operator is a hired manager ....farms	59,759	-	-	-
acres	120,672,499	-	-	-
Farms with-				
Internet access	1,246,723	125,182	208,839	505,625
High-speed internet access	726,700	65,820	111,139	299,655
Farms by number of households sharing in net income of farm:				
1 household	1,733,827	248,426	357,890	669,362
2 households	356,707	48,227	82,210	100,421
3 households	66,438	7,113	10,505	17,083
4 households	30,004	3,283	3,498	10,142
5 households or more	17,816	1,788	1,990	4,836
FARMS BY TYPE OF ORGANIZATION				
Family or individual ....farms	1,906,335	280,742	412,954	736,536
acres	574,150,050	35,891,558	73,519,723	99,962,238
Partnership ....farms	174,247	22,278	33,803	48,273
acres	161,416,999	4,852,032	11,564,609	14,974,602
Registered under state law ....farms	89,739	8,457	14,369	22,853
acres	114,284,815	2,586,702	6,644,227	9,453,461
Corporation ....farms	96,074	5,817	9,336	17,035
acres	125,319,810	1,676,174	4,496,443	6,206,745
Family held ....farms	85,837	5,817	9,336	17,035
acres	114,264,200	1,676,174	4,496,443	6,206,745
More than 10 stockholders ....farms	2,041	133	227	288
10 or less stockholders ....farms	83,796	5,684	9,109	16,747
Other than family held ....farms	10,237	-	-	-
acres	11,055,610	-	-	-
More than 10 stockholders ....farms	907	-	-	-
10 or less stockholders ....farms	9,330	-	-	-
Other-cooperative, estate or trust, institutional, etc ....farms	28,136	-	-	-
acres	61,208,981	-	-	-
HIRED FARM LABOR				
Hired farm labor ....farms	482,186	35,319	71,645	110,412
workers	2,636,509	93,239	200,705	307,203
Workers by days worked:				
150 days or more ....farms	201,292	8,141	15,438	23,758
workers	911,439	14,298	27,468	44,569
Less than 150 days ....farms	384,051	30,640	62,835	97,025
workers	1,725,070	78,941	173,237	262,634

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
PRINCIPAL OPERATOR CHARACTERISTICS - Con.					
Years on present farm - Con.					
10 years or more	184,811	87,588	77,498	90,126	64,535
Average years on present farm	21.3	27.8	27.9	26.6	20.5
Age group:					
Under 25 years	2,423	1,012	469	279	643
25 to 34 years	18,818	7,752	5,323	4,979	4,973
35 to 44 years	37,929	13,293	12,304	15,962	11,885
45 to 49 years	33,994	13,254	12,668	16,132	11,447
50 to 54 years	39,747	16,195	15,159	18,712	13,884
55 to 59 years	37,762	15,325	13,335	16,044	13,148
60 to 64 years	29,851	12,389	10,492	11,729	10,754
65 to 69 years	19,794	8,403	7,484	7,957	8,132
70 years and over	38,581	12,503	9,317	9,471	16,311
Average age	54.4	54.0	53.9	53.5	56.2
Spanish, Hispanic, or Latino origin (see text)	7,513	1,232	975	1,325	3,707
Race:					
American Indian or Alaska Native	5,083	501	339	339	1,364
Asian	1,658	508	481	1,090	1,005
Black or African American	3,777	196	122	209	1,341
Native Hawaiian or Other Pacific Islander	195	20	26	18	89
White	246,580	98,629	85,369	99,376	86,878
More than one race reported	1,606	272	214	233	500
Farms by number of persons living in operator's household:					
1 person	29,715	10,866	7,574	7,125	13,627
2 people	124,357	46,518	39,778	44,671	42,121
3 people	41,799	15,402	13,677	16,308	13,626
4 people	35,995	13,969	13,390	17,376	12,855
5 or more people	27,033	13,371	12,132	15,785	8,948
Percent of operator's total household income from farming:					
Less than 25 percent	153,849	16,638	13,046	11,819	54,326
25 to 49 percent	30,698	11,012	8,698	7,849	8,332
50 to 74 percent	36,167	22,895	18,545	19,586	10,772
75 to 99 percent	23,780	26,108	24,485	31,332	9,937
100 percent	14,405	23,473	21,777	30,679	7,810
Operator is a hired manager ... farms	-	-	-	-	59,759
acres	-	-	-	-	120,672,499
Farms with-					
Internet access	147,620	62,459	62,654	80,140	54,204
High-speed internet access	83,081	34,899	39,204	55,262	37,640
Farms by number of households sharing in net income of farm:					
1 household	202,180	75,350	59,811	59,477	61,331
2 households	44,243	18,904	19,061	25,764	17,877
3 households	7,048	3,586	4,893	9,764	6,446
4 households	3,475	1,380	1,631	3,619	2,976
5 households or more	1,953	906	1,155	2,641	2,547
FARMS BY TYPE OF ORGANIZATION					
Family or individual ... farms	231,427	85,158	66,806	63,178	29,534
acres	71,994,898	79,654,275	84,293,577	109,388,634	19,445,147
Partnership ... farms	19,057	9,217	11,537	21,540	8,542
acres	10,255,449	14,588,129	21,988,089	64,210,534	18,983,555
Registered under state law ... farms	9,339	5,207	7,296	15,897	6,321
acres	6,183,649	9,630,570	14,335,560	49,107,701	16,342,945
Corporation ... farms	8,415	5,751	8,208	16,547	24,965
acres	4,940,098	9,838,940	16,742,472	37,624,844	43,794,094
Family held ... farms	8,415	5,751	8,208	16,547	14,728
acres	4,940,098	9,838,940	16,742,472	37,624,844	32,738,484
More than 10 stockholders ... farms	146	66	113	326	742
10 or less stockholders ... farms	8,269	5,685	8,095	16,221	13,986
Other than family held ... farms	-	-	-	-	10,237
acres	-	-	-	-	11,055,610
More than 10 stockholders ... farms	-	-	-	-	907
10 or less stockholders ... farms	-	-	-	-	9,330
Other-cooperative, estate or trust, institutional, etc ... farms	-	-	-	-	28,136
acres	-	-	-	-	61,208,981
HIRED FARM LABOR					
Hired farm labor ... farms	57,448	44,742	49,897	74,357	38,366
workers	181,016	162,666	222,698	898,893	570,089
Workers by days worked:					
150 days or more ... farms	17,736	20,917	29,441	57,227	28,634
workers	34,584	42,893	72,927	401,706	272,994
Less than 150 days ... farms	47,730	33,750	35,871	50,948	25,252
workers	146,432	119,773	149,771	497,187	297,095

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
HIRED FARM LABOR - Con.				
Migrant farm labor on farms with hired labor (see text) ....farms	38,784	2,125	4,861	5,866
Migrant farm labor on farms reporting only contract labor (see text) ....farms	8,488	798	1,783	2,752
FARMS BY SIZE				
1 to 9 acres	232,849	46,082	39,748	106,855
10 to 49 acres	620,283	104,855	131,999	285,574
50 to 69 acres	153,862	25,705	37,298	64,656
70 to 99 acres	192,043	31,464	48,323	77,781
100 to 139 acres	175,146	27,596	45,165	66,612
140 to 179 acres	139,479	20,432	35,806	50,204
180 to 219 acres	87,502	11,526	21,831	29,666
220 to 259 acres	68,313	8,207	16,346	21,760
260 to 499 acres	212,553	20,223	45,543	57,869
500 to 999 acres	149,713	8,171	21,907	25,752
1,000 to 1,999 acres	92,656	2,866	8,006	9,544
2,000 acres or more	80,393	1,710	4,121	5,571
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)				
Oilseed and grain farming (1111)	338,237	23,287	43,618	82,301
Vegetable and melon farming (1112)	40,589	7,854	7,330	11,245
Fruit and tree nut farming (1113)	98,281	10,705	24,019	33,212
Greenhouse, nursery, and floriculture production (1114)	54,889	7,558	9,947	17,431
Other crop farming (1119)	519,893	80,598	138,910	209,913
Tobacco farming (11191)	9,626	1,359	1,390	2,514
Cotton farming (11192)	9,968	452	722	1,125
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	500,299	78,787	136,798	206,274
Beef cattle ranching and farming (112111)	656,475	102,217	156,798	260,914
Cattle feedlots (112112)	31,065	3,266	5,449	11,154
Dairy cattle and milk production (11212)	57,318	3,490	2,724	4,821
Hog and pig farming (1122)	30,546	3,378	2,246	10,134
Poultry and egg production (1123)	64,570	8,183	7,030	19,797
Sheep and goat farming (1124)	67,254	15,047	12,311	30,703
Animal aquaculture and other animal production (1125, 1129)	245,675	43,254	45,711	110,219
FARM TYPOLOGY (SEE TEXT)				
Small family farms:				
Limited resource farms ....farms	308,837	308,837	-	-
acres	42,419,764	42,419,764	-	-
Retirement farms ....farms	456,093	-	456,093	-
acres	89,580,775	-	89,580,775	-
Residential/lifestyle farms ....farms	801,844	-	-	801,844
acres	121,143,585	-	-	121,143,585
Farming occupation/lower sales ....farms	258,899	-	-	-
acres	87,190,445	-	-	-
Farming occupation/higher sales ....farms	100,126	-	-	-
acres	104,081,344	-	-	-
Large family farms ....farms	86,551	-	-	-
acres	123,024,138	-	-	-
Very large family farms ....farms	101,265	-	-	-
acres	211,224,012	-	-	-
Non-family farms ....farms	91,177	-	-	-
acres	143,431,777	-	-	-
LIVESTOCK				
Cattle and calves inventory ....farms	963,669	133,065	190,703	338,976
number	96,347,858	3,949,011	8,049,417	11,269,208
Farms with-				
1 to 9	233,078	43,639	44,746	113,186
10 to 49	415,493	68,800	99,036	165,215
50 to 99	135,117	13,522	28,342	37,619
100 to 199	91,193	5,387	13,205	16,341
200 to 499	59,234	1,548	4,829	5,834
500 or more	29,554	169	545	781
Cows and heifers that had calved ....farms	818,992	112,353	167,029	281,495
number	42,101,375	2,289,269	4,719,151	6,317,250
Beef cows ....farms	764,984	109,122	165,003	277,480
number	32,834,801	2,226,437	4,642,416	6,231,713
Farms with-				
1 to 9	246,863	44,702	51,797	115,114
10 to 49	360,845	54,757	88,547	133,061
50 to 99	84,253	7,029	17,085	20,544
100 to 199	43,575	2,226	5,907	6,703
200 to 499	23,635	399	1,573	1,948
500 or more	5,813	9	94	110

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
HIRED FARM LABOR - Con.					
Migrant farm labor on farms with hired labor (see text) ....farms	4,056	3,785	4,455	9,104	4,532
Migrant farm labor on farms reporting only contract labor (see text) ....farms	1,254	531	389	316	665
FARMS BY SIZE					
1 to 9 acres	26,627	1,700	1,622	2,103	8,112
10 to 49 acres	63,641	4,056	3,631	7,220	19,307
50 to 69 acres	15,724	1,958	1,271	2,302	4,948
70 to 99 acres	20,667	2,995	1,767	2,774	6,272
100 to 139 acres	21,079	3,413	2,145	2,888	6,248
140 to 179 acres	19,354	3,885	1,875	2,372	5,551
180 to 219 acres	13,073	3,940	1,776	2,114	3,576
220 to 259 acres	10,772	4,561	1,842	2,024	2,801
260 to 499 acres	32,552	26,936	10,733	8,494	10,203
500 to 999 acres	19,145	24,580	27,500	13,679	8,979
1,000 to 1,999 acres	9,496	11,525	19,732	24,606	6,881
2,000 acres or more	6,769	10,577	12,657	30,689	8,299
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)					
Oilseed and grain farming (1111)	45,866	46,832	43,988	36,985	15,360
Vegetable and melon farming (1112)	6,456	1,339	1,129	3,007	2,229
Fruit and tree nut farming (1113)	11,034	3,527	3,319	4,056	8,409
Greenhouse, nursery, and floriculture production (1114)	6,606	2,569	2,084	3,277	5,417
Other crop farming (1119)	46,405	7,374	5,674	6,912	24,107
Tobacco farming (11191)	2,124	896	593	464	286
Cotton farming (11192)	1,031	1,644	1,791	2,482	721
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	43,250	4,834	3,290	3,966	23,100
Beef cattle ranching and farming (112111)	86,274	16,484	9,965	7,558	16,265
Cattle feedlots (112112)	3,361	1,481	1,493	3,527	1,334
Dairy cattle and milk production (11212)	5,912	16,208	11,238	10,065	2,860
Hog and pig farming (1122)	2,522	1,234	2,126	7,068	1,838
Poultry and egg production (1123)	4,548	1,030	4,240	17,163	2,579
Sheep and goat farming (1124)	7,347	305	145	116	1,280
Animal aquaculture and other animal production (1125, 1129)	32,568	1,743	1,150	1,531	9,499
FARM TYPOLOGY (SEE TEXT)					
Small family farms:					
Limited resource farms ....farms	-	-	-	-	-
acres	-	-	-	-	-
Retirement farms ....farms	-	-	-	-	-
acres	-	-	-	-	-
Residential/lifestyle farms ....farms	-	-	-	-	-
acres	-	-	-	-	-
Farming occupation/lower sales ....farms	258,899	-	-	-	-
acres	87,190,445	-	-	-	-
Farming occupation/higher sales ....farms	-	100,126	-	-	-
acres	-	104,081,344	-	-	-
Large family farms ....farms	-	-	86,551	-	-
acres	-	-	123,024,138	-	-
Very large family farms ....farms	-	-	-	101,265	-
acres	-	-	-	211,224,012	-
Non-family farms ....farms	-	-	-	-	91,177
acres	-	-	-	-	143,431,777
LIVESTOCK					
Cattle and calves inventory ....farms	127,462	55,865	43,065	46,517	28,016
number	7,993,480	9,121,174	10,563,156	29,881,975	15,520,437
Farms with-					
1 to 9	23,383	1,402	1,160	1,392	4,170
10 to 49	53,580	8,283	5,405	6,290	8,884
50 to 99	25,708	15,826	5,553	4,786	3,761
100 to 199	17,408	15,592	13,359	6,266	3,635
200 to 499	6,751	12,095	12,065	12,341	3,771
500 or more	632	2,667	5,523	15,442	3,795
Cows and heifers that had calved ....farms	110,378	49,884	36,841	37,365	23,647
number	4,478,085	4,800,448	4,931,955	10,592,310	3,972,907
Beef cows ....farms	104,290	34,739	26,142	27,192	21,016
number	4,312,921	3,924,937	3,852,964	4,989,690	2,653,723
Farms with-					
1 to 9	24,803	2,499	1,877	1,788	4,283
10 to 49	49,771	10,393	7,544	8,370	8,402
50 to 99	18,656	7,261	5,343	5,339	2,996
100 to 199	9,198	7,590	4,800	4,884	2,267
200 to 499	1,771	6,602	4,993	4,329	2,020
500 or more	91	394	1,585	2,482	1,048

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
LIVESTOCK - Con.				
Cattle and calves inventory - Con.				
Cows and heifers that had calved - Con.				
Milk cows ....farms	69,890	5,228	3,731	7,242
number	9,266,574	62,832	76,735	85,537
Farms with-				
1 to 9	14,426	3,216	1,866	5,063
10 to 49	19,912	1,868	1,306	1,697
50 to 99	18,986	141	525	460
100 to 199	8,975	3	32	22
200 to 499	4,307	-	2	-
500 or more	3,284	-	-	-
Other cattle (see text) ....farms	788,633	99,662	153,765	269,084
number	54,246,483	1,659,742	3,330,266	4,951,958
Cattle and calves sold ....farms	798,290	98,920	162,393	264,239
number	74,071,936	1,700,630	4,186,019	5,586,632
$1,000	61,209,970	960,290	2,503,773	3,386,251
Calves weighing less than 500 pounds ....farms	414,324	53,817	90,278	134,365
number	13,695,252	663,194	1,427,811	1,910,988
Cattle, including calves weighing 500 pounds or more ....farms	681,126	78,208	137,545	220,507
number	60,376,684	1,037,436	2,758,208	3,675,644
Cattle on feed (see text) ....farms	76,396	6,462	10,453	21,420
number	27,595,928	64,615	139,624	273,772
Hogs and pigs inventory ....farms	75,442	9,687	6,515	25,185
number	67,786,318	230,865	258,790	920,919
Farms with-				
1 to 24	45,047	7,976	5,154	21,232
25 to 49	4,292	701	512	1,455
50 to 99	3,182	487	331	871
100 to 199	2,590	270	222	483
200 to 499	4,524	206	189	709
500 or more	15,807	47	107	435
Used or to be used for breeding ....farms	32,867	4,901	3,175	10,616
number	6,290,610	52,014	39,329	115,249
Other hogs and pigs ....farms	66,441	7,859	5,467	21,389
number	61,495,708	178,851	219,461	805,670
Hogs and pigs sold ....farms	74,789	8,668	6,211	25,454
number	206,807,181	352,426	528,177	2,046,938
$1,000	18,056,981	31,536	45,677	173,254
Sheep and lambs inventory ....farms	83,134	17,088	13,365	32,087
number	5,819,162	484,414	473,984	903,552
Ewes 1 year old or older ....farms	68,222	13,315	11,204	26,189
number	3,516,409	303,274	299,037	569,114
Sheep and lambs sold ....farms	53,268	9,006	8,532	21,256
number	4,579,608	246,905	304,347	585,913
Horses and ponies inventory ....farms	575,942	86,410	99,197	249,581
number	4,028,827	574,153	633,888	1,493,112
Owned ....farms	501,528	74,789	84,255	221,977
number	3,224,964	458,231	504,275	1,237,522
Horses and ponies sold ....farms	133,472	20,117	21,432	58,073
number	506,503	65,898	77,459	171,308
Owned ....farms	106,050	15,676	16,854	46,978
number	400,845	49,537	60,967	136,144
Goats, all inventory ....farms	144,466	27,676	24,122	65,619
number	3,140,529	476,661	535,077	1,084,988
Goats sold ....farms	61,748	11,124	10,884	28,193
number	1,387,576	189,724	242,096	469,058
POULTRY				
Layers inventory (see text) ....farms	145,615	26,614	23,092	63,058
number	349,772,508	771,156	1,369,197	2,908,677
Farms with-				
1 to 399	140,844	26,504	22,949	62,742
400 to 3,199	785	107	99	169
3,200 to 9,999	626	2	30	99
10,000 to 19,999	1,373	1	10	42
20,000 to 49,999	1,292	-	1	6
50,000 to 99,999	261	-	-	-
100,000 or more	434	-	3	-
Pullets for laying flock replacement inventory ....farms	22,514	4,394	3,443	8,589
number	105,876,529	616,812	994,831	1,705,363
Layers sold ....farms	24,971	3,977	3,106	9,833
number	194,955,057	346,676	851,716	1,782,763
Pullets for laying flock replacement sold (see text) ....farms	4,169	523	377	1,068
number	161,354,686	192,781	1,474,428	2,405,929

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
LIVESTOCK - Con.					
Cattle and calves inventory - Con.					
Cows and heifers that had calved - Con.					
Milk cows ....farms	8,343	17,754	12,555	11,636	3,401
number	165,164	875,511	1,078,991	5,602,620	1,319,184
Farms with-					
1 to 9	2,861	601	264	158	397
10 to 49	5,063	8,443	777	227	531
50 to 99	400	8,330	7,472	869	789
100 to 199	19	365	3,937	3,935	662
200 to 499	-	14	104	3,739	448
500 or more	-	1	1	2,708	574
Other cattle (see text) ....farms	106,581	52,328	40,418	43,326	23,469
number	3,515,395	4,320,726	5,631,201	19,289,665	11,547,530
Cattle and calves sold ....farms	107,854	54,308	41,946	44,534	24,096
number	3,755,399	4,987,189	6,463,421	26,972,737	20,419,909
$1,000	2,196,287	3,333,961	4,766,195	23,579,644	20,483,568
Calves weighing less than 500 pounds ....farms	55,655	26,566	19,486	21,505	12,652
number	1,243,104	1,185,989	1,305,490	4,305,772	1,652,904
Cattle, including calves weighing 500 pounds or more ....farms	92,986	50,560	39,213	41,165	20,942
number	2,512,295	3,801,200	5,157,931	22,666,965	18,767,005
Cattle on feed (see text) ....farms	8,642	8,147	7,919	10,232	3,121
number	141,957	378,639	765,015	10,482,673	15,349,633
Hogs and pigs inventory ....farms	9,382	4,380	5,197	11,538	3,558
number	440,279	1,360,796	3,950,705	42,928,191	17,695,773
Farms with-					
1 to 24	6,847	1,229	731	706	1,172
25 to 49	822	341	168	142	151
50 to 99	657	362	227	133	114
100 to 199	523	497	324	177	94
200 to 499	432	1,008	1,065	705	210
500 or more	101	943	2,682	9,675	1,817
Used or to be used for breeding ....farms	4,769	2,418	2,164	3,040	1,784
number	71,688	163,162	330,690	3,026,204	2,492,274
Other hogs and pigs ....farms	8,002	4,110	5,026	11,342	3,246
number	368,591	1,197,634	3,620,015	39,901,987	15,203,499
Hogs and pigs sold ....farms	8,781	4,639	5,551	11,976	3,509
number	725,374	2,995,451	10,077,390	129,469,274	60,612,151
$1,000	58,525	243,474	864,214	12,046,328	4,593,971
Sheep and lambs inventory ....farms	11,712	2,911	1,863	1,610	2,498
number	636,287	685,527	630,576	1,429,981	574,841
Ewes 1 year old or older ....farms	9,739	2,680	1,710	1,395	1,990
number	427,707	465,224	416,951	715,738	319,364
Sheep and lambs sold ....farms	7,635	2,514	1,566	1,256	1,503
number	395,478	498,422	503,165	1,505,487	539,891
Horses and ponies inventory ....farms	79,771	17,632	12,504	14,123	16,724
number	693,316	145,284	107,937	140,873	240,264
Owned ....farms	69,946	14,427	10,256	11,897	13,981
number	523,093	117,146	89,442	116,308	178,947
Horses and ponies sold ....farms	22,296	3,343	1,981	2,179	4,051
number	92,187	24,551	18,235	26,051	30,814
Owned ....farms	17,309	2,723	1,606	1,792	3,112
number	69,154	21,501	15,244	23,118	25,180
Goats, all inventory ....farms	18,565	2,164	1,456	1,554	3,310
number	504,310	189,113	141,172	83,863	125,345
Goats sold ....farms	7,895	1,042	659	678	1,273
number	210,251	88,490	79,117	59,388	49,452
POULTRY					
Layers inventory (see text) ....farms	19,870	4,134	2,860	2,594	3,393
number	1,267,893	4,885,224	19,449,093	173,536,748	145,584,520
Farms with-					
1 to 399	19,639	3,680	1,607	812	2,911
400 to 3,199	190	100	27	33	60
3,200 to 9,999	19	204	196	31	45
10,000 to 19,999	13	119	807	292	89
20,000 to 49,999	9	21	214	942	99
50,000 to 99,999	-	4	3	215	39
100,000 or more	-	6	6	269	150
Pullets for laying flock replacement inventory ....farms	3,255	681	697	806	649
number	1,149,891	3,178,422	13,765,125	56,937,376	27,528,709
Layers sold ....farms	3,169	956	1,467	1,677	786
number	875,955	4,180,672	18,557,584	91,170,630	77,189,061
Pullets for laying flock replacement sold (see text) ....farms	470	244	576	729	182
number	417,173	5,298,388	24,900,117	97,199,381	29,466,489

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
POULTRY - Con.				
Broilers and other meat-type chickens sold ....farms	27,091	1,690	1,294	4,764
number	8,914,828,122	884,754	17,166,319	18,875,871
Farms with-				
1 to 1,999	9,743	1,642	1,044	4,480
2,000 to 59,999	618	48	74	101
60,000 to 99,999	623	-	144	147
100,000 or more	16,107	-	32	36
Turkeys inventory (see text) ....farms	17,226	2,971	2,118	6,488
number	107,173,804	45,724	57,733	353,361
Turkeys sold (see text) ....farms	8,284	1,047	639	2,502
number	295,793,159	39,338	127,777	443,071
CROPS HARVESTED				
Barley for grain ....farms	19,848	1,014	1,265	1,939
acres	3,521,957	47,168	72,210	115,282
bushels	207,089,232	2,075,021	3,710,862	5,732,585
Irrigated ....farms	4,241	207	257	486
acres	741,475	11,399	12,059	24,296
Farms by acres harvested:				
1 to 24 acres	5,742	605	656	1,058
25 to 99 acres	5,405	298	415	538
100 to 249 acres	4,469	78	144	248
250 to 499 acres	2,552	23	40	80
500 acres or more	1,680	10	10	15
Corn for grain ....farms	347,760	20,907	35,919	70,454
acres	86,248,542	852,294	2,348,834	4,816,376
bushels	12,738,519,330	90,962,910	299,958,821	644,178,748
Irrigated ....farms	38,911	895	1,559	3,203
acres	13,156,769	48,185	128,933	271,325
Farms by acres harvested:				
1 to 24 acres	68,008	10,338	12,681	25,239
25 to 99 acres	101,672	8,516	15,645	28,872
100 to 249 acres	78,166	1,866	6,338	13,442
250 to 499 acres	50,807	176	1,146	2,718
500 acres or more	49,107	11	109	183
Corn for silage or greenchop ....farms	84,317	4,609	4,840	8,641
acres	5,979,661	98,891	129,817	206,805
tons	104,224,795	1,216,632	1,765,356	2,894,456
Irrigated ....farms	9,664	217	333	646
acres	1,497,288	6,523	12,577	26,585
Farms by acres harvested:				
1 to 24 acres	34,207	3,348	3,113	6,214
25 to 99 acres	34,878	1,168	1,544	2,131
100 to 249 acres	10,855	82	171	261
250 to 499 acres	2,859	9	11	30
500 acres or more	1,518	2	1	5
Cotton, all ....farms	18,605	602	1,076	1,586
acres	10,493,238	51,959	133,327	185,284
bales	18,898,128	57,506	182,529	260,685
Irrigated ....farms	8,776	108	289	403
acres	4,035,610	5,873	24,744	38,530
Farms by acres harvested:				
1 to 24 acres	961	155	196	293
25 to 99 acres	3,043	264	463	671
100 to 249 acres	3,886	149	273	437
250 to 499 acres	3,738	25	101	143
500 acres or more	6,977	9	43	42
Dry edible beans, excluding limas ....farms	6,236	209	257	362
acres	1,455,549	6,102	13,135	19,356
cwt	25,353,900	85,714	211,176	286,704
Irrigated ....farms	2,456	117	107	148
acres	353,503	2,722	3,104	4,226
Farms by acres harvested:				
1 to 24 acres	818	128	122	176
25 to 99 acres	1,709	64	96	139
100 to 249 acres	1,856	17	31	37
250 to 499 acres	1,066	-	8	6
500 acres or more	787	-	-	4
Oats for grain ....farms	42,558	4,476	4,742	7,215
acres	1,509,149	81,889	104,863	137,912
bushels	89,508,669	4,067,150	5,496,549	7,023,579
Irrigated ....farms	1,620	134	152	258
acres	78,214	2,871	2,443	5,293
Farms by acres harvested:				
1 to 24 acres	27,044	3,576	3,659	5,740
25 to 99 acres	12,167	818	931	1,303
100 to 249 acres	2,643	77	117	147
250 to 499 acres	552	5	31	22
500 acres or more	152	-	4	3
Peanuts for nuts ....farms	6,182	334	523	624
acres	1,200,564	13,267	30,430	34,745
pounds	3,703,138,887	23,006,406	79,451,697	92,836,084
Irrigated ....farms	2,381	70	108	163
acres	418,789	1,871	5,045	8,643

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
POULTRY - Con.					
Broilers and other meat-type chickens sold ....farms	1,719	806	2,399	13,161	1,258
number	2,005,259	30,469,953	344,030,210	7,576,392,462	925,003,294
Farms with-					
1 to 1,999	1,573	402	227	108	267
2,000 to 59,999	146	128	29	37	55
60,000 to 99,999	-	209	81	22	20
100,000 or more	-	67	2,062	12,994	916
Turkeys inventory (see text) ....farms	2,272	351	348	2,022	656
number	495,150	373,640	2,880,774	79,956,173	23,011,249
Turkeys sold (see text) ....farms	934	220	304	2,160	478
number	106,382	712,555	6,464,914	230,339,745	57,559,377
CROPS HARVESTED					
Barley for grain ....farms	2,407	4,195	3,976	4,082	970
acres	158,864	556,336	834,538	1,461,628	275,931
bushels	6,875,879	26,560,040	46,353,627	98,716,750	17,064,468
Irrigated ....farms	466	741	686	1,001	397
acres	28,081	88,146	127,586	354,879	95,029
Farms by acres harvested:					
1 to 24 acres	1,090	1,093	619	386	235
25 to 99 acres	796	1,272	973	837	276
100 to 249 acres	415	1,243	1,128	1,014	199
250 to 499 acres	85	435	883	883	123
500 acres or more	21	152	373	962	137
Corn for grain ....farms	43,399	55,539	52,223	53,536	15,783
acres	2,858,924	9,703,879	18,033,755	41,737,526	5,896,954
bushels	340,078,779	1,310,600,501	2,611,281,785	6,541,782,606	899,675,180
Irrigated ....farms	2,488	6,008	8,218	13,373	3,167
acres	169,974	889,673	2,209,758	8,109,556	1,329,365
Farms by acres harvested:					
1 to 24 acres	11,499	3,986	1,340	984	1,941
25 to 99 acres	22,485	12,517	6,129	3,653	3,855
100 to 249 acres	8,643	26,091	11,375	7,060	3,351
250 to 499 acres	698	11,649	22,056	9,612	2,752
500 acres or more	74	1,296	11,323	32,227	3,884
Corn for silage or greenchop ....farms	10,218	19,009	15,846	16,900	4,254
acres	265,810	743,132	1,015,244	2,927,799	592,163
tons	3,565,516	10,648,197	15,901,627	56,354,539	11,878,472
Irrigated ....farms	683	1,161	1,408	4,150	1,066
acres	29,057	76,053	123,084	966,222	257,187
Farms by acres harvested:					
1 to 24 acres	6,862	8,318	3,564	1,786	1,002
25 to 99 acres	2,994	9,418	9,432	6,447	1,744
100 to 249 acres	330	1,126	2,476	5,491	918
250 to 499 acres	27	133	308	2,014	327
500 acres or more	5	14	66	1,162	263
Cotton, all ....farms	1,524	2,886	3,433	6,057	1,441
acres	188,233	955,446	1,899,870	6,087,246	991,873
bales	240,472	1,355,173	3,054,673	11,714,660	2,032,430
Irrigated ....farms	464	1,108	1,665	3,892	847
acres	37,725	212,617	540,046	2,668,534	507,541
Farms by acres harvested:					
1 to 24 acres	156	24	25	37	75
25 to 99 acres	683	349	207	227	179
100 to 249 acres	520	985	621	630	271
250 to 499 acres	135	960	982	1,067	325
500 acres or more	30	568	1,598	4,096	591
Dry edible beans, excluding limas ....farms	498	921	1,304	2,261	424
acres	27,028	101,816	247,285	950,922	89,905
cwt	400,277	1,655,333	4,073,298	16,906,694	1,734,704
Irrigated ....farms	203	380	416	805	280
acres	6,854	30,926	53,622	202,784	49,265
Farms by acres harvested:					
1 to 24 acres	164	71	45	30	82
25 to 99 acres	266	452	324	272	96
100 to 249 acres	59	332	611	644	125
250 to 499 acres	5	59	269	641	78
500 acres or more	4	7	55	674	43
Oats for grain ....farms	7,889	8,091	5,183	3,571	1,391
acres	196,652	325,235	289,390	301,687	71,521
bushels	10,383,388	19,138,778	18,228,319	20,298,379	4,872,527
Irrigated ....farms	243	242	177	280	134
acres	5,312	11,602	11,077	30,962	8,654
Farms by acres harvested:					
1 to 24 acres	5,699	4,353	2,137	1,151	729
25 to 99 acres	1,867	2,998	2,267	1,501	482
100 to 249 acres	298	621	609	639	135
250 to 499 acres	20	104	135	204	31
500 acres or more	5	15	35	76	14
Peanuts for nuts ....farms	631	1,119	1,087	1,521	343
acres	32,932	143,736	224,595	628,519	92,340
pounds	74,520,942	393,195,184	671,066,317	2,066,697,588	302,364,669
Irrigated ....farms	136	428	476	831	169
acres	6,038	37,745	70,404	256,627	32,416

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
CROPS HARVESTED - Con.				
Peanuts for nuts - Con.				
Farms by acres harvested:				
1 to 24 acres	915	168	200	220
25 to 99 acres	1,909	139	218	290
100 to 249 acres	1,886	22	98	111
250 to 499 acres	920	5	7	2
500 acres or more	552	-	-	1
Rice ....farms	6,084	121	222	387
acres	2,758,792	7,829	24,063	41,840
cwt	198,538,690	454,277	1,553,919	2,865,173
Irrigated ....farms	6,084	121	222	387
acres	2,758,792	7,829	24,063	41,840
Farms by acres harvested:				
1 to 24 acres	132	29	21	34
25 to 99 acres	915	68	114	195
100 to 249 acres	1,459	23	61	127
250 to 499 acres	1,616	1	25	27
500 acres or more	1,962	-	1	4
Sorghum for grain ....farms	26,242	1,134	1,888	3,641
acres	6,769,834	81,097	178,098	325,835
bushels	482,452,865	3,971,696	11,049,467	20,919,471
Irrigated ....farms	4,483	93	176	306
acres	845,214	6,663	16,070	23,005
Farms by acres harvested:				
1 to 24 acres	2,609	316	399	782
25 to 99 acres	8,335	602	916	1,829
100 to 249 acres	7,302	166	417	782
250 to 499 acres	4,377	39	121	199
500 acres or more	3,619	11	35	49
Soybeans for beans ....farms	279,110	14,622	30,433	55,498
acres	63,915,821	816,296	2,317,726	4,072,912
bushels	2,582,423,697	24,542,723	85,218,505	154,755,058
Irrigated ....farms	20,333	426	782	1,434
acres	5,237,075	24,763	56,094	103,299
Farms by acres harvested:				
1 to 24 acres	38,458	5,090	7,527	14,643
25 to 99 acres	90,935	7,370	15,501	27,296
100 to 249 acres	70,698	1,831	6,114	11,457
250 to 499 acres	44,381	288	1,102	1,903
500 acres or more	34,638	43	189	199
Sugarbeets for sugar ....farms	4,022	35	74	166
acres	1,253,817	1,031	3,560	9,338
tons	31,937,325	20,900	81,844	219,977
Irrigated ....farms	1,595	20	34	59
acres	394,675	473	1,636	3,184
Sugarcane for sugar ....farms	692	24	27	39
acres	846,666	396	2,045	3,156
tons	31,127,405	10,276	64,826	98,171
Irrigated ....farms	219	12	12	14
acres	435,205	48	644	1,380
Sunflower seed, all ....farms	6,403	138	232	422
acres	2,000,153	9,815	21,416	41,864
pounds	2,820,962,445	8,256,876	24,449,317	53,954,391
Irrigated ....farms	608	17	18	23
acres	102,219	103	2,924	922
Farms by acres harvested:				
1 to 24 acres	502	50	82	134
25 to 99 acres	1,153	53	63	134
100 to 249 acres	2,110	25	66	116
250 to 499 acres	1,494	10	21	29
500 acres or more	1,144	-	-	9
Tobacco ....farms	16,234	1,876	2,065	3,537
acres	359,846	9,034	19,118	22,211
pounds	778,301,825	16,475,552	33,725,551	44,041,728
Irrigated ....farms	2,572	126	255	364
acres	71,578	1,121	3,024	2,831
Farms by acres harvested:				
0.1 to 0.9 acres	235	63	47	83
1.0 to 1.9 acres	1,493	357	294	581
2.0 to 2.9 acres	1,827	406	289	592
3.0 to 4.9 acres	2,772	461	461	842
5.0 to 9.9 acres	3,459	361	454	843
10.0 to 24.9 acres	3,129	197	376	467
25.0 acres or more	3,319	31	144	129
Wheat for grain, all ....farms	160,810	8,069	15,597	25,401
acres	50,932,969	673,158	1,654,129	2,602,993
bushels	1,993,648,378	17,805,671	53,623,198	84,452,288
Irrigated ....farms	15,213	376	726	1,159
acres	3,364,079	22,146	57,371	82,846
Farms by acres harvested:				
1 to 24 acres	26,703	2,939	4,699	7,676
25 to 99 acres	49,409	3,251	6,333	10,466
100 to 249 acres	34,703	1,268	2,914	4,686
250 to 499 acres	21,167	435	1,111	1,732
500 acres or more	28,828	176	540	841

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
CROPS HARVESTED - Con.					
Peanuts for nuts - Con.					
Farms by acres harvested:					
1 to 24 acres	210	40	18	29	30
25 to 99 acres	323	469	215	166	89
100 to 249 acres	90	508	515	435	107
250 to 499 acres	7	89	283	458	69
500 acres or more	1	13	56	433	48
Rice ... farms	320	728	1,325	2,318	663
acres	29,195	147,397	448,525	1,738,328	321,615
cwt	1,649,544	9,945,177	31,460,889	127,321,784	23,287,927
Irrigated ... farms	320	728	1,325	2,318	663
acres	29,195	147,397	448,525	1,738,328	321,615
Farms by acres harvested:					
1 to 24 acres	25	-	1	7	15
25 to 99 acres	195	114	77	80	72
100 to 249 acres	79	424	310	241	194
250 to 499 acres	21	154	712	508	168
500 acres or more	-	36	225	1,482	214
Sorghum for grain ... farms	3,248	4,699	4,607	5,458	1,567
acres	327,937	944,170	1,439,729	2,914,836	558,132
bushels	17,895,748	61,784,887	103,005,182	223,055,227	40,771,187
Irrigated ... farms	339	664	915	1,577	413
acres	27,977	93,728	153,114	440,775	83,882
Farms by acres harvested:					
1 to 24 acres	455	246	144	141	126
25 to 99 acres	1,680	1,388	817	711	392
100 to 249 acres	879	1,783	1,499	1,371	405
250 to 499 acres	183	950	1,307	1,261	317
500 acres or more	51	332	840	1,974	327
Soybeans for beans ... farms	34,117	44,237	43,856	43,920	12,427
acres	2,772,846	8,272,984	14,105,135	27,554,699	4,003,223
bushels	93,372,666	314,866,638	570,093,334	1,171,717,463	167,857,310
Irrigated ... farms	1,214	3,223	4,548	7,090	1,616
acres	86,360	390,968	912,933	3,081,292	581,366
Farms by acres harvested:					
1 to 24 acres	6,042	2,023	1,105	748	1,280
25 to 99 acres	18,713	9,882	5,280	3,595	3,298
100 to 249 acres	8,038	21,772	11,617	6,885	2,984
250 to 499 acres	1,163	8,852	18,361	10,406	2,306
500 acres or more	161	1,708	7,493	22,286	2,559
Sugarbeets for sugar ... farms	122	426	815	2,078	306
acres	5,216	37,606	133,328	954,712	109,026
tons	120,974	902,038	3,249,169	24,420,878	2,921,545
Irrigated ... farms	55	192	325	752	158
acres	2,557	15,348	50,164	278,614	42,699
Sugarcane for sugar ... farms	51	23	99	306	123
acres	2,824	4,921	36,146	453,094	344,084
tons	92,012	146,862	1,233,674	15,966,843	13,514,741
Irrigated ... farms	13	9	30	89	40
acres	986	1,296	8,003	172,589	250,259
Sunflower seed, all ... farms	385	1,151	1,628	2,230	217
acres	40,824	196,784	453,146	1,180,120	56,184
pounds	46,529,815	252,772,148	627,220,224	1,735,021,180	72,758,494
Irrigated ... farms	17	73	114	277	69
acres	1,188	6,676	16,861	61,139	12,406
Farms by acres harvested:					
1 to 24 acres	48	67	45	47	29
25 to 99 acres	165	321	202	168	47
100 to 249 acres	150	525	639	522	67
250 to 499 acres	22	192	524	646	50
500 acres or more	-	46	218	847	24
Tobacco ... farms	3,351	2,267	1,218	1,397	523
acres	31,801	49,244	60,462	147,513	20,463
pounds	59,757,285	102,212,550	133,090,670	341,024,418	47,974,071
Irrigated ... farms	490	456	336	424	121
acres	4,673	11,096	13,778	31,087	3,969
Farms by acres harvested:					
0.1 to 0.9 acres	25	5	4	3	5
1.0 to 1.9 acres	177	33	12	11	28
2.0 to 2.9 acres	344	96	22	20	58
3.0 to 4.9 acres	636	244	46	34	48
5.0 to 9.9 acres	927	578	119	76	101
10.0 to 24.9 acres	1,034	586	201	158	110
25.0 acres or more	208	725	814	1,095	173
Wheat for grain, all ... farms	20,958	26,518	26,542	29,748	7,977
acres	2,857,843	7,489,272	11,083,525	21,111,416	3,460,633
bushels	78,143,540	239,898,142	411,304,489	947,532,023	160,889,027
Irrigated ... farms	1,189	2,098	2,795	5,401	1,469
acres	82,182	244,457	468,389	1,945,087	461,601
Farms by acres harvested:					
1 to 24 acres	4,632	2,627	1,951	1,304	875
25 to 99 acres	7,979	7,696	6,181	5,317	2,186
100 to 249 acres	4,885	6,724	6,294	6,154	1,778
250 to 499 acres	2,404	4,553	4,635	5,105	1,192
500 acres or more	1,058	4,918	7,481	11,868	1,946

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
CROPS HARVESTED - Con.				
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ....farms	869,534	112,036	182,064	295,927
acres	61,455,483	4,440,266	8,309,642	11,613,251
tons, dry	155,393,762	7,960,494	16,488,173	22,807,204
Irrigated ....farms	86,007	8,872	14,321	23,132
acres	10,264,753	328,285	614,468	895,443
Farms by acres harvested:				
1 to 24 acres	367,533	57,920	83,549	158,243
25 to 99 acres	345,273	44,341	78,448	112,006
100 to 249 acres	111,368	8,349	16,997	21,731
250 to 499 acres	30,370	1,227	2,543	3,186
500 acres or more	14,990	199	527	761
Alfalfa hay ....farms	290,726	29,882	40,965	80,217
acres	20,244,497	1,016,154	1,514,239	2,434,792
tons, dry	65,349,074	2,176,745	3,721,517	6,002,281
Irrigated ....farms	56,390	5,480	8,638	14,518
acres	6,556,652	190,596	371,457	551,960
Other tame hay ....farms	496,740	66,409	118,684	179,692
acres	26,763,972	2,447,008	5,179,482	6,867,890
tons, dry	54,347,673	4,212,219	10,003,185	12,945,618
Irrigated ....farms	24,348	2,547	4,646	6,887
acres	1,699,864	74,165	147,557	212,140
Field and grass seed crops, all ....farms	6,038	402	730	1,287
acres	1,178,726	15,380	42,128	62,531
Irrigated ....farms	1,457	59	87	140
acres	323,441	1,454	3,112	4,432
Land in vegetables (see text) ....farms	69,172	11,576	11,403	17,502
acres	4,356,880	39,380	68,317	89,473
Irrigated ....farms	29,885	4,813	3,953	5,978
acres	3,068,485	13,318	18,260	23,397
Farms by acres harvested:				
0.1 to 4.9 acres	41,453	9,411	8,443	13,614
5.0 to 24.9 acres	13,869	1,966	2,376	3,140
25.0 to 99.9 acres	6,671	190	523	664
100.0 to 249.9 acres	3,473	8	57	82
250.0 acres or more	3,706	1	4	2
Snap beans ....farms	17,300	3,132	3,115	4,439
acres	303,997	2,510	5,718	7,002
Harvested for processing ....farms	1,999	175	231	343
acres	198,101	907	3,055	4,119
Peas, green ....farms	4,532	514	507	798
acres	214,057	937	3,010	6,438
Harvested for processing ....farms	2,047	34	82	197
acres	206,092	556	2,517	5,876
Potatoes ....farms	15,014	2,549	2,460	3,330
acres	1,131,963	2,513	3,700	4,344
Harvested for processing ....farms	1,739	115	118	190
acres	599,604	306	713	1,187
Farms by acres harvested:				
0.1 to 4.9 acres	12,013	2,484	2,351	3,212
5.0 to 24.9 acres	612	58	80	83
25.0 to 99.9 acres	539	6	27	30
100.0 to 249.9 acres	714	1	2	4
250.0 acres or more	1,136	-	-	1
Sweet corn ....farms	28,241	5,194	4,824	7,189
acres	622,946	11,280	20,932	28,773
Harvested for processing ....farms	3,670	245	411	683
acres	361,886	1,349	7,533	13,411
Sweet potatoes ....farms	1,910	273	344	409
acres	105,284	839	934	1,499
Harvested for processing ....farms	259	11	27	34
acres	21,360	133	141	403
Tomatoes in the open ....farms	25,809	4,443	5,017	6,996
acres	442,225	2,406	4,083	4,538
Harvested for processing ....farms	1,761	211	259	406
acres	319,549	115	578	656
Land in orchards ....farms	115,935	12,908	28,060	38,357
acres	5,039,476	89,405	328,217	396,044
Irrigated ....farms	61,189	5,640	13,545	18,498
acres	3,981,316	41,395	150,705	208,099
Farms by bearing and nonbearing acres:				
0.1 to 4.9 acres	52,775	8,282	14,524	21,499
5.0 to 24.9 acres	37,043	3,850	10,110	12,833
25.0 to 99.9 acres	17,119	728	3,066	3,689
100.0 to 249.9 acres	5,434	45	316	287
250.0 acres or more	3,564	3	44	49
Apples ....farms	25,591	3,288	5,719	8,602
bearing and nonbearing acres	398,770	8,345	20,239	26,781
Grapes ....farms	25,892	2,585	5,549	8,462
bearing and nonbearing acres	1,051,407	14,109	47,498	69,477
Peaches, all ....farms	13,582	1,693	3,085	4,220
bearing and nonbearing acres	149,237	3,253	8,140	9,329

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
CROPS HARVESTED - Con.					
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ..... farms	113,758	54,413	41,549	44,278	25,509
acres	7,922,255	7,631,428	7,089,566	10,412,438	4,036,637
tons, dry	15,993,824	18,742,638	19,915,778	40,181,177	13,304,475
Irrigated ..... farms	11,709	6,926	6,049	9,626	5,372
acres	825,296	1,206,424	1,357,243	3,463,600	1,573,994
Farms by acres harvested:					
1 to 24 acres	38,858	8,688	6,318	6,760	7,197
25 to 99 acres	50,095	22,482	14,615	14,028	9,258
100 to 249 acres	19,534	14,818	12,590	12,112	5,237
250 to 499 acres	4,326	5,733	5,021	6,213	2,121
500 acres or more	945	2,692	3,005	5,165	1,696
Alfalfa hay ..... farms	43,704	36,035	26,335	23,030	10,558
acres	2,418,795	3,452,226	3,149,055	4,643,662	1,615,574
tons, dry	5,723,474	9,549,723	10,114,869	21,095,349	6,965,116
Irrigated ..... farms	7,855	5,471	4,535	6,358	3,535
acres	518,179	774,729	880,778	2,289,499	979,454
Other tame hay ..... farms	63,150	19,848	15,852	20,227	12,878
acres	3,864,547	2,213,954	2,035,083	2,819,295	1,336,713
tons, dry	7,328,273	4,712,361	4,621,964	7,397,814	3,126,239
Irrigated ..... farms	3,249	1,531	1,396	2,484	1,608
acres	163,081	185,244	214,172	448,372	255,133
Field and grass seed crops, all ..... farms	807	749	676	965	422
acres	57,503	111,764	164,311	539,557	185,552
Irrigated ..... farms	126	172	195	478	200
acres	6,511	19,617	33,403	202,125	52,787
Land in vegetables (see text) ..... farms	11,150	3,868	3,325	6,538	3,810
acres	90,310	139,984	267,852	2,593,901	1,067,664
Irrigated ..... farms	5,125	1,825	1,598	4,135	2,458
acres	31,612	51,579	121,744	1,894,495	914,079
Farms by acres harvested:					
0.1 to 4.9 acres	6,943	887	432	339	1,384
5.0 to 24.9 acres	3,370	1,228	588	443	758
25.0 to 99.9 acres	766	1,420	1,328	1,300	480
100.0 to 249.9 acres	61	304	790	1,773	398
250.0 acres or more	10	29	187	2,683	790
Snap beans ..... farms	3,204	807	715	1,043	845
acres	5,946	12,786	31,004	181,090	57,942
Harvested for processing ..... farms	154	147	251	528	170
acres	3,660	9,960	23,846	112,460	40,095
Peas, green ..... farms	615	393	539	868	298
acres	7,491	14,038	27,326	123,604	31,215
Harvested for processing ..... farms	122	266	412	757	177
acres	7,094	13,471	25,999	120,202	30,377
Potatoes ..... farms	2,707	786	638	1,553	991
acres	4,890	16,401	47,503	773,251	279,362
Harvested for processing ..... farms	109	83	159	742	223
acres	716	4,874	17,784	412,691	161,334
Farms by acres harvested:					
0.1 to 4.9 acres	2,536	513	220	138	559
5.0 to 24.9 acres	135	74	61	55	66
25.0 to 99.9 acres	34	145	143	98	56
100.0 to 249.9 acres	1	53	180	381	92
250.0 acres or more	1	1	34	881	218
Sweet corn ..... farms	4,797	1,744	1,390	1,804	1,299
acres	25,117	44,124	70,297	305,079	117,345
Harvested for processing ..... farms	319	413	520	816	263
acres	6,904	25,940	48,421	179,109	79,220
Sweet potatoes ..... farms	291	126	120	234	113
acres	2,340	4,231	9,272	67,470	18,701
Harvested for processing ..... farms	23	22	39	81	22
acres	215	1,083	2,867	13,973	2,546
Tomatoes in the open ..... farms	4,850	1,216	767	1,187	1,333
acres	4,730	4,561	7,919	262,298	151,690
Harvested for processing ..... farms	175	42	58	411	199
acres	224	1,184	3,323	197,478	115,992
Land in orchards ..... farms	13,701	4,405	3,857	5,340	9,307
acres	218,325	225,074	373,675	1,860,430	1,548,305
Irrigated ..... farms	6,883	2,689	2,826	4,370	6,738
acres	102,120	136,907	275,539	1,682,874	1,383,677
Farms by bearing and nonbearing acres:					
0.1 to 4.9 acres	5,615	448	221	250	1,936
5.0 to 24.9 acres	5,592	1,053	434	448	2,723
25.0 to 99.9 acres	2,254	2,357	1,736	960	2,329
100.0 to 249.9 acres	210	495	1,285	1,631	1,165
250.0 acres or more	30	52	181	2,051	1,154
Apples ..... farms	3,303	1,165	878	1,062	1,574
bearing and nonbearing acres	19,866	26,114	37,012	170,043	90,368
Grapes ..... farms	3,204	1,132	995	1,439	2,526
bearing and nonbearing acres	38,865	51,933	78,999	438,166	312,361
Peaches, all ..... farms	1,805	716	501	768	794
bearing and nonbearing acres	7,028	9,207	12,348	72,993	26,939

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Small family farms		
		Limited resource farms	Retirement farms	Residential/ lifestyle farms
CROPS HARVESTED - Con.				
Land in orchards - Con.				
Citrus fruit, all ....farms	15,658	1,453	3,567	4,866
bearing and nonbearing acres	1,005,806	8,957	39,292	54,417
Almonds ....farms	6,700	341	1,075	1,583
bearing and nonbearing acres	790,245	5,106	21,578	31,839
Pecans ....farms	21,856	2,540	6,975	7,846
bearing and nonbearing acres	581,809	25,100	118,751	116,387
Walnuts, English ....farms	7,161	685	1,729	2,196
bearing and nonbearing acres	267,751	5,098	20,068	22,870
Land in berries (see text) ....farms	25,017	3,431	4,851	7,674
acres	261,733	6,839	15,885	21,947

See footnote(s) at end of table.

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Table 64. **Summary by Farm Typology: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Small family farms (con.)		Large family farms	Very large family farms	Nonfamily farms
	Farming occupation/ lower sales	Farming occupation/ higher sales			
CROPS HARVESTED - Con.					
Land in orchards - Con.					
Citrus fruit, all ..... farms	1,639	492	670	828	2,143
bearing and nonbearing acres	20,384	21,582	58,948	325,885	476,342
Almonds ..... farms	686	470	528	1,232	785
bearing and nonbearing acres	16,336	26,187	54,053	404,107	231,038
Pecans ..... farms	2,342	567	330	496	760
bearing and nonbearing acres	64,595	36,652	44,694	92,378	83,252
Walnuts, English ..... farms	751	306	322	569	603
bearing and nonbearing acres	13,293	16,384	27,247	93,489	69,303
Land in berries (see text) ..... farms	4,203	1,340	891	1,193	1,434
acres	14,753	14,347	19,974	106,153	61,837

[1] Landlord production expenses are included with total farm production expenses.
[2] Farms with a zero net cash income are included as farms with net gains of less than $1,000.

Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
FARMS AND LAND IN FARMS						
Farms ..... number	2,204,792	1,522,033	542,192	140,567	1,273,122	931,670
percent	100.0	69.0	24.6	6.4	57.7	42.3
Land in farms ..... acres	922,095,840	343,952,327	496,344,290	81,799,223	482,714,727	439,381,113
Average size of farm ..... acres	418	226	915	582	379	472
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS						
Total ..... farms	2,204,792	1,522,033	542,192	140,567	1,273,122	931,670
$1,000	305,204,413	119,157,474	152,609,169	33,437,770	138,306,576	166,897,836
Average per farm ..... dollars	138,428	78,288	281,467	237,878	108,636	179,138
Farms by economic class:						
Less than $1,000 (see text)	499,880	437,323	43,369	19,188	275,963	223,917
$1,000 to $2,499	270,712	234,950	26,355	9,407	159,883	110,829
$2,500 to $4,999	246,309	203,414	32,622	10,273	147,840	98,469
$5,000 to $9,999	254,834	195,268	46,321	13,245	154,146	100,688
$10,000 to $24,999	274,274	186,971	69,552	17,751	164,799	109,475
$25,000 to $49,999	163,500	94,698	54,308	14,494	98,953	64,547
$50,000 to $99,999	129,124	60,643	53,950	14,531	77,988	51,136
$100,000 to $249,999	149,049	50,014	80,757	18,278	87,189	61,860
$250,000 to $499,999	96,251	23,162	62,394	10,695	52,586	43,665
$500,000 to $999,999	63,567	16,125	40,816	6,626	31,213	32,354
$1,000,000 or more	57,292	19,465	31,748	6,079	22,562	34,730
$1,000,000 to $2,499,999	41,863	13,156	24,489	4,218	17,093	24,770
$2,500,000 to $4,999,999	9,845	3,651	5,047	1,147	3,420	6,425
$5,000,000 or more	5,584	2,658	2,212	714	2,049	3,535
Total sales ..... farms	2,204,792	1,522,033	542,192	140,567	1,273,122	931,670
$1,000	297,220,491	116,634,026	148,089,172	32,497,293	134,063,057	163,157,434
Grains, oilseeds, dry beans, and dry peas ..... farms	479,467	178,432	243,876	57,159	294,619	184,848
$1,000	77,215,262	10,572,082	55,650,949	10,992,231	38,569,345	38,645,918
Sales of $50,000 or more ..... farms	235,343	43,783	158,505	33,055	138,449	96,894
$1,000	73,535,966	8,839,064	54,159,439	10,537,464	36,187,253	37,348,714
Corn ..... farms	347,540	118,926	187,465	41,149	211,762	135,778
$1,000	39,909,600	5,300,237	29,050,316	5,559,047	19,879,539	20,030,061
Sales of $50,000 or more ..... farms	151,428	23,520	107,145	20,763	87,644	63,784
$1,000	36,859,125	4,080,553	27,610,521	5,168,051	17,932,962	18,926,163
Wheat ..... farms	159,527	43,701	97,690	18,136	94,279	65,248
$1,000	10,623,640	1,697,500	7,526,117	1,400,023	5,147,122	5,476,518
Sales of $50,000 or more ..... farms	47,250	7,312	33,979	5,959	25,025	22,225
$1,000	8,944,760	1,286,743	6,454,498	1,203,518	4,136,613	4,808,147
Soybeans ..... farms	285,089	89,849	160,031	35,209	178,331	106,758
$1,000	20,283,986	2,691,370	14,982,810	2,609,807	10,641,823	9,642,163
Sales of $50,000 or more ..... farms	109,269	12,728	82,882	13,659	62,873	46,396
$1,000	17,191,360	1,638,882	13,365,277	2,187,200	8,629,492	8,561,868
Sorghum ..... farms	27,142	6,506	16,513	4,123	16,289	10,853
$1,000	1,651,798	223,837	1,109,801	318,160	849,329	802,470
Sales of $50,000 or more ..... farms	8,972	1,153	6,195	1,624	4,884	4,088
$1,000	1,348,798	156,467	920,283	272,047	660,351	688,447
Barley ..... farms	18,326	4,709	11,631	1,986	9,915	8,411
$1,000	701,047	114,320	490,631	96,096	341,514	359,533
Sales of $50,000 or more ..... farms	3,973	551	2,913	509	2,040	1,933
$1,000	526,415	77,191	374,916	74,308	244,379	282,036
Rice ..... farms	6,085	1,265	2,653	2,167	3,066	3,019
$1,000	2,020,231	275,342	993,884	751,005	736,027	1,284,204
Sales of $50,000 or more ..... farms	5,184	847	2,391	1,946	2,460	2,724
$1,000	1,995,322	265,345	986,031	743,946	719,293	1,276,029
Other grains, oilseeds, dry beans, and dry peas ..... farms	55,228	17,977	32,261	4,990	31,328	23,900
$1,000	2,024,959	269,476	1,497,391	258,092	973,992	1,050,968
Sales of $50,000 or more ..... farms	10,062	1,198	7,578	1,286	5,315	4,747
$1,000	1,698,514	192,154	1,287,770	218,589	783,438	915,076
Tobacco ..... farms	16,228	6,762	7,733	1,733	10,068	6,160
$1,000	1,268,114	219,719	935,017	113,379	692,121	575,994
Sales of $50,000 or more ..... farms	4,495	846	3,246	403	2,686	1,809
$1,000	1,076,035	135,187	851,200	89,647	570,662	505,373
Cotton and cottonseed ..... farms	18,591	4,450	10,234	3,907	11,363	7,228
$1,000	4,898,608	752,485	2,896,291	1,249,832	2,218,130	2,680,478
Sales of $50,000 or more ..... farms	13,232	2,165	8,010	3,057	7,521	5,711
$1,000	4,784,510	712,430	2,842,526	1,229,555	2,137,096	2,647,415
Vegetables, melons, potatoes, and sweet potatoes ..... farms	69,100	42,346	19,918	6,836	34,406	34,694
$1,000	14,683,058	2,752,958	8,196,456	3,733,645	5,059,596	9,623,463
Sales of $50,000 or more ..... farms	13,824	3,774	7,818	2,232	6,321	7,503
$1,000	14,167,307	2,454,658	8,037,317	3,675,332	4,793,592	9,373,715
Fruits, tree nuts, and berries ..... farms	112,690	92,511	15,033	5,146	59,817	52,873
$1,000	18,625,459	10,685,877	5,936,552	2,003,030	8,284,203	10,341,256
Sales of $50,000 or more ..... farms	28,824	20,423	6,373	2,028	14,926	13,898
$1,000	17,681,378	9,885,576	5,834,346	1,961,456	7,756,322	9,925,056
Nursery, greenhouse, floriculture, and sod (see text) ..... farms	50,784	38,334	7,571	4,879	24,614	26,170
$1,000	16,632,734	8,973,465	5,032,192	2,627,077	5,178,489	11,454,245
Sales of $50,000 or more ..... farms	17,039	11,220	3,579	2,240	6,932	10,107
$1,000	16,227,627	8,658,829	4,977,140	2,591,658	4,972,124	11,255,503
Cut Christmas trees and short-rotation woody crops ..... farms	13,374	11,083	1,812	479	6,955	6,419
$1,000	384,594	143,579	204,508	36,507	137,892	246,702
Sales of $50,000 or more ..... farms	1,088	575	446	67	441	647
$1,000	306,465	83,026	190,577	32,862	99,557	206,908

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD AND GOVERNMENT PAYMENTS - Con.						
Total - Con.						
Total sales - Con.						
Other crops and hay (see text) ....farms	434,502	275,000	137,375	22,127	253,945	180,557
$1,000	9,950,098	2,811,518	5,788,086	1,350,494	4,626,542	5,323,556
Sales of $50,000 or more ....farms	27,831	7,348	16,891	3,592	14,287	13,544
$1,000	7,529,077	1,554,133	4,781,229	1,193,715	3,221,678	4,307,399
Cattle and calves ....farms	798,290	438,709	308,532	51,049	445,648	352,642
$1,000	61,209,970	29,265,060	27,142,784	4,802,126	29,624,931	31,585,038
Sales of $50,000 or more ....farms	119,983	36,470	74,448	9,065	60,390	59,593
$1,000	53,786,091	25,731,423	23,745,057	4,309,611	25,421,030	28,365,061
Milk and other dairy products from cows ....farms	69,763	27,128	37,052	5,583	31,202	38,561
$1,000	31,848,029	12,253,355	16,826,820	2,767,854	10,960,590	20,887,440
Sales of $50,000 or more ....farms	50,792	15,162	31,236	4,394	21,154	29,638
$1,000	31,558,210	12,087,968	16,722,124	2,748,119	10,800,472	20,757,738
Hogs and pigs ....farms	74,789	41,873	27,960	4,956	35,612	39,177
$1,000	18,056,981	9,032,718	7,745,126	1,279,137	8,643,566	9,413,415
Sales of $50,000 or more ....farms	19,956	7,149	11,275	1,532	10,314	9,642
$1,000	17,829,977	8,929,743	7,640,980	1,259,254	8,519,493	9,310,484
Sheep, goats, and their products ....farms	121,171	88,272	26,567	6,332	54,076	67,095
$1,000	704,855	351,756	293,491	59,608	344,080	360,775
Sales of $50,000 or more ....farms	1,825	728	930	167	837	988
$1,000	415,640	181,046	194,931	39,663	209,520	206,120
Horses, ponies, mules, burros, and donkeys ....farms	114,317	84,527	23,721	6,069	49,552	64,765
$1,000	2,061,862	1,270,292	561,795	229,776	858,879	1,202,983
Sales of $50,000 or more ....farms	3,638	2,672	729	237	1,408	2,230
$1,000	1,559,047	895,025	460,779	203,243	648,822	910,225
Poultry and eggs ....farms	148,911	110,774	32,757	5,380	62,658	86,253
$1,000	37,065,947	26,109,303	10,094,825	861,819	17,719,715	19,346,233
Sales of $50,000 or more ....farms	26,267	18,109	7,625	533	12,467	13,800
$1,000	36,932,463	26,013,137	10,064,308	855,017	17,661,297	19,271,166
Aquaculture (see text) ....farms	6,409	4,026	1,143	1,240	3,509	2,900
$1,000	1,415,271	694,650	444,784	275,837	670,294	744,977
Sales of $50,000 or more ....farms	2,449	1,396	527	526	1,325	1,124
$1,000	1,376,454	672,994	438,070	265,391	647,216	729,239
Other animals and other animal products (see text) ....farms	43,226	33,375	7,857	1,994	19,311	23,915
$1,000	1,199,649	745,210	339,496	114,942	474,685	724,964
Sales of $50,000 or more ....farms	2,294	1,718	412	164	1,014	1,280
$1,000	1,066,659	641,358	317,312	107,989	414,471	652,189
Value of-						
Government payments ....farms	838,391	474,908	301,601	61,882	518,465	319,926
$1,000	7,983,922	2,523,448	4,519,996	940,477	4,243,520	3,740,402
Landlord's share of total sales (see text) ....farms	97,706	20	75,592	22,094	56,453	41,253
$1,000	6,429,386	941	4,956,512	1,471,934	3,183,888	3,245,498
Agricultural products sold directly to individuals for human consumption (see text) ....farms	136,817	94,343	34,397	8,077	61,440	75,377
$1,000	1,211,270	562,040	518,450	130,780	434,287	776,983
FARM PRODUCTION EXPENSES						
Total farm production expenses ....farms	2,204,792	1,522,033	542,192	140,567	1,273,122	931,670
$1,000	241,113,666	99,698,040	115,407,730	26,007,896	107,740,496	133,373,171
Average per farm .... dollars	109,359	65,503	212,854	185,021	84,627	143,155
Fertilizer, lime, and soil conditioners purchased ....farms	1,148,218	648,515	410,964	88,739	651,030	497,188
$1,000	18,107,194	3,718,315	11,932,500	2,456,379	8,719,162	9,388,032
Farms with expenses of-						
$1 to $4,999	734,931	527,214	166,858	40,859	413,925	321,006
$5,000 to $24,999	249,546	96,021	126,354	27,171	149,642	99,904
$25,000 to $49,999	74,633	13,759	51,740	9,134	44,141	30,492
$50,000 or more	89,108	11,521	66,012	11,575	43,322	45,786
Chemicals purchased ....farms	918,604	495,194	345,706	77,704	503,202	415,402
$1,000	10,074,914	2,069,217	6,367,873	1,637,823	4,527,426	5,547,488
Farms with expenses of-						
$1 to $4,999	666,084	437,724	184,174	44,186	363,968	302,116
$5,000 to $24,999	162,785	44,125	97,885	20,775	95,803	66,982
$25,000 to $49,999	46,594	6,928	33,639	6,027	25,249	21,345
$50,000 or more	43,141	6,417	30,008	6,716	18,182	24,959
Seeds, plants, vines, and trees ....farms	775,893	384,404	319,652	71,837	432,822	343,071
$1,000	11,740,521	2,567,154	7,276,195	1,897,172	5,219,896	6,520,625
Farms with expenses of-						
$1 to $999	302,164	219,339	68,254	14,571	161,897	140,267
$1,000 to $4,999	192,154	100,466	72,352	19,336	113,567	78,587
$5,000 to $24,999	173,462	49,177	100,916	23,369	102,937	70,525
$25,000 to $49,999	56,320	7,981	41,233	7,106	31,994	24,326
$50,000 or more	51,793	7,441	36,897	7,455	22,427	29,366

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Livestock and poultry purchased or leased (see text) ..... farms	490,819	276,537	182,929	31,353	233,854	256,965
$1,000	38,003,682	21,029,921	14,212,863	2,760,898	18,498,751	19,504,931
Farms with expenses of-						
$1 to $4,999	306,414	195,466	93,499	17,449	143,346	163,068
$5,000 to $24,999	97,441	44,219	45,265	7,957	47,504	49,937
$25,000 to $99,999	42,768	17,619	21,954	3,195	21,548	21,220
$100,000 to $249,999	24,183	11,397	11,439	1,347	11,890	12,293
$250,000 or more	20,013	7,836	10,772	1,405	9,566	10,447
Breeding livestock purchased or leased (see text) ..... farms	278,572	139,187	120,142	19,243	132,905	145,667
$1,000	3,599,873	1,541,081	1,737,906	320,886	1,552,615	2,047,258
Other livestock and poultry purchased or leased (see text) ..... farms	279,155	169,683	92,845	16,627	128,417	150,738
$1,000	34,403,809	19,488,840	12,474,957	2,440,012	16,946,136	17,457,674
Feed purchased ..... farms	1,135,968	746,680	326,033	63,255	583,011	552,957
$1,000	49,095,106	28,576,449	17,416,502	3,102,155	21,830,563	27,264,543
Farms with expenses of-						
$1 to $4,999	766,606	552,867	175,621	38,118	405,669	360,937
$5,000 to $24,999	245,328	139,895	89,380	16,053	120,756	124,572
$25,000 to $99,999	66,394	25,741	34,888	5,765	31,039	35,355
$100,000 to $249,999	23,472	9,584	12,311	1,577	10,363	13,109
$250,000 or more	34,168	18,593	13,833	1,742	15,184	18,984
Gasoline, fuels, and oils ..... farms	2,148,806	1,471,178	539,527	138,101	1,237,770	911,036
$1,000	12,912,179	4,559,888	6,842,702	1,509,589	6,068,998	6,843,181
Farms with expenses of-						
$1 to $4,999	1,704,545	1,314,537	297,701	92,307	999,907	704,638
$5,000 to $24,999	336,324	129,883	173,353	33,088	189,617	146,707
$25,000 to $49,999	64,765	15,944	42,094	6,727	31,764	33,001
$50,000 or more	43,172	10,814	26,379	5,979	16,482	26,690
Utilities (see text) ..... farms	1,102,530	648,270	381,547	72,713	576,792	525,738
$1,000	5,917,615	2,577,799	2,684,144	655,672	2,533,535	3,384,080
Farms with expenses of-						
$1 to $999	506,560	362,248	118,777	25,535	274,928	231,632
$1,000 to $4,999	402,839	211,015	162,749	29,075	215,537	187,302
$5,000 to $24,999	157,818	60,697	83,476	13,645	72,410	85,408
$25,000 to $49,999	19,269	7,794	9,298	2,177	7,906	11,363
$50,000 or more	16,044	6,516	7,247	2,281	6,011	10,033
Supplies, repairs, and maintenance ..... farms	1,992,234	1,348,103	516,692	127,439	1,143,537	848,697
$1,000	15,896,723	6,258,958	8,004,349	1,633,417	7,252,209	8,644,514
Farms with expenses of-						
$1 to $4,999	1,478,317	1,131,620	264,337	82,360	870,067	608,250
$5,000 to $24,999	389,971	182,156	175,158	32,657	218,272	171,699
$25,000 to $49,999	73,014	20,190	46,225	6,599	35,548	37,466
$50,000 or more	50,932	14,137	30,972	5,823	19,650	31,282
Hired farm labor ..... farms	482,186	238,007	203,577	40,602	242,648	239,538
$1,000	21,877,661	9,062,841	9,775,520	3,039,301	7,778,842	14,098,820
Farms with expenses of-						
$1 to $4,999	262,262	148,643	95,077	18,542	142,931	119,331
$5,000 to $24,999	108,122	46,384	52,275	9,463	54,560	53,562
$25,000 to $99,999	75,938	28,453	39,607	7,878	32,446	43,492
$100,000 to $249,999	21,237	8,234	10,343	2,660	7,799	13,438
$250,000 or more	14,627	6,293	6,275	2,059	4,912	9,715
Contract labor ..... farms	182,701	107,548	61,573	13,580	92,108	90,593
$1,000	4,514,166	2,049,534	1,777,760	686,872	1,902,076	2,612,090
Farms with expenses of-						
$1 to $999	49,657	33,734	12,976	2,947	25,291	24,366
$1,000 to $4,999	66,104	38,834	22,935	4,335	34,242	31,862
$5,000 to $24,999	45,949	24,354	17,634	3,961	22,828	23,121
$25,000 to $49,999	9,730	4,983	3,844	903	4,750	4,980
$50,000 or more	11,261	5,643	4,184	1,434	4,997	6,264
Customwork and custom hauling ..... farms	362,475	172,826	157,741	31,908	197,335	165,140
$1,000	4,091,038	1,402,068	2,096,865	592,105	1,797,447	2,293,591
Farms with expenses of-						
$1 to $999	119,768	76,600	35,675	7,493	66,463	53,305
$1,000 to $4,999	131,318	61,933	58,059	11,326	74,339	56,979
$5,000 to $24,999	83,762	26,651	48,283	8,828	44,770	38,992
$25,000 to $49,999	14,558	3,720	8,794	2,044	6,710	7,848
$50,000 or more	13,069	3,922	6,930	2,217	5,053	8,016
Cash rent for land, buildings, and grazing fees ..... farms	490,372	32,368	367,940	90,064	276,138	214,234
$1,000	13,274,530	319,532	9,897,992	3,057,006	6,040,823	7,233,707
Farms with expenses of-						
$1 to $4,999	238,363	22,431	176,552	39,380	137,633	100,730
$5,000 to $9,999	59,281	3,811	44,108	11,362	34,178	25,103
$10,000 to $24,999	76,679	3,502	57,394	15,783	44,265	32,414
$25,000 or more	116,049	2,624	89,886	23,539	60,062	55,987

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
FARM PRODUCTION EXPENSES - Con.						
Total farm production expenses - Con.						
Rent and lease expenses for machinery, equipment, and farm share of vehicles ..... farms	109,199	36,554	56,814	15,831	52,443	56,756
$1,000	1,385,219	266,665	756,441	362,113	526,558	858,662
Farms with expenses of-						
$1 to $999	39,280	19,104	16,577	3,599	19,137	20,143
$1,000 to $4,999	31,997	9,910	17,313	4,774	16,187	15,810
$5,000 to $24,999	26,656	5,696	16,203	4,757	12,754	13,902
$25,000 to $49,999	5,778	900	3,677	1,201	2,498	3,280
$50,000 or more	5,488	944	3,044	1,500	1,867	3,621
Interest expense ..... farms	667,454	349,338	273,883	44,233	342,791	324,663
$1,000	10,880,731	4,423,002	5,856,982	600,746	4,789,909	6,090,821
Farms with expenses of-						
$1 to $4,999	289,876	173,596	92,647	23,633	156,420	133,456
$5,000 to $24,999	275,988	141,479	119,250	15,259	140,060	135,928
$25,000 to $99,999	87,574	29,550	53,510	4,514	41,317	46,257
$100,000 or more	14,016	4,713	8,476	827	4,994	9,022
Secured by real estate ..... farms	519,095	297,916	221,179	-	261,223	257,872
$1,000	7,185,334	3,436,317	3,749,016	-	3,166,749	4,018,585
Farms with expenses of-						
$1 to $999	58,501	39,728	18,773	-	32,000	26,501
$1,000 to $4,999	171,356	108,043	63,313	-	89,736	81,620
$5,000 to $24,999	225,304	123,682	101,622	-	110,993	114,311
$25,000 to $49,999	39,515	16,526	22,989	-	18,626	20,889
$50,000 or more	24,419	9,937	14,482	-	9,868	14,551
Not secured by real estate ..... farms	413,327	183,939	185,155	44,233	217,706	195,621
$1,000	3,695,397	986,685	2,107,966	600,746	1,623,161	2,072,236
Farms with expenses of-						
$1 to $999	122,808	78,455	35,931	8,422	65,526	57,282
$1,000 to $4,999	153,159	71,350	66,598	15,211	82,385	70,774
$5,000 to $24,999	106,610	28,616	62,735	15,259	56,889	49,721
$25,000 to $49,999	18,841	3,194	12,582	3,065	8,696	10,145
$50,000 or more	11,909	2,324	7,309	2,276	4,210	7,699
Property taxes paid ..... farms	1,995,808	1,427,849	533,628	34,331	1,136,433	859,375
$1,000	6,223,048	3,715,866	2,388,302	118,879	3,175,259	3,047,788
Farms with expenses of-						
$1 to $4,999	1,717,819	1,275,184	413,265	29,370	993,363	724,456
$5,000 to $9,999	172,489	100,344	69,469	2,676	92,866	79,623
$10,000 to $24,999	80,800	40,030	39,209	1,561	39,624	41,176
$25,000 or more	24,700	12,291	11,685	724	10,580	14,120
All other production expenses (see text) ..... farms	1,115,703	623,110	409,654	82,939	579,546	536,157
$1,000	17,119,339	7,100,830	8,120,741	1,897,768	7,079,042	10,040,297
Farms with expenses of-						
$1 to $4,999	765,840	492,886	224,332	48,622	406,296	359,544
$5,000 to $24,999	234,512	89,429	122,108	22,975	122,622	111,890
$25,000 to $49,999	55,174	17,180	32,474	5,520	26,040	29,134
$50,000 to $99,999	32,742	11,999	17,661	3,082	14,071	18,671
$100,000 or more	27,435	11,616	13,079	2,740	10,517	16,918
Production expenses paid by landlords [1] ..... farms	67,427	573	52,822	14,032	38,113	29,314
$1,000	1,556,963	7,692	1,208,535	340,736	773,758	783,205
Depreciation expenses claimed (see text) ..... farms	963,340	543,022	354,114	66,204	524,928	438,412
$1,000	20,185,540	7,556,453	10,916,676	1,712,411	9,184,387	11,001,154
NET CASH FARM INCOME (SEE TEXT)						
Net cash farm income of operations (see text) ..... farms	2,204,792	1,522,033	542,192	140,567	1,273,122	931,670
$1,000	74,581,098	24,378,894	41,796,946	8,405,259	35,787,151	38,793,947
Average per farm ..... dollars	33,827	16,017	77,089	59,795	28,110	41,639
Farms with net gains [2] ..... number	1,037,041	618,200	332,389	86,452	635,174	401,867
Average net gain ..... dollars	89,479	57,493	142,808	113,164	69,537	120,998
Gain of-						
Less than $1,000	102,871	84,167	13,247	5,457	67,657	35,214
$1,000 to $4,999	221,477	172,171	35,990	13,316	144,812	76,665
$5,000 to $9,999	128,828	92,080	27,553	9,195	83,046	45,782
$10,000 to $24,999	170,636	108,263	47,680	14,693	108,117	62,519
$25,000 to $49,999	119,233	62,295	44,804	12,134	73,362	45,871
$50,000 or more	293,996	99,224	163,115	31,657	158,180	135,816
Farms with net losses ..... number	1,167,751	903,833	209,803	54,115	637,948	529,803
Average net loss ..... dollars	15,596	12,351	27,030	25,464	13,137	18,557
Loss of-						
Less than $1,000	134,307	112,249	15,565	6,493	86,187	48,120
$1,000 to $4,999	426,570	349,912	58,441	18,217	250,266	176,304
$5,000 to $9,999	247,156	193,317	43,459	10,380	129,960	117,196
$10,000 to $24,999	225,863	166,206	49,470	10,187	109,321	116,542
$25,000 to $49,999	76,927	51,512	21,338	4,077	35,688	41,239
$50,000 or more	56,928	30,637	21,530	4,761	26,526	30,402

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
NET CASH FARM INCOME (SEE TEXT) - Con.						
Net cash farm income of operators (see text) ..... farms	2,204,792	1,522,033	542,192	140,567	1,273,122	931,670
$1,000	64,197,836	21,205,694	35,952,386	7,039,756	30,825,973	33,371,863
Average per farm ..... dollars	29,117	13,932	66,309	50,081	24,213	35,819
Operators reporting net gains [2] ..... farms	1,025,783	616,217	325,552	84,014	628,971	396,812
Average net gain ..... dollars	81,061	52,818	129,209	101,642	62,954	109,761
Gain of-						
Less than $1,000	103,330	84,292	13,485	5,553	67,909	35,421
$1,000 to $4,999	222,713	172,506	36,471	13,736	145,663	77,050
$5,000 to $9,999	129,906	92,544	28,083	9,279	83,664	46,242
$10,000 to $24,999	173,780	109,990	48,802	14,988	109,830	63,950
$25,000 to $49,999	122,964	64,658	46,208	12,098	75,343	47,621
$50,000 or more	273,090	92,227	152,503	28,360	146,562	126,528
Operators reporting net losses ..... farms	1,179,009	905,816	216,640	56,553	644,151	534,858
Average net loss ..... dollars	16,075	12,521	28,212	26,516	13,615	19,038
Loss of-						
Less than $1,000	135,011	112,357	15,852	6,802	86,608	48,403
$1,000 to $4,999	428,133	350,206	59,332	18,595	251,224	176,909
$5,000 to $9,999	248,731	193,516	44,388	10,827	130,782	117,949
$10,000 to $24,999	228,206	166,690	50,891	10,625	110,646	117,560
$25,000 to $49,999	78,919	51,940	22,550	4,429	36,806	42,113
$50,000 or more	60,009	31,107	23,627	5,275	28,085	31,924
COMMODITY CREDIT CORPORATION LOANS (SEE TEXT)						
Total ..... farms	50,572	10,838	32,608	7,126	29,348	21,224
$1,000	4,445,758	493,949	3,199,727	752,083	2,010,782	2,434,976
INCOME FROM FARM-RELATED SOURCES						
Total income from farm-related sources, gross before taxes and expenses (see text) ..... farms	693,187	392,624	252,890	47,673	392,301	300,886
$1,000	10,489,874	4,919,450	4,595,039	975,385	5,220,603	5,269,271
Customwork and other agricultural services ..... farms	121,874	35,536	72,364	13,974	67,080	54,794
$1,000	1,875,665	409,229	1,190,283	276,154	874,936	1,000,729
Gross cash rent or share payments ..... farms	241,923	190,196	43,575	8,152	146,210	95,713
$1,000	2,883,897	2,101,426	619,932	162,538	1,751,528	1,132,369
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ..... farms	47,603	34,389	12,416	798	26,387	21,216
$1,000	594,944	427,541	161,395	6,008	323,752	271,192
Agri-tourism and recreational services (see text) ..... farms	23,350	14,445	7,586	1,319	11,022	12,328
$1,000	566,834	329,589	186,675	50,569	219,134	347,700
Patronage dividends and refunds from cooperatives ..... farms	288,196	110,337	152,175	25,684	159,022	129,174
$1,000	854,995	249,031	504,810	101,154	393,226	461,768
Crop and livestock insurance payments received (see text) ..... farms	82,001	19,279	53,800	8,922	45,331	36,670
$1,000	1,676,727	261,492	1,224,909	190,325	799,285	877,442
Amount from state and local government agricultural program payments (see text) ..... farms	34,410	17,713	14,963	1,734	18,052	16,358
$1,000	145,413	52,091	83,620	9,701	68,265	77,148
Other farm-related income sources (see text) ..... farms	118,939	71,660	40,161	7,118	59,820	59,119
$1,000	1,891,400	1,089,051	623,413	178,935	790,476	1,100,923
LAND USE						
Total cropland ..... farms	1,685,339	1,095,738	480,752	108,849	990,157	695,182
acres	406,424,909	111,564,144	250,667,611	44,193,154	209,749,150	196,675,759
Harvested cropland ..... farms	1,328,004	776,806	453,901	97,297	767,613	560,391
acres	309,607,601	62,191,104	210,295,715	37,120,782	155,611,854	153,995,747
Farms by acres harvested:						
1 to 49 acres	700,266	552,462	115,103	32,701	405,559	294,707
50 to 99 acres	179,055	102,370	63,325	13,360	107,338	71,717
100 to 199 acres	141,875	62,037	65,598	14,240	84,345	57,530
200 to 499 acres	143,776	39,192	87,856	16,728	84,255	59,521
500 to 999 acres	82,211	11,892	60,128	10,191	47,751	34,460
1,000 to 1,999 acres	53,728	5,809	41,434	6,485	27,965	25,763
2,000 acres or more	27,093	3,044	20,457	3,592	10,400	16,693
Cropland-						
For pasture or grazing only ..... farms	404,753	275,111	110,612	19,030	227,398	177,355
acres	35,771,154	18,033,759	15,117,997	2,619,398	19,884,791	15,886,363
On which all crops failed or were abandoned ..... farms	89,587	49,609	34,462	5,516	50,221	39,366
acres	7,405,898	2,264,409	4,516,996	624,493	4,005,768	3,400,130
Idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed ..... farms	360,225	281,181	68,577	10,467	221,381	138,844
acres	37,968,749	25,405,753	10,748,758	1,814,238	22,667,699	15,301,050
In cultivated summer fallow ..... farms	67,960	31,457	30,951	5,552	39,497	28,463
acres	15,671,507	3,669,119	9,988,145	2,014,243	7,579,038	8,092,469

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
LAND USE - Con.						
Total woodland ..... farms	843,294	608,254	213,757	21,283	473,076	370,218
acres	75,098,603	48,317,124	24,156,844	2,624,635	42,217,769	32,880,834
Woodland pastured ..... farms	370,297	247,135	110,896	12,266	202,492	167,805
acres	28,609,690	15,438,238	11,602,887	1,568,565	15,832,988	12,776,702
Woodland not pastured ..... farms	596,123	440,593	143,927	11,603	336,255	259,868
acres	46,488,913	32,878,886	12,553,957	1,056,070	26,384,781	20,104,132
Permanent pastureland and rangeland, other than cropland and woodland pastured (see text) ..... farms	1,132,606	747,181	327,668	57,757	618,984	513,622
acres	408,832,116	166,074,646	209,293,194	33,464,276	212,845,901	195,986,215
Land in house lots, ponds, roads, wasteland, etc. ..... farms	1,126,272	789,776	300,449	36,047	608,445	517,827
acres	31,740,212	17,996,413	12,226,641	1,517,158	17,901,907	13,838,305
Irrigated land ..... farms	301,028	192,436	81,784	26,808	152,442	148,586
acres	56,599,305	15,125,045	31,658,904	9,815,356	24,268,269	32,331,036
Harvested cropland ..... farms	256,105	156,979	74,512	24,614	132,397	123,708
acres	51,537,104	12,776,259	29,361,272	9,399,573	22,084,359	29,452,745
Pastureland and other land ..... farms	72,585	51,898	17,049	3,638	32,178	40,407
acres	5,062,201	2,348,786	2,297,632	415,783	2,183,910	2,878,291
CONSERVATION PRACTICES AND CROP INSURANCE						
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) ..... farms	346,231	260,399	77,732	8,100	223,595	122,636
acres	38,547,450	26,992,806	10,226,230	1,328,414	23,785,733	14,761,717
Land enrolled in crop insurance programs (see text) ..... farms	349,408	117,982	187,716	43,710	206,118	143,290
acres	222,267,817	32,609,510	160,023,537	29,634,770	107,507,336	114,760,481
ORGANIC AGRICULTURE						
Land used for organic production (see text) ..... farms	20,437	13,670	4,990	1,777	9,154	11,283
acres	2,577,418	768,598	1,506,679	302,141	1,020,670	1,556,748
Total organic product sales (see text) ..... farms	18,211	11,989	4,553	1,669	8,165	10,046
$1,000	1,709,111	521,399	782,190	405,522	592,992	1,116,120
VALUE OF LAND AND BUILDINGS						
Estimated market value of land and buildings ..... farms	2,204,792	1,522,033	542,192	140,567	1,273,122	931,670
$1,000	1,744,295,252	726,272,897	868,002,621	150,019,734	898,544,465	845,750,787
Average per farm ..... dollars	791,138	477,173	1,600,914	1,067,247	705,780	907,779
Average per acre ..... dollars	1,892	2,112	1,749	1,834	1,861	1,925
Farms by value group:						
$1 to $49,999	223,182	189,227	10,740	23,215	140,674	82,508
$50,000 to $99,999	212,783	179,963	18,568	14,252	132,164	80,619
$100,000 to $199,999	374,783	308,770	46,869	19,144	220,132	154,651
$200,000 to $499,999	631,939	474,240	128,645	29,054	357,129	274,810
$500,000 to $999,999	371,783	234,122	116,837	20,824	212,034	159,749
$1,000,000 to $1,999,999	206,282	89,089	101,528	15,665	118,303	87,979
$2,000,000 to $4,999,999	132,549	34,976	84,885	12,688	70,588	61,961
$5,000,000 to $9,999,999	36,072	7,491	24,765	3,816	16,256	19,816
$10,000,000 or more	15,419	4,155	9,355	1,909	5,842	9,577
VALUE OF MACHINERY AND EQUIPMENT						
Estimated market value of all machinery and equipment ..... farms	2,204,513	1,521,782	542,187	140,544	1,272,939	931,574
$1,000	194,783,471	78,840,006	97,046,497	18,896,967	98,105,982	96,677,489
Farms by value group:						
$1 to $4,999	195,820	171,585	14,483	9,752	121,380	74,440
$5,000 to $9,999	217,460	186,961	20,156	10,343	133,791	83,669
$10,000 to $19,999	351,088	290,421	43,131	17,536	211,244	139,844
$20,000 to $49,999	598,289	455,207	109,778	33,304	346,677	251,612
$50,000 to $99,999	366,768	235,870	106,344	24,554	206,948	159,820
$100,000 to $199,999	232,001	110,764	101,875	19,362	129,903	102,098
$200,000 to $499,999	175,152	57,929	99,852	17,371	93,942	81,210
$500,000 or more	67,935	13,045	46,568	8,322	29,054	38,881
SELECTED MACHINERY AND EQUIPMENT						
Trucks, including pickups (see text) ..... farms	1,783,324	1,163,466	500,944	118,914	1,003,851	779,473
number	3,512,538	1,862,657	1,383,955	265,926	1,848,711	1,663,827
Tractors ..... farms	1,844,647	1,232,146	501,965	110,536	1,060,523	784,124
number	4,389,812	2,358,382	1,723,297	308,133	2,431,272	1,958,540
Less than 40 horsepower (PTO) ..... farms	910,937	656,842	210,991	43,104	510,504	400,433
number	1,280,039	883,367	332,856	63,816	709,339	570,700
40 to 99 horsepower (PTO) ..... farms	1,238,101	781,706	385,173	71,222	714,238	523,863
number	1,998,508	1,136,430	741,077	121,001	1,123,418	875,090
100 horsepower (PTO) or more ..... farms	555,941	223,228	275,324	57,389	321,185	234,756
number	1,111,265	338,585	649,364	123,316	598,515	512,750
Grain and bean combines, self-propelled ..... farms	295,490	79,048	180,842	35,600	175,002	120,488
number	346,935	89,242	215,546	42,147	200,503	146,432

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
SELECTED MACHINERY AND EQUIPMENT - Con.						
Cotton pickers and strippers, self-propelled ..... farms	12,500	2,028	7,833	2,639	7,263	5,237
number	18,162	2,861	11,449	3,852	9,920	8,242
Forage harvesters, self-propelled ..... farms	60,133	25,559	30,279	4,295	28,373	31,760
number	64,191	26,605	32,924	4,662	29,867	34,324
Hay balers ..... farms	593,543	317,924	243,483	32,136	331,527	262,016
number	727,501	376,392	312,093	39,016	400,501	327,000
FERTILIZERS AND CHEMICALS						
Commercial fertilizer, lime, and soil conditioners ..... farms	1,022,036	550,316	388,774	82,946	580,849	441,187
acres treated	265,995,497	51,723,542	181,812,602	32,459,353	133,100,803	132,894,694
Manure ..... farms	307,073	151,697	137,001	18,375	146,570	160,503
acres treated	22,096,315	5,650,580	14,696,441	1,749,294	9,180,363	12,915,952
Acres treated with chemicals to control-						
Insects ..... farms	354,357	164,345	150,111	39,901	191,477	162,880
acres	90,947,822	15,858,208	60,697,308	14,392,306	42,626,574	48,321,248
Weeds, grass, or brush ..... farms	703,884	344,073	294,253	65,558	384,617	319,267
acres	226,295,783	33,834,176	161,879,097	30,582,510	109,600,259	116,695,524
Nematodes ..... farms	34,992	14,713	15,554	4,725	18,454	16,538
acres	7,560,158	1,143,633	5,050,059	1,366,466	3,487,015	4,073,143
Diseases in crops and orchards ..... farms	97,333	49,860	36,035	11,438	49,503	47,830
acres	22,693,212	3,571,788	15,098,879	4,022,545	9,596,447	13,096,765
Chemicals used to control growth, thin fruit, ripen, or defoliate ..... farms	44,638	21,831	17,186	5,621	23,679	20,959
acres treated	12,125,799	2,080,136	7,469,665	2,575,998	5,551,236	6,574,563
TENURE						
Full owners ..... farms	1,522,033	1,522,033	-	-	882,706	639,327
Part owners ..... farms	542,192	-	542,192	-	303,489	238,703
Tenants ..... farms	140,567	-	-	140,567	86,927	53,640
OWNED AND RENTED LAND						
Land owned ..... farms	2,072,101	1,522,033	542,192	7,876	1,191,559	880,542
acres	646,247,118	405,255,308	238,412,526	2,579,284	356,722,667	289,524,451
Owned land in farms ..... farms	2,064,225	1,522,033	542,192	-	1,186,195	878,030
acres	571,303,487	343,952,327	227,351,160	-	308,399,059	262,904,428
Land rented or leased from others ..... farms	689,102	6,343	542,192	140,567	394,387	294,715
acres	355,918,954	1,500,343	271,259,005	83,159,606	177,022,679	178,896,275
Rented or leased land in farms ..... farms	682,759	-	542,192	140,567	390,416	292,343
acres	350,792,353	-	268,993,130	81,799,223	174,315,668	176,476,685
Land rented or leased to others ..... farms	314,140	254,327	49,383	10,430	192,972	121,168
acres	80,070,232	62,803,324	13,327,241	3,939,667	51,030,619	29,039,613
NUMBER OF OPERATORS						
Total operators ..... number	3,337,450	2,280,452	845,793	211,205	1,273,122	2,064,328
Farms by number of operators:						
1 operator	1,273,122	882,706	303,489	86,927	1,273,122	-
2 operators	786,598	553,155	191,418	42,025	-	786,598
3 operators	112,285	67,218	36,437	8,630	-	112,285
4 operators	22,529	12,908	7,656	1,965	-	22,529
5 or more operators	10,258	6,046	3,192	1,020	-	10,258
Total women operators ..... number	1,008,943	758,084	203,789	47,070	175,407	833,536
Farms by number of women operators:						
1 operator	894,347	674,158	181,148	39,041	175,407	718,940
2 operators	45,408	33,457	8,964	2,987	-	45,408
3 operators	5,439	3,848	1,161	430	-	5,439
4 operators	1,017	765	166	86	-	1,017
5 or more operators	546	391	91	64	-	546
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male	1,898,583	1,261,581	510,115	126,887	1,097,715	800,868
Female	306,209	260,452	32,077	13,680	175,407	130,802
Primary occupation:						
Farming	993,881	574,660	344,151	75,070	570,236	423,645
Other	1,210,911	947,373	198,041	65,497	702,886	508,025
Place of residence:						
On farm operated	1,693,362	1,163,506	457,689	72,167	944,054	749,308
Not on farm operated	511,430	358,527	84,503	68,400	329,068	182,362
Days worked off farm:						
None	777,747	508,756	226,349	42,642	473,642	304,105
Any	1,427,045	1,013,277	315,843	97,925	799,480	627,565
1 to 49 days	238,479	173,246	49,643	15,590	147,325	91,154
50 to 99 days	115,578	80,589	26,864	8,125	66,814	48,764
100 to 199 days	196,687	133,043	49,718	13,926	109,132	87,555
200 days or more	876,301	626,399	189,618	60,284	476,209	400,092
Years on present farm:						
2 years or less	84,883	63,184	11,293	10,406	44,286	40,597
3 or 4 years	138,858	105,857	19,109	13,892	69,955	68,903
5 to 9 years	359,545	270,569	59,491	29,485	185,476	174,069

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
PRINCIPAL OPERATOR CHARACTERISTICS - Con.						
Years on present farm - Con.						
10 years or more	1,621,506	1,082,423	452,299	86,784	973,405	648,101
Average years on present farm	21.6	20.8	25.2	17.0	22.8	20.0
Age group:						
Under 25 years	11,878	5,171	2,236	4,471	7,101	4,777
25 to 34 years	106,735	55,333	30,059	21,343	56,686	50,049
35 to 44 years	268,818	168,483	74,613	25,722	138,505	130,313
45 to 49 years	256,694	165,484	72,648	18,562	136,962	119,732
50 to 54 years	308,707	202,975	86,231	19,501	169,536	139,171
55 to 59 years	312,577	214,540	81,848	16,189	176,122	136,455
60 to 64 years	283,729	203,075	68,816	11,838	164,491	119,238
65 to 69 years	235,152	173,886	52,563	8,703	143,955	91,197
70 years and over	420,502	333,086	73,178	14,238	279,764	140,738
Average age	57.1	58.5	55.1	49.6	58.2	55.6
Spanish, Hispanic, or Latino origin (see text)	55,570	42,796	8,884	3,890	33,710	21,860
Race:						
American Indian or Alaska Native	34,706	27,970	4,944	1,792	18,280	16,426
Asian	11,214	8,222	1,157	1,835	6,100	5,114
Black or African American	30,599	21,122	6,915	2,562	21,814	8,785
Native Hawaiian or Other Pacific Islander	1,356	937	146	273	754	602
White	2,114,325	1,454,717	526,265	133,343	1,219,552	894,773
More than one race reported	12,592	9,065	2,765	762	6,622	5,970
Farms by number of persons living in operator's household:						
1 person	275,842	203,709	51,893	20,240	228,620	47,222
2 people	1,108,995	788,932	264,113	55,950	622,153	486,842
3 people	330,188	218,304	88,099	23,785	172,874	157,314
4 people	285,919	183,119	79,350	23,450	146,385	139,534
5 or more people	203,848	127,969	58,737	17,142	103,090	100,758
Percent of operator's total household income from farming:						
Less than 25 percent	1,583,710	1,236,562	265,653	81,495	914,680	669,030
25 to 49 percent	174,800	100,064	59,300	15,436	104,896	69,904
50 to 74 percent	187,421	93,176	76,925	17,320	110,653	76,768
75 to 99 percent	147,092	55,536	76,700	14,856	81,499	65,593
100 percent	111,769	36,695	63,614	11,460	61,394	50,375
Operator is a hired manager ... farms	59,759	36,303	16,205	7,251	32,305	27,454
acres	120,672,499	66,666,016	43,919,566	10,086,917	73,753,408	46,919,091
Farms with-						
Internet access	1,246,723	810,361	349,400	86,962	628,379	618,344
High-speed internet access	726,700	467,882	201,779	57,039	365,006	361,694
Farms by number of households sharing in net income of farm:						
1 household	1,733,827	1,228,586	400,629	104,612	1,070,728	663,099
2 households	356,707	225,565	105,040	26,102	154,229	202,478
3 households	66,438	38,473	22,267	5,698	24,672	41,766
4 households	30,004	18,325	9,089	2,590	15,274	14,730
5 households or more	17,816	11,084	5,167	1,565	8,219	9,597
FARMS BY TYPE OF ORGANIZATION						
Family or individual ... farms	1,906,335	1,337,187	457,807	111,341	1,152,596	753,739
acres	574,150,050	204,312,442	324,970,045	44,867,563	347,648,643	226,501,407
Partnership ... farms	174,247	106,721	51,359	16,167	61,725	112,522
acres	161,416,999	49,316,860	90,666,548	21,433,591	37,468,146	123,948,853
Registered under state law ... farms	89,739	52,707	27,875	9,157	27,996	61,743
acres	114,284,815	35,019,988	62,694,378	16,570,449	26,376,167	87,908,648
Corporation ... farms	96,074	54,265	30,330	11,479	41,666	54,408
acres	125,319,810	40,762,634	71,136,156	13,421,020	49,544,312	75,775,498
Family held ... farms	85,837	47,421	28,514	9,902	36,243	49,594
acres	114,264,200	35,684,366	66,360,864	12,218,970	44,056,493	70,207,707
More than 10 stockholders ... farms	2,041	1,322	557	162	914	1,127
10 or less stockholders ... farms	83,796	46,099	27,957	9,740	35,329	48,467
Other than family held ... farms	10,237	6,844	1,816	1,577	5,423	4,814
acres	11,055,610	5,078,268	4,775,292	1,202,050	5,487,819	5,567,791
More than 10 stockholders ... farms	907	684	147	76	518	389
10 or less stockholders ... farms	9,330	6,160	1,669	1,501	4,905	4,425
Other-cooperative, estate or trust, institutional, etc ... farms	28,136	23,860	2,696	1,580	17,135	11,001
acres	61,208,981	49,560,391	9,571,541	2,077,049	48,053,626	13,155,355
HIRED FARM LABOR						
Hired farm labor ... farms	482,186	238,007	203,577	40,602	242,648	239,538
workers	2,636,509	1,192,724	1,115,296	328,489	1,096,727	1,539,782
Workers by days worked:						
150 days or more ... farms	201,292	85,612	95,843	19,837	85,753	115,539
workers	911,439	379,915	398,925	132,599	328,103	583,336
Less than 150 days ... farms	384,051	193,445	159,163	31,443	199,659	184,392
workers	1,725,070	812,809	716,371	195,890	768,624	956,446

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
HIRED FARM LABOR - Con.						
Migrant farm labor on farms with hired labor (see text) ..... farms	38,784	18,977	16,193	3,614	19,311	19,473
Migrant farm labor on farms reporting only contract labor (see text) ..... farms	8,488	6,257	1,738	493	5,000	3,488
FARMS BY SIZE						
1 to 9 acres	232,849	208,074	8,985	15,790	123,417	109,432
10 to 49 acres	620,283	531,068	61,087	28,128	346,964	273,319
50 to 69 acres	153,862	120,846	24,825	8,191	92,572	61,290
70 to 99 acres	192,043	148,425	33,527	10,091	117,009	75,034
100 to 139 acres	175,146	125,664	39,104	10,378	107,243	67,903
140 to 179 acres	139,479	97,521	32,667	9,291	86,561	52,918
180 to 219 acres	87,502	54,034	27,457	6,011	53,201	34,301
220 to 259 acres	68,313	39,817	23,811	4,685	41,804	26,509
260 to 499 acres	212,553	103,952	92,101	16,500	127,736	84,817
500 to 999 acres	149,713	51,173	84,445	14,095	88,564	61,149
1,000 to 1,999 acres	92,656	22,863	60,639	9,154	51,408	41,248
2,000 acres or more	80,393	18,596	53,544	8,253	36,643	43,750
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION (NAICS)						
Oilseed and grain farming (1111)	338,237	128,713	163,783	45,741	218,839	119,398
Vegetable and melon farming (1112)	40,589	27,345	8,703	4,541	21,070	19,519
Fruit and tree nut farming (1113)	98,281	85,681	8,558	4,042	54,000	44,281
Greenhouse, nursery, and floriculture production (1114)	54,889	44,668	5,693	4,528	28,158	26,731
Other crop farming (1119)	519,893	432,955	69,703	17,235	334,526	185,367
Tobacco farming (11191)	9,626	4,430	4,155	1,041	6,196	3,430
Cotton farming (11192)	9,968	2,819	4,886	2,263	6,451	3,517
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	500,299	425,706	60,662	13,931	321,879	178,420
Beef cattle ranching and farming (112111)	656,475	427,384	190,538	38,553	382,300	274,175
Cattle feedlots (112112)	31,065	18,490	10,847	1,728	16,614	14,451
Dairy cattle and milk production (11212)	57,318	21,660	30,844	4,814	25,389	31,929
Hog and pig farming (1122)	30,546	20,272	8,205	2,069	15,705	14,841
Poultry and egg production (1123)	64,570	52,660	10,278	1,632	28,471	36,099
Sheep and goat farming (1124)	67,254	56,595	7,394	3,265	32,143	35,111
Animal aquaculture and other animal production (1125, 1129)	245,675	205,610	27,646	12,419	115,907	129,768
FARM TYPOLOGY (SEE TEXT)						
Small family farms:						
Limited resource farms ..... farms	308,837	246,023	44,811	18,003	196,388	112,449
acres	42,419,764	24,970,931	14,069,062	3,379,771	26,535,871	15,883,893
Retirement farms ..... farms	456,093	368,883	74,500	12,710	284,682	171,411
acres	89,580,775	56,747,977	29,479,259	3,353,539	52,567,152	37,013,623
Residential/lifestyle farms ..... farms	801,844	603,331	151,112	47,401	440,814	361,030
acres	121,143,585	66,070,693	45,257,674	9,815,218	66,327,185	54,816,400
Farming occupation/lower sales ..... farms	258,899	165,273	71,957	21,669	147,145	111,754
acres	87,190,445	35,225,136	43,488,254	8,477,055	50,614,378	36,576,067
Farming occupation/higher sales ..... farms	100,126	27,785	59,864	12,477	60,610	39,516
acres	104,081,344	21,100,462	72,139,118	10,841,764	56,392,453	47,688,891
Large family farms ..... farms	86,551	19,784	57,602	9,165	47,346	39,205
acres	123,024,138	21,518,782	89,100,031	12,405,325	61,371,356	61,652,782
Very large family farms ..... farms	101,265	28,932	62,655	9,678	45,307	55,958
acres	211,224,012	36,160,624	153,165,179	21,898,209	82,419,188	128,804,824
Non-family farms ..... farms	91,177	62,022	19,691	9,464	50,830	40,347
acres	143,431,777	82,157,722	49,645,713	11,628,342	86,487,144	56,944,633
LIVESTOCK						
Cattle and calves inventory ..... farms	963,669	569,408	335,582	58,679	538,625	425,044
number	96,347,858	39,349,167	49,819,521	7,179,170	46,141,822	50,206,036
Farms with-						
1 to 9	233,078	187,906	34,514	10,658	126,190	106,888
10 to 49	415,493	266,951	122,886	25,656	246,208	169,285
50 to 99	135,117	60,301	65,112	9,704	76,892	58,225
100 to 199	91,193	29,906	55,104	6,183	48,085	43,108
200 to 499	59,234	15,689	39,411	4,134	28,646	30,588
500 or more	29,554	8,655	18,555	2,344	12,604	16,950
Cows and heifers that had calved ..... farms	818,992	470,566	298,227	50,199	459,620	359,372
number	42,101,375	16,588,982	22,496,300	3,016,093	20,335,244	21,766,131
Beef cows ..... farms	764,984	450,209	269,312	45,463	435,683	329,301
number	32,834,801	12,947,539	17,684,548	2,202,714	17,052,159	15,782,642
Farms with-						
1 to 9	246,863	186,453	48,067	12,343	136,586	110,277
10 to 49	360,845	210,865	127,392	22,588	214,989	145,856
50 to 99	84,253	31,824	46,930	5,499	47,604	36,649
100 to 199	43,575	12,758	27,852	2,965	23,017	20,558
200 to 499	23,635	6,344	15,659	1,632	11,094	12,541
500 or more	5,813	1,965	3,412	436	2,393	3,420

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
LIVESTOCK - Con.						
Cattle and calves inventory - Con.						
Cows and heifers that had calved - Con.						
Milk cows ....farms	69,890	27,693	36,612	5,585	31,166	38,724
number	9,266,574	3,641,443	4,811,752	813,379	3,283,085	5,983,489
Farms with-						
1 to 9	14,426	9,823	3,800	803	7,325	7,101
10 to 49	19,912	8,719	9,234	1,959	10,668	9,244
50 to 99	18,986	5,018	12,354	1,614	7,746	11,240
100 to 199	8,975	1,844	6,589	542	3,052	5,923
200 to 499	4,307	914	3,059	334	1,317	2,990
500 or more	3,284	1,375	1,576	333	1,058	2,226
Other cattle (see text) ....farms	788,633	440,276	299,096	49,261	432,023	356,610
number	54,246,483	22,760,185	27,323,221	4,163,077	25,806,578	28,439,905
Cattle and calves sold ....farms	798,290	438,709	308,532	51,049	445,648	352,642
number	74,071,936	34,047,942	34,265,201	5,758,793	35,969,882	38,102,054
$1,000	61,209,970	29,265,060	27,142,784	4,802,126	29,624,931	31,585,038
Calves weighing less than 500 pounds ....farms	414,324	226,808	162,221	25,295	227,374	186,950
number	13,695,252	6,413,389	6,263,592	1,018,271	6,540,333	7,154,919
Cattle, including calves weighing 500 pounds or more ....farms	681,126	361,392	275,882	43,852	376,247	304,879
number	60,376,684	27,634,553	28,001,609	4,740,522	29,429,549	30,947,135
Cattle on feed (see text) ....farms	76,396	33,698	37,683	5,015	39,406	36,990
number	27,595,928	16,437,184	9,014,224	2,144,520	13,327,107	14,268,821
Hogs and pigs inventory ....farms	75,442	43,641	26,970	4,831	36,048	39,394
number	67,786,318	34,422,378	28,720,589	4,643,351	32,964,561	34,821,757
Farms with-						
1 to 24	45,047	31,376	11,241	2,430	19,907	25,140
25 to 49	4,292	2,323	1,647	322	2,306	1,986
50 to 99	3,182	1,592	1,337	253	1,757	1,425
100 to 199	2,590	1,027	1,284	279	1,464	1,126
200 to 499	4,524	1,496	2,637	391	2,567	1,957
500 or more	15,807	5,827	8,824	1,156	8,047	7,760
Used or to be used for breeding ....farms	32,867	19,125	11,440	2,302	15,796	17,071
number	6,290,610	4,021,135	1,827,452	442,023	2,881,486	3,409,124
Other hogs and pigs ....farms	66,441	37,255	24,924	4,262	31,604	34,837
number	61,495,708	30,401,243	26,893,137	4,201,328	30,083,075	31,412,633
Hogs and pigs sold ....farms	74,789	41,873	27,960	4,956	35,612	39,177
number	206,807,181	115,437,063	78,145,535	13,224,583	98,197,845	108,609,336
$1,000	18,056,981	9,032,718	7,745,126	1,279,137	8,643,566	9,413,415
Sheep and lambs inventory ....farms	83,134	60,710	18,222	4,202	38,856	44,278
number	5,819,162	2,621,538	2,720,866	476,758	2,729,766	3,089,396
Ewes 1 year old or older ....farms	68,222	48,464	16,132	3,626	31,858	36,364
number	3,516,409	1,589,456	1,655,805	271,148	1,636,281	1,880,128
Sheep and lambs sold ....farms	53,268	35,681	14,328	3,259	24,678	28,590
number	4,579,608	2,062,527	2,168,504	348,577	2,308,218	2,271,390
Horses and ponies inventory ....farms	575,942	413,232	134,857	27,853	267,072	308,870
number	4,028,827	2,795,336	1,001,098	232,393	1,766,227	2,262,600
Owned ....farms	501,528	363,398	113,964	24,166	227,398	274,130
number	3,224,964	2,253,065	798,688	173,211	1,412,255	1,812,709
Horses and ponies sold ....farms	133,472	97,955	28,413	7,104	57,432	76,040
number	506,503	342,656	133,540	30,307	222,862	283,641
Owned ....farms	106,050	78,405	21,866	5,779	45,726	60,324
number	400,845	271,545	106,394	22,906	176,714	224,131
Goats, all inventory ....farms	144,466	112,334	25,865	6,267	63,007	81,459
number	3,140,529	2,100,398	819,972	220,159	1,439,795	1,700,734
Goats sold ....farms	61,748	46,309	12,352	3,087	26,222	35,526
number	1,387,576	869,311	404,563	113,702	638,328	749,248
POULTRY						
Layers inventory (see text) ....farms	145,615	111,433	28,848	5,334	58,861	86,754
number	349,772,508	262,511,585	76,172,010	11,088,913	160,566,511	189,205,997
Farms with-						
1 to 399	140,844	108,134	27,526	5,184	56,820	84,024
400 to 3,199	785	517	223	45	355	430
3,200 to 9,999	626	448	153	25	268	358
10,000 to 19,999	1,373	996	348	29	596	777
20,000 to 49,999	1,292	893	378	21	545	747
50,000 to 99,999	261	151	102	8	104	157
100,000 or more	434	294	118	22	173	261
Pullets for laying flock replacement inventory ....farms	22,514	17,045	4,655	814	8,750	13,764
number	105,876,529	72,887,287	30,754,938	2,234,304	51,835,075	54,041,454
Layers sold ....farms	24,971	18,772	5,249	950	9,336	15,635
number	194,955,057	150,356,584	39,218,277	5,380,196	82,648,976	112,306,081
Pullets for laying flock replacement sold (see text) ....farms	4,169	3,075	982	112	1,798	2,371
number	161,354,686	104,915,889	53,007,958	3,430,839	73,857,887	87,496,799

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
POULTRY - Con.						
Broilers and other meat-type chickens sold ... farms	27,091	18,902	7,341	848	11,961	15,130
... number	8,914,828,122	6,160,610,259	2,599,644,159	154,573,704	4,092,249,000	4,822,579,122
Farms with-						
1 to 1,999	9,743	6,805	2,384	554	3,659	6,084
2,000 to 59,999	618	432	144	42	285	333
60,000 to 99,999	623	479	125	19	314	309
100,000 or more	16,107	11,186	4,688	233	7,703	8,404
Turkeys inventory (see text) ... farms	17,226	12,870	3,677	679	6,681	10,545
... number	107,173,804	65,625,612	38,511,917	3,036,275	51,711,634	55,462,170
Turkeys sold (see text) ... farms	8,284	5,774	2,188	322	3,180	5,104
... number	295,793,159	180,017,054	106,167,921	9,608,184	141,418,388	154,374,771
CROPS HARVESTED						
Barley for grain ... farms	19,848	5,111	12,669	2,068	10,581	9,267
... acres	3,521,957	564,959	2,529,130	427,868	1,758,631	1,763,326
... bushels	207,089,232	34,003,973	146,415,851	26,669,408	100,421,661	106,667,571
Irrigated ... farms	4,241	1,407	2,319	515	2,105	2,136
... acres	741,475	175,438	453,572	112,465	323,188	418,287
Farms by acres harvested:						
1 to 24 acres	5,742	2,191	3,078	473	3,112	2,630
25 to 99 acres	5,405	1,457	3,428	520	2,813	2,592
100 to 249 acres	4,469	921	3,009	539	2,450	2,019
250 to 499 acres	2,552	329	1,896	327	1,422	1,130
500 acres or more	1,680	213	1,258	209	784	896
Corn for grain ... farms	347,760	115,664	191,127	40,969	210,115	137,645
... acres	86,248,542	11,750,983	63,370,270	11,127,289	43,495,941	42,752,601
... bushels	12,738,519,330	1,665,489,536	9,354,783,579	1,718,246,215	6,350,245,641	6,388,273,689
Irrigated ... farms	38,911	8,825	24,042	6,044	20,919	17,992
... acres	13,156,769	1,948,108	8,859,175	2,349,486	5,864,023	7,292,746
Farms by acres harvested:						
1 to 24 acres	68,008	42,360	20,289	5,359	42,991	25,017
25 to 99 acres	101,672	44,832	44,361	12,479	64,408	37,264
100 to 249 acres	78,166	18,411	49,163	10,592	48,496	29,670
250 to 499 acres	50,807	5,955	38,293	6,559	30,583	20,224
500 acres or more	49,107	4,106	39,021	5,980	23,637	25,470
Corn for silage or greenchop ... farms	84,317	24,662	53,170	6,485	40,421	43,896
... acres	5,979,661	1,280,661	4,246,114	452,886	2,307,598	3,672,063
... tons	104,224,795	23,560,298	72,053,576	8,610,921	39,050,870	65,173,925
Irrigated ... farms	9,664	3,220	5,333	1,111	4,194	5,470
... acres	1,497,288	497,334	821,563	178,391	565,550	931,738
Farms by acres harvested:						
1 to 24 acres	34,207	13,528	17,828	2,851	18,850	15,357
25 to 99 acres	34,878	8,381	23,930	2,567	15,973	18,905
100 to 249 acres	10,855	1,951	8,181	723	4,200	6,655
250 to 499 acres	2,859	482	2,149	228	939	1,920
500 acres or more	1,518	320	1,082	116	459	1,059
Cotton, all ... farms	18,605	4,451	10,243	3,911	11,371	7,234
... acres	10,493,238	1,444,711	6,572,705	2,475,822	5,167,055	5,326,183
... bales	18,898,128	2,663,635	11,425,039	4,809,454	8,931,116	9,967,012
Irrigated ... farms	8,776	1,883	4,695	2,198	4,933	3,843
... acres	4,035,610	602,576	2,267,213	1,165,821	1,781,166	2,254,444
Farms by acres harvested:						
1 to 24 acres	961	611	234	116	709	252
25 to 99 acres	3,043	1,285	1,231	527	2,124	919
100 to 249 acres	3,886	1,069	2,042	775	2,599	1,287
250 to 499 acres	3,738	674	2,253	811	2,383	1,355
500 acres or more	6,977	812	4,483	1,682	3,556	3,421
Dry edible beans, excluding limas ... farms	6,236	1,316	4,013	907	3,446	2,790
... acres	1,455,549	151,632	1,108,694	195,223	656,673	798,876
... cwt	25,353,900	2,864,516	18,976,975	3,512,409	11,286,532	14,067,368
Irrigated ... farms	2,456	711	1,311	434	1,245	1,211
... acres	353,503	67,344	223,633	62,526	145,320	208,183
Farms by acres harvested:						
1 to 24 acres	818	494	221	103	475	343
25 to 99 acres	1,709	415	1,025	269	1,046	663
100 to 249 acres	1,856	243	1,327	286	1,071	785
250 to 499 acres	1,066	104	815	147	559	507
500 acres or more	787	60	625	102	295	492
Oats for grain ... farms	42,558	16,197	23,699	2,662	23,231	19,327
... acres	1,509,149	400,337	1,012,931	95,881	792,968	716,181
... bushels	89,508,669	23,583,531	59,943,618	5,981,520	46,207,813	43,300,856
Irrigated ... farms	1,620	656	780	184	820	800
... acres	78,214	28,409	38,592	11,213	37,544	40,670
Farms by acres harvested:						
1 to 24 acres	27,044	12,223	13,084	1,737	15,215	11,829
25 to 99 acres	12,167	3,279	8,191	697	6,261	5,906
100 to 249 acres	2,643	547	1,914	182	1,388	1,255
250 to 499 acres	552	123	394	35	302	250
500 acres or more	152	25	116	11	65	87
Peanuts for nuts ... farms	6,182	1,552	3,780	850	4,137	2,045
... acres	1,200,564	222,012	832,501	146,051	685,592	514,972
... pounds	3,703,138,887	709,582,727	2,549,354,250	444,201,910	2,099,750,112	1,603,388,775
Irrigated ... farms	2,381	596	1,437	348	1,489	892
... acres	418,789	92,922	268,737	57,130	216,028	202,761

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
CROPS HARVESTED - Con.						
Peanuts for nuts - Con.						
Farms by acres harvested:						
1 to 24 acres	915	483	320	112	653	262
25 to 99 acres	1,909	500	1,116	293	1,452	457
100 to 249 acres	1,886	337	1,278	271	1,219	667
250 to 499 acres	920	135	664	121	555	365
500 acres or more	552	97	402	53	258	294
Rice ... farms	6,084	1,264	2,653	2,167	3,065	3,019
acres	2,758,792	363,484	1,374,101	1,021,207	1,046,995	1,711,797
cwt	198,538,690	26,254,452	98,678,389	73,605,849	73,455,274	125,083,416
Irrigated ... farms	6,084	1,264	2,653	2,167	3,065	3,019
acres	2,758,792	363,484	1,374,101	1,021,207	1,046,995	1,711,797
Farms by acres harvested:						
1 to 24 acres	132	94	22	16	89	43
25 to 99 acres	915	383	275	257	596	319
100 to 249 acres	1,459	305	626	528	916	543
250 to 499 acres	1,616	262	712	642	783	833
500 acres or more	1,962	220	1,018	724	681	1,281
Sorghum for grain ... farms	26,242	6,179	16,097	3,966	15,768	10,474
acres	6,769,834	959,246	4,527,709	1,282,879	3,522,064	3,247,770
bushels	482,452,865	63,269,227	325,215,225	93,968,413	247,829,531	234,623,334
Irrigated ... farms	4,483	942	2,550	991	2,492	1,991
acres	845,214	137,523	488,262	219,429	409,120	436,094
Farms by acres harvested:						
1 to 24 acres	2,609	1,244	1,119	246	1,626	983
25 to 99 acres	8,335	2,632	4,568	1,135	5,381	2,954
100 to 249 acres	7,302	1,330	4,835	1,137	4,458	2,844
250 to 499 acres	4,377	565	3,095	717	2,515	1,862
500 acres or more	3,619	408	2,480	731	1,788	1,831
Soybeans for beans ... farms	279,110	85,268	159,116	34,726	174,130	104,980
acres	63,915,821	8,651,325	47,089,767	8,174,729	34,161,251	29,754,570
bushels	2,582,423,697	343,181,984	1,906,284,982	332,956,731	1,363,670,604	1,218,753,093
Irrigated ... farms	20,333	3,754	12,877	3,702	11,211	9,122
acres	5,237,075	607,046	3,315,102	1,314,927	2,318,744	2,918,331
Farms by acres harvested:						
1 to 24 acres	38,458	24,140	10,744	3,574	25,413	13,045
25 to 99 acres	90,935	39,559	39,399	11,977	59,641	31,294
100 to 249 acres	70,698	14,584	46,564	9,550	45,411	25,287
250 to 499 acres	44,381	4,216	34,771	5,394	26,924	17,457
500 acres or more	34,638	2,769	27,638	4,231	16,741	17,897
Sugarbeets for sugar ... farms	4,022	585	2,808	629	2,102	1,920
acres	1,253,817	134,808	950,044	168,965	528,568	725,249
tons	31,937,325	3,517,507	23,987,940	4,431,878	13,305,690	18,631,635
Irrigated ... farms	1,595	320	993	282	763	832
acres	394,675	58,070	271,892	64,713	164,326	230,349
Sugarcane for sugar ... farms	692	177	318	197	358	334
acres	846,666	132,208	524,528	189,930	350,693	495,973
tons	31,127,405	4,833,911	19,767,291	6,526,203	12,541,546	18,585,859
Irrigated ... farms	219	83	103	33	107	112
acres	435,205	94,360	322,942	17,903	175,666	259,539
Sunflower seed, all ... farms	6,403	1,082	4,583	738	3,725	2,678
acres	2,000,153	248,644	1,530,432	221,077	1,009,534	990,619
pounds	2,820,962,445	348,424,186	2,163,884,117	308,654,142	1,427,284,975	1,393,677,470
Irrigated ... farms	608	121	364	123	281	327
acres	102,219	11,682	59,709	30,828	40,045	62,174
Farms by acres harvested:						
1 to 24 acres	502	245	222	35	276	226
25 to 99 acres	1,153	263	726	164	730	423
100 to 249 acres	2,110	302	1,551	257	1,322	788
250 to 499 acres	1,494	146	1,179	169	847	647
500 acres or more	1,144	126	905	113	550	594
Tobacco ... farms	16,234	6,769	7,731	1,734	10,071	6,163
acres	359,846	65,230	262,324	32,292	202,209	157,637
pounds	778,301,825	135,875,342	571,849,707	70,576,776	430,263,100	348,038,725
Irrigated ... farms	2,572	683	1,638	251	1,485	1,087
acres	71,578	9,430	57,258	4,890	37,379	34,200
Farms by acres harvested:						
0.1 to 0.9 acres	235	157	66	12	146	89
1.0 to 1.9 acres	1,493	969	414	110	953	540
2.0 to 2.9 acres	1,827	1,069	543	215	1,149	678
3.0 to 4.9 acres	2,772	1,417	1,025	330	1,738	1,034
5.0 to 9.9 acres	3,459	1,564	1,450	445	2,111	1,348
10.0 to 24.9 acres	3,129	1,116	1,688	325	1,998	1,131
25.0 acres or more	3,319	477	2,545	297	1,976	1,343
Wheat for grain, all ... farms	160,810	44,322	98,271	18,217	95,091	65,719
acres	50,932,969	8,387,536	36,298,549	6,246,884	25,745,066	25,187,903
bushels	1,993,648,378	318,244,162	1,407,050,666	268,353,550	968,519,904	1,025,128,474
Irrigated ... farms	15,213	4,182	8,700	2,331	7,931	7,282
acres	3,364,079	768,861	1,981,184	614,034	1,459,629	1,904,450
Farms by acres harvested:						
1 to 24 acres	26,703	12,602	11,737	2,364	16,680	10,023
25 to 99 acres	49,409	15,777	28,271	5,361	30,560	18,849
100 to 249 acres	34,703	8,078	22,372	4,253	20,689	14,014
250 to 499 acres	21,167	3,878	14,576	2,713	12,337	8,830
500 acres or more	28,828	3,987	21,315	3,526	14,825	14,003

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
CROPS HARVESTED - Con.						
Forage-land used for all hay and haylage, grass silage, and greenchop (see text) ..... farms	869,534	514,782	313,402	41,350	489,569	379,965
acres	61,455,483	23,026,690	34,588,260	3,840,533	30,612,436	30,843,047
tons, dry	155,393,762	53,476,925	90,052,977	11,863,860	74,381,429	81,012,333
Irrigated ..... farms	86,007	49,442	30,738	5,827	43,211	42,796
acres	10,264,753	3,972,169	5,194,371	1,098,213	4,320,312	5,944,441
Farms by acres harvested:						
1 to 24 acres	367,533	277,140	76,176	14,217	213,355	154,178
25 to 99 acres	345,273	190,340	137,432	17,501	198,499	146,774
100 to 249 acres	111,368	36,245	68,570	6,553	57,427	53,941
250 to 499 acres	30,370	7,459	20,983	1,928	14,235	16,135
500 acres or more	14,990	3,598	10,241	1,151	6,053	8,937
Alfalfa hay ..... farms	290,726	145,288	127,593	17,845	157,628	133,098
acres	20,244,497	6,629,474	12,024,511	1,590,512	9,616,659	10,627,838
tons, dry	65,349,074	20,281,860	38,536,631	6,530,583	30,282,953	35,066,121
Irrigated ..... farms	56,390	30,820	21,500	4,070	28,519	27,871
acres	6,556,652	2,424,682	3,370,055	761,915	2,812,340	3,744,312
Other tame hay ..... farms	496,740	302,177	174,444	20,119	282,734	214,006
acres	26,763,972	11,546,631	13,886,188	1,331,153	14,357,952	12,406,020
tons, dry	54,347,673	22,675,366	28,789,257	2,883,050	28,976,351	25,371,322
Irrigated ..... farms	24,348	14,544	8,344	1,460	11,842	12,506
acres	1,699,864	696,125	846,754	156,985	721,378	978,486
Field and grass seed crops, all ..... farms	6,038	2,231	3,209	598	3,169	2,869
acres	1,178,726	183,434	828,381	166,911	475,960	702,766
Irrigated ..... farms	1,457	373	811	273	700	757
acres	323,441	45,680	220,610	57,151	116,622	206,819
Land in vegetables (see text) ..... farms	69,172	42,646	19,768	6,758	34,459	34,713
acres	4,356,880	795,113	2,701,943	859,824	1,599,936	2,756,944
Irrigated ..... farms	29,885	17,399	8,714	3,772	13,399	16,486
acres	3,068,485	528,270	1,815,091	725,124	1,041,200	2,027,285
Farms by acres harvested:						
0.1 to 4.9 acres	41,453	31,873	6,579	3,001	20,707	20,746
5.0 to 24.9 acres	13,869	7,666	4,528	1,675	7,129	6,740
25.0 to 99.9 acres	6,671	1,865	3,920	886	3,584	3,087
100.0 to 249.9 acres	3,473	622	2,371	480	1,674	1,799
250.0 acres or more	3,706	620	2,370	716	1,365	2,341
Snap beans ..... farms	17,300	11,165	4,506	1,629	7,698	9,602
acres	303,997	48,602	222,727	32,668	120,560	183,437
Harvested for processing ..... farms	1,999	754	1,061	184	881	1,118
acres	198,101	22,886	154,463	20,752	69,474	128,627
Peas, green ..... farms	4,532	1,982	1,993	557	2,204	2,328
acres	214,057	35,569	149,290	29,198	94,716	119,341
Harvested for processing ..... farms	2,047	453	1,396	198	1,066	981
acres	206,092	33,393	145,167	27,532	90,756	115,337
Potatoes ..... farms	15,014	9,085	4,463	1,466	6,801	8,213
acres	1,131,963	187,478	732,784	211,701	390,078	741,885
Harvested for processing ..... farms	1,739	588	904	247	749	990
acres	599,604	77,324	406,558	115,722	206,215	393,389
Farms by acres harvested:						
0.1 to 4.9 acres	12,013	8,332	2,655	1,026	5,485	6,528
5.0 to 24.9 acres	612	247	313	52	301	311
25.0 to 99.9 acres	539	173	298	68	279	260
100.0 to 249.9 acres	714	132	468	114	334	380
250.0 acres or more	1,136	201	729	206	402	734
Sweet corn ..... farms	28,241	17,732	8,430	2,079	13,870	14,371
acres	622,946	126,189	410,241	86,516	267,899	355,047
Harvested for processing ..... farms	3,670	1,374	1,928	368	1,919	1,751
acres	361,886	58,052	260,305	43,528	158,544	203,341
Sweet potatoes ..... farms	1,910	929	702	279	1,073	837
acres	105,284	10,484	82,874	11,926	40,049	65,235
Harvested for processing ..... farms	259	70	145	44	138	121
acres	21,360	2,951	15,500	2,909	8,867	12,494
Tomatoes in the open ..... farms	25,809	17,844	5,695	2,270	11,617	14,192
acres	442,225	115,076	229,409	97,740	136,911	305,314
Harvested for processing ..... farms	1,761	1,020	550	191	700	1,061
acres	319,549	77,127	170,866	71,556	89,528	230,022
Land in orchards ..... farms	115,935	97,071	14,413	4,451	62,058	53,877
acres	5,039,476	3,172,807	1,548,314	318,356	2,432,782	2,606,694
Irrigated ..... farms	61,189	51,872	6,897	2,420	32,957	28,232
acres	3,981,316	2,510,995	1,208,729	261,592	1,904,025	2,077,291
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres	52,775	47,302	4,044	1,429	27,559	25,216
5.0 to 24.9 acres	37,043	31,654	3,851	1,538	20,861	16,182
25.0 to 99.9 acres	17,119	12,804	3,495	820	9,360	7,759
100.0 to 249.9 acres	5,434	3,355	1,718	361	2,733	2,701
250.0 acres or more	3,564	1,956	1,305	303	1,545	2,019
Apples ..... farms	25,591	21,184	3,674	733	11,954	13,637
bearing and nonbearing acres	398,770	217,531	160,376	20,863	151,558	247,212
Grapes ..... farms	25,892	21,670	3,116	1,106	12,829	13,063
bearing and nonbearing acres	1,051,407	621,321	357,032	73,054	488,382	563,025
Peaches, all ..... farms	13,582	10,725	2,433	424	6,360	7,222
bearing and nonbearing acres	149,237	61,934	78,672	8,632	61,724	87,513

See footnote(s) at end of table.

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Table 65. **Summary by Tenure of Principal Operator and by Operators on Farm: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Tenure of principal operator			Operators on farm	
		Full owners	Part owners	Tenants	One operator	More than one operator
CROPS HARVESTED - Con.						
Land in orchards - Con.						
Citrus fruit, all ..... farms	15,658	14,388	894	376	9,338	6,320
bearing and nonbearing acres	1,005,806	820,222	155,650	29,935	551,252	454,554
Almonds ..... farms	6,700	5,090	1,220	390	3,621	3,079
bearing and nonbearing acres	790,245	442,996	274,504	72,744	379,031	411,214
Pecans ..... farms	21,856	17,413	3,947	496	11,889	9,967
bearing and nonbearing acres	581,809	362,421	190,131	29,257	298,177	283,632
Walnuts, English ..... farms	7,161	5,869	975	317	3,823	3,338
bearing and nonbearing acres	267,751	150,450	92,326	24,975	119,901	147,849
Land in berries (see text) ..... farms	25,017	19,080	4,364	1,573	11,044	13,973
acres	261,733	134,836	90,842	36,056	110,123	151,610

[1] Landlord production expenses are included with total farm production expenses.
[2] Farms with a zero net cash income are included as farms with net gains of less than $1,000.

Table 1. **State Summary Highlights: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Farms ... number	2,204,792	48,753	686	15,637	49,346	81,033
Land in farms ... acres	922,095,840	9,033,537	881,585	26,117,899	13,872,862	25,364,695
Average size of farm ... acres	418	185	1,285	1,670	281	313
Median size of farm ... acres	80	70	60	4	80	20
Estimated market value of land and buildings:						
Average per farm ... dollars	791,138	424,674	502,342	1,249,929	658,732	2,005,768
Average per acre ... dollars	1,892	2,292	391	748	2,343	6,408
Estimated market value of all machinery and equipment:						
Average per farm ... dollars	88,357	60,810	78,837	66,291	90,823	108,145
Farms by size:						
1 to 9 acres ...	232,849	3,374	165	9,873	2,581	25,278
10 to 49 acres ...	620,283	16,215	164	2,657	15,119	28,080
50 to 179 acres ...	660,530	17,808	156	1,221	16,916	12,939
180 to 499 acres ...	368,368	7,612	111	626	8,590	7,014
500 to 999 acres ...	149,713	2,235	38	436	2,959	3,267
1,000 acres or more ...	173,049	1,509	52	824	3,181	4,455
Total cropland ... farms	1,685,339	31,773	512	7,475	35,154	61,215
acres	406,424,909	3,142,958	86,238	1,205,425	8,432,221	9,464,647
Harvested cropland ... farms	1,328,004	23,336	424	4,993	29,050	53,000
acres	309,607,601	1,994,743	30,772	832,406	7,367,068	7,633,173
Irrigated land ... farms	301,028	2,035	184	5,094	5,393	53,400
acres	56,599,305	112,819	3,730	876,158	4,460,682	8,016,159
Market value of agricultural products sold (see text) ... $1,000	297,220,491	4,415,550	57,019	3,234,552	7,508,806	33,885,064
Average per farm ... dollars	134,807	90,570	83,119	206,852	152,166	418,164
Crops, including nursery and greenhouse crops ... $1,000	143,657,928	676,987	24,749	1,913,014	2,900,973	22,903,021
Livestock, poultry, and their products ... $1,000	153,562,563	3,738,563	32,271	1,321,538	4,607,833	10,982,043
Farms by value of sales:						
Less than $2,500 ...	900,327	22,582	231	9,632	17,810	23,965
$2,500 to $4,999 ...	200,302	5,458	81	1,721	5,353	6,548
$5,000 to $9,999 ...	218,531	5,702	91	1,377	6,263	7,208
$10,000 to $24,999 ...	248,285	6,457	91	1,063	7,147	10,481
$25,000 to $49,999 ...	154,732	2,538	68	433	3,018	7,578
$50,000 to $99,999 ...	125,456	1,287	47	358	1,685	6,212
$100,000 or more ...	357,159	4,729	77	1,053	8,070	19,041
Government payments ... farms	838,391	14,428	78	1,140	11,461	7,444
$1,000	7,983,922	124,692	1,645	55,947	269,448	240,242
Total income from farm-related sources, gross before taxes and expenses (see text) ... farms	693,187	9,777	117	1,751	9,792	16,846
$1,000	10,489,874	119,799	3,224	76,233	130,397	820,562
Total farm production expenses ... $1,000	241,113,666	3,922,143	50,547	2,782,786	6,134,870	26,962,641
Average per farm ... dollars	109,359	80,449	73,683	177,962	124,324	332,737
Net cash farm income of operation (see text) ... farms	2,204,792	48,753	686	15,637	49,346	81,033
$1,000	74,581,098	737,898	11,341	583,946	1,773,782	7,983,228
Average per farm ... dollars	33,827	15,135	16,532	37,344	35,946	98,518
Principal operator by primary occupation:						
Farming ... number	993,881	19,416	365	9,553	21,960	40,910
Other ... number	1,210,911	29,337	321	6,084	27,386	40,123
Principal operator by days worked off farm:						
Any ... number	1,427,045	31,491	463	8,991	31,105	54,711
200 days or more ... number	876,301	19,748	219	4,910	20,755	30,510
Livestock and poultry:						
Cattle and calves inventory ... farms	963,669	23,970	130	7,716	28,292	16,638
number	96,347,858	1,187,171	14,823	1,000,038	1,802,653	5,498,025
Beef cows ... farms	764,984	21,415	98	5,246	25,361	11,827
number	32,834,801	678,949	6,468	197,060	947,765	662,423
Milk cows ... farms	69,890	157	28	182	339	2,165
number	9,266,574	12,962	577	183,744	16,718	1,840,730
Cattle and calves sold ... farms	798,290	21,356	75	4,078	23,731	12,681
number	74,071,936	711,735	1,026	672,947	992,422	3,553,530
Hogs and pigs inventory ... farms	75,442	753	43	378	1,142	1,389
number	67,786,318	178,275	757	(D)	289,342	153,983
Hogs and pigs sold ... farms	74,789	547	50	284	954	1,267
number	206,807,181	733,285	2,053	(D)	1,866,416	296,378
Sheep and lambs inventory ... farms	83,134	522	49	4,978	728	4,063
number	5,819,162	16,926	951	153,829	15,262	596,163
Layers inventory (see text) ... farms	145,615	2,417	86	1,885	3,047	5,098
number	349,772,508	9,624,254	3,623	(D)	13,977,804	21,091,629
Broilers and other meat-type chickens sold ... farms	27,091	2,428	12	29	2,485	229
number	8,914,828,122	1,016,230,625	(D)	456	1,171,556,369	280,512,754
Selected crops harvested:						
Corn for grain ... farms	347,760	1,872	-	58	1,395	606
acres	86,248,542	276,661	-	22,654	584,629	189,965
bushels	12,738,519,330	21,008,771	-	4,083,974	99,778,632	34,602,626
Corn for silage or greenchop ... farms	84,317	126	-	116	30	1,975
acres	5,979,661	11,016	-	33,941	1,887	460,614
tons	104,224,795	86,493	-	891,902	26,326	12,019,578
Wheat for grain, all ... farms	160,810	520	-	201	2,112	1,191
acres	50,932,969	76,202	-	85,567	696,681	354,165
bushels	1,993,648,378	3,123,596	-	8,715,906	27,859,060	30,224,394
Winter wheat for grain ... farms	136,103	520	-	18	2,112	879
acres	35,785,969	76,202	-	4,044	696,681	249,704
bushels	1,444,540,438	3,123,596	-	353,709	27,859,060	20,157,552
Spring wheat for grain ... farms	28,733	-	-	-	-	114
acres	13,008,266	-	-	-	-	(D)
bushels	475,906,637	-	-	-	-	2,245,585
Durum wheat for grain ... farms	3,723	-	-	188	-	239
acres	2,138,734	-	-	81,523	-	(D)
bushels	73,201,303	-	-	8,362,197	-	7,821,257

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Farms ....number	37,054	4,916	2,546	47,463	47,846	7,521
Land in farms ....acres	31,604,911	405,616	510,253	9,231,570	10,150,539	1,121,329
Average size of farm ....acres	853	83	200	195	212	149
Median size of farm ....acres	109	27	31	20	67	5
Estimated market value of land and buildings:						
Average per farm ....dollars	892,170	1,045,133	2,073,605	1,096,718	661,201	1,146,213
Average per acre ....dollars	1,046	12,667	10,347	5,639	3,117	7,688
Estimated market value of all machinery and equipment:						
Average per farm ....dollars	99,344	64,090	119,718	54,604	76,948	40,666
Farms by size:						
1 to 9 acres	4,276	1,232	651	12,184	3,504	4,813
10 to 49 acres	9,359	1,894	802	20,680	16,243	1,972
50 to 179 acres	8,476	1,287	568	8,543	16,244	423
180 to 499 acres	5,501	400	280	3,461	7,432	154
500 to 999 acres	3,185	63	99	1,225	2,470	44
1,000 acres or more	6,257	40	146	1,370	1,953	115
Total cropland ....farms	24,938	3,884	1,989	26,555	31,924	6,281
acres	11,483,936	163,686	432,773	2,953,340	4,478,168	177,626
Harvested cropland ....farms	17,899	3,517	1,615	20,486	23,179	6,044
acres	5,888,926	136,833	409,468	2,112,129	3,390,437	103,120
Irrigated land ....farms	15,774	789	560	12,868	5,716	2,810
acres	2,867,957	9,901	104,562	1,552,118	1,017,773	58,635
Market value of agricultural products sold (see text) $1,000	6,061,134	551,553	1,083,035	7,785,228	7,112,866	513,626
Average per farm ....dollars	163,576	112,195	425,387	164,027	148,662	68,292
Crops, including nursery and greenhouse crops $1,000	1,981,399	401,372	210,635	6,256,228	2,142,270	429,916
Livestock, poultry, and their products $1,000	4,079,735	150,181	872,400	1,529,000	4,970,596	83,711
Farms by value of sales:						
Less than $2,500	17,566	1,933	683	21,529	23,391	2,932
$2,500 to $4,999	3,002	719	201	4,839	4,450	1,012
$5,000 to $9,999	3,122	561	159	4,668	4,527	996
$10,000 to $24,999	3,600	652	272	5,404	4,906	1,143
$25,000 to $49,999	2,383	329	127	3,355	2,308	557
$50,000 to $99,999	2,283	231	115	2,435	1,491	353
$100,000 or more	5,098	491	989	5,233	6,773	528
Government payments ....farms	11,572	352	950	4,664	14,546	218
$1,000	155,980	4,122	8,896	45,343	224,523	2,378
Total income from farm-related sources, gross before taxes and expenses (see text) ....farms	11,075	1,233	1,063	6,877	10,936	636
$1,000	183,091	36,971	22,499	200,587	211,673	46,522
Total farm production expenses $1,000	5,431,280	469,319	823,103	5,762,883	5,982,253	486,648
Average per farm ....dollars	146,577	95,468	323,293	121,418	125,031	64,705
Net cash farm income of operation (see text) ....farms	37,054	4,916	2,546	47,463	47,846	7,521
$1,000	968,925	123,327	291,326	2,268,275	1,566,809	75,878
Average per farm ....dollars	26,149	25,087	114,425	47,790	32,747	10,089
Principal operator by primary occupation:						
Farming ....number	14,958	2,273	1,504	20,904	20,106	3,861
Other ....number	22,096	2,643	1,042	26,559	27,740	3,660
Principal operator by days worked off farm:						
Any ....number	25,975	3,355	1,420	31,400	30,297	5,618
200 days or more ....number	14,712	2,093	918	18,743	19,087	2,827
Livestock and poultry:						
Cattle and calves inventory ....farms	14,685	1,210	399	21,011	20,647	1,142
number	2,745,253	50,213	20,994	1,711,011	1,117,087	151,479
Beef cows ....farms	11,627	754	253	16,694	17,721	853
number	735,014	5,982	3,668	942,419	554,099	86,000
Milk cows ....farms	449	269	83	422	639	15
number	126,944	20,685	6,526	119,856	77,193	2,296
Cattle and calves sold ....farms	11,963	805	307	14,146	16,261	713
number	3,148,677	17,348	11,219	843,641	595,273	70,567
Hogs and pigs inventory ....farms	1,171	244	77	1,906	1,111	225
number	882,695	3,645	8,955	19,937	263,471	14,933
Hogs and pigs sold ....farms	1,230	251	84	1,326	830	148
number	2,376,709	6,818	49,898	25,398	942,400	20,569
Sheep and lambs inventory ....farms	1,600	399	56	875	664	394
number	413,450	5,767	903	13,030	11,313	22,376
Layers inventory (see text) ....farms	3,018	822	164	3,361	2,870	354
number	3,902,950	(D)	(D)	11,787,758	19,273,181	368,233
Broilers and other meat-type chickens sold ....farms	146	72	845	248	2,265	7
number	17,729	420,789	246,098,878	73,353,351	1,398,912,031	(D)
Selected crops harvested:						
Corn for grain ....farms	2,585	61	843	513	3,114	14
acres	1,054,844	3,563	185,407	33,915	449,007	3,115
bushels	140,523,805	424,350	18,346,034	2,991,208	54,137,330	124,878
Corn for silage or greenchop ....farms	857	253	73	119	284	-
acres	111,116	24,174	6,353	27,005	38,657	-
tons	2,327,377	480,472	67,825	484,308	676,293	-
Wheat for grain, all ....farms	3,695	3	340	79	1,332	-
acres	2,369,096	55	54,546	9,157	228,959	-
bushels	88,427,841	2,300	3,635,755	497,844	9,206,001	-
Winter wheat for grain ....farms	3,566	3	340	79	1,332	-
acres	2,343,606	55	54,546	9,157	228,959	-
bushels	86,598,055	2,300	3,635,755	497,844	9,206,001	-
Spring wheat for grain ....farms	127	-	-	-	-	-
acres	(D)	-	-	-	-	-
bushels	(D)	-	-	-	-	-
Durum wheat for grain ....farms	32	-	-	-	-	-
acres	(D)	-	-	-	-	-
bushels	(D)	-	-	-	-	-

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Farms ... number	25,349	76,860	60,938	92,856	65,531	85,260
Land in farms ... acres	11,497,383	26,775,100	14,773,184	30,747,550	46,345,827	13,993,121
Average size of farm ... acres	454	348	242	331	707	164
Median size of farm ... acres	52	95	54	151	200	80
Estimated market value of land and buildings:						
Average per farm ... dollars	894,497	1,321,080	868,699	1,122,023	644,039	440,213
Average per acre ... dollars	1,972	3,792	3,583	3,388	911	2,682
Estimated market value of all machinery and equipment:						
Average per farm ... dollars	114,383	136,609	103,427	136,771	114,261	57,591
Farms by size:						
1 to 9 acres	4,891	8,603	9,720	8,709	2,123	4,579
10 to 49 acres	7,497	20,592	19,533	17,824	10,041	25,235
50 to 179 acres	5,225	18,410	15,993	24,692	18,992	35,379
180 to 499 acres	3,445	13,116	8,012	22,354	14,108	15,080
500 to 999 acres	1,808	8,309	3,774	11,826	7,932	3,242
1,000 acres or more	2,483	7,830	3,906	7,451	12,335	1,745
Total cropland ... farms	18,782	67,431	51,283	82,785	55,272	72,015
acres	5,918,899	23,707,699	12,716,037	26,316,332	28,216,064	7,278,098
Harvested cropland ... farms	13,975	54,185	41,743	63,672	43,553	57,528
acres	4,225,786	22,611,443	12,108,940	23,799,380	19,886,655	5,057,883
Irrigated land ... farms	16,124	2,388	2,391	1,287	5,957	2,980
acres	3,299,889	474,454	397,113	189,518	2,762,748	58,730
Market value of agricultural products sold (see text) ... $1,000	5,688,765	13,329,107	8,271,291	20,418,096	14,413,182	4,824,561
Average per farm ... dollars	224,418	173,421	135,733	219,890	219,944	56,586
Crops, including nursery and greenhouse crops ... $1,000	2,324,789	10,876,415	5,319,019	10,343,585	4,887,212	1,404,769
Livestock, poultry, and their products ... $1,000	3,363,976	2,452,692	2,952,272	10,074,511	9,525,971	3,419,792
Farms by value of sales:						
Less than $2,500	10,772	26,879	22,470	26,730	22,731	35,800
$2,500 to $4,999	2,192	4,278	4,971	3,986	3,863	9,787
$5,000 to $9,999	2,281	4,877	5,686	5,100	5,198	11,150
$10,000 to $24,999	2,617	5,910	6,325	6,663	7,844	12,642
$25,000 to $49,999	1,666	5,381	4,531	7,514	6,097	6,296
$50,000 to $99,999	1,505	6,245	4,273	9,805	5,609	3,663
$100,000 or more	4,316	23,290	12,682	33,058	14,189	5,922
Government payments ... farms	9,214	56,811	35,864	74,939	44,433	29,511
$1,000	99,494	487,293	260,809	706,286	427,144	103,104
Total income from farm-related sources, gross before taxes and expenses (see text) ... farms	7,717	33,127	21,501	49,954	28,874	27,706
$1,000	177,542	471,212	247,380	771,079	485,896	288,008
Total farm production expenses ... $1,000	4,604,040	9,045,080	6,280,596	15,443,759	12,364,531	3,930,240
Average per farm ... dollars	181,626	117,683	103,065	166,319	188,682	46,097
Net cash farm income of operation (see text) ... farms	25,349	76,860	60,938	92,856	65,531	85,260
$1,000	1,361,761	5,242,533	2,498,884	6,451,702	2,961,691	1,285,433
Average per farm ... dollars	53,720	68,209	41,007	69,481	45,195	15,077
Principal operator by primary occupation:						
Farming ... number	11,579	37,223	25,510	48,637	30,873	33,935
Other ... number	13,770	39,637	35,428	44,219	34,658	51,325
Principal operator by days worked off farm:						
Any ... number	17,179	48,462	40,777	57,167	41,112	56,104
200 days or more ... number	10,332	29,513	27,231	35,969	26,753	35,148
Livestock and poultry:						
Cattle and calves inventory ... farms	10,621	18,397	18,483	29,690	30,017	43,681
number	2,236,147	1,231,105	875,350	3,982,344	6,669,163	2,395,455
Beef cows ... farms	7,365	14,753	12,668	20,809	25,776	38,298
number	476,292	429,111	235,299	904,100	1,516,374	1,166,385
Milk cows ... farms	811	1,217	2,023	2,390	776	2,277
number	536,463	99,677	166,149	215,391	115,634	90,462
Cattle and calves sold ... farms	9,662	16,046	15,088	27,535	27,565	38,212
number	1,829,456	894,593	637,951	3,635,880	8,738,281	1,503,458
Hogs and pigs inventory ... farms	657	2,864	3,420	8,330	1,454	1,498
number	32,794	4,298,716	3,669,057	19,295,092	1,885,252	348,023
Hogs and pigs sold ... farms	728	3,063	3,790	8,758	1,542	1,210
number	65,618	13,196,581	9,523,891	47,279,443	4,712,308	802,782
Sheep and lambs inventory ... farms	1,210	1,886	1,968	3,522	1,166	1,436
number	229,022	52,360	49,021	209,285	84,194	36,996
Layers inventory (see text) ... farms	1,610	2,801	3,583	2,966	2,634	4,129
number	(D)	5,285,583	24,238,513	53,793,712	(D)	4,584,535
Broilers and other meat-type chickens sold ... farms	125	260	399	598	158	647
number	7,937	325,036	37,072,109	10,257,286	26,941	309,769,263
Selected crops harvested:						
Corn for grain ... farms	691	38,260	24,400	50,095	11,236	7,060
acres	104,570	13,096,231	6,362,576	13,842,282	3,680,278	1,313,320
bushels	17,752,526	2,248,664,947	959,947,232	2,292,163,101	500,560,815	166,687,678
Corn for silage or greenchop ... farms	1,115	2,296	2,120	4,967	1,665	2,255
acres	211,748	75,247	105,937	220,646	166,018	86,542
tons	5,695,090	1,351,823	1,956,429	4,138,151	2,988,294	1,189,499
Wheat for grain, all ... farms	2,850	9,416	5,058	577	22,630	1,414
acres	1,191,086	891,567	362,571	29,512	8,527,780	239,267
bushels	84,614,401	47,291,213	19,693,426	1,383,753	270,115,386	11,108,925
Winter wheat for grain ... farms	2,059	9,407	5,058	526	22,630	1,414
acres	729,704	891,399	362,571	27,836	8,527,780	239,267
bushels	52,991,573	47,282,936	19,693,426	1,305,539	270,115,386	11,108,925
Spring wheat for grain ... farms	1,423	12	-	53	-	-
acres	446,897	168	-	1,676	-	-
bushels	30,456,106	8,277	-	78,214	-	-
Durum wheat for grain ... farms	32	-	-	-	-	-
acres	14,485	-	-	-	-	-
bushels	1,166,722	-	-	-	-	-

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Farms ....number	30,106	8,136	12,834	7,691	56,014	80,992
Land in farms ....acres	8,109,975	1,347,566	2,051,756	517,879	10,031,807	26,917,962
Average size of farm ....acres	269	166	160	67	179	332
Median size of farm ....acres	60	65	52	24	60	148
Estimated market value of land and buildings:						
Average per farm ....dollars	554,270	364,807	1,124,529	829,090	610,556	853,968
Average per acre ....dollars	2,058	2,203	7,034	12,313	3,409	2,569
Estimated market value of all machinery and equipment:						
Average per farm ....dollars	78,998	65,961	98,823	56,373	90,742	131,698
Farms by size:						
1 to 9 acres	3,282	1,046	1,554	2,199	4,219	3,687
10 to 49 acres	10,394	2,383	4,589	2,885	20,726	16,927
50 to 179 acres	8,457	3,019	4,067	1,903	19,206	25,679
180 to 499 acres	4,550	1,178	1,719	586	7,275	20,188
500 to 999 acres	1,501	330	539	90	2,619	8,323
1,000 acres or more	1,922	180	366	28	1,969	6,188
Total cropland ....farms	19,866	6,557	10,235	5,508	48,592	71,970
acres	4,691,344	529,253	1,405,442	187,406	7,803,643	21,948,603
Harvested cropland ....farms	13,783	5,189	8,278	4,792	37,868	53,943
acres	3,342,048	393,738	1,246,603	153,993	6,859,081	19,267,018
Irrigated land ....farms	3,218	901	1,326	1,630	5,078	2,918
acres	954,353	20,994	92,805	23,133	500,428	506,357
Market value of agricultural products sold (see text) $1,000	2,617,981	617,190	1,835,090	489,820	5,753,219	13,180,466
Average per farm ....dollars	86,959	75,859	142,987	63,687	102,710	162,738
Crops, including nursery and greenhouse crops $1,000	1,604,647	326,573	629,303	364,481	3,329,928	7,048,913
Livestock, poultry, and their products $1,000	1,013,334	290,617	1,205,787	125,338	2,423,291	6,131,554
Farms by value of sales:						
Less than $2,500	14,626	3,924	4,985	3,329	24,150	30,678
$2,500 to $4,999	2,934	838	1,248	839	5,229	4,451
$5,000 to $9,999	3,295	846	1,272	769	5,292	4,795
$10,000 to $24,999	3,167	949	1,469	1,035	6,094	6,677
$25,000 to $49,999	1,771	479	910	518	3,941	5,737
$50,000 to $99,999	1,091	328	691	398	3,342	6,490
$100,000 or more	3,222	772	2,259	803	7,966	22,164
Government payments ....farms	10,621	1,459	4,588	593	23,239	56,657
$1,000	169,333	8,815	33,386	4,603	118,871	445,861
Total income from farm-related sources, gross before taxes and expenses (see text) ....farms	4,951	1,884	4,741	2,087	17,728	44,751
$1,000	93,392	35,359	90,921	63,327	223,607	622,068
Total farm production expenses $1,000	2,118,965	493,693	1,546,646	461,483	4,786,767	10,320,405
Average per farm ....dollars	70,383	60,680	120,512	60,003	85,457	127,425
Net cash farm income of operation (see text) ....farms	30,106	8,136	12,834	7,691	56,014	80,992
$1,000	761,740	167,671	412,752	96,266	1,308,930	3,927,990
Average per farm ....dollars	25,302	20,609	32,161	12,517	23,368	48,498
Principal operator by primary occupation:						
Farming ....number	12,591	3,540	6,269	3,688	24,795	39,628
Other ....number	17,515	4,596	6,565	4,003	31,219	41,364
Principal operator by days worked off farm:						
Any ....number	19,693	5,611	8,286	5,273	35,481	51,380
200 days or more ....number	11,866	3,222	5,052	3,257	22,413	31,525
Livestock and poultry:						
Cattle and calves inventory ....farms	14,075	2,112	3,695	1,832	14,454	24,685
number	878,664	88,191	190,504	46,852	1,048,206	2,395,217
Beef cows ....farms	12,355	1,326	2,526	1,173	7,848	14,410
number	510,837	12,114	44,015	8,646	109,500	399,768
Milk cows ....farms	298	479	663	310	2,647	5,148
number	28,338	32,527	57,172	15,050	344,233	459,752
Cattle and calves sold ....farms	10,977	1,447	2,947	1,066	11,631	22,122
number	403,495	27,501	90,130	20,405	603,609	1,586,705
Hogs and pigs inventory ....farms	718	437	412	453	2,691	4,382
number	10,615	4,401	(D)	11,553	1,032,054	7,652,284
Hogs and pigs sold ....farms	525	460	454	350	2,930	4,748
number	15,513	7,954	123,734	17,955	3,316,183	22,815,512
Sheep and lambs inventory ....farms	549	647	804	734	2,409	2,522
number	8,723	10,918	22,143	11,787	81,728	144,557
Layers inventory (see text) ....farms	1,450	1,346	1,229	1,354	5,247	3,760
number	1,991,941	(D)	2,662,723	139,764	9,034,335	10,596,573
Broilers and other meat-type chickens sold ....farms	308	180	808	94	725	940
number	187,733,125	19,840	296,373,113	17,330	4,041,902	47,948,383
Selected crops harvested:						
Corn for grain ....farms	1,331	26	2,803	50	13,768	30,976
acres	722,387	3,272	460,137	2,432	2,350,668	7,801,001
bushels	114,674,506	419,517	45,548,271	372,853	288,066,336	1,138,660,229
Corn for silage or greenchop ....farms	39	185	898	230	3,352	7,998
acres	4,087	23,516	63,979	13,895	297,381	433,506
tons	69,995	429,432	791,447	275,194	4,350,145	5,791,485
Wheat for grain, all ....farms	815	13	1,497	7	6,263	6,727
acres	215,177	512	166,713	(D)	523,153	1,718,565
bushels	11,502,018	22,474	10,717,293	(D)	33,583,908	82,488,109
Winter wheat for grain ....farms	815	6	1,495	7	6,217	683
acres	215,177	129	(D)	(D)	520,601	(D)
bushels	11,502,018	6,994	(D)	(D)	33,481,512	(D)
Spring wheat for grain ....farms	-	11	2	1	55	6,217
acres	-	383	(D)	(D)	2,552	1,646,309
bushels	-	15,480	(D)	(D)	102,396	79,279,840
Durum wheat for grain ....farms	-	-	-	-	-	64
acres	-	-	-	-	-	(D)
bushels	-	-	-	-	-	(D)

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Farms ..... number	41,959	107,825	29,524	47,712	3,131	4,166
Land in farms ..... acres	11,456,241	29,026,573	61,388,462	45,480,358	5,865,392	471,911
Average size of farm ..... acres	273	269	2,079	953	1,873	113
Median size of farm ..... acres	100	115	320	320	51	45
Estimated market value of land and buildings:						
Average per farm ..... dollars	510,454	586,478	1,611,155	1,104,392	1,148,693	558,385
Average per acre ..... dollars	1,870	2,179	775	1,159	613	4,929
Estimated market value of all machinery and equipment:						
Average per farm ..... dollars	73,558	68,171	103,494	157,427	111,799	58,413
Farms by size:						
1 to 9 acres	2,056	3,868	1,917	2,270	631	754
10 to 49 acres	10,234	25,186	5,462	6,581	898	1,405
50 to 179 acres	16,519	40,246	4,971	10,104	571	1,304
180 to 499 acres	8,623	24,537	4,464	9,838	367	546
500 to 999 acres	2,283	8,180	2,919	7,717	217	119
1,000 acres or more	2,244	5,808	9,791	11,202	447	38
Total cropland ..... farms	27,349	86,299	21,809	40,798	2,060	2,929
acres	5,530,825	16,405,595	18,241,710	21,486,025	753,718	128,938
Harvested cropland ..... farms	18,773	69,585	16,441	34,715	1,572	2,494
acres	4,223,708	12,980,113	9,163,867	18,169,876	504,311	99,520
Irrigated land ..... farms	2,284	3,613	10,457	17,128	2,054	505
acres	1,368,661	1,199,981	2,013,167	8,558,559	691,030	2,482
Market value of agricultural products sold (see text) $1,000	4,876,781	7,512,926	2,803,062	15,506,035	513,269	199,051
Average per farm ..... dollars	116,227	69,677	94,942	324,992	163,931	47,780
Crops, including nursery and greenhouse crops $1,000	1,668,028	3,494,938	1,273,721	6,843,325	219,341	106,467
Livestock, poultry, and their products $1,000	3,208,753	4,017,988	1,529,340	8,662,710	293,928	92,584
Farms by value of sales:						
Less than $2,500	22,205	39,479	11,977	11,042	1,184	2,068
$2,500 to $4,999	3,659	10,172	1,784	1,792	269	466
$5,000 to $9,999	4,029	12,872	1,934	2,186	333	469
$10,000 to $24,999	4,520	16,261	2,770	3,878	334	466
$25,000 to $49,999	1,930	10,563	2,215	3,977	217	263
$50,000 to $99,999	1,070	6,634	2,464	5,261	179	148
$100,000 or more	4,546	11,844	6,380	19,576	615	286
Government payments ..... farms	17,187	45,102	13,080	34,924	331	423
$1,000	231,382	319,519	221,977	387,340	4,007	2,474
Total income from farm-related sources, gross before taxes and expenses (see text) ..... farms	9,672	32,143	11,344	26,568	551	1,063
$1,000	152,976	262,604	201,752	398,814	10,383	20,988
Total farm production expenses $1,000	4,288,729	6,135,205	2,399,635	12,325,329	401,986	195,791
Average per farm ..... dollars	102,212	56,900	81,277	258,328	128,389	46,997
Net cash farm income of operation (see text) ..... farms	41,959	107,825	29,524	47,712	3,131	4,166
$1,000	972,410	1,959,854	827,156	3,966,860	125,672	26,721
Average per farm ..... dollars	23,175	18,176	28,016	83,142	40,138	6,414
Principal operator by primary occupation:						
Farming ..... number	15,935	45,031	14,957	28,854	1,650	1,930
Other ..... number	26,024	62,794	14,567	18,858	1,481	2,236
Principal operator by days worked off farm:						
Any ..... number	26,821	70,380	17,778	27,765	1,997	2,909
200 days or more ..... number	16,334	45,621	10,150	17,159	1,167	1,706
Livestock and poultry:						
Cattle and calves inventory ..... farms	17,752	58,645	12,341	21,424	1,513	1,027
number	987,342	4,292,702	2,589,679	6,576,950	441,629	36,880
Beef cows ..... farms	15,910	51,289	11,162	18,233	1,275	642
number	521,517	2,089,181	1,522,187	1,889,842	238,662	4,981
Milk cows ..... farms	177	2,621	385	493	56	225
number	22,560	110,358	17,458	54,410	27,660	14,611
Cattle and calves sold ..... farms	14,535	52,060	11,526	20,218	1,260	599
number	530,495	2,462,198	1,842,159	7,620,019	280,998	12,350
Hogs and pigs inventory ..... farms	683	2,999	483	2,213	91	266
number	337,244	3,101,469	181,602	3,268,544	2,949	2,792
Hogs and pigs sold ..... farms	439	2,971	565	2,482	70	298
number	1,294,545	9,073,468	334,101	10,880,337	(D)	4,901
Sheep and lambs inventory ..... farms	380	2,247	1,493	1,287	250	531
number	8,414	77,082	272,012	76,397	68,581	7,671
Layers inventory (see text) ..... farms	1,925	6,099	1,650	1,960	312	912
number	6,236,952	7,249,420	355,226	10,487,473	5,852	210,380
Broilers and other meat-type chickens sold ..... farms	1,453	644	87	206	4	83
number	823,427,574	279,937,641	119,677	4,893,959	(D)	(D)
Selected crops harvested:						
Corn for grain ..... farms	2,091	15,375	297	22,812	10	13
acres	873,618	3,256,195	38,002	9,192,656	473	226
bushels	127,841,765	439,417,160	5,147,840	1,426,459,812	73,176	27,547
Corn for silage or greenchop ..... farms	126	1,704	383	2,671	36	135
acres	11,900	69,353	45,172	185,584	5,451	12,640
tons	152,082	1,041,591	974,410	3,171,470	134,522	262,867
Wheat for grain, all ..... farms	1,006	7,640	5,460	8,037	42	1
acres	331,767	881,227	5,059,916	1,964,302	12,826	(D)
bushels	18,175,120	36,293,751	147,533,888	81,748,076	1,279,268	(D)
Winter wheat for grain ..... farms	1,006	7,640	3,000	7,895	37	1
acres	331,767	881,227	2,194,539	1,955,736	11,838	(D)
bushels	18,175,120	36,293,751	81,551,235	81,449,590	1,190,936	(D)
Spring wheat for grain ..... farms	-	-	3,621	164	8	-
acres	-	-	2,393,672	8,566	988	-
bushels	-	-	54,347,900	298,486	88,332	-
Durum wheat for grain ..... farms	-	-	641	-	-	-
acres	-	-	471,705	-	-	-
bushels	-	-	11,634,753	-	-	-

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Farms ....number	10,327	20,930	36,352	52,913	31,970	75,861
Land in farms ....acres	733,450	43,238,049	7,174,743	8,474,671	39,674,586	13,956,563
Average size of farm ....acres	71	2,066	197	160	1,241	184
Median size of farm ....acres	17	40	95	50	550	66
Estimated market value of land and buildings:						
Average per farm ....dollars	1,089,883	696,081	449,010	656,080	957,053	649,130
Average per acre ....dollars	15,346	337	2,275	4,096	771	3,528
Estimated market value of all machinery and equipment:						
Average per farm ....dollars	68,374	55,457	97,550	76,793	174,683	88,352
Farms by size:						
1 to 9 acres	2,950	6,471	2,914	5,001	387	7,767
10 to 49 acres	4,814	4,405	8,799	20,772	2,268	24,361
50 to 179 acres	1,675	3,072	13,847	17,830	6,068	25,809
180 to 499 acres	589	2,141	7,739	5,786	6,710	11,190
500 to 999 acres	191	1,286	2,014	1,862	4,687	4,020
1,000 acres or more	108	3,555	1,039	1,662	11,850	2,714
Total cropland ....farms	8,138	13,191	31,083	39,879	29,378	64,775
acres	488,697	2,334,018	4,314,954	4,895,204	27,527,180	10,832,772
Harvested cropland ....farms	7,180	9,311	26,814	32,803	20,408	54,790
acres	415,542	1,009,683	3,651,278	4,188,658	22,035,717	9,991,007
Irrigated land ....farms	2,055	10,167	3,036	5,788	795	2,402
acres	95,277	830,048	68,010	232,075	236,138	37,959
Market value of agricultural products sold (see text) $1,000	986,885	2,175,080	4,418,634	10,313,628	6,084,218	7,070,212
Average per farm ....dollars	95,564	103,922	121,551	194,917	190,310	93,200
Crops, including nursery and greenhouse crops $1,000	851,653	553,140	1,561,927	2,606,279	5,038,521	4,109,722
Livestock, poultry, and their products $1,000	135,233	1,621,940	2,856,706	7,707,350	1,045,697	2,960,490
Farms by value of sales:						
Less than $2,500	4,948	10,496	13,004	22,608	11,386	27,556
$2,500 to $4,999	999	2,520	3,075	5,863	868	7,357
$5,000 to $9,999	1,007	2,252	3,770	5,805	1,215	7,793
$10,000 to $24,999	1,108	2,064	4,706	5,828	1,967	9,045
$25,000 to $49,999	656	1,065	2,694	2,765	2,163	6,501
$50,000 to $99,999	462	844	2,253	1,718	2,891	5,565
$100,000 or more	1,147	1,689	6,850	8,326	11,480	12,044
Government payments ....farms	857	3,329	10,596	13,856	26,708	38,069
$1,000	6,988	43,377	62,652	147,334	359,532	232,184
Total income from farm-related sources, gross before taxes and expenses (see text) ....farms	3,337	3,170	13,891	15,622	20,204	26,316
$1,000	92,697	53,501	204,670	257,582	385,147	237,920
Total farm production expenses $1,000	835,211	1,904,465	3,503,312	8,309,765	4,239,872	5,459,960
Average per farm ....dollars	80,876	90,992	96,372	157,046	132,620	71,973
Net cash farm income of operation (see text) ....farms	10,327	20,930	36,352	52,913	31,970	75,861
$1,000	251,360	367,493	1,182,644	2,409,247	2,589,025	2,080,357
Average per farm ....dollars	24,340	17,558	32,533	45,532	80,983	27,423
Principal operator by primary occupation:						
Farming ....number	4,626	10,040	19,624	24,244	18,525	32,676
Other ....number	5,701	10,890	16,728	28,669	13,445	43,185
Principal operator by days worked off farm:						
Any ....number	7,119	13,449	22,070	33,311	16,679	50,887
200 days or more ....number	4,107	7,230	13,640	20,711	9,712	33,448
Livestock and poultry:						
Cattle and calves inventory ....farms	1,435	9,508	13,589	19,229	10,508	26,105
number	38,198	1,525,976	1,443,297	820,182	1,811,523	1,272,402
Beef cows ....farms	932	8,208	6,803	14,895	9,667	17,398
number	9,298	530,173	103,620	373,024	930,023	293,757
Milk cows ....farms	152	272	5,683	463	402	3,650
number	9,790	326,400	626,455	47,589	26,479	271,938
Cattle and calves sold ....farms	1,136	7,021	10,898	15,953	10,025	21,438
number	13,955	952,841	583,468	463,680	1,109,460	793,955
Hogs and pigs inventory ....farms	271	395	1,871	2,836	350	3,718
number	8,551	1,972	85,741	10,134,004	181,679	1,831,084
Hogs and pigs sold ....farms	381	351	1,817	2,459	351	4,505
number	23,420	3,792	322,396	43,241,680	675,808	5,881,107
Sheep and lambs inventory ....farms	1,018	2,896	1,799	1,275	678	3,409
number	14,835	126,928	63,182	27,714	88,686	123,161
Layers inventory (see text) ....farms	1,367	1,571	4,006	3,736	516	5,255
number	1,560,177	(D)	3,952,975	12,748,275	109,344	27,070,109
Broilers and other meat-type chickens sold ....farms	128	24	452	1,948	75	791
number	119,175	(D)	1,779,733	781,416,896	14,442	49,656,074
Selected crops harvested:						
Corn for grain ....farms	731	122	4,243	6,324	5,809	24,436
acres	81,556	53,851	551,629	965,426	2,348,171	3,606,246
bushels	10,137,862	9,626,854	71,454,280	98,245,673	275,329,681	526,601,789
Corn for silage or greenchop ....farms	234	285	5,278	733	1,707	3,928
acres	11,528	79,141	507,568	56,886	180,634	182,935
tons	164,400	1,937,769	8,640,006	631,752	1,965,111	3,191,893
Wheat for grain, all ....farms	318	535	1,058	3,184	12,303	11,485
acres	27,991	302,958	84,955	511,713	8,428,462	732,106
bushels	1,426,039	8,236,505	4,544,032	19,917,842	293,464,779	42,997,358
Winter wheat for grain ....farms	318	520	1,012	3,184	1,434	11,485
acres	27,991	300,539	82,172	511,713	446,115	732,106
bushels	1,426,039	8,098,467	4,422,712	19,917,842	21,336,301	42,997,358
Spring wheat for grain ....farms	-	13	76	-	10,670	-
acres	-	(D)	2,783	-	6,519,681	-
bushels	-	(D)	121,320	-	229,438,870	-
Durum wheat for grain ....farms	-	2	-	-	2,487	-
acres	-	(D)	-	-	1,462,666	-
bushels	-	(D)	-	-	42,689,608	-

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Farms ..... number	86,565	38,553	63,163	1,219	25,867
Land in farms ..... acres	35,087,269	16,399,647	7,809,244	67,819	4,889,339
Average size of farm ..... acres	405	425	124	56	189
Median size of farm ..... acres	137	29	65	24	64
Estimated market value of land and buildings:					
Average per farm ..... dollars	468,809	804,145	590,376	936,229	540,200
Average per acre ..... dollars	1,157	1,890	4,775	16,828	2,858
Estimated market value of all machinery and equipment:					
Average per farm ..... dollars	63,642	79,175	72,988	65,343	64,977
Farms by size:					
1 to 9 acres	3,802	9,546	5,601	353	1,970
10 to 49 acres	18,700	14,142	20,267	484	8,959
50 to 179 acres	29,719	7,430	26,049	308	9,033
180 to 499 acres	19,140	3,340	8,799	67	3,981
500 to 999 acres	7,484	1,531	1,816	5	1,059
1,000 acres or more	7,720	2,564	631	2	865
Total cropland ..... farms	59,040	26,650	54,772	926	18,534
acres	13,007,625	5,010,408	4,870,287	24,457	2,151,219
Harvested cropland ..... farms	46,224	22,131	44,269	823	12,962
acres	7,650,080	3,037,261	3,942,079	19,325	1,551,670
Irrigated land ..... farms	3,026	16,792	3,958	313	2,030
acres	534,768	1,845,194	37,786	4,306	132,439
Market value of agricultural products sold (see text) $1,000	5,806,061	4,386,143	5,808,803	65,908	2,352,681
Average per farm ..... dollars	67,072	113,769	91,965	54,067	90,953
Crops, including nursery and greenhouse crops $1,000	1,187,625	2,976,087	1,869,706	55,602	798,490
Livestock, poultry, and their products $1,000	4,618,436	1,410,055	3,939,097	10,306	1,554,190
Farms by value of sales:					
Less than $2,500	34,669	17,450	27,495	487	14,336
$2,500 to $4,999	9,059	4,651	5,609	140	2,609
$5,000 to $9,999	10,731	3,934	5,746	147	2,875
$10,000 to $24,999	13,494	3,730	6,488	179	2,289
$25,000 to $49,999	6,886	2,272	4,103	93	1,289
$50,000 to $99,999	4,563	1,838	3,067	56	664
$100,000 or more	7,163	4,678	10,655	117	1,805
Government payments ..... farms	27,015	5,115	17,441	101	7,715
$1,000	209,465	76,491	75,975	743	67,253
Total income from farm-related sources, gross before taxes and expenses (see text) ..... farms	17,270	10,529	17,846	261	5,458
$1,000	236,684	175,953	197,047	5,333	101,271
Total farm production expenses $1,000	5,223,365	3,734,859	4,909,109	65,062	2,012,179
Average per farm ..... dollars	60,340	96,876	77,721	53,373	77,789
Net cash farm income of operation (see text) ..... farms	86,565	38,553	63,163	1,219	25,867
$1,000	1,028,845	903,728	1,172,716	6,921	509,026
Average per farm ..... dollars	11,885	23,441	18,567	5,678	19,679
Principal operator by primary occupation:					
Farming ..... number	36,052	17,825	28,751	621	9,739
Other ..... number	50,513	20,728	34,412	598	16,128
Principal operator by days worked off farm:					
Any ..... number	56,815	25,359	40,230	823	16,801
200 days or more ..... number	37,167	14,655	24,880	500	10,239
Livestock and poultry:					
Cattle and calves inventory ..... farms	55,105	16,062	25,975	276	8,835
number	5,391,337	1,389,189	1,609,147	5,085	400,996
Beef cows ..... farms	47,059	12,876	12,253	227	8,177
number	2,063,613	604,069	158,430	1,800	230,419
Milk cows ..... farms	981	596	8,333	39	106
number	66,023	116,788	553,321	1,325	17,830
Cattle and calves sold ..... farms	45,512	13,077	19,784	148	6,782
number	3,895,053	1,020,380	810,533	1,629	187,787
Hogs and pigs inventory ..... farms	2,702	1,283	3,637	103	812
number	2,398,372	21,125	1,167,449	2,316	293,793
Hogs and pigs sold ..... farms	2,274	1,466	3,440	81	700
number	9,010,682	(D)	4,198,235	4,526	1,091,982
Sheep and lambs inventory ..... farms	1,939	3,209	3,672	107	367
number	76,243	217,401	96,883	1,459	7,852
Layers inventory (see text) ..... farms	5,235	4,386	7,604	154	1,756
number	3,323,802	2,736,464	21,982,408	45,825	4,714,337
Broilers and other meat-type chickens sold ..... farms	636	270	1,139	12	453
number	242,228,335	24,625,417	150,102,682	(D)	236,209,584
Selected crops harvested:					
Corn for grain ..... farms	913	248	16,030	4	2,601
acres	270,838	35,271	980,753	41	372,558
bushels	38,603,555	7,008,419	118,964,770	3,207	35,122,617
Corn for silage or greenchop ..... farms	185	247	10,230	39	121
acres	30,163	25,386	429,139	1,653	13,392
tons	567,496	633,222	7,057,789	32,886	184,659
Wheat for grain, all ..... farms	8,744	1,406	4,577	-	726
acres	3,421,098	855,052	152,528	-	136,766
bushels	89,968,524	43,969,219	8,949,116	-	3,986,026
Winter wheat for grain ..... farms	8,744	1,151	4,577	-	726
acres	3,421,098	736,558	152,528	-	136,766
bushels	89,968,524	38,177,598	8,949,116	-	3,986,026
Spring wheat for grain ..... farms	-	525	-	-	-
acres	-	118,329	-	-	-
bushels	-	5,778,241	-	-	-
Durum wheat for grain ..... farms	-	5	-	-	-
acres	-	165	-	-	-
bushels	-	13,380	-	-	-

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Farms ..... number	31,169	79,280	247,437	16,700	6,984
Land in farms ..... acres	43,666,403	10,969,798	130,398,753	11,094,700	1,233,313
Average size of farm ..... acres	1,401	138	527	664	177
Median size of farm ..... acres	425	58	87	36	90
Estimated market value of land and buildings:					
Average per farm ..... dollars	1,255,332	467,420	669,154	829,816	512,684
Average per acre ..... dollars	896	3,378	1,270	1,249	2,903
Estimated market value of all machinery and equipment:					
Average per farm ..... dollars	155,652	58,882	64,350	75,365	74,500
Farms by size:					
1 to 9 acres	920	5,814	21,024	4,194	635
10 to 49 acres	3,898	29,396	72,837	5,127	1,862
50 to 179 acres	5,909	29,588	71,264	3,354	2,396
180 to 499 acres	5,874	10,847	42,131	1,824	1,557
500 to 999 acres	4,714	2,287	17,843	895	390
1,000 acres or more	9,854	1,348	22,338	1,306	144
Total cropland ..... farms	26,625	61,274	153,276	12,398	5,439
acres	19,094,311	6,047,348	33,667,177	1,837,904	516,924
Harvested cropland ..... farms	21,902	48,292	111,671	10,259	4,707
acres	15,278,709	4,226,440	19,174,301	964,702	433,074
Irrigated land ..... farms	1,627	2,453	19,713	12,492	523
acres	373,842	81,405	5,010,416	1,134,144	2,295
Market value of agricultural products sold (see text) $1,000	6,570,450	2,617,394	21,001,074	1,415,678	673,713
Average per farm ..... dollars	210,801	33,015	84,874	84,771	96,465
Crops, including nursery and greenhouse crops $1,000	3,383,497	1,147,786	6,565,576	372,396	99,262
Livestock, poultry, and their products $1,000	3,186,953	1,469,608	14,435,499	1,043,281	574,451
Farms by value of sales:					
Less than $2,500	8,277	38,522	116,887	7,059	2,581
$2,500 to $4,999	1,077	9,539	28,630	1,857	695
$5,000 to $9,999	1,433	11,217	30,256	1,951	841
$10,000 to $24,999	2,515	9,488	30,100	1,994	902
$25,000 to $49,999	2,515	4,712	15,210	1,363	497
$50,000 to $99,999	3,409	2,001	8,774	860	390
$100,000 or more	11,943	3,801	17,580	1,616	1,078
Government payments ..... farms	22,911	17,320	48,027	2,960	1,351
$1,000	270,748	95,744	720,903	22,759	6,773
Total income from farm-related sources, gross before taxes and expenses (see text) ..... farms	18,707	22,015	43,311	3,541	2,433
$1,000	365,971	151,481	668,236	36,546	28,764
Total farm production expenses $1,000	4,989,172	2,620,841	19,223,099	1,215,579	549,904
Average per farm ..... dollars	160,068	33,058	77,689	72,789	78,738
Net cash farm income of operation (see text) ..... farms	31,169	79,280	247,437	16,700	6,984
$1,000	2,217,996	243,778	3,167,114	259,403	159,346
Average per farm ..... dollars	71,160	3,075	12,800	15,533	22,816
Principal operator by primary occupation:					
Farming ..... number	18,775	30,849	98,692	6,340	3,461
Other ..... number	12,394	48,431	148,745	10,360	3,523
Principal operator by days worked off farm:					
Any ..... number	17,490	52,981	170,322	11,731	4,661
200 days or more ..... number	10,335	32,834	97,523	7,188	2,587
Livestock and poultry:					
Cattle and calves inventory ..... farms	15,667	46,719	152,102	7,581	2,459
number	3,687,728	2,122,018	13,709,543	843,474	264,823
Beef cows ..... farms	13,802	42,344	131,769	5,589	1,048
number	1,649,492	1,179,102	5,259,843	364,744	10,002
Milk cows ..... farms	656	1,230	1,293	450	1,219
number	86,243	61,131	404,399	85,262	139,719
Cattle and calves sold ..... farms	15,171	38,961	116,626	6,257	1,937
number	2,745,227	1,095,372	11,841,250	519,155	107,049
Hogs and pigs inventory ..... farms	959	1,566	4,471	611	249
number	1,490,034	138,207	1,155,790	760,035	2,701
Hogs and pigs sold ..... farms	1,042	1,160	4,053	630	239
number	4,487,708	470,213	2,794,334	2,050,082	4,968
Sheep and lambs inventory ..... farms	1,669	1,261	8,750	1,615	626
number	335,897	29,751	945,164	277,635	13,925
Layers inventory (see text) ..... farms	915	5,176	14,562	1,310	1,068
number	2,920,799	1,713,388	19,116,712	3,584,791	223,605
Broilers and other meat-type chickens sold ..... farms	85	670	1,277	39	133
number	272,986	206,132,684	616,299,999	1,165	(D)
Selected crops harvested:					
Corn for grain ..... farms	12,198	4,653	4,543	331	71
acres	4,455,368	780,608	1,963,640	21,367	5,368
bushels	518,552,101	83,636,352	286,386,341	3,249,594	773,897
Corn for silage or greenchop ..... farms	3,928	884	560	573	674
acres	383,599	52,565	151,091	45,375	87,403
tons	4,358,190	577,940	3,417,965	969,548	1,658,746
Wheat for grain, all ..... farms	7,163	1,358	8,565	602	9
acres	3,341,778	254,944	3,844,241	137,404	379
bushels	141,003,068	10,445,442	134,643,897	5,771,071	13,722
Winter wheat for grain ..... farms	4,461	1,358	8,493	546	5
acres	1,995,368	254,944	3,825,581	129,946	(D)
bushels	89,916,077	10,445,442	134,070,553	5,386,467	(D)
Spring wheat for grain ..... farms	4,000	-	78	86	6
acres	1,339,007	-	18,660	7,458	(D)
bushels	50,902,643	-	573,344	384,604	(D)
Durum wheat for grain ..... farms	24	-	-	-	-
acres	7,403	-	-	-	-
bushels	184,348	-	-	-	-

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
Farms ..... number	47,383	39,284	23,618	78,463	11,069
Land in farms ..... acres	8,103,925	14,972,789	3,697,606	15,190,804	30,169,526
Average size of farm ..... acres	171	381	157	194	2,726
Median size of farm ..... acres	70	30	90	95	230
Estimated market value of land and buildings:					
Average per farm ..... dollars	720,538	759,146	373,435	624,428	1,397,691
Average per acre ..... dollars	4,213	1,992	2,385	3,225	513
Estimated market value of all machinery and equipment:					
Average per farm ..... dollars	65,870	83,468	38,871	96,278	97,356
Farms by size:					
1 to 9 acres	3,530	9,211	1,207	4,861	652
10 to 49 acres	15,177	14,790	5,749	19,895	2,004
50 to 179 acres	17,589	7,307	10,739	29,765	2,461
180 to 499 acres	7,777	3,479	4,681	17,837	1,712
500 to 999 acres	1,985	1,731	908	4,149	1,107
1,000 acres or more	1,325	2,766	334	1,956	3,133
Total cropland ..... farms	35,954	26,005	19,446	68,478	6,838
acres	3,274,137	7,609,210	942,132	10,116,279	2,576,017
Harvested cropland ..... farms	30,563	20,091	17,494	54,105	5,573
acres	2,544,997	4,387,169	692,003	8,884,628	1,536,240
Irrigated land ..... farms	2,347	15,492	457	2,907	5,793
acres	82,187	1,735,917	2,189	377,291	1,550,723
Market value of agricultural products sold (see text) $1,000	2,906,188	6,792,856	591,665	8,967,358	1,157,535
Average per farm ..... dollars	61,334	172,917	25,051	114,288	104,575
Crops, including nursery and greenhouse crops $1,000	858,301	4,754,898	78,308	2,669,326	213,808
Livestock, poultry, and their products $1,000	2,047,887	2,037,958	513,357	6,298,032	943,728
Farms by value of sales:					
Less than $2,500	20,191	18,443	12,433	30,296	3,920
$2,500 to $4,999	5,391	3,817	3,531	5,955	918
$5,000 to $9,999	6,191	3,717	2,913	6,732	947
$10,000 to $24,999	6,597	3,423	2,538	7,732	1,261
$25,000 to $49,999	3,399	2,190	1,033	5,704	922
$50,000 to $99,999	1,886	1,729	421	5,397	975
$100,000 or more	3,728	5,965	749	16,647	2,126
Government payments ..... farms	9,852	6,899	2,173	47,477	2,790
$1,000	54,940	138,272	2,929	195,787	28,157
Total income from farm-related sources, gross before taxes and expenses (see text) ..... farms	14,910	10,733	4,004	39,314	3,850
$1,000	170,355	244,801	22,280	324,614	60,157
Total farm production expenses $1,000	2,711,537	5,390,313	545,855	6,748,715	970,138
Average per farm ..... dollars	57,226	137,214	23,112	86,011	87,645
Net cash farm income of operation (see text) ..... farms	47,383	39,284	23,618	78,463	11,069
$1,000	419,946	1,785,615	71,019	2,739,043	275,712
Average per farm ..... dollars	8,863	45,454	3,007	34,909	24,909
Principal operator by primary occupation:					
Farming ..... number	20,294	18,021	9,799	37,047	5,445
Other ..... number	27,089	21,263	13,819	41,416	5,624
Principal operator by days worked off farm:					
Any ..... number	30,998	25,583	15,544	47,971	7,220
200 days or more ..... number	19,236	15,396	9,948	31,654	4,371
Livestock and poultry:					
Cattle and calves inventory ..... farms	25,957	12,731	12,792	35,125	5,625
number	1,566,217	1,088,846	411,028	3,373,923	1,311,799
Beef cows ..... farms	21,907	10,065	10,653	14,775	4,870
number	695,061	274,001	203,711	269,820	732,141
Milk cows ..... farms	1,154	817	370	14,158	122
number	98,917	243,132	11,744	1,249,309	6,644
Cattle and calves sold ..... farms	21,884	9,521	10,474	30,193	4,880
number	880,607	912,299	249,845	1,513,662	1,036,661
Hogs and pigs inventory ..... farms	1,240	1,463	955	3,188	272
number	371,176	28,545	8,948	436,814	107,180
Hogs and pigs sold ..... farms	964	1,596	1,042	3,516	368
number	965,117	58,917	19,588	1,085,793	330,377
Sheep and lambs inventory ..... farms	2,132	2,366	1,259	2,816	902
number	77,648	53,220	38,338	89,575	412,804
Layers inventory (see text) ..... farms	3,464	4,878	2,580	7,211	776
number	3,208,912	5,785,648	1,220,280	4,873,675	16,238
Broilers and other meat-type chickens sold ..... farms	672	307	216	1,238	41
number	249,184,367	31,669,170	88,778,413	46,804,252	1,890
Selected crops harvested:					
Corn for grain ..... farms	3,063	550	686	27,505	344
acres	401,070	118,665	26,618	3,250,847	54,567
bushels	34,811,582	24,553,928	2,916,834	437,174,706	6,858,369
Corn for silage or greenchop ..... farms	2,013	537	550	15,338	265
acres	126,295	83,353	19,408	732,636	32,146
tons	1,717,974	2,129,010	272,039	11,645,140	646,760
Wheat for grain, all ..... farms	1,348	2,612	122	5,422	347
acres	200,342	2,096,350	5,960	280,464	127,051
bushels	12,345,217	120,617,390	336,553	18,789,893	2,978,072
Winter wheat for grain ..... farms	1,348	2,303	122	5,257	314
acres	200,342	1,652,961	5,960	272,964	120,970
bushels	12,345,217	100,463,766	336,553	18,539,559	2,809,154
Spring wheat for grain ..... farms	-	1,232	-	202	37
acres	-	441,596	-	7,500	6,081
bushels	-	20,014,978	-	250,334	168,918
Durum wheat for grain ..... farms	-	9	-	-	-
acres	-	1,793	-	-	-
bushels	-	138,646	-	-	-

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		United States	Alabama	Alaska	Arizona	Arkansas	California
Selected crops harvested - Con.							
Oats for grain	farms	42,558	238	8	18	57	299
	acres	1,509,149	16,111	1,017	1,090	6,431	25,993
	bushels	89,508,669	905,087	49,230	87,980	601,737	2,595,144
Barley for grain	farms	19,848	-	22	113	-	161
	acres	3,521,957	-	4,322	31,129	-	44,125
	bushels	207,089,232	-	167,170	3,396,006	-	2,872,476
Sorghum for grain	farms	26,242	78	-	79	697	58
	acres	6,769,834	5,827	-	19,703	216,432	10,909
	bushels	482,452,865	215,276	-	1,696,731	20,761,820	909,160
Sorghum for silage or greenchop	farms	5,625	30	-	68	34	195
	acres	450,041	1,701	-	20,969	2,073	30,085
	tons	5,763,450	17,075	-	396,620	27,488	536,162
Soybeans for beans	farms	279,110	875	-	-	4,610	-
	acres	63,915,821	179,673	-	-	2,819,478	-
	bushels	2,582,423,697	3,660,854	-	-	98,903,025	-
Dry edible beans, excluding limas	farms	6,236	-	-	46	-	239
	acres	1,455,549	-	-	5,849	-	34,002
	cwt	25,353,900	-	-	102,603	-	709,841
Cotton, all	farms	18,605	917	-	301	915	855
	acres	10,493,238	382,566	-	171,300	854,410	471,378
	bales	18,898,128	407,598	-	513,758	1,902,073	1,418,751
Upland cotton	farms	18,286	917	-	298	915	588
	acres	10,202,566	382,566	-	168,798	854,410	211,990
	bales	18,098,998	407,598	-	509,156	1,902,073	677,794
Pima cotton	farms	551	-	-	13	-	424
	acres	290,672	-	-	2,502	-	259,388
	bales	799,130	-	-	4,602	-	740,957
Tobacco	farms	16,234	-	-	-	-	-
	acres	359,846	-	-	-	-	-
	pounds	778,301,825	-	-	-	-	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms	869,534	18,735	243	1,176	22,939	7,411
	acres	61,455,483	883,196	23,315	309,018	1,334,153	1,723,147
	tons, dry	155,393,762	1,641,373	33,336	2,215,580	2,966,184	10,642,531
Rice	farms	6,084	-	-	-	2,752	1,304
	acres	2,758,792	-	-	-	1,326,377	531,075
	cwt	198,538,690	-	-	-	96,033,069	43,018,947
Sunflower seed, all	farms	6,403	7	-	-	1	111
	acres	2,000,153	19	-	-	(D)	27,913
	pounds	2,820,962,445	13,720	-	-	(D)	29,776,645
Sugarbeets for sugar	farms	4,022	-	-	-	-	155
	acres	1,253,817	-	-	-	-	42,984
	tons	31,937,325	-	-	-	-	1,539,394
Sugarcane for sugar	farms	692	-	-	-	-	-
	acres	846,666	-	-	-	-	-
	tons	31,127,405	-	-	-	-	-
Pineapples harvested	farms	42	-	-	-	-	-
	acres	(D)	-	-	-	-	-
	tons	(D)	-	-	-	-	-
Peanuts for nuts	farms	6,182	704	-	1	1	11
	acres	1,200,564	158,424	-	(D)	(D)	14
	pounds	3,703,138,887	396,914,610	-	(D)	(D)	28,000
Vegetables harvested for sale (see text)	farms	69,172	1,603	96	2,565	804	3,868
	acres	4,682,588	18,868	1,184	137,574	14,146	1,169,786
Potatoes	farms	15,014	267	65	123	168	224
	acres	1,131,963	1,082	855	3,972	76	37,858
Sweet potatoes	farms	1,910	83	-	1	53	92
	acres	105,284	2,297	-	(D)	3,125	13,644
Land in orchards	farms	115,935	1,897	10	1,527	666	39,484
	acres	5,039,476	22,122	18	37,200	13,932	2,826,291

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Selected crops harvested - Con.						
Oats for grain ..... farms	165	2	9	49	476	-
acres	9,921	(D)	142	3,222	28,770	-
bushels	531,736	(D)	(D)	200,966	1,535,663	-
Barley for grain ..... farms	331	-	137	-	13	-
acres	59,667	-	20,106	-	537	-
bushels	7,179,416	-	1,588,749	-	30,326	-
Sorghum for grain ..... farms	380	-	10	21	428	-
acres	153,196	-	327	1,331	44,694	-
bushels	5,750,890	-	17,927	68,866	1,935,793	-
Sorghum for silage or greenchop ..... farms	105	5	1	35	106	-
acres	13,128	77	(D)	4,290	9,982	-
tons	167,647	(D)	(D)	48,495	119,277	-
Soybeans for beans ..... farms	34	6	817	101	1,617	-
acres	2,948	294	155,548	12,066	280,220	-
bushels	148,420	13,365	3,990,694	291,981	7,970,113	-
Dry edible beans, excluding limas ..... farms	281	3	-	-	-	-
acres	46,629	3	-	-	-	-
cwt	785,848	90	-	-	-	-
Cotton, all ..... farms	-	-	-	213	2,577	-
acres	-	-	-	80,053	996,427	-
bales	-	-	-	109,206	1,628,260	-
Upland cotton ..... farms	-	-	-	213	2,577	-
acres	-	-	-	80,053	996,427	-
bales	-	-	-	109,206	1,628,260	-
Pima cotton ..... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
bales	-	-	-	-	-	-
Tobacco ..... farms	-	76	-	23	224	-
acres	-	3,128	-	1,040	17,989	-
pounds	-	5,293,517	-	3,061,788	39,810,076	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text) ..... farms	13,998	2,060	430	5,755	14,556	30
acres	1,621,178	81,269	14,211	354,860	663,750	1,000
tons, dry	4,256,940	176,786	37,989	1,120,290	1,380,403	2,215
Rice ..... farms	-	-	-	7	-	-
acres	-	-	-	11,376	-	-
cwt	-	-	-	975,319	-	-
Sunflower seed, all ..... farms	282	-	3	-	35	-
acres	112,991	-	(D)	-	2,150	-
pounds	124,244,896	-	(D)	-	(D)	-
Sugarbeets for sugar ..... farms	226	-	-	-	-	-
acres	29,235	-	-	-	-	-
tons	764,791	-	-	-	-	-
Sugarcane for sugar ..... farms	-	-	-	108	-	9
acres	-	-	-	378,587	-	(D)
tons	-	-	-	14,127,121	-	(D)
Pineapples harvested ..... farms	-	-	-	-	-	42
acres	-	-	-	-	-	(D)
tons	-	-	-	-	-	(D)
Peanuts for nuts ..... farms	-	-	-	423	2,762	-
acres	-	-	-	118,637	518,719	-
pounds	-	-	-	341,137,148	1,634,837,229	-
Vegetables harvested for sale (see text) ..... farms	708	735	233	1,493	1,445	901
acres	97,251	10,514	40,088	265,835	128,720	6,845
Potatoes ..... farms	248	133	21	181	122	15
acres	62,694	100	2,402	26,526	380	7
Sweet potatoes ..... farms	1	3	10	31	69	94
acres	(D)	(D)	10	2,859	573	297
Land in orchards ..... farms	877	338	32	8,993	3,745	4,443
acres	6,986	3,672	524	677,403	129,921	36,652

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Selected crops harvested - Con.							
Oats for grain	farms	298	1,006	568	3,056	874	118
	acres	19,629	24,265	7,948	66,651	29,761	1,002
	bushels	1,178,663	1,500,658	403,631	4,481,462	1,363,381	55,839
Barley for grain	farms	2,146	46	37	86	157	52
	acres	547,928	738	493	2,815	13,109	2,626
	bushels	42,464,856	43,029	21,911	139,145	692,044	98,830
Sorghum for grain	farms	-	731	78	40	11,379	92
	acres	-	76,601	8,938	2,113	2,625,920	11,590
	bushels	-	5,960,150	811,912	174,761	201,048,807	950,509
Sorghum for silage or greenchop	farms	3	58	52	51	1,779	56
	acres	170	1,169	796	837	131,125	1,549
	tons	2,070	13,502	6,196	8,738	1,505,041	14,211
Soybeans for beans	farms	-	33,945	21,973	41,524	13,232	4,129
	acres	-	8,293,711	4,783,821	8,612,810	2,591,428	1,087,037
	bushels	-	353,741,105	211,074,079	430,739,578	82,719,224	29,582,097
Dry edible beans, excluding limas	farms	641	-	1	1	33	-
	acres	88,987	-	(D)	(D)	5,955	-
	cwt	1,646,970	-	(D)	(D)	134,719	-
Cotton, all	farms	-	-	-	-	106	-
	acres	-	-	-	-	40,924	-
	bales	-	-	-	-	54,814	-
Upland cotton	farms	-	-	-	-	106	-
	acres	-	-	-	-	40,924	-
	bales	-	-	-	-	54,814	-
Pima cotton	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	bales	-	-	-	-	-	-
Tobacco	farms	-	13	267	-	-	8,113
	acres	-	827	2,174	-	-	87,641
	pounds	-	1,656,819	4,525,089	-	-	196,259,377
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms	11,159	19,865	18,917	26,901	29,266	49,825
	acres	1,316,296	593,186	546,764	1,125,565	2,800,129	2,456,564
	tons, dry	5,198,288	1,770,834	1,306,246	3,897,996	6,916,201	4,042,948
Rice	farms	-	3	-	-	-	-
	acres	-	(D)	-	-	-	-
	cwt	-	(D)	-	-	-	-
Sunflower seed, all	farms	1	46	2	5	681	14
	acres	(D)	3,217	(D)	667	156,378	82
	pounds	(D)	4,356,557	(D)	631,300	220,194,520	40,100
Sugarbeets for sugar	farms	507	-	-	-	-	-
	acres	163,598	-	-	-	-	-
	tons	5,631,170	-	-	-	-	-
Sugarcane for sugar	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	tons	-	-	-	-	-	-
Pineapples harvested	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	tons	-	-	-	-	-	-
Peanuts for nuts	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	pounds	-	-	-	-	-	-
Vegetables harvested for sale (see text)	farms	1,137	1,377	1,363	881	473	2,123
	acres	377,062	71,371	35,503	9,544	8,976	7,776
Potatoes	farms	703	253	263	230	137	531
	acres	350,905	6,244	2,288	646	5,266	291
Sweet potatoes	farms	-	21	23	19	36	66
	acres	-	19	13	8	49	44
Land in orchards	farms	485	871	546	743	432	1,040
	acres	7,682	6,032	3,843	2,724	7,162	3,861

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Selected crops harvested - Con.							
Oats for grain	farms	30	159	184	2	2,181	5,499
	acres	1,549	27,206	2,338	(D)	55,046	180,942
	bushels	131,809	1,937,569	152,306	(D)	2,972,519	10,494,120
Barley for grain	farms	-	94	683	-	376	1,126
	acres	-	16,975	34,288	-	12,953	108,268
	bushels	-	1,076,922	2,733,463	-	642,216	5,800,659
Sorghum for grain	farms	615	-	79	-	26	3
	acres	245,384	-	4,895	-	658	36
	bushels	22,397,992	-	217,697	-	41,825	360
Sorghum for silage or greenchop	farms	12	3	40	-	126	13
	acres	467	93	1,008	-	2,635	145
	tons	2,089	1,115	7,745	-	32,419	1,716
Soybeans for beans	farms	1,455	14	2,158	5	10,461	27,040
	acres	593,815	766	386,604	247	1,715,427	6,273,919
	bushels	24,717,263	22,570	10,381,954	10,530	67,515,728	259,891,979
Dry edible beans, excluding limas	farms	-	16	-	1	1,183	526
	acres	-	481	-	(D)	195,419	145,422
	cwt	-	4,359	-	(D)	3,207,689	2,638,507
Cotton, all	farms	645	-	-	-	-	-
	acres	333,804	-	-	-	-	-
	bales	698,557	-	-	-	-	-
Upland cotton	farms	645	-	-	-	-	-
	acres	333,804	-	-	-	-	-
	bales	698,557	-	-	-	-	-
Pima cotton	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	bales	-	-	-	-	-	-
Tobacco	farms	-	-	70	60	-	-
	acres	-	-	423	1,324	-	-
	pounds	-	-	842,793	2,328,982	-	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms	8,798	3,048	5,123	2,424	21,853	29,844
	acres	463,695	197,757	223,390	93,811	1,160,467	1,716,693
	tons, dry	1,176,324	428,423	552,667	198,593	2,966,956	4,392,567
Rice	farms	848	-	-	-	-	-
	acres	377,115	-	-	-	-	-
	cwt	23,122,031	-	-	-	-	-
Sunflower seed, all	farms	1	1	22	1	67	505
	acres	(D)	(D)	596	(D)	5,888	126,552
	pounds	(D)	(D)	614,150	(D)	7,206,293	190,298,028
Sugarbeets for sugar	farms	-	-	-	-	737	1,247
	acres	-	-	-	-	150,054	485,650
	tons	-	-	-	-	3,532,941	11,432,253
Sugarcane for sugar	farms	461	-	-	-	-	-
	acres	405,433	-	-	-	-	-
	tons	14,086,448	-	-	-	-	-
Pineapples harvested	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	tons	-	-	-	-	-	-
Peanuts for nuts	farms	8	-	-	-	-	-
	acres	(D)	-	-	-	-	-
	pounds	(D)	-	-	-	-	-
Vegetables harvested for sale (see text)	farms	759	968	931	1,001	2,878	2,720
	acres	18,912	66,783	33,447	15,764	174,685	247,099
Potatoes	farms	97	464	236	205	600	478
	acres	123	56,362	2,964	2,616	42,267	49,935
Sweet potatoes	farms	120	4	61	9	22	-
	acres	14,863	1	107	2	27	-
Land in orchards	farms	1,050	374	472	458	2,712	814
	acres	18,201	3,015	4,542	5,416	115,284	4,979

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Selected crops harvested - Con.							
Oats for grain	farms	44	459	488	885	2	-
	acres	1,345	7,894	34,633	35,108	(D)	-
	bushels	107,161	382,149	1,673,538	2,108,923	(D)	-
Barley for grain	farms	-	56	2,347	35	9	1
	acres	-	1,531	718,551	1,777	1,062	(D)
	bushels	-	59,238	29,670,161	81,963	93,177	(D)
Sorghum for grain	farms	302	1,085	-	1,901	1	-
	acres	116,901	105,483	-	236,607	(D)	-
	bushels	9,815,654	9,922,598	-	22,177,229	(D)	-
Sorghum for silage or greenchop	farms	9	174	2	444	-	1
	acres	4,739	6,533	(D)	20,376	-	(D)
	tons	76,923	79,962	(D)	235,551	-	(D)
Soybeans for beans	farms	2,589	18,388	8	16,620	-	-
	acres	1,431,085	4,672,738	409	3,834,855	-	-
	bushels	54,316,854	165,947,323	16,084	189,547,373	-	-
Dry edible beans, excluding limas	farms	-	2	105	495	-	2
	acres	-	(D)	17,151	107,583	-	(D)
	cwt	-	(D)	290,498	2,453,158	-	(D)
Cotton, all	farms	980	511	-	-	-	-
	acres	656,051	377,960	-	-	-	-
	bales	1,289,270	723,043	-	-	-	-
Upland cotton	farms	980	511	-	-	-	-
	acres	656,051	377,960	-	-	-	-
	bales	1,289,270	723,043	-	-	-	-
Pima cotton	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	bales	-	-	-	-	-	-
Tobacco	farms	-	111	-	-	-	-
	acres	-	1,577	-	-	-	-
	pounds	-	3,557,585	-	-	-	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms	13,271	57,184	12,796	20,576	1,436	1,581
	acres	680,402	3,895,401	2,822,442	2,563,515	464,598	76,877
	tons, dry	1,572,853	7,182,875	5,490,353	6,289,171	1,582,983	178,138
Rice	farms	341	435	-	-	-	-
	acres	185,076	179,300	-	-	-	-
	cwt	13,313,823	12,266,645	-	-	-	-
Sunflower seed, all	farms	1	28	17	222	-	-
	acres	(D)	1,963	3,410	47,575	-	-
	pounds	(D)	2,456,340	3,787,068	61,133,340	-	-
Sugarbeets for sugar	farms	-	-	220	162	-	-
	acres	-	-	47,533	44,938	-	-
	tons	-	-	1,174,370	1,064,504	-	-
Sugarcane for sugar	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	tons	-	-	-	-	-	-
Pineapples harvested	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	tons	-	-	-	-	-	-
Peanuts for nuts	farms	85	1	-	-	-	-
	acres	17,781	(D)	-	-	-	-
	pounds	58,481,805	(D)	-	-	-	-
Vegetables harvested for sale (see text)	farms	1,156	1,335	313	340	50	427
	acres	31,088	32,837	11,899	23,646	11,217	3,408
Potatoes	farms	178	313	152	135	24	132
	acres	166	6,127	11,192	20,438	7,491	79
Sweet potatoes	farms	122	46	-	11	-	-
	acres	21,027	54	-	2	-	-
Land in orchards	farms	937	1,345	389	339	79	263
	acres	15,948	22,447	1,491	1,500	460	2,285

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Selected crops harvested - Con.						
Oats for grain ..... farms	50	45	1,809	556	2,513	2,800
acres	1,234	(D)	60,999	14,337	257,021	46,348
bushels	61,563	16,467	3,556,221	787,753	14,862,093	2,883,967
Barley for grain ..... farms	46	10	327	236	4,855	210
acres	1,947	824	10,793	13,728	1,384,689	2,994
bushels	136,415	80,299	530,407	667,667	75,444,593	159,965
Sorghum for grain ..... farms	12	217	26	210	-	16
acres	614	73,048	717	8,635	-	1,203
bushels	33,018	2,806,719	35,804	394,040	-	50,854
Sorghum for silage or greenchop ..... farms	13	97	155	86	17	122
acres	220	18,833	3,192	2,748	1,122	2,718
tons	2,294	297,382	22,571	28,856	6,464	33,003
Soybeans for beans ..... farms	524	1	1,347	6,896	5,779	23,892
acres	79,218	(D)	199,775	1,380,792	3,073,981	4,236,337
bushels	2,443,231	(D)	7,456,657	29,142,115	106,556,290	191,559,567
Dry edible beans, excluding limas ..... farms	2	178	143	-	1,682	1
acres	(D)	7,760	16,218	-	664,389	(D)
cwt	(D)	173,070	247,762	-	10,745,281	(D)
Cotton, all ..... farms	-	199	-	1,308	-	-
acres	-	42,207	-	526,060	-	-
bales	-	97,206	-	785,557	-	-
Upland cotton ..... farms	-	182	-	1,308	-	-
acres	-	37,615	-	526,060	-	-
bales	-	88,790	-	785,557	-	-
Pima cotton ..... farms	-	44	-	-	-	-
acres	-	4,592	-	-	-	-
bales	-	8,416	-	-	-	-
Tobacco ..... farms	-	-	-	2,622	-	475
acres	-	-	-	170,083	-	3,499
pounds	-	-	-	365,958,031	-	6,811,760
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text) ..... farms	3,130	5,583	20,194	19,432	11,561	31,440
acres	115,669	365,843	1,962,620	687,650	2,525,213	1,156,523
tons, dry	226,883	1,565,071	4,981,812	1,170,258	4,832,502	2,807,279
Rice ..... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
cwt	-	-	-	-	-	-
Sunflower seed, all ..... farms	2	2	28	29	3,000	4
acres	(D)	(D)	357	402	1,054,584	102
pounds	(D)	(D)	367,672	383,562	1,496,184,686	143,800
Sugarbeets for sugar ..... farms	-	-	-	-	553	-
acres	-	-	-	-	245,735	-
tons	-	-	-	-	5,695,862	-
Sugarcane for sugar ..... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
tons	-	-	-	-	-	-
Pineapples harvested ..... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
tons	-	-	-	-	-	-
Peanuts for nuts ..... farms	-	29	-	699	-	-
acres	-	10,305	-	89,029	-	-
pounds	-	31,988,642	-	250,970,518	-	-
Vegetables harvested for sale (see text) ..... farms	1,456	1,743	3,192	3,740	224	2,873
acres	54,062	36,933	160,596	118,780	94,543	47,014
Potatoes ..... farms	127	142	860	1,123	152	631
acres	2,442	5,675	18,911	14,760	91,855	2,943
Sweet potatoes ..... farms	60	2	19	389	-	33
acres	1,068	(D)	7	42,108	-	12
Land in orchards ..... farms	718	2,783	2,686	1,551	41	1,462
acres	10,537	43,859	100,035	13,724	118	10,367

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Selected crops harvested - Con.					
Oats for grain ..... farms	172	259	5,089	2	344
acres	14,816	17,958	79,943	(D)	13,279
bushels	462,865	1,417,220	4,237,273	(D)	559,906
Barley for grain ..... farms	42	339	2,104	-	29
acres	5,038	53,216	41,986	-	747
bushels	207,751	2,798,280	3,053,989	-	44,457
Sorghum for grain ..... farms	966	3	117	-	91
acres	219,883	87	3,155	-	5,996
bushels	11,682,402	8,189	177,639	-	210,854
Sorghum for silage or greenchop ..... farms	164	2	335	-	25
acres	13,661	(D)	4,471	-	1,898
tons	68,537	(D)	40,767	-	13,596
Soybeans for beans ..... farms	813	2	6,374	-	1,920
acres	180,878	(D)	431,053	-	442,461
bushels	4,559,245	(D)	17,386,829	-	7,833,696
Dry edible beans, excluding limas ..... farms	7	49	17	-	-
acres	150	7,559	153	-	-
cwt	2,792	149,465	3,045	-	-
Cotton, all ..... farms	420	-	-	-	458
acres	164,273	-	-	-	158,296
bales	279,871	-	-	-	159,213
Upland cotton ..... farms	420	-	-	-	458
acres	164,273	-	-	-	158,296
bales	279,871	-	-	-	159,213
Pima cotton ..... farms	-	-	-	-	-
acres	-	-	-	-	-
bales	-	-	-	-	-
Tobacco ..... farms	-	-	1,152	-	260
acres	-	-	7,886	-	20,084
pounds	-	-	18,811,546	-	44,660,005
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text) ..... farms	39,449	12,590	34,923	351	7,830
acres	3,231,691	1,038,735	1,747,589	9,304	340,951
tons, dry	6,718,879	3,129,873	4,487,424	19,042	591,501
Rice ..... farms	3	-	-	-	-
acres	(D)	-	-	-	-
cwt	(D)	-	-	-	-
Sunflower seed, all ..... farms	20	13	32	-	39
acres	3,626	611	660	-	764
pounds	6,574,767	427,968	405,407	-	249,094
Sugarbeets for sugar ..... farms	-	73	-	-	-
acres	-	11,232	-	-	-
tons	-	346,233	-	-	-
Sugarcane for sugar ..... farms	-	-	-	-	-
acres	-	-	-	-	-
tons	-	-	-	-	-
Pineapples harvested ..... farms	-	-	-	-	-
acres	-	-	-	-	-
tons	-	-	-	-	-
Peanuts for nuts ..... farms	148	-	-	-	327
acres	16,319	-	-	-	56,332
pounds	55,039,635	-	-	-	178,352,360
Vegetables harvested for sale (see text) ..... farms	834	1,519	4,338	203	1,520
acres	18,013	149,665	55,655	2,418	28,275
Potatoes ..... farms	215	345	1,258	30	226
acres	307	36,361	9,690	542	154
Sweet potatoes ..... farms	29	1	54	5	107
acres	13	(D)	38	1	497
Land in orchards ..... farms	4,036	4,004	2,686	100	1,125
acres	143,892	99,614	46,560	580	22,185

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Selected crops harvested - Con.					
Oats for grain ....farms	1,703	78	1,109	266	12
acres	124,743	1,679	92,653	4,833	211
bushels	8,758,284	83,840	3,663,002	367,230	11,525
Barley for grain ....farms	205	18	28	487	4
acres	28,761	997	2,090	22,124	(D)
bushels	1,218,568	45,265	141,999	1,833,678	(D)
Sorghum for grain ....farms	394	72	5,975	2	1
acres	129,413	10,107	2,427,580	(D)	(D)
bushels	7,732,205	831,540	153,531,033	(D)	(D)
Sorghum for silage or greenchop ....farms	191	48	697	7	5
acres	17,983	1,533	121,393	404	(D)
tons	178,535	8,961	1,705,391	6,408	464
Soybeans for beans ....farms	9,862	2,967	371	-	21
acres	3,222,872	976,011	93,453	-	2,011
bushels	130,377,538	18,552,793	3,439,765	-	75,318
Dry edible beans, excluding limas ....farms	34	-	58	16	6
acres	11,891	-	6,675	1,627	(D)
cwt	208,659	-	127,400	6,994	(D)
Cotton, all ....farms	-	779	7,225	-	-
acres	-	504,057	4,674,229	-	-
bales	-	581,236	8,147,970	-	-
Upland cotton ....farms	-	779	7,193	-	-
acres	-	504,057	4,650,039	-	-
bales	-	581,236	8,102,815	-	-
Pima cotton ....farms	-	-	70	-	-
acres	-	-	24,190	-	-
bales	-	-	45,155	-	-
Tobacco ....farms	-	1,610	-	-	-
acres	-	20,109	-	-	-
pounds	-	38,652,986	-	-	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text) ....farms	16,121	42,280	90,860	8,930	3,624
acres	3,239,947	1,784,808	5,264,287	690,946	330,984
tons, dry	6,502,232	2,732,930	14,477,068	2,569,087	962,986
Rice ....farms	-	6	385	-	-
acres	-	2,317	145,006	-	-
cwt	-	240,029	9,472,871	-	-
Sunflower seed, all ....farms	910	8	118	12	2
acres	400,181	23	35,309	5,332	(D)
pounds	613,668,505	20,500	45,693,688	2,460,696	(D)
Sugarbeets for sugar ....farms	-	-	-	-	-
acres	-	-	-	-	-
tons	-	-	-	-	-
Sugarcane for sugar ....farms	-	-	114	-	-
acres	-	-	(D)	-	-
tons	-	-	(D)	-	-
Pineapples harvested ....farms	-	-	-	-	-
acres	-	-	-	-	-
tons	-	-	-	-	-
Peanuts for nuts ....farms	-	19	784	-	-
acres	-	23	192,291	-	-
pounds	-	14,610	699,723,146	-	-
Vegetables harvested for sale (see text) ....farms	141	1,543	2,353	583	494
acres	1,766	34,013	128,108	5,920	2,927
Potatoes ....farms	45	398	330	113	202
acres	854	304	17,129	464	266
Sweet potatoes ....farms	2	57	45	-	3
acres	(D)	167	2,006	-	(D)
Land in orchards ....farms	113	786	8,848	805	310
acres	550	2,866	215,794	8,058	3,547

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Table 1. **State Summary Highlights: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Virginia	Washington	West Virginia	Wisconsin	Wyoming
Selected crops harvested - Con.						
Oats for grain	farms	230	138	121	7,934	154
	acres	4,893	8,956	1,494	166,794	8,040
	bushels	286,954	426,027	74,953	11,122,339	382,864
Barley for grain	farms	530	843	61	1,104	342
	acres	27,833	223,598	1,328	23,645	52,457
	bushels	2,008,416	13,928,713	92,942	1,351,838	4,485,775
Sorghum for grain	farms	43	-	3	11	-
	acres	1,497	-	(D)	242	-
	bushels	63,521	-	(D)	12,774	-
Sorghum for silage or greenchop	farms	87	1	23	138	10
	acres	2,573	(D)	409	2,201	450
	tons	17,516	(D)	2,539	19,645	7,514
Soybeans for beans	farms	2,104	8	115	14,513	-
	acres	490,396	725	13,717	1,363,124	-
	bushels	12,624,547	27,781	480,186	54,701,222	-
Dry edible beans, excluding limas	farms	-	269	-	6	193
	acres	-	61,055	-	6,069	24,197
	cwt	-	1,049,750	-	93,244	566,459
Cotton, all	farms	196	-	-	-	-
	acres	59,243	-	-	-	-
	bales	101,745	-	-	-	-
Upland cotton	farms	196	-	-	-	-
	acres	59,243	-	-	-	-
	bales	101,745	-	-	-	-
Pima cotton	farms	-	-	-	-	-
	acres	-	-	-	-	-
	bales	-	-	-	-	-
Tobacco	farms	895	-	68	195	-
	acres	20,881	-	248	934	-
	pounds	43,338,678	-	478,054	2,254,739	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms	25,986	10,243	16,449	42,082	5,276
	acres	1,305,624	846,140	614,794	2,797,497	1,192,019
	tons, dry	2,464,783	3,595,392	986,097	8,528,063	2,426,555
Rice	farms	-	-	-	-	-
	acres	-	-	-	-	-
	cwt	-	-	-	-	-
Sunflower seed, all	farms	24	4	4	78	21
	acres	137	(D)	8	3,722	4,668
	pounds	79,944	61,858	1,500	4,449,621	3,292,514
Sugarbeets for sugar	farms	-	3	-	-	139
	acres	-	2,076	-	-	30,782
	tons	-	80,206	-	-	675,601
Sugarcane for sugar	farms	-	-	-	-	-
	acres	-	-	-	-	-
	tons	-	-	-	-	-
Pineapples harvested	farms	-	-	-	-	-
	acres	-	-	-	-	-
	tons	-	-	-	-	-
Peanuts for nuts	farms	180	-	-	-	-
	acres	21,631	-	-	-	-
	pounds	52,797,144	-	-	-	-
Vegetables harvested for sale (see text)	farms	1,616	2,026	726	3,319	46
	acres	27,887	343,787	2,210	297,238	952
Potatoes	farms	596	618	277	608	20
	acres	5,408	157,499	275	63,933	843
Sweet potatoes	farms	83	3	7	14	-
	acres	330	(Z)	1	13	-
Land in orchards	farms	1,277	5,470	613	1,135	25
	acres	19,713	299,174	6,909	9,730	73

Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Total sales (see text) ....farms, 2007	2,204,792	48,753	686	15,637	49,346	81,033
2002	2,128,982	45,126	609	7,294	47,483	79,631
$1,000, 2007	297,220,491	4,415,550	57,019	3,234,552	7,508,806	33,885,064
2002	200,646,355	3,264,949	46,143	2,395,447	4,950,397	25,737,173
Average per farm ....dollars, 2007	134,807	90,570	83,119	206,852	152,166	418,164
2002	94,245	72,352	75,768	328,413	104,256	323,205
2007 value of sales:						
Less than $1,000 (see text) .... farms	688,833	17,042	143	7,266	12,814	18,111
$1,000	84,357	2,040	17	1,103	1,735	2,219
$1,000 to $2,499 .... farms	211,494	5,540	88	2,366	4,996	5,854
$1,000	350,588	9,198	140	3,682	8,390	9,652
$2,500 to $4,999 .... farms	200,302	5,458	81	1,721	5,353	6,548
$1,000	718,027	19,369	279	5,975	19,279	23,510
$5,000 to $9,999 .... farms	218,531	5,702	91	1,377	6,263	7,208
$1,000	1,552,543	40,413	628	9,415	44,563	51,093
$10,000 to $19,999 .... farms	190,402	5,217	72	862	5,576	7,761
$1,000	2,682,120	72,543	969	11,632	77,750	108,885
$20,000 to $24,999 .... farms	57,883	1,240	19	201	1,571	2,720
$1,000	1,277,703	27,238	413	4,413	34,598	59,120
$25,000 to $39,999 .... farms	107,046	1,895	49	307	2,278	5,081
$1,000	3,367,661	58,808	1,505	9,542	70,441	158,823
$40,000 to $49,999 .... farms	47,686	643	19	126	740	2,497
$1,000	2,112,835	28,145	831	5,531	32,541	108,929
$50,000 to $99,999 .... farms	125,456	1,287	47	358	1,685	6,212
$1,000	8,961,255	89,616	3,251	25,023	116,773	435,855
$100,000 to $249,999 .... farms	147,500	1,003	40	298	1,587	6,544
$1,000	24,212,940	164,905	5,901	47,690	267,171	1,026,860
$250,000 to $499,999 .... farms	93,373	1,386	18	204	1,884	3,917
$1,000	33,409,883	536,916	6,246	74,022	702,517	1,361,005
$500,000 or more .... farms	116,286	2,340	19	551	4,599	8,580
$1,000	218,490,577	3,366,360	36,839	3,036,525	6,133,048	30,539,114
2002 value of sales:						
Less than $1,000 (see text) .... farms	570,919	13,298	127	2,538	9,750	16,529
$1,000	63,223	1,680	19	259	1,387	1,872
$1,000 to $2,499 .... farms	255,639	6,260	80	907	6,658	6,833
$1,000	422,136	10,453	119	1,543	11,104	11,130
$2,500 to $4,999 .... farms	213,326	6,428	59	647	5,975	6,038
$1,000	762,554	23,068	201	2,308	21,479	21,417
$5,000 to $9,999 .... farms	223,168	6,083	96	598	6,237	7,262
$1,000	1,577,184	42,770	660	4,248	43,808	50,730
$10,000 to $19,999 .... farms	197,967	4,203	65	491	5,023	7,169
$1,000	2,781,507	58,176	916	6,752	69,165	101,385
$20,000 to $24,999 .... farms	58,190	1,003	24	184	1,285	2,286
$1,000	1,285,921	22,113	529	4,029	28,134	50,081
$25,000 to $39,999 .... farms	109,310	1,425	31	310	1,581	4,957
$1,000	3,438,976	44,272	941	9,810	49,138	155,635
$40,000 to $49,999 .... farms	48,596	509	22	120	595	2,174
$1,000	2,154,772	22,526	982	5,244	26,226	95,767
$50,000 to $99,999 .... farms	140,479	1,246	34	307	1,865	6,798
$1,000	10,024,295	86,863	2,282	22,066	135,583	478,765
$100,000 to $249,999 .... farms	159,052	1,280	33	320	2,655	7,281
$1,000	25,401,608	212,895	5,210	49,562	447,409	1,146,367
$250,000 to $499,999 .... farms	81,694	1,441	23	232	3,120	4,145
$1,000	28,530,105	529,623	8,308	82,714	1,177,094	1,455,208
$500,000 or more .... farms	70,642	1,950	15	640	2,739	8,159
$1,000	124,204,073	2,210,510	25,977	2,206,913	2,939,871	22,168,817
Value of sales by commodity or commodity group:						
Crops, including nursery and greenhouse ....farms, 2007	986,080	13,681	384	4,513	15,966	48,901
2002	944,656	11,059	337	2,576	12,995	48,634
$1,000, 2007	143,657,928	676,987	24,749	1,913,014	2,900,973	22,903,021
2002	95,151,954	590,268	20,543	1,587,775	1,620,384	19,152,722
Grains, oilseeds, dry beans, and dry peas ....farms, 2007	479,467	2,359	21	434	5,220	4,261
2002	485,124	2,195	23	485	5,971	4,952
$1,000, 2007	77,215,262	120,656	587	117,494	2,252,907	1,105,369
2002	39,957,698	62,949	(D)	80,408	1,122,883	722,093
Corn ....farms, 2007	347,540	1,856	-	156	1,411	1,811
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	39,909,600	74,138	-	40,187	356,930	309,402
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Wheat ....farms, 2007	159,527	518	-	200	2,112	1,188
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	10,623,640	13,680	-	46,107	118,354	155,566
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Soybeans ....farms, 2007	285,089	924	-	-	4,711	15
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	20,283,986	29,511	-	-	769,976	326
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Sorghum ....farms, 2007	27,142	88	-	130	707	150
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	1,651,798	801	-	15,167	73,348	7,909
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Barley ....farms, 2007	18,326	-	19	113	-	160
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	701,047	-	497	11,115	-	11,146
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Rice ....farms, 2007	6,085	-	-	-	2,752	1,305
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	2,020,231	-	-	-	932,782	501,046
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other grains, oilseeds, dry beans, and dry peas ....farms, 2007	55,228	275	5	72	62	967
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	2,024,959	2,526	90	4,917	1,516	119,976
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Total sales (see text)	farms, 2007	37,054	4,916	2,546	47,463	47,846	7,521
	2002	31,369	4,191	2,391	44,081	49,311	5,398
	$1,000, 2007	6,061,134	551,553	1,083,035	7,785,228	7,112,866	513,626
	2002	4,525,196	470,637	618,853	6,242,272	4,911,752	533,423
Average per farm	dollars, 2007	163,576	112,195	425,387	164,027	148,662	68,292
	2002	144,257	112,297	258,826	141,609	99,608	98,819
2007 value of sales:							
Less than $1,000 (see text)	farms	14,235	1,307	433	16,150	18,405	1,646
	$1,000	1,457	246	66	1,999	2,033	299
$1,000 to $2,499	farms	3,331	626	250	5,379	4,986	1,286
	$1,000	5,382	1,038	406	8,840	8,228	2,032
$2,500 to $4,999	farms	3,002	719	201	4,839	4,450	1,012
	$1,000	10,597	2,453	709	17,331	16,014	3,588
$5,000 to $9,999	farms	3,122	561	159	4,668	4,527	996
	$1,000	21,896	3,886	1,154	32,863	31,999	7,048
$10,000 to $19,999	farms	2,749	499	216	4,093	3,860	939
	$1,000	38,794	6,959	2,997	57,225	53,584	12,962
$20,000 to $24,999	farms	851	153	56	1,311	1,046	204
	$1,000	18,768	3,383	1,233	28,538	23,011	4,418
$25,000 to $39,999	farms	1,628	228	100	2,301	1,651	401
	$1,000	51,246	7,026	2,968	71,667	51,361	12,480
$40,000 to $49,999	farms	755	101	27	1,054	657	156
	$1,000	33,349	4,424	1,209	45,631	29,145	6,716
$50,000 to $99,999	farms	2,283	231	115	2,435	1,491	353
	$1,000	162,360	16,111	8,056	170,114	103,044	24,332
$100,000 to $249,999	farms	2,348	222	140	2,103	2,182	274
	$1,000	378,950	35,505	23,150	331,134	378,793	40,897
$250,000 to $499,999	farms	1,247	91	141	1,063	1,232	106
	$1,000	450,488	31,071	52,303	373,432	459,611	37,691
$500,000 or more	farms	1,503	178	708	2,067	3,359	148
	$1,000	4,887,846	439,451	988,785	6,646,454	5,956,045	361,164
2002 value of sales:							
Less than $1,000 (see text)	farms	9,429	1,312	324	12,027	17,108	661
	$1,000	777	177	66	1,564	1,671	165
$1,000 to $2,499	farms	3,587	588	283	7,087	6,878	746
	$1,000	5,813	949	475	11,404	11,370	1,207
$2,500 to $4,999	farms	2,979	523	141	4,544	5,046	714
	$1,000	10,545	1,797	479	16,093	17,996	2,549
$5,000 to $9,999	farms	2,967	398	133	4,285	5,131	916
	$1,000	20,955	2,751	876	30,120	36,111	6,366
$10,000 to $19,999	farms	2,882	379	120	3,910	3,881	807
	$1,000	40,344	5,294	1,688	55,050	54,211	11,035
$20,000 to $24,999	farms	896	123	39	1,330	997	249
	$1,000	19,647	2,713	865	29,469	22,063	5,346
$25,000 to $39,999	farms	1,725	170	93	2,227	1,702	341
	$1,000	54,476	5,252	2,914	70,153	53,332	10,519
$40,000 to $49,999	farms	795	71	54	1,078	704	165
	$1,000	35,098	3,092	2,365	47,857	30,950	7,109
$50,000 to $99,999	farms	2,179	188	180	2,486	1,592	314
	$1,000	154,391	13,160	12,581	175,907	112,269	20,907
$100,000 to $249,999	farms	2,064	195	195	2,092	1,804	249
	$1,000	322,541	32,391	31,975	328,219	297,953	37,734
$250,000 to $499,999	farms	867	114	499	1,147	1,997	103
	$1,000	299,380	37,906	196,263	395,446	734,621	36,198
$500,000 or more	farms	999	130	330	1,868	2,471	133
	$1,000	3,561,229	365,155	368,306	5,080,991	3,539,204	394,287
Value of sales by commodity or commodity group:							
Crops, including nursery and greenhouse	farms, 2007	13,897	2,937	1,517	17,307	15,305	5,376
	2002	10,613	2,376	1,366	17,327	14,837	4,317
	$1,000, 2007	1,981,399	401,372	210,635	6,256,228	2,142,270	429,916
	2002	1,216,278	327,527	150,404	5,041,433	1,579,596	445,356
Grains, oilseeds, dry beans, and dry peas	farms, 2007	5,304	157	1,098	730	4,422	15
	2002	4,829	116	1,014	509	3,828	13
	$1,000, 2007	1,049,754	2,316	117,073	33,344	300,754	19,353
	2002	448,378	1,410	72,393	17,798	102,464	14,647
Corn	farms, 2007	2,926	142	855	555	3,190	15
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	487,703	2,182	67,837	17,583	178,260	19,353
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Wheat	farms, 2007	3,649	3	339	79	1,318	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	435,716	(D)	14,661	2,988	45,390	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Soybeans	farms, 2007	67	7	830	117	1,653	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	3,261	(D)	31,079	2,349	61,703	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Sorghum	farms, 2007	418	1	10	37	448	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	21,707	(D)	(D)	671	6,569	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Barley	farms, 2007	326	-	137	-	11	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	24,066	-	3,319	-	80	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Rice	farms, 2007	-	-	-	7	-	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	-	-	-	8,332	-	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other grains, oilseeds, dry beans, and dry peas	farms, 2007	1,248	18	23	141	914	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	77,301	29	(D)	1,421	8,751	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Total sales (see text) ....farms, 2007	25,349	76,860	60,938	92,856	65,531	85,260
2002	25,017	73,027	60,296	90,655	64,414	86,541
$1,000, 2007	5,688,765	13,329,107	8,271,291	20,418,096	14,413,182	4,824,561
2002	3,908,262	7,676,239	4,783,158	12,273,634	8,746,244	3,080,080
Average per farm ....dollars, 2007	224,418	173,421	135,733	219,890	219,944	56,586
2002	156,224	105,115	79,328	135,388	135,782	35,591
2007 value of sales:						
Less than $1,000 (see text) .... farms	8,089	22,411	17,258	23,698	18,554	25,918
$1,000	958	2,051	2,300	1,292	1,578	3,805
$1,000 to $2,499 .... farms	2,683	4,468	5,212	3,032	4,177	9,882
$1,000	4,467	7,486	8,760	5,079	6,871	16,482
$2,500 to $4,999 .... farms	2,192	4,278	4,971	3,986	3,863	9,787
$1,000	7,870	15,496	17,878	14,496	14,020	35,359
$5,000 to $9,999 .... farms	2,281	4,877	5,686	5,100	5,198	11,150
$1,000	16,259	34,909	40,403	37,069	37,249	79,547
$10,000 to $19,999 .... farms	1,938	4,316	4,842	4,715	5,845	9,752
$1,000	27,249	61,816	68,895	68,106	83,766	137,218
$20,000 to $24,999 .... farms	679	1,594	1,483	1,948	1,999	2,890
$1,000	14,979	35,448	33,033	43,388	44,260	63,772
$25,000 to $39,999 .... farms	1,166	3,484	3,120	4,670	4,195	4,626
$1,000	36,612	110,770	99,362	149,361	132,914	144,188
$40,000 to $49,999 .... farms	500	1,897	1,411	2,844	1,902	1,670
$1,000	22,142	84,608	62,858	127,565	84,762	73,819
$50,000 to $99,999 .... farms	1,505	6,245	4,273	9,805	5,609	3,663
$1,000	106,929	456,299	307,348	723,244	400,420	256,024
$100,000 to $249,999 .... farms	1,630	9,029	5,283	14,181	6,423	2,892
$1,000	266,828	1,504,558	875,041	2,396,707	1,043,707	458,770
$250,000 to $499,999 .... farms	1,031	7,101	3,372	9,399	3,751	1,417
$1,000	366,846	2,569,946	1,206,047	3,372,226	1,343,309	498,767
$500,000 or more .... farms	1,655	7,160	4,027	9,478	4,015	1,613
$1,000	4,817,628	8,445,720	5,549,365	13,479,563	11,220,326	3,056,810
2002 value of sales:						
Less than $1,000 (see text) .... farms	8,351	16,559	15,523	19,668	16,466	18,452
$1,000	552	1,328	1,516	915	1,300	2,819
$1,000 to $2,499 .... farms	3,236	4,242	6,097	3,768	3,978	14,466
$1,000	5,345	7,088	10,072	6,246	6,623	24,263
$2,500 to $4,999 .... farms	2,123	4,316	5,169	3,737	4,594	11,778
$1,000	7,453	15,621	18,587	13,593	16,686	42,440
$5,000 to $9,999 .... farms	1,998	5,146	5,760	4,902	6,102	13,561
$1,000	14,353	36,776	41,002	35,352	43,855	95,820
$10,000 to $19,999 .... farms	1,897	5,866	5,555	6,631	6,936	10,659
$1,000	26,483	84,771	79,007	96,195	99,523	148,506
$20,000 to $24,999 .... farms	547	2,114	1,774	2,778	2,320	2,495
$1,000	12,058	46,948	39,366	61,731	51,604	55,155
$25,000 to $39,999 .... farms	1,137	4,767	3,438	6,437	4,621	4,832
$1,000	35,629	151,807	108,843	205,720	146,204	150,233
$40,000 to $49,999 .... farms	467	2,491	1,674	3,601	2,096	1,693
$1,000	20,586	110,695	74,501	160,367	93,441	75,155
$50,000 to $99,999 .... farms	1,368	8,052	4,945	11,718	6,282	3,486
$1,000	97,522	581,380	353,319	846,783	448,705	242,915
$100,000 to $249,999 .... farms	1,679	10,911	5,646	14,920	6,521	2,915
$1,000	269,113	1,773,481	907,375	2,417,878	1,033,957	444,138
$250,000 to $499,999 .... farms	910	5,718	2,859	7,731	2,684	1,250
$1,000	319,331	1,978,684	1,001,820	2,679,591	923,282	433,969
$500,000 or more .... farms	1,304	2,845	1,856	4,764	1,814	954
$1,000	3,099,838	2,887,662	2,147,748	5,749,264	5,881,064	1,364,666
Value of sales by commodity or commodity group:						
Crops, including nursery and greenhouse ....farms, 2007	10,688	49,658	36,142	59,196	36,158	35,077
2002	9,261	50,786	35,457	60,303	36,152	46,370
$1,000, 2007	2,324,789	10,876,415	5,319,019	10,343,585	4,887,212	1,404,769
2002	1,787,172	5,871,542	2,992,747	6,071,272	2,418,447	1,110,209
Grains, oilseeds, dry beans, and dry peas ....farms, 2007	4,649	42,901	29,038	53,417	28,543	8,729
2002	4,500	45,989	28,463	55,294	30,326	8,326
$1,000, 2007	806,299	10,257,765	5,021,216	10,123,033	4,510,045	867,298
2002	479,728	5,335,107	2,646,983	5,858,528	2,102,432	518,327
Corn ....farms, 2007	1,361	38,668	24,597	49,970	11,839	7,107
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	132,097	7,073,343	3,114,306	6,796,492	1,697,262	553,127
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Wheat ....farms, 2007	2,839	9,395	5,033	570	22,430	1,406
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	458,767	229,850	99,664	5,859	1,403,043	58,632
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Soybeans ....farms, 2007	-	34,682	22,569	42,597	13,987	4,447
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	-	2,914,745	1,772,861	3,306,656	688,080	249,237
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Sorghum ....farms, 2007	-	736	88	50	11,419	107
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	-	21,872	3,302	697	673,559	3,825
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Barley ....farms, 2007	2,121	40	32	72	152	47
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	151,675	(D)	48	398	1,675	239
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Rice ....farms, 2007	-	3	-	-	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	-	(D)	-	-	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other grains, oilseeds, dry beans, and dry peas ....farms, 2007	1,156	1,043	704	2,558	1,616	113
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	63,760	16,849	31,036	12,930	46,426	2,239
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Total sales (see text)	farms, 2007	30,106	8,136	12,834	7,691	56,014	80,992
	2002	27,413	7,196	12,198	6,075	53,315	80,839
	$1,000, 2007	2,617,981	617,190	1,835,090	489,820	5,753,219	13,180,466
	2002	1,815,803	463,603	1,293,303	384,314	3,772,435	8,575,627
Average per farm	dollars, 2007	86,959	75,859	142,987	63,687	102,710	162,738
	2002	66,239	64,425	106,026	63,262	70,757	106,083
2007 value of sales:							
Less than $1,000 (see text)	farms	11,583	2,866	3,745	2,380	18,648	26,286
	$1,000	1,135	493	451	438	2,372	2,275
$1,000 to $2,499	farms	3,043	1,058	1,240	949	5,502	4,392
	$1,000	5,018	1,752	2,062	1,546	9,234	7,350
$2,500 to $4,999	farms	2,934	838	1,248	839	5,229	4,451
	$1,000	10,400	2,991	4,522	3,022	18,659	16,031
$5,000 to $9,999	farms	3,295	846	1,272	769	5,292	4,795
	$1,000	23,228	5,944	8,991	5,329	37,544	34,430
$10,000 to $19,999	farms	2,448	747	1,112	791	4,715	4,926
	$1,000	34,099	10,538	15,590	10,979	66,930	70,768
$20,000 to $24,999	farms	719	202	357	244	1,379	1,751
	$1,000	15,792	4,410	7,865	5,299	30,734	38,828
$25,000 to $39,999	farms	1,288	328	629	362	2,791	3,819
	$1,000	40,064	10,213	19,730	11,523	88,022	122,318
$40,000 to $49,999	farms	483	151	281	156	1,150	1,918
	$1,000	21,304	6,737	12,462	6,865	51,181	85,686
$50,000 to $99,999	farms	1,091	328	691	398	3,342	6,490
	$1,000	75,816	22,723	49,466	27,591	235,867	470,986
$100,000 to $249,999	farms	1,030	377	734	397	3,492	9,479
	$1,000	174,107	59,785	118,385	60,648	549,825	1,566,188
$250,000 to $499,999	farms	787	197	555	212	2,054	6,259
	$1,000	294,521	67,611	201,269	73,831	732,045	2,228,906
$500,000 or more	farms	1,405	198	970	194	2,420	6,426
	$1,000	1,922,496	423,992	1,394,298	282,750	3,930,806	8,536,699
2002 value of sales:							
Less than $1,000 (see text)	farms	7,948	2,659	3,633	1,727	17,442	23,766
	$1,000	971	422	428	289	1,558	1,649
$1,000 to $2,499	farms	3,890	975	1,483	865	5,849	5,258
	$1,000	6,376	1,589	2,412	1,376	9,665	8,662
$2,500 to $4,999	farms	3,203	777	1,199	647	4,749	4,417
	$1,000	11,391	2,736	4,286	2,243	17,092	16,010
$5,000 to $9,999	farms	3,194	682	1,067	623	5,107	5,491
	$1,000	22,192	4,783	7,500	4,281	36,516	39,423
$10,000 to $19,999	farms	2,435	578	1,006	555	4,930	5,994
	$1,000	33,615	8,051	14,179	7,728	70,100	85,952
$20,000 to $24,999	farms	604	149	313	160	1,499	2,105
	$1,000	13,336	3,292	6,914	3,491	33,184	46,663
$25,000 to $39,999	farms	970	269	531	279	2,839	4,813
	$1,000	30,362	8,353	16,467	8,821	89,520	153,426
$40,000 to $49,999	farms	449	118	197	143	1,180	2,429
	$1,000	19,826	5,231	8,685	6,277	52,353	108,292
$50,000 to $99,999	farms	1,295	310	670	385	3,229	8,024
	$1,000	90,766	22,145	48,317	26,885	228,371	579,548
$100,000 to $249,999	farms	1,529	350	814	380	3,231	9,895
	$1,000	245,071	56,012	134,476	58,644	513,700	1,597,222
$250,000 to $499,999	farms	944	163	630	176	1,807	5,022
	$1,000	331,184	55,647	223,996	58,991	625,875	1,734,453
$500,000 or more	farms	952	166	655	135	1,453	3,625
	$1,000	1,010,714	295,343	825,642	205,289	2,094,500	4,204,328
Value of sales by commodity or commodity group:							
Crops, including nursery and greenhouse	farms, 2007	8,241	4,427	6,763	4,162	32,167	46,189
	2002	8,370	3,825	6,252	3,629	29,697	45,614
	$1,000, 2007	1,604,647	326,573	629,303	364,481	3,329,928	7,048,913
	2002	1,065,611	222,356	450,202	277,069	2,362,628	4,562,882
Grains, oilseeds, dry beans, and dry peas	farms, 2007	3,097	254	3,501	126	17,140	36,298
	2002	3,655	308	3,510	110	16,819	36,628
	$1,000, 2007	850,540	9,146	307,944	1,781	1,710,733	5,936,153
	2002	368,691	7,794	167,555	1,358	990,921	3,551,017
Corn	farms, 2007	1,386	62	2,758	117	13,472	30,207
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	337,958	2,574	170,038	1,737	915,597	3,316,564
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Wheat	farms, 2007	809	8	1,486	5	6,235	6,699
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	42,975	148	46,832	(D)	159,397	451,147
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Soybeans	farms, 2007	1,518	12	2,165	3	10,749	27,407
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	181,781	(D)	84,062	(D)	540,606	2,017,731
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Sorghum	farms, 2007	621	-	80	-	68	5
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	61,212	-	734	-	157	6
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Barley	farms, 2007	-	66	638	-	320	1,038
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	-	(D)	5,430	-	1,778	18,393
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Rice	farms, 2007	848	-	-	-	-	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	226,279	-	-	-	-	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other grains, oilseeds, dry beans, and dry peas	farms, 2007	52	161	225	6	3,136	5,635
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	335	3,811	848	(D)	93,198	132,312
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Total sales (see text) ....farms, 2007	41,959	107,825	29,524	47,712	3,131	4,166
2002	42,186	106,797	27,870	49,355	2,989	3,363
$1,000, 2007	4,876,781	7,512,926	2,803,062	15,506,035	513,269	199,051
2002	3,116,295	4,983,255	1,882,114	9,703,657	446,989	144,835
Average per farm ....dollars, 2007	116,227	69,677	94,942	324,992	163,931	47,780
2002	73,870	46,661	67,532	196,609	149,545	43,067
2007 value of sales:						
Less than $1,000 (see text) .... farms	18,389	30,541	9,986	9,086	878	1,434
$1,000	1,447	3,392	715	754	106	246
$1,000 to $2,499 .... farms	3,816	8,938	1,991	1,956	306	634
$1,000	6,307	15,075	3,327	3,233	507	1,048
$2,500 to $4,999 .... farms	3,659	10,172	1,784	1,792	269	466
$1,000	13,107	36,799	6,393	6,494	941	1,686
$5,000 to $9,999 .... farms	4,029	12,872	1,934	2,186	333	469
$1,000	28,572	92,203	13,790	15,794	2,329	3,258
$10,000 to $19,999 .... farms	3,630	12,377	2,070	2,819	262	362
$1,000	50,987	175,934	29,483	40,942	3,788	5,030
$20,000 to $24,999 .... farms	890	3,884	700	1,059	72	104
$1,000	19,597	85,945	15,502	23,477	1,585	2,246
$25,000 to $39,999 .... farms	1,361	7,346	1,458	2,568	154	195
$1,000	42,187	230,505	45,919	82,100	4,779	6,153
$40,000 to $49,999 .... farms	569	3,217	757	1,409	63	68
$1,000	25,155	142,415	33,612	62,519	2,767	2,992
$50,000 to $99,999 .... farms	1,070	6,634	2,464	5,261	179	148
$1,000	74,371	473,382	176,539	384,139	12,856	10,230
$100,000 to $249,999 .... farms	1,049	5,688	3,440	7,947	255	136
$1,000	171,387	931,139	563,632	1,314,877	41,570	20,713
$250,000 to $499,999 .... farms	852	2,959	1,807	5,708	157	85
$1,000	315,923	1,072,242	633,257	2,052,520	53,671	29,596
$500,000 or more .... farms	2,645	3,197	1,133	5,921	203	65
$1,000	4,127,741	4,253,896	1,280,893	11,519,186	388,370	115,854
2002 value of sales:						
Less than $1,000 (see text) .... farms	16,445	23,617	7,968	8,002	758	1,250
$1,000	1,331	2,719	499	502	79	187
$1,000 to $2,499 .... farms	6,001	12,492	2,149	1,818	350	507
$1,000	9,964	20,924	3,565	3,028	569	822
$2,500 to $4,999 .... farms	4,572	11,663	1,776	2,172	256	382
$1,000	16,267	42,110	6,327	7,889	921	1,327
$5,000 to $9,999 .... farms	4,260	15,249	2,162	3,077	291	344
$1,000	29,853	108,657	15,484	22,370	1,998	2,394
$10,000 to $19,999 .... farms	3,130	14,053	2,271	4,220	238	247
$1,000	43,316	197,248	32,405	60,740	3,350	3,434
$20,000 to $24,999 .... farms	762	4,034	772	1,633	74	56
$1,000	16,716	89,156	17,111	36,352	1,623	1,223
$25,000 to $39,999 .... farms	1,155	6,682	1,780	4,083	149	136
$1,000	36,173	209,274	56,409	129,416	4,676	4,090
$40,000 to $49,999 .... farms	433	2,660	938	1,947	65	58
$1,000	19,158	117,894	41,508	86,639	2,799	2,540
$50,000 to $99,999 .... farms	1,071	6,931	3,027	6,619	227	130
$1,000	75,649	487,292	215,811	477,834	16,309	9,255
$100,000 to $249,999 .... farms	1,206	5,271	3,399	8,834	276	130
$1,000	197,863	844,286	526,723	1,411,344	43,170	20,320
$250,000 to $499,999 .... farms	1,269	2,513	1,108	4,126	145	75
$1,000	465,843	869,753	373,328	1,421,255	50,710	25,996
$500,000 or more .... farms	1,882	1,632	520	2,824	160	48
$1,000	2,204,162	1,993,941	592,944	6,046,287	320,784	73,246
Value of sales by commodity or commodity group:						
Crops, including nursery and greenhouse ....farms, 2007	10,712	44,864	12,102	31,099	1,051	2,259
2002	9,724	42,853	11,439	31,493	968	1,730
$1,000, 2007	1,668,028	3,494,938	1,273,721	6,843,325	219,341	106,467
2002	1,025,385	1,992,446	733,324	3,388,265	157,730	83,149
Grains, oilseeds, dry beans, and dry peas ....farms, 2007	3,918	22,731	6,386	26,753	76	60
2002	3,884	24,793	6,517	28,070	97	47
$1,000, 2007	1,089,873	2,963,208	1,009,039	6,528,508	8,455	838
2002	457,364	1,546,535	507,090	3,091,884	(D)	1,246
Corn ....farms, 2007	2,113	15,663	461	23,236	31	55
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	430,983	1,365,543	28,168	4,427,937	2,392	837
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Wheat ....farms, 2007	1,003	7,612	5,428	8,012	38	1
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	85,569	171,548	816,021	407,325	5,678	(D)
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Soybeans ....farms, 2007	2,695	19,048	8	17,192	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	405,236	1,272,702	(D)	1,487,283	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Sorghum ....farms, 2007	305	1,098	2	1,994	1	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	32,893	33,141	(D)	74,590	(D)	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Barley ....farms, 2007	-	54	2,307	35	6	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	-	163	102,202	194	283	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Rice ....farms, 2007	341	435	-	-	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	134,617	115,434	-	-	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other grains, oilseeds, dry beans, and dry peas ....farms, 2007	72	443	1,240	2,274	3	4
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	574	4,675	62,527	131,180	(D)	(D)
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Total sales (see text) ..... farms, 2007	10,327	20,930	36,352	52,913	31,970	75,861
2002	9,924	15,170	37,255	53,930	30,619	77,797
$1,000, 2007	986,885	2,175,080	4,418,634	10,313,628	6,084,218	7,070,212
2002	749,872	1,700,030	3,117,834	6,961,686	3,233,366	4,263,549
Average per farm ..... dollars, 2007	95,564	103,922	121,551	194,917	190,310	93,200
2002	75,561	112,065	83,689	129,087	105,600	54,804
2007 value of sales:						
Less than $1,000 (see text) ..... farms	3,194	7,613	9,847	15,855	10,650	20,019
$1,000	1,071	976	1,394	2,484	397	2,940
$1,000 to $2,499 ..... farms	1,754	2,883	3,157	6,753	736	7,537
$1,000	2,766	4,669	5,178	11,000	1,241	12,511
$2,500 to $4,999 ..... farms	999	2,520	3,075	5,863	868	7,357
$1,000	3,522	8,934	11,042	20,983	3,131	26,333
$5,000 to $9,999 ..... farms	1,007	2,252	3,770	5,805	1,215	7,793
$1,000	7,011	15,518	26,785	41,134	8,884	55,802
$10,000 to $19,999 ..... farms	806	1,650	3,674	4,704	1,428	6,827
$1,000	11,271	22,945	51,093	64,868	20,723	97,442
$20,000 to $24,999 ..... farms	302	414	1,032	1,124	539	2,218
$1,000	6,573	9,124	22,778	24,723	12,005	49,279
$25,000 to $39,999 ..... farms	468	753	1,883	1,956	1,361	4,478
$1,000	14,747	23,397	59,246	61,285	43,335	142,141
$40,000 to $49,999 ..... farms	188	312	811	809	802	2,023
$1,000	8,280	13,830	35,982	35,730	35,518	90,602
$50,000 to $99,999 ..... farms	462	844	2,253	1,718	2,891	5,565
$1,000	31,849	60,242	161,929	121,445	211,633	402,232
$100,000 to $249,999 ..... farms	461	759	3,295	1,854	4,303	5,720
$1,000	72,630	120,633	544,576	309,261	721,316	927,974
$250,000 to $499,999 ..... farms	286	376	1,805	1,866	3,552	3,237
$1,000	99,373	132,249	630,352	688,110	1,269,432	1,153,405
$500,000 or more ..... farms	400	554	1,750	4,606	3,625	3,087
$1,000	727,792	1,762,563	2,868,278	8,932,607	3,756,602	4,109,551
2002 value of sales:						
Less than $1,000 (see text) ..... farms	2,927	5,519	9,825	13,520	8,634	18,939
$1,000	937	429	1,101	1,841	250	2,474
$1,000 to $2,499 ..... farms	2,306	1,993	4,418	8,576	677	9,979
$1,000	3,596	3,251	7,245	14,088	1,151	16,517
$2,500 to $4,999 ..... farms	991	1,408	3,364	6,350	1,004	9,022
$1,000	3,432	4,981	12,045	22,575	3,690	32,110
$5,000 to $9,999 ..... farms	820	1,443	3,223	5,925	1,471	8,718
$1,000	5,604	10,168	22,764	41,283	10,702	61,886
$10,000 to $19,999 ..... farms	692	1,208	3,278	4,585	2,165	8,161
$1,000	9,562	16,848	45,447	63,873	31,196	115,285
$20,000 to $24,999 ..... farms	259	378	898	1,273	915	2,482
$1,000	5,664	8,258	19,765	28,108	20,292	55,021
$25,000 to $39,999 ..... farms	347	623	1,880	1,848	1,965	4,431
$1,000	10,858	19,442	59,326	57,476	62,353	139,281
$40,000 to $49,999 ..... farms	142	270	845	854	1,108	1,900
$1,000	6,185	11,878	37,496	37,749	49,187	84,619
$50,000 to $99,999 ..... farms	381	740	3,073	2,208	3,851	5,297
$1,000	26,794	51,971	225,097	158,105	277,864	373,061
$100,000 to $249,999 ..... farms	463	773	3,878	2,630	5,221	5,384
$1,000	72,918	123,777	616,540	439,924	831,944	845,567
$250,000 to $499,999 ..... farms	256	349	1,491	2,579	2,381	2,288
$1,000	88,966	123,763	504,859	931,601	816,893	780,893
$500,000 or more ..... farms	340	466	1,082	3,582	1,227	1,196
$1,000	515,357	1,325,264	1,566,149	5,165,062	1,127,844	1,756,836
Value of sales by commodity or commodity group:						
Crops, including nursery and greenhouse ..... farms, 2007	6,505	7,441	20,009	23,575	18,127	45,060
2002	6,199	4,739	18,743	24,587	16,938	45,454
$1,000, 2007	851,653	553,140	1,561,927	2,606,279	5,038,521	4,109,722
2002	657,494	397,257	1,135,129	2,008,634	2,460,372	2,304,895
Grains, oilseeds, dry beans, and dry peas ..... farms, 2007	1,120	1,054	5,249	9,803	15,377	30,658
2002	1,083	742	4,786	9,513	15,015	30,873
$1,000, 2007	59,860	132,548	315,647	697,792	4,567,800	3,361,418
2002	29,885	68,256	156,300	359,296	2,083,788	1,541,122
Corn ..... farms, 2007	797	398	4,332	6,476	6,401	24,006
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	32,981	70,667	210,169	347,995	821,072	1,643,456
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Wheat ..... farms, 2007	317	525	1,039	3,179	12,282	11,426
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	6,656	43,005	28,470	96,691	1,845,619	204,871
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Soybeans ..... farms, 2007	533	4	1,239	7,080	5,994	24,360
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	19,279	108	61,789	246,716	780,507	1,495,598
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Sorghum ..... farms, 2007	16	260	45	233	12	50
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	118	12,546	122	1,495	44	909
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Barley ..... farms, 2007	46	9	301	222	4,839	190
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	416	303	1,118	2,273	254,809	482
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Rice ..... farms, 2007	-	-	-	-	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	-	-	-	-	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other grains, oilseeds, dry beans, and dry peas ..... farms, 2007	116	179	1,583	791	8,719	2,397
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	410	5,920	13,979	2,621	865,748	16,103
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Total sales (see text) ....farms, 2007	86,565	38,553	63,163	1,219	25,867
2002	83,300	40,033	58,105	858	24,541
$1,000, 2007	5,806,061	4,386,143	5,808,803	65,908	2,352,681
2002	4,456,404	3,195,497	4,256,959	55,546	1,489,750
Average per farm ....dollars, 2007	67,072	113,769	91,965	54,067	90,953
2002	53,498	79,822	73,263	64,740	60,705
2007 value of sales:					
Less than $1,000 (see text) ....farms	26,638	11,763	21,425	361	11,291
$1,000	3,400	2,196	3,032	54	1,177
$1,000 to $2,499 ....farms	8,031	5,687	6,070	126	3,045
$1,000	13,365	9,327	10,163	202	5,041
$2,500 to $4,999 ....farms	9,059	4,651	5,609	140	2,609
$1,000	32,379	16,493	20,095	511	9,290
$5,000 to $9,999 ....farms	10,731	3,934	5,746	147	2,875
$1,000	75,936	27,592	41,029	1,054	20,269
$10,000 to $19,999 ....farms	10,529	2,807	4,943	133	1,800
$1,000	147,880	38,969	70,203	1,874	25,452
$20,000 to $24,999 ....farms	2,965	923	1,545	46	489
$1,000	65,247	20,252	34,269	1,004	10,809
$25,000 to $39,999 ....farms	4,932	1,592	2,884	68	964
$1,000	153,476	49,613	90,821	2,092	30,345
$40,000 to $49,999 ....farms	1,954	680	1,219	25	325
$1,000	86,245	29,850	54,101	1,101	14,318
$50,000 to $99,999 ....farms	4,563	1,838	3,067	56	664
$1,000	320,139	129,394	222,378	3,896	46,571
$100,000 to $249,999 ....farms	3,651	1,939	5,695	57	515
$1,000	588,738	307,708	972,348	8,642	82,697
$250,000 to $499,999 ....farms	1,675	1,077	2,718	31	329
$1,000	603,357	380,667	955,587	10,369	119,053
$500,000 or more ....farms	1,837	1,662	2,242	29	961
$1,000	3,715,900	3,374,081	3,334,777	35,109	1,987,659
2002 value of sales:					
Less than $1,000 (see text) ....farms	20,060	11,060	17,658	207	10,752
$1,000	2,257	1,891	1,891	28	1,066
$1,000 to $2,499 ....farms	9,867	7,813	6,736	80	3,744
$1,000	16,412	12,606	11,172	132	6,148
$2,500 to $4,999 ....farms	9,925	4,737	5,881	110	2,543
$1,000	35,590	16,704	21,088	388	9,104
$5,000 to $9,999 ....farms	12,452	4,043	5,134	98	2,204
$1,000	87,909	28,351	36,297	659	15,466
$10,000 to $19,999 ....farms	10,056	3,107	4,643	94	1,683
$1,000	139,858	43,427	65,183	1,310	23,216
$20,000 to $24,999 ....farms	2,777	804	1,341	36	434
$1,000	61,345	17,698	29,660	795	9,515
$25,000 to $39,999 ....farms	5,437	1,591	2,217	45	676
$1,000	169,164	49,857	69,945	1,404	20,988
$40,000 to $49,999 ....farms	1,936	815	1,075	20	245
$1,000	85,330	35,978	47,701	864	10,854
$50,000 to $99,999 ....farms	4,340	1,876	3,823	56	600
$1,000	302,570	131,951	282,356	4,042	41,875
$100,000 to $249,999 ....farms	3,647	1,935	6,195	65	571
$1,000	568,762	313,626	956,471	10,375	92,109
$250,000 to $499,999 ....farms	1,609	1,113	1,977	19	399
$1,000	561,561	389,960	678,145	6,753	142,294
$500,000 or more ....farms	1,194	1,139	1,425	28	690
$1,000	2,425,646	2,153,448	2,057,051	28,797	1,117,115
Value of sales by commodity or commodity group:					
Crops, including nursery and greenhouse ....farms, 2007	26,515	16,488	33,119	705	8,781
2002	22,786	16,853	28,094	526	7,869
$1,000, 2007	1,187,625	2,976,087	1,869,706	55,602	798,490
2002	819,078	2,194,911	1,320,914	47,138	593,245
Grains, oilseeds, dry beans, and dry peas ....farms, 2007	9,450	1,845	15,771	20	3,365
2002	10,524	2,217	13,621	23	2,755
$1,000, 2007	698,093	316,772	500,428	94	214,661
2002	432,194	149,648	203,156	171	81,580
Corn ....farms, 2007	1,034	379	13,436	17	2,591
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	149,778	37,084	319,930	93	129,332
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Wheat ....farms, 2007	8,555	1,400	4,463	-	711
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	464,517	255,159	45,332	-	17,941
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Soybeans ....farms, 2007	951	2	5,713	-	1,974
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	36,486	(D)	122,103	-	64,675
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Sorghum ....farms, 2007	981	4	158	-	87
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	38,706	(D)	506	-	1,003
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Barley ....farms, 2007	42	331	1,787	-	25
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	(D)	12,468	5,325	-	115
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Rice ....farms, 2007	3	-	-	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	(D)	-	-	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Other grains, oilseeds, dry beans, and dry peas ....farms, 2007	535	382	4,175	3	460
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	7,543	12,017	7,232	1	1,595
2002	(NA)	(NA)	(NA)	(NA)	(NA)

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		South Dakota	Tennessee	Texas	Utah	Vermont
Total sales (see text)	farms, 2007	31,169	79,280	247,437	16,700	6,984
	2002	31,736	87,595	228,926	15,282	6,571
	$1,000, 2007	6,570,450	2,617,394	21,001,074	1,415,678	673,713
	2002	3,834,625	2,199,814	14,134,744	1,115,898	473,065
Average per farm	dollars, 2007	210,801	33,015	84,874	84,771	96,465
	2002	120,829	25,113	61,744	73,020	71,993
2007 value of sales:						
Less than $1,000 (see text)	farms	6,981	27,068	86,279	4,806	1,778
	$1,000	465	4,089	11,329	685	341
$1,000 to $2,499	farms	1,296	11,454	30,608	2,253	803
	$1,000	2,174	19,346	50,794	3,710	1,297
$2,500 to $4,999	farms	1,077	9,539	28,630	1,857	695
	$1,000	3,860	34,108	102,467	6,595	2,511
$5,000 to $9,999	farms	1,433	11,217	30,256	1,951	841
	$1,000	10,349	79,899	213,977	13,855	5,930
$10,000 to $19,999	farms	1,809	7,476	23,546	1,528	710
	$1,000	26,034	104,602	328,934	21,289	9,633
$20,000 to $24,999	farms	706	2,012	6,554	466	192
	$1,000	15,727	44,182	144,638	10,255	4,207
$25,000 to $39,999	farms	1,576	3,393	10,804	948	365
	$1,000	50,300	105,537	338,673	29,897	11,501
$40,000 to $49,999	farms	939	1,319	4,406	415	132
	$1,000	41,910	58,180	194,666	18,463	5,850
$50,000 to $99,999	farms	3,409	2,001	8,774	860	390
	$1,000	247,296	139,821	612,408	60,967	28,264
$100,000 to $249,999	farms	5,511	1,630	7,238	785	473
	$1,000	919,156	262,088	1,154,800	125,943	77,936
$250,000 to $499,999	farms	3,588	956	4,296	400	314
	$1,000	1,267,732	342,793	1,544,859	141,815	108,787
$500,000 or more	farms	2,844	1,215	6,046	431	291
	$1,000	3,985,447	1,422,750	16,303,529	982,202	417,456
2002 value of sales:						
Less than $1,000 (see text)	farms	5,765	24,910	64,572	5,628	1,705
	$1,000	327	3,698	9,765	597	281
$1,000 to $2,499	farms	1,187	17,831	37,501	1,664	968
	$1,000	1,977	29,551	62,090	2,698	1,545
$2,500 to $4,999	farms	1,412	12,859	32,353	1,455	699
	$1,000	5,047	45,398	115,234	5,185	2,508
$5,000 to $9,999	farms	1,774	12,311	29,248	1,399	610
	$1,000	12,886	86,097	205,491	9,822	4,224
$10,000 to $19,999	farms	2,528	8,129	23,027	1,350	517
	$1,000	36,479	112,444	319,231	19,116	7,265
$20,000 to $24,999	farms	1,002	1,883	5,565	383	116
	$1,000	22,154	41,581	122,625	8,512	2,544
$25,000 to $39,999	farms	2,472	2,822	9,582	720	262
	$1,000	78,246	87,591	299,157	22,509	8,254
$40,000 to $49,999	farms	1,366	869	3,645	308	134
	$1,000	60,739	38,353	161,380	13,581	5,864
$50,000 to $99,999	farms	4,564	2,133	8,769	788	393
	$1,000	327,010	148,735	610,754	56,270	29,418
$100,000 to $249,999	farms	6,117	1,915	7,465	788	716
	$1,000	967,274	309,966	1,185,554	126,338	116,150
$250,000 to $499,999	farms	2,324	1,131	3,836	419	269
	$1,000	794,925	396,453	1,336,948	146,615	92,123
$500,000 or more	farms	1,225	802	3,363	380	182
	$1,000	1,527,562	899,948	9,706,516	704,654	202,890
Value of sales by commodity or commodity group:						
Crops, including nursery and greenhouse	farms, 2007	18,146	23,108	67,997	6,974	4,027
	2002	17,585	29,143	56,090	5,088	3,521
	$1,000, 2007	3,383,497	1,147,786	6,565,576	372,396	99,262
	2002	1,575,910	1,072,548	3,731,751	257,797	71,583
Grains, oilseeds, dry beans, and dry peas	farms, 2007	15,123	5,533	14,713	1,496	232
	2002	14,792	5,361	16,490	1,158	138
	$1,000, 2007	3,238,162	496,727	2,472,814	58,897	5,439
	2002	1,406,137	344,880	1,099,460	30,139	2,768
Corn	farms, 2007	12,076	4,494	5,124	640	218
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	1,412,488	279,356	1,089,321	21,199	4,890
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Wheat	farms, 2007	7,144	1,340	8,372	599	6
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	713,110	46,088	689,274	30,173	124
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Soybeans	farms, 2007	10,122	3,133	494	-	13
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	949,942	164,911	29,210	-	401
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Sorghum	farms, 2007	421	78	6,154	7	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	19,786	3,083	540,821	89	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Barley	farms, 2007	190	16	26	456	1
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	3,795	148	425	4,433	(D)
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Rice	farms, 2007	-	6	385	-	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	-	2,293	98,385	-	-
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Other grains, oilseeds, dry beans, and dry peas	farms, 2007	2,564	62	1,393	353	7
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	139,042	848	25,379	3,003	(D)
	2002	(NA)	(NA)	(NA)	(NA)	(NA)

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
Total sales (see text) ....farms, 2007	47,383	39,284	23,618	78,463	11,069
2002	47,606	35,939	20,812	77,131	9,422
$1,000, 2007	2,906,188	6,792,856	591,665	8,967,358	1,157,535
2002	2,360,911	5,330,740	482,814	5,623,275	863,887
Average per farm ....dollars, 2007	61,334	172,917	25,051	114,288	104,575
2002	49,593	148,327	23,199	72,906	91,688
2007 value of sales:					
Less than $1,000 (see text) ....farms	14,738	13,826	7,589	24,588	3,222
$1,000	2,248	1,852	1,777	3,130	298
$1,000 to $2,499 ....farms	5,453	4,617	4,844	5,708	698
$1,000	9,177	7,694	7,720	9,485	1,138
$2,500 to $4,999 ....farms	5,391	3,817	3,531	5,955	918
$1,000	19,645	13,456	12,477	21,676	3,249
$5,000 to $9,999 ....farms	6,191	3,717	2,913	6,732	947
$1,000	44,218	26,073	20,363	48,316	6,739
$10,000 to $19,999 ....farms	5,141	2,582	2,050	5,865	883
$1,000	72,012	36,135	28,205	83,710	12,428
$20,000 to $24,999 ....farms	1,456	841	488	1,867	378
$1,000	32,187	18,438	10,783	41,568	8,363
$25,000 to $39,999 ....farms	2,428	1,507	724	3,866	617
$1,000	75,928	47,606	22,468	123,068	19,602
$40,000 to $49,999 ....farms	971	683	309	1,838	305
$1,000	42,772	30,190	13,760	81,988	13,600
$50,000 to $99,999 ....farms	1,886	1,729	421	5,397	975
$1,000	132,093	121,344	28,982	389,003	70,601
$100,000 to $249,999 ....farms	1,421	1,950	314	8,550	1,176
$1,000	230,589	321,930	50,839	1,406,417	187,899
$250,000 to $499,999 ....farms	926	1,579	176	4,639	555
$1,000	339,141	563,523	61,461	1,603,196	196,789
$500,000 or more ....farms	1,381	2,436	259	3,458	395
$1,000	1,906,175	5,604,614	332,829	5,155,802	636,830
2002 value of sales:					
Less than $1,000 (see text) ....farms	11,418	10,420	7,835	24,161	2,067
$1,000	1,605	1,143	1,015	1,767	160
$1,000 to $2,499 ....farms	7,006	4,585	4,219	6,330	828
$1,000	11,788	7,454	6,709	10,461	1,393
$2,500 to $4,999 ....farms	6,669	3,244	2,712	5,389	575
$1,000	23,933	11,473	9,647	19,454	2,057
$5,000 to $9,999 ....farms	6,946	3,106	2,398	5,788	935
$1,000	48,954	21,600	16,732	41,633	6,652
$10,000 to $19,999 ....farms	5,424	2,628	1,533	6,128	900
$1,000	75,413	36,480	21,013	87,632	12,611
$20,000 to $24,999 ....farms	1,313	826	342	2,234	324
$1,000	29,035	18,162	7,543	49,569	7,164
$25,000 to $39,999 ....farms	2,200	1,643	523	3,924	622
$1,000	69,178	51,515	16,072	124,830	19,665
$40,000 to $49,999 ....farms	860	735	172	2,005	366
$1,000	38,088	32,358	7,596	89,555	16,255
$50,000 to $99,999 ....farms	1,849	2,157	383	7,242	998
$1,000	129,275	155,079	26,226	529,536	72,729
$100,000 to $249,999 ....farms	1,708	2,893	297	9,247	1,069
$1,000	277,501	470,504	46,513	1,454,143	168,621
$250,000 to $499,999 ....farms	1,137	1,741	172	2,945	441
$1,000	396,285	606,439	60,455	999,152	148,552
$500,000 or more ....farms	1,076	1,961	226	1,738	297
$1,000	1,259,855	3,918,533	263,294	2,215,542	408,030
Value of sales by commodity or commodity group:					
Crops, including nursery and greenhouse ....farms, 2007	16,493	16,374	9,086	43,189	3,622
2002	17,672	17,117	5,883	36,708	2,701
$1,000, 2007	858,301	4,754,898	78,308	2,669,326	213,808
2002	718,219	3,582,818	69,693	1,690,071	137,776
Grains, oilseeds, dry beans, and dry peas ....farms, 2007	4,119	3,378	697	27,775	1,051
2002	4,164	4,036	496	25,170	896
$1,000, 2007	269,782	958,931	11,960	1,643,341	72,618
2002	157,985	581,991	9,575	893,272	44,522
Corn ....farms, 2007	3,125	849	565	24,112	450
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	115,268	134,673	6,549	1,136,931	25,840
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Wheat ....farms, 2007	1,328	2,591	113	5,377	345
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	51,197	696,309	1,779	96,576	15,817
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Soybeans ....farms, 2007	2,121	11	119	13,821	2
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	97,961	642	3,399	390,672	(D)
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Sorghum ....farms, 2007	53	-	3	11	6
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	245	-	(D)	25	(D)
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Barley ....farms, 2007	472	827	35	479	338
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	3,863	58,084	89	1,272	15,346
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Rice ....farms, 2007	-	-	-	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	-	-	-	-	-
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Other grains, oilseeds, dry beans, and dry peas ....farms, 2007	352	816	113	5,718	344
2002	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	1,247	69,223	(D)	17,865	15,562
2002	(NA)	(NA)	(NA)	(NA)	(NA)

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		United States	Alabama	Alaska	Arizona	Arkansas	California
Total sales (see text) - Con.							
Value of sales by commodity or commodity group - Con.							
Crops, including nursery and greenhouse - Con.							
Tobacco	farms, 2007	16,228	-	-	-	-	-
	2002	56,879	6	-	-	-	-
	$1,000, 2007	1,268,114	-	-	-	-	-
	2002	1,616,533	698	-	-	-	-
Cotton and cottonseed	farms, 2007	18,591	918	-	301	915	854
	2002	24,721	1,305	-	409	1,192	1,392
	$1,000, 2007	4,898,608	104,632	-	147,761	473,019	586,267
	2002	4,005,366	125,232	-	150,682	379,253	682,996
Vegetables, melons, potatoes, and sweet potatoes [1]	farms, 2007	69,100	1,602	95	2,518	809	3,958
	2002	59,044	1,407	86	282	516	4,131
	$1,000, 2007	14,683,058	33,902	4,281	865,260	38,145	5,435,521
	2002	12,785,898	40,649	4,017	749,667	23,342	4,785,101
Fruits, tree nuts, and berries	farms, 2007	112,690	1,708	41	1,326	620	38,034
	2002	107,707	1,548	22	1,192	599	36,386
	$1,000, 2007	18,625,459	27,610	75	97,745	13,209	11,054,581
	2002	13,770,603	20,543	(D)	(D)	12,920	8,720,660
Nursery, greenhouse, floriculture, and sod (see text)	farms, 2007	50,784	675	138	281	357	3,634
	2002	56,070	797	111	367	330	4,423
	$1,000, 2007	16,632,734	264,807	15,478	417,792	48,049	3,647,057
	2002	14,686,390	251,463	12,680	284,463	46,982	3,286,627
Cut Christmas trees and short-rotation woody crops	farms, 2007	13,374	59	-	10	51	322
	2002	14,744	91	2	15	41	403
	$1,000, 2007	384,594	1,036	-	19	1,168	5,704
	2002	399,848	1,200	(D)	(D)	332	12,028
Other crops and hay (see text)	farms, 2007	434,502	8,976	201	849	9,555	5,265
	2002	359,262	6,234	198	777	5,915	5,730
	$1,000, 2007	9,950,098	124,344	4,328	266,943	74,476	1,068,522
	2002	7,929,618	87,535	3,057	186,297	34,672	943,216
Livestock, poultry, and their products	farms, 2007	1,080,312	28,121	303	8,301	29,296	23,192
	2002	1,094,608	28,496	262	3,220	30,956	22,342
	$1,000, 2007	153,562,563	3,738,563	32,271	1,321,538	4,607,833	10,982,043
	2002	105,494,401	2,674,681	25,600	807,672	3,330,014	6,584,451
Poultry and eggs	farms, 2007	148,911	4,884	88	1,022	5,640	4,114
	2002	83,381	3,839	47	303	5,148	1,980
	$1,000, 2007	37,065,947	3,113,194	207	(D)	3,716,164	1,536,763
	2002	23,972,333	2,137,299	104	(D)	2,617,592	1,017,988
Cattle and calves	farms, 2007	798,290	21,356	75	4,078	23,731	12,681
	2002	851,971	23,088	83	2,030	25,955	12,897
	$1,000, 2007	61,209,970	408,276	768	585,479	625,996	2,536,571
	2002	45,115,184	348,253	759	403,959	421,266	1,582,334
Milk and other dairy products from cows	farms, 2007	69,763	165	7	190	369	1,953
	2002	78,963	266	18	127	396	2,422
	$1,000, 2007	31,848,029	38,270	1,487	634,509	44,770	6,569,172
	2002	20,281,166	46,129	3,246	352,784	54,049	3,739,213
Hogs and pigs	farms, 2007	74,789	547	50	284	954	1,267
	2002	82,028	561	47	168	867	1,513
	$1,000, 2007	18,056,981	54,618	242	(D)	84,202	34,188
	2002	12,400,977	39,441	205	(D)	123,803	27,488
Sheep, goats, and their products	farms, 2007	121,171	2,410	40	3,437	1,584	4,635
	2002	96,249	1,383	36	441	1,033	4,256
	$1,000, 2007	704,855	3,128	48	(D)	2,573	71,890
	2002	541,745	1,534	29	4,028	1,604	52,418
Horses, ponies, mules, burros, and donkeys	farms, 2007	114,317	3,039	44	1,452	2,512	3,937
	2002	128,045	2,885	29	900	2,707	4,033
	$1,000, 2007	2,061,862	13,434	247	12,126	9,877	72,433
	2002	1,328,733	13,851	111	(D)	12,865	32,397
Aquaculture (see text)	farms, 2007	6,409	313	51	15	248	217
	2002	6,653	449	47	10	244	204
	$1,000, 2007	1,415,271	99,504	28,540	2,713	118,744	102,228
	2002	1,132,524	80,976	20,807	755	92,638	64,557
Other animals and other animal products (see text)	farms, 2007	43,226	586	66	249	668	1,583
	2002	29,391	412	59	151	509	1,665
	$1,000, 2007	1,199,649	8,140	731	7,206	5,507	58,798
	2002	721,738	7,198	339	1,976	6,196	68,057
Value of agricultural products sold directly to individuals for human consumption (see text)	farms, 2007	136,817	2,175	149	863	1,657	7,068
	2002	116,733	1,822	110	711	1,476	6,436
	$1,000, 2007	1,211,270	8,325	1,682	5,247	8,161	162,896
	2002	812,204	8,039	829	3,911	5,674	114,356

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Total sales (see text) - Con.						
Value of sales by commodity or commodity group - Con.						
Crops, including nursery and greenhouse - Con.						
Tobacco ....farms, 2007	-	75	-	23	224	-
2002	-	80	-	115	822	-
$1,000, 2007	-	56,976	-	4,715	56,978	-
2002	-	36,233	-	15,919	89,058	-
Cotton and cottonseed ....farms, 2007	-	-	-	213	2,577	-
2002	-	-	-	267	3,206	-
$1,000, 2007	-	-	-	28,469	434,014	-
2002	-	-	-	21,037	318,013	-
Vegetables, melons, potatoes, and sweet potatoes [1] ....farms, 2007	738	733	234	1,493	1,346	866
2002	654	582	248	1,559	1,715	666
$1,000, 2007	289,345	30,230	71,479	1,422,150	459,612	61,256
2002	297,752	19,120	50,773	1,013,022	383,556	54,554
Fruits, tree nuts, and berries ....farms, 2007	767	499	64	8,858	3,397	3,667
2002	582	366	67	9,674	3,611	2,582
$1,000, 2007	23,192	28,641	(D)	2,144,718	201,504	154,315
2002	15,735	14,721	2,496	1,611,562	122,151	179,475
Nursery, greenhouse, floriculture, and sod (see text) ....farms, 2007	564	638	175	4,778	1,030	1,628
2002	535	685	129	4,718	1,199	1,386
$1,000, 2007	299,585	269,221	17,114	2,115,641	317,291	119,593
2002	261,426	245,773	22,420	1,844,064	315,324	110,282
Cut Christmas trees and short-rotation woody crops ....farms, 2007	122	338	41	53	144	44
2002	91	382	58	79	188	19
$1,000, 2007	1,238	3,840	(D)	390	3,380	282
2002	398	3,407	401	1,056	2,095	336
Other crops and hay (see text) ....farms, 2007	9,415	1,493	218	3,312	8,593	274
2002	6,410	1,064	227	2,484	7,691	271
$1,000, 2007	318,285	10,148	2,375	506,801	368,738	75,118
2002	192,590	6,863	1,921	516,974	246,936	86,061
Livestock, poultry, and their products ....farms, 2007	17,525	2,040	1,372	21,333	23,271	1,531
2002	16,866	1,490	1,306	20,824	25,319	1,007
$1,000, 2007	4,079,735	150,181	872,400	1,529,000	4,970,596	83,711
2002	3,308,918	143,110	468,449	1,200,839	3,332,156	88,067
Poultry and eggs ....farms, 2007	2,515	801	978	2,984	5,041	282
2002	861	415	857	1,387	3,883	110
$1,000, 2007	161,320	45,274	837,378	410,148	4,246,765	(D)
2002	113,256	62,411	440,774	336,295	2,780,214	12,545
Cattle and calves ....farms, 2007	11,963	805	307	14,146	16,261	713
2002	11,877	715	276	14,149	18,770	550
$1,000, 2007	3,156,348	9,405	7,567	436,193	342,392	44,011
2002	2,632,740	7,025	3,254	328,820	240,070	30,719
Milk and other dairy products from cows ....farms, 2007	447	261	83	227	651	5
2002	260	218	89	452	517	10
$1,000, 2007	456,076	72,338	21,715	412,211	264,423	7,018
2002	247,095	56,523	20,651	371,691	212,720	21,745
Hogs and pigs ....farms, 2007	1,230	251	84	1,326	830	148
2002	1,158	176	86	1,090	995	158
$1,000, 2007	159,808	616	2,754	2,220	68,369	(D)
2002	179,415	(D)	2,853	3,154	65,384	4,612
Sheep, goats, and their products ....farms, 2007	2,273	434	140	2,001	2,244	266
2002	1,926	269	78	1,249	1,792	145
$1,000, 2007	84,730	1,094	(D)	2,419	4,137	923
2002	72,479	528	45	1,348	1,940	1,081
Horses, ponies, mules, burros, and donkeys ....farms, 2007	3,324	221	92	3,576	2,357	96
2002	3,764	156	150	3,996	2,677	82
$1,000, 2007	29,304	4,868	2,278	167,784	21,326	(D)
2002	21,365	2,671	588	73,858	16,573	418
Aquaculture (see text) .... farms, 2007	55	49	4	469	146	59
2002	66	41	13	777	159	67
$1,000, 2007	11,258	15,142	(D)	61,340	14,075	14,057
2002	28,805	12,848	240	56,949	5,310	14,005
Other animals and other animal products (see text) ....farms, 2007	1,052	271	57	1,206	762	196
2002	896	221	23	1,062	433	65
$1,000, 2007	20,890	1,444	203	36,686	9,109	5,787
2002	13,763	(D)	43	28,724	9,944	2,940
Value of agricultural products sold directly to individuals for human consumption (see text) ....farms, 2007	2,777	1,099	216	3,181	1,890	1,141
2002	2,343	853	149	2,479	1,626	796
$1,000, 2007	22,584	29,752	3,505	19,363	13,146	8,657
2002	17,406	17,108	2,856	12,370	8,958	7,089

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Total sales (see text) - Con.							
Value of sales by commodity or commodity group - Con.							
Crops, including nursery and greenhouse - Con.							
Tobacco	farms, 2007	-	13	267	-	-	8,112
	2002	-	6	1,286	3	12	29,253
	$1,000, 2007	-	2,620	6,598	-	-	314,151
	2002	-	955	13,290	29	(D)	403,991
Cotton and cottonseed	farms, 2007	-	-	-	-	110	-
	2002	-	-	-	-	162	-
	$1,000, 2007	-	-	-	-	13,673	-
	2002	-	-	-	-	15,762	-
Vegetables, melons, potatoes, and sweet potatoes [1]	farms, 2007	1,259	1,382	1,380	885	474	2,098
	2002	1,307	1,115	1,175	757	270	1,474
	$1,000, 2007	783,807	103,914	78,719	16,310	24,767	20,937
	2002	752,994	98,067	77,583	19,491	14,317	17,757
Fruits, tree nuts, and berries	farms, 2007	420	627	749	735	344	713
	2002	340	772	676	412	209	723
	$1,000, 2007	30,036	10,246	19,193	7,371	7,293	3,088
	2002	17,471	18,559	15,787	4,496	(D)	5,941
Nursery, greenhouse, floriculture, and sod (see text)	farms, 2007	548	1,159	888	536	399	1,191
	2002	458	1,108	1,117	554	369	1,193
	$1,000, 2007	87,373	435,073	126,241	93,813	77,031	87,748
	2002	66,297	357,506	187,529	77,610	57,561	96,094
Cut Christmas trees and short-rotation woody crops	farms, 2007	80	248	202	169	67	129
	2002	56	338	265	215	102	143
	$1,000, 2007	2,096	6,473	2,662	1,026	473	876
	2002	862	7,633	2,775	1,424	(D)	1,019
Other crops and hay (see text)	farms, 2007	7,853	9,216	8,493	12,209	13,231	21,670
	2002	6,911	8,005	8,449	12,703	12,466	17,200
	$1,000, 2007	615,179	60,325	64,391	102,032	253,930	110,671
	2002	469,820	53,716	48,800	109,695	225,361	67,080
Livestock, poultry, and their products	farms, 2007	12,627	22,851	23,677	38,275	31,417	46,912
	2002	12,155	23,957	24,616	40,829	32,818	47,382
	$1,000, 2007	3,363,976	2,452,692	2,952,272	10,074,511	9,525,971	3,419,792
	2002	2,121,090	1,804,697	1,790,411	6,202,362	6,327,797	1,969,871
Poultry and eggs	farms, 2007	1,075	2,708	3,798	3,174	2,388	4,088
	2002	631	1,063	1,614	1,572	1,102	1,649
	$1,000, 2007	12,673	163,507	887,196	872,263	69,807	978,025
	2002	12,636	83,807	455,153	511,949	(D)	561,178
Cattle and calves	farms, 2007	9,662	16,046	15,088	27,535	27,565	38,212
	2002	9,035	17,699	16,879	29,515	29,589	40,429
	$1,000, 2007	1,383,742	808,487	456,657	3,606,633	8,542,872	935,611
	2002	1,149,407	624,976	324,054	2,119,935	5,715,204	622,855
Milk and other dairy products from cows	farms, 2007	809	1,255	2,071	2,465	795	2,273
	2002	790	1,442	2,345	2,913	842	2,208
	$1,000, 2007	1,843,788	340,336	583,212	689,680	376,511	250,305
	2002	869,526	226,761	333,339	442,431	248,542	214,365
Hogs and pigs	farms, 2007	728	3,063	3,790	8,758	1,542	1,210
	2002	980	4,313	4,603	11,275	1,939	1,220
	$1,000, 2007	6,757	1,105,271	974,290	4,827,224	506,448	90,198
	2002	3,260	844,360	633,112	3,078,455	297,505	69,722
Sheep, goats, and their products	farms, 2007	1,516	2,551	3,000	4,386	1,876	3,508
	2002	1,398	2,049	2,525	3,842	1,569	2,270
	$1,000, 2007	27,373	6,523	7,422	40,199	12,027	7,208
	2002	22,212	3,591	4,419	23,366	5,986	4,679
Horses, ponies, mules, burros, and donkeys	farms, 2007	1,873	1,801	2,749	2,706	1,862	5,391
	2002	2,396	2,269	3,538	2,845	2,120	5,315
	$1,000, 2007	12,808	16,748	15,472	12,681	8,637	952,384
	2002	10,267	15,327	17,440	13,643	(D)	491,345
Aquaculture (see text)	farms, 2007	70	54	31	40	26	81
	2002	85	54	47	47	30	146
	$1,000, 2007	56,219	4,011	2,567	3,507	2,228	2,683
	2002	39,840	2,282	3,151	2,308	745	2,017
Other animals and other animal products (see text)	farms, 2007	527	896	1,057	940	671	1,262
	2002	301	458	651	563	393	744
	$1,000, 2007	20,615	7,807	25,457	22,324	7,441	203,380
	2002	13,940	3,594	19,743	10,276	5,002	3,709
Value of agricultural products sold directly to individuals for human consumption (see text)	farms, 2007	2,076	2,818	3,576	2,987	2,140	3,445
	2002	1,632	2,333	3,205	2,455	1,796	2,565
	$1,000, 2007	7,840	25,893	22,268	16,506	9,272	15,173
	2002	5,889	18,412	17,968	11,651	9,001	10,497

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Total sales (see text) - Con.						
Value of sales by commodity or commodity group - Con.						
Crops, including nursery and greenhouse - Con.						
Tobacco ....farms, 2007	-	-	69	59	-	-
2002	6	-	160	50	-	-
$1,000, 2007	-	-	1,367	15,775	-	-
2002	(D)	-	2,713	15,355	-	-
Cotton and cottonseed ....farms, 2007	644	-	-	-	-	-
2002	1,072	-	-	-	-	-
$1,000, 2007	173,959	-	-	-	-	-
2002	158,806	-	-	-	-	-
Vegetables, melons, potatoes, and sweet potatoes [1] ....farms, 2007	748	976	940	1,010	2,871	2,720
2002	659	977	843	880	2,676	2,774
$1,000, 2007	53,448	155,147	56,394	59,180	347,305	275,912
2002	40,319	126,049	60,488	38,289	322,510	291,285
Fruits, tree nuts, and berries ....farms, 2007	926	1,102	608	1,207	3,407	934
2002	886	998	468	1,086	2,797	655
$1,000, 2007	19,358	85,183	19,393	100,623	392,472	18,517
2002	(D)	33,970	12,967	55,508	181,469	12,948
Nursery, greenhouse, floriculture, and sod (see text) ....farms, 2007	498	676	691	814	2,128	918
2002	665	769	769	902	2,185	983
$1,000, 2007	103,154	51,687	208,692	169,167	623,097	239,354
2002	87,833	37,334	188,484	153,540	628,699	224,410
Cut Christmas trees and short-rotation woody crops ....farms, 2007	87	236	180	280	900	280
2002	113	216	204	306	1,076	327
$1,000, 2007	4,670	(D)	2,398	(D)	29,155	4,984
2002	(D)	2,293	2,313	1,800	30,411	11,855
Other crops and hay (see text) ....farms, 2007	3,521	2,401	2,850	1,906	14,547	16,042
2002	2,816	1,757	2,129	1,449	12,504	15,306
$1,000, 2007	399,517	(D)	33,115	(D)	227,165	573,994
2002	396,391	14,916	15,682	11,220	208,618	471,367
Livestock, poultry, and their products ....farms, 2007	15,107	3,233	5,970	3,187	20,306	31,511
2002	15,050	2,546	5,426	2,114	18,203	33,319
$1,000, 2007	1,013,334	290,617	1,205,787	125,338	2,423,291	6,131,554
2002	750,192	241,247	843,101	107,244	1,409,807	4,012,745
Poultry and eggs ....farms, 2007	1,568	1,195	1,833	1,269	4,831	4,392
2002	1,081	734	1,316	565	2,206	2,667
$1,000, 2007	575,989	75,831	903,531	13,207	258,994	1,045,674
2002	417,755	78,848	583,343	12,107	146,700	750,088
Cattle and calves ....farms, 2007	10,977	1,447	2,947	1,066	11,631	22,122
2002	11,925	1,223	3,004	795	11,293	22,961
$1,000, 2007	223,922	15,660	58,293	12,444	449,371	1,385,740
2002	170,569	15,994	50,570	9,612	298,517	873,074
Milk and other dairy products from cows ....farms, 2007	321	461	676	310	2,453	5,258
2002	445	436	730	264	2,738	6,226
$1,000, 2007	72,020	126,392	192,426	50,485	1,285,571	1,475,929
2002	82,866	87,544	169,458	(D)	697,920	931,754
Hogs and pigs ....farms, 2007	525	460	454	350	2,930	4,748
2002	540	310	379	250	2,336	6,390
$1,000, 2007	1,235	813	(D)	2,108	357,495	2,139,877
2002	(D)	(D)	8,268	(D)	200,027	1,398,234
Sheep, goats, and their products ....farms, 2007	893	709	1,137	697	2,762	2,944
2002	594	490	745	459	2,307	2,891
$1,000, 2007	889	1,979	(D)	(D)	8,867	18,725
2002	392	801	1,179	1,127	6,613	13,351
Horses, ponies, mules, burros, and donkeys ....farms, 2007	2,554	322	813	348	3,010	2,238
2002	1,940	393	674	324	3,286	3,184
$1,000, 2007	20,118	(D)	31,815	5,703	23,550	11,424
2002	(D)	2,802	23,760	3,879	23,743	14,669
Aquaculture (see text) .... farms, 2007	729	98	48	273	87	104
2002	474	78	48	140	83	103
$1,000, 2007	109,138	26,300	4,023	18,548	5,721	12,492
2002	41,285	31,944	1,459	9,481	3,316	8,991
Other animals and other animal products (see text) ....farms, 2007	386	359	452	449	1,497	1,193
2002	280	278	270	312	1,152	1,039
$1,000, 2007	10,022	(D)	3,920	(D)	33,721	41,692
2002	24,979	(D)	5,065	19,589	32,972	22,584
Value of agricultural products sold directly to individuals for human consumption (see text) ....farms, 2007	1,276	1,705	1,407	1,659	6,373	4,293
2002	1,216	1,454	1,168	1,259	4,925	3,847
$1,000, 2007	9,175	18,419	21,220	42,065	58,923	34,667
2002	4,897	11,237	12,551	31,315	37,269	22,763

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Total sales (see text) - Con.							
Value of sales by commodity or commodity group - Con.							
Crops, including nursery and greenhouse - Con.							
Tobacco	farms, 2007	-	111	-	-	-	-
	2002	7	338	-	-	-	-
	$1,000, 2007	-	5,022	-	-	-	-
	2002	496	5,854	-	-	-	-
Cotton and cottonseed	farms, 2007	980	498	-	-	-	-
	2002	1,590	596	-	-	-	-
	$1,000, 2007	362,705	164,714	-	-	-	-
	2002	444,136	137,378	-	-	-	-
Vegetables, melons, potatoes, and sweet potatoes [1]	farms, 2007	1,156	1,340	315	344	49	426
	2002	903	961	242	261	54	320
	$1,000, 2007	82,498	61,705	39,429	63,840	56,356	12,716
	2002	39,942	36,723	28,027	58,337	35,689	8,465
Fruits, tree nuts, and berries	farms, 2007	962	606	412	253	42	419
	2002	1,001	1,113	372	158	51	278
	$1,000, 2007	33,498	4,315	7,877	2,594	(D)	12,968
	2002	14,093	22,823	5,771	1,375	(D)	9,321
Nursery, greenhouse, floriculture, and sod (see text)	farms, 2007	479	913	367	371	45	382
	2002	390	932	318	355	50	337
	$1,000, 2007	46,007	121,280	29,472	41,215	11,949	65,554
	2002	38,967	101,316	33,832	34,259	10,115	53,691
Cut Christmas trees and short-rotation woody crops	farms, 2007	147	131	51	71	1	181
	2002	162	196	54	84	2	173
	$1,000, 2007	7,936	1,078	232	592	(D)	(D)
	2002	7,611	1,843	623	797	(D)	2,028
Other crops and hay (see text)	farms, 2007	4,907	25,596	6,981	9,733	942	1,453
	2002	3,702	21,460	6,234	9,395	856	1,099
	$1,000, 2007	45,511	173,618	187,672	206,577	141,930	(D)
	2002	22,776	139,973	157,980	201,613	108,678	8,398
Livestock, poultry, and their products	farms, 2007	19,262	60,300	14,392	23,869	1,808	1,827
	2002	21,399	65,589	14,587	26,809	1,855	1,301
	$1,000, 2007	3,208,753	4,017,988	1,529,340	8,662,710	293,928	92,584
	2002	2,090,909	2,990,809	1,148,791	6,315,392	289,259	61,686
Poultry and eggs	farms, 2007	3,262	6,114	1,396	1,875	213	793
	2002	2,867	3,103	501	722	148	391
	$1,000, 2007	2,438,690	1,265,166	7,975	165,265	(D)	15,390
	2002	1,490,748	784,986	5,243	142,442	(D)	6,251
Cattle and calves	farms, 2007	14,535	52,060	11,526	20,218	1,260	599
	2002	16,494	57,957	11,793	23,416	1,283	526
	$1,000, 2007	323,621	1,676,632	1,368,699	7,358,555	181,758	6,743
	2002	228,346	1,285,288	1,015,169	5,401,018	215,054	5,140
Milk and other dairy products from cows	farms, 2007	219	2,777	380	494	57	225
	2002	431	3,233	235	642	47	194
	$1,000, 2007	62,875	302,684	54,761	172,066	98,526	59,132
	2002	67,954	300,460	41,842	148,941	62,074	(D)
Hogs and pigs	farms, 2007	439	2,971	565	2,482	70	298
	2002	504	3,752	542	3,594	102	212
	$1,000, 2007	129,424	725,738	36,331	923,209	(D)	518
	2002	82,298	570,551	26,531	590,581	930	(D)
Sheep, goats, and their products	farms, 2007	1,026	3,677	1,522	1,637	330	514
	2002	794	2,598	1,860	1,481	338	351
	$1,000, 2007	1,659	9,580	20,962	10,072	7,003	(D)
	2002	673	5,508	21,210	8,288	6,352	785
Horses, ponies, mules, burros, and donkeys	farms, 2007	2,004	4,482	2,086	1,657	398	198
	2002	2,684	5,710	2,527	1,761	448	174
	$1,000, 2007	9,259	21,369	13,683	9,130	3,370	(D)
	2002	11,390	27,111	12,870	11,098	2,928	875
Aquaculture (see text)	farms, 2007	488	72	28	38	5	25
	2002	515	85	26	39	16	16
	$1,000, 2007	237,883	9,506	3,188	3,826	(D)	3,734
	2002	207,181	11,107	4,185	2,170	(D)	3,340
Other animals and other animal products (see text)	farms, 2007	514	1,254	407	408	64	289
	2002	272	874	444	309	76	165
	$1,000, 2007	5,343	7,313	23,742	20,585	898	(D)
	2002	2,319	5,796	21,740	10,853	650	1,024
Value of agricultural products sold directly to individuals for human consumption (see text)	farms, 2007	1,229	4,341	1,287	1,288	200	982
	2002	1,192	3,942	1,164	1,088	246	748
	$1,000, 2007	9,659	20,982	6,321	5,902	1,074	16,021
	2002	7,506	14,712	4,523	4,015	1,606	10,420

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Total sales (see text) - Con.						
Value of sales by commodity or commodity group - Con.						
Crops, including nursery and greenhouse - Con.						
Tobacco ....farms, 2007	-	-	-	2,622	-	475
2002	-	-	1	7,836	-	1,835
$1,000, 2007	-	-	-	549,636	-	10,229
2002	-	-	(D)	630,397	-	17,244
Cotton and cottonseed ....farms, 2007	-	198	-	1,305	-	-
2002	-	271	-	2,091	-	-
$1,000, 2007	-	26,006	-	211,129	-	-
2002	-	25,704	-	181,835	-	-
Vegetables, melons, potatoes, and sweet potatoes [1] ....farms, 2007	1,453	1,706	3,189	3,745	227	2,902
2002	1,442	446	2,759	3,005	261	2,376
$1,000, 2007	181,543	88,996	338,037	333,939	162,655	135,355
2002	167,956	96,914	322,577	215,247	133,894	136,844
Fruits, tree nuts, and berries ....farms, 2007	1,064	2,484	3,227	1,765	66	1,865
2002	966	2,102	2,989	1,376	23	1,814
$1,000, 2007	147,933	105,867	363,295	79,288	(D)	45,419
2002	87,148	59,061	180,540	55,756	(D)	34,532
Nursery, greenhouse, floriculture, and sod (see text) ....farms, 2007	1,682	231	2,009	2,317	71	2,104
2002	1,828	223	2,552	2,587	78	2,678
$1,000, 2007	442,953	60,267	389,117	573,529	9,126	444,855
2002	356,863	41,585	344,320	424,478	11,025	464,617
Cut Christmas trees and short-rotation woody crops ....farms, 2007	884	17	844	934	12	594
2002	899	20	1,001	1,043	15	775
$1,000, 2007	2,612	8	8,819	65,023	(D)	7,285
2002	3,852	369	(D)	57,625	(D)	9,323
Other crops and hay (see text) ....farms, 2007	2,493	3,691	12,091	9,366	6,819	16,062
2002	2,054	2,187	11,028	8,400	4,972	15,079
$1,000, 2007	16,751	139,447	147,013	95,943	298,303	105,160
2002	11,791	105,368	118,837	84,001	231,530	101,213
Livestock, poultry, and their products ....farms, 2007	4,017	10,550	17,317	26,448	11,352	33,031
2002	3,553	7,171	17,570	26,948	12,273	34,837
$1,000, 2007	135,233	1,621,940	2,856,706	7,707,350	1,045,697	2,960,490
2002	92,378	1,302,773	1,982,706	4,953,052	772,994	1,958,654
Poultry and eggs ....farms, 2007	1,360	1,150	3,810	6,003	578	5,539
2002	910	465	1,742	4,807	243	3,452
$1,000, 2007	33,044	(D)	123,727	4,087,004	28,496	883,301
2002	26,041	17,468	106,620	2,382,365	22,365	604,808
Cattle and calves ....farms, 2007	1,136	7,021	10,898	15,953	10,025	21,438
2002	1,227	5,622	11,972	18,584	10,944	22,938
$1,000, 2007	9,559	576,025	318,080	288,801	856,489	565,746
2002	7,094	533,952	251,121	185,222	625,070	408,242
Milk and other dairy products from cows ....farms, 2007	158	253	5,799	472	410	3,681
2002	138	182	6,681	706	551	4,255
$1,000, 2007	34,091	1,009,671	2,280,218	161,373	78,959	861,632
2002	29,154	730,083	1,560,895	150,406	65,450	551,877
Hogs and pigs ....farms, 2007	381	351	1,817	2,459	351	4,505
2002	378	306	1,490	2,332	474	4,976
$1,000, 2007	2,349	375	28,302	3,104,731	34,910	571,685
2002	2,313	381	14,005	2,183,646	25,888	322,687
Sheep, goats, and their products ....farms, 2007	1,218	2,577	2,252	3,544	742	4,907
2002	949	904	2,432	2,267	820	4,848
$1,000, 2007	1,784	(D)	10,246	6,632	8,479	14,186
2002	1,482	9,433	9,421	2,960	6,979	9,971
Horses, ponies, mules, burros, and donkeys ....farms, 2007	847	1,354	2,026	2,730	831	3,404
2002	878	1,186	2,200	2,621	972	5,658
$1,000, 2007	33,732	7,856	50,616	17,959	(D)	26,271
2002	18,314	6,600	15,223	15,202	(D)	31,260
Aquaculture (see text) .... farms, 2007	116	16	127	311	4	140
2002	50	19	157	202	6	100
$1,000, 2007	6,637	3,228	20,417	32,175	(D)	6,582
2002	2,223	1,604	15,185	17,669	(D)	3,338
Other animals and other animal products (see text) ....farms, 2007	444	304	1,439	1,591	369	2,576
2002	313	170	1,021	683	349	1,707
$1,000, 2007	14,036	2,982	25,101	8,676	33,986	31,088
2002	5,758	3,254	10,235	15,581	20,866	26,471
Value of agricultural products sold directly to individuals for human consumption (see text) ....farms, 2007	1,931	1,529	5,338	3,712	444	6,827
2002	1,769	1,071	4,651	3,054	452	6,205
$1,000, 2007	30,106	11,193	77,464	29,144	2,429	54,270
2002	19,126	6,582	59,724	17,245	1,765	37,217

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Total sales (see text) - Con.						
Value of sales by commodity or commodity group - Con.						
Crops, including nursery and greenhouse - Con.						
Tobacco	farms, 2007	-	-	1,151	-	257
	2002	-	-	893	-	874
	$1,000, 2007	-	-	28,156	-	73,026
	2002	-	-	15,413	-	104,521
Cotton and cottonseed	farms, 2007	421	-	-	-	456
	2002	581	-	-	-	489
	$1,000, 2007	68,169	-	-	-	46,274
	2002	43,685	-	-	-	33,101
Vegetables, melons, potatoes, and sweet potatoes [1]	farms, 2007	842	1,462	4,300	208	1,511
	2002	586	1,879	3,779	142	1,080
	$1,000, 2007	25,315	339,388	125,623	8,111	126,311
	2002	19,276	353,996	125,923	5,527	90,457
Fruits, tree nuts, and berries	farms, 2007	2,204	4,187	3,222	159	1,013
	2002	2,078	4,755	2,547	102	1,077
	$1,000, 2007	17,543	515,582	151,101	4,483	34,481
	2002	11,863	277,745	109,383	2,358	40,003
Nursery, greenhouse, floriculture, and sod (see text)	farms, 2007	471	2,583	2,719	260	623
	2002	578	3,039	3,073	225	771
	$1,000, 2007	204,020	989,483	892,279	40,739	227,041
	2002	168,259	806,851	732,709	37,593	219,980
Cut Christmas trees and short-rotation woody crops	farms, 2007	63	1,320	1,205	49	179
	2002	73	1,106	1,326	60	152
	$1,000, 2007	785	116,759	22,727	(D)	7,558
	2002	636	107,984	31,193	658	2,427
Other crops and hay (see text)	farms, 2007	16,697	8,626	17,525	238	3,893
	2002	12,234	8,225	13,818	156	2,933
	$1,000, 2007	173,699	698,104	149,392	(D)	69,138
	2002	143,166	498,687	103,136	831	21,177
Livestock, poultry, and their products	farms, 2007	54,100	19,757	31,208	444	10,604
	2002	58,248	21,030	29,152	305	10,133
	$1,000, 2007	4,618,436	1,410,055	3,939,097	10,306	1,554,190
	2002	3,637,326	1,000,586	2,936,045	8,408	896,505
Poultry and eggs	farms, 2007	5,014	3,070	7,885	162	2,090
	2002	2,726	2,478	4,028	76	1,113
	$1,000, 2007	748,776	119,812	1,015,843	1,908	1,289,876
	2002	508,373	86,506	745,624	1,766	694,290
Cattle and calves	farms, 2007	45,512	13,077	19,784	148	6,782
	2002	51,414	13,654	20,571	118	7,139
	$1,000, 2007	3,062,020	800,336	556,192	846	105,282
	2002	2,448,916	543,231	441,671	735	76,146
Milk and other dairy products from cows	farms, 2007	1,022	592	8,407	39	115
	2002	989	515	9,146	28	215
	$1,000, 2007	191,775	401,786	1,890,190	4,599	52,550
	2002	163,006	293,927	1,393,992	3,859	46,240
Hogs and pigs	farms, 2007	2,274	1,466	3,440	81	700
	2002	2,256	1,558	3,785	51	736
	$1,000, 2007	555,521	5,662	336,437	354	77,211
	2002	462,849	3,540	269,318	227	61,589
Sheep, goats, and their products	farms, 2007	3,972	3,671	4,462	97	1,363
	2002	3,032	3,699	3,425	65	991
	$1,000, 2007	12,109	20,987	10,322	168	1,458
	2002	6,672	17,397	7,355	104	878
Horses, ponies, mules, burros, and donkeys	farms, 2007	4,706	2,578	3,398	30	1,443
	2002	5,711	3,918	3,220	36	1,444
	$1,000, 2007	36,191	18,935	49,320	313	21,622
	2002	33,979	18,960	41,809	436	13,825
Aquaculture (see text)	farms, 2007	56	96	292	27	93
	2002	74	131	267	15	66
	$1,000, 2007	3,253	16,270	44,519	1,653	4,775
	2002	3,467	17,054	15,325	863	3,173
Other animals and other animal products (see text)	farms, 2007	778	1,256	2,283	63	578
	2002	664	1,176	1,456	40	215
	$1,000, 2007	8,792	26,267	36,275	465	1,415
	2002	10,064	19,973	20,951	419	363
Value of agricultural products sold directly to individuals for human consumption (see text)	farms, 2007	3,194	6,274	7,537	249	1,323
	2002	1,920	6,383	6,082	180	1,175
	$1,000, 2007	11,534	56,362	75,893	6,292	12,660
	2002	3,735	21,411	53,760	3,697	8,287

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Total sales (see text) - Con.					
Value of sales by commodity or commodity group - Con.					
Crops, including nursery and greenhouse - Con.					
Tobacco ....farms, 2007	-	1,613	-	-	-
2002	-	8,151	-	-	-
$1,000, 2007	-	70,634	-	-	-
2002	-	141,412	-	-	-
Cotton and cottonseed ....farms, 2007	-	779	7,226	-	-
2002	-	920	8,866	-	-
$1,000, 2007	-	147,468	1,885,146	-	-
2002	-	178,354	1,088,675	-	-
Vegetables, melons, potatoes, and sweet potatoes [1] ....farms, 2007	140	1,483	2,348	532	506
2002	158	1,601	2,527	347	422
$1,000, 2007	3,464	71,870	373,704	16,092	13,192
2002	5,192	68,516	298,997	13,620	10,140
Fruits, tree nuts, and berries ....farms, 2007	61	327	7,033	615	499
2002	43	718	7,496	460	325
$1,000, 2007	412	2,552	219,819	17,022	15,875
2002	(D)	6,363	114,822	6,162	9,270
Nursery, greenhouse, floriculture, and sod (see text) ....farms, 2007	121	1,517	1,958	254	437
2002	119	2,323	2,137	275	418
$1,000, 2007	19,984	325,079	862,183	128,626	24,795
2002	18,350	282,815	704,699	92,646	22,803
Cut Christmas trees and short-rotation woody crops ....farms, 2007	19	177	254	33	255
2002	14	202	310	26	252
$1,000, 2007	202	2,018	7,606	342	3,448
2002	(D)	2,312	6,541	103	2,372
Other crops and hay (see text) ....farms, 2007	6,579	14,786	45,419	5,505	3,050
2002	6,573	14,741	30,044	3,986	2,710
$1,000, 2007	121,272	31,438	744,302	151,418	36,513
2002	145,766	47,896	418,557	115,127	24,231
Livestock, poultry, and their products ....farms, 2007	17,573	47,350	145,480	9,271	3,395
2002	19,625	51,367	148,859	8,059	3,161
$1,000, 2007	3,186,953	1,469,608	14,435,499	1,043,281	574,451
2002	2,258,715	1,127,266	10,402,993	858,101	401,482
Poultry and eggs ....farms, 2007	977	4,369	12,747	1,133	1,001
2002	451	2,554	6,319	645	571
$1,000, 2007	140,798	572,866	2,113,086	140,359	10,996
2002	70,820	359,286	1,260,951	84,178	5,875
Cattle and calves ....farms, 2007	15,171	38,961	116,626	6,257	1,937
2002	17,060	42,017	125,518	5,617	2,104
$1,000, 2007	2,307,618	633,303	10,503,774	347,299	57,581
2002	1,693,838	499,143	8,083,024	371,418	45,106
Milk and other dairy products from cows ....farms, 2007	672	1,115	1,268	422	1,222
2002	982	1,048	1,162	451	1,393
$1,000, 2007	279,765	180,503	1,245,441	292,141	493,926
2002	156,498	173,410	676,703	196,812	342,440
Hogs and pigs ....farms, 2007	1,042	1,160	4,053	630	239
2002	1,738	1,130	3,962	480	206
$1,000, 2007	381,360	33,797	237,504	196,595	697
2002	(D)	42,632	128,231	153,112	374
Sheep, goats, and their products ....farms, 2007	1,829	3,839	18,416	1,699	645
2002	2,074	3,331	15,314	1,372	436
$1,000, 2007	36,697	6,712	107,807	23,377	3,851
2002	31,285	4,196	94,164	17,804	1,581
Horses, ponies, mules, burros, and donkeys ....farms, 2007	1,408	5,149	14,107	1,610	266
2002	1,850	6,847	15,477	1,725	235
$1,000, 2007	8,884	31,212	117,744	10,020	2,454
2002	(D)	38,201	91,567	7,776	2,853
Aquaculture (see text) .... farms, 2007	12	106	275	27	23
2002	10	197	392	41	26
$1,000, 2007	3,108	4,893	46,102	4,074	1,989
2002	(D)	4,799	31,058	5,746	1,325
Other animals and other animal products (see text) ....farms, 2007	351	1,494	4,211	543	332
2002	313	977	2,404	308	258
$1,000, 2007	28,723	6,322	64,042	29,415	2,957
2002	23,179	5,599	37,295	21,255	1,927
Value of agricultural products sold directly to individuals for human consumption (see text) ....farms, 2007	752	3,581	8,619	1,584	1,474
2002	713	3,392	8,459	1,115	1,163
$1,000, 2007	6,158	15,380	38,696	10,098	22,863
2002	3,789	11,227	25,639	6,983	9,567

See footnote(s) at end of table.

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Table 2. **Market Value of Agricultural Products Sold Including Direct Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Virginia	Washington	West Virginia	Wisconsin	Wyoming
Total sales (see text) - Con.						
Value of sales by commodity or commodity group - Con.						
Crops, including nursery and greenhouse - Con.						
Tobacco	farms, 2007	892	-	70	195	-
	2002	4,163	-	530	452	-
	$1,000, 2007	68,073	-	758	3,400	-
	2002	112,503	-	3,413	6,111	-
Cotton and cottonseed	farms, 2007	196	-	-	-	-
	2002	312	-	-	-	-
	$1,000, 2007	25,203	-	-	-	-
	2002	20,718	-	-	-	-
Vegetables, melons, potatoes, and sweet potatoes [1]	farms, 2007	1,619	2,082	712	3,320	48
	2002	1,303	2,041	411	2,957	28
	$1,000, 2007	93,988	809,963	5,811	422,639	3,501
	2002	79,345	805,567	4,613	341,615	1,798
Fruits, tree nuts, and berries	farms, 2007	1,358	5,988	365	1,719	22
	2002	1,251	6,215	404	1,331	11
	$1,000, 2007	68,193	2,081,031	14,206	218,248	(D)
	2002	40,954	1,354,238	11,443	107,972	87
Nursery, greenhouse, floriculture, and sod (see text)	farms, 2007	1,040	1,472	323	1,635	56
	2002	1,241	1,883	371	1,487	50
	$1,000, 2007	248,153	327,046	23,371	244,216	6,339
	2002	218,698	391,930	26,849	197,439	5,301
Cut Christmas trees and short-rotation woody crops	farms, 2007	352	534	173	849	3
	2002	514	508	184	859	4
	$1,000, 2007	6,949	23,225	935	17,822	(D)
	2002	9,633	26,270	1,182	23,412	41
Other crops and hay (see text)	farms, 2007	10,432	6,900	7,771	21,691	3,166
	2002	9,156	6,399	4,378	16,449	2,298
	$1,000, 2007	77,961	554,702	21,267	119,660	130,888
	2002	78,384	422,822	12,618	120,249	86,027
Livestock, poultry, and their products	farms, 2007	27,744	17,178	14,261	39,619	6,797
	2002	29,060	14,372	11,616	38,793	6,433
	$1,000, 2007	2,047,887	2,037,958	513,357	6,298,032	943,728
	2002	1,642,692	1,747,922	413,121	3,933,204	726,111
Poultry and eggs	farms, 2007	3,790	3,810	2,434	7,058	610
	2002	2,140	1,540	995	3,110	254
	$1,000, 2007	971,851	228,825	301,708	375,284	997
	2002	750,035	143,962	250,922	224,968	663
Cattle and calves	farms, 2007	21,884	9,521	10,474	30,193	4,880
	2002	23,970	8,979	9,513	31,807	4,997
	$1,000, 2007	574,506	716,720	164,962	1,014,553	801,833
	2002	471,703	709,585	117,967	834,895	643,123
Milk and other dairy products from cows	farms, 2007	1,173	823	161	14,270	32
	2002	1,253	884	395	16,972	81
	$1,000, 2007	330,344	873,365	31,386	4,573,294	22,331
	2002	275,402	634,908	32,202	2,651,018	7,473
Hogs and pigs	farms, 2007	964	1,596	1,042	3,516	368
	2002	834	1,067	717	3,245	247
	$1,000, 2007	56,960	5,921	2,089	100,309	41,923
	2002	72,213	6,803	1,992	79,836	23,057
Sheep, goats, and their products	farms, 2007	2,951	2,762	1,860	3,212	1,004
	2002	2,278	1,971	1,397	2,456	1,019
	$1,000, 2007	7,710	6,738	3,241	17,141	34,292
	2002	6,030	4,902	2,168	10,545	28,853
Horses, ponies, mules, burros, and donkeys	farms, 2007	2,247	2,938	1,291	2,845	1,967
	2002	3,007	2,698	891	2,949	1,555
	$1,000, 2007	46,876	26,134	4,476	12,873	24,631
	2002	40,581	18,599	3,787	14,986	12,400
Aquaculture (see text)	farms, 2007	182	355	39	169	20
	2002	182	334	50	208	17
	$1,000, 2007	53,032	162,867	3,478	14,182	7,157
	2002	19,945	215,130	2,712	14,262	3,213
Other animals and other animal products (see text)	farms, 2007	1,293	1,398	737	1,640	225
	2002	682	798	390	1,216	174
	$1,000, 2007	6,606	17,388	2,017	190,395	10,564
	2002	6,782	14,033	1,372	102,694	7,329
Value of agricultural products sold directly to individuals for human consumption (see text)	farms, 2007	2,855	5,418	1,990	6,243	645
	2002	2,513	4,527	1,434	4,918	521
	$1,000, 2007	28,878	43,537	7,097	43,491	3,025
	2002	16,825	34,753	4,588	29,072	2,381

[1] 2002 data do not include potatoes, sweet potatoes, or ginseng.

Table 3. **Farm Production Expenses: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item		United States	Alabama	Alaska	Arizona	Arkansas	California
Total farm production expenses [1]	farms, 2007	2,204,792	48,753	686	15,637	49,346	81,033
	2002	2,128,739	45,124	609	7,294	47,474	79,655
	$1,000, 2007	241,113,666	3,922,143	50,547	2,782,786	6,134,870	26,962,641
	2002	173,199,216	2,588,600	39,123	1,825,328	3,898,297	20,527,198
Average per farm	dollars, 2007	109,359	80,449	73,683	177,962	124,324	332,737
	2002	81,362	57,366	64,242	250,251	82,114	257,701
Fertilizer, lime, and soil conditioners purchased	farms, 2007	1,148,218	27,461	388	3,106	23,681	48,395
	2002	1,189,850	25,700	331	3,050	25,040	50,120
	$1,000, 2007	18,107,194	168,838	2,334	165,318	437,022	1,314,175
	2002	9,751,460	106,697	1,535	81,131	216,013	834,536
Chemicals purchased	farms, 2007	918,604	19,390	156	2,525	18,919	44,599
	2002	947,279	18,317	127	2,289	18,730	46,868
	$1,000, 2007	10,074,914	84,495	282	133,265	327,730	1,369,132
	2002	7,608,921	79,322	187	70,845	245,100	1,102,974
Seeds, plants, vines, and trees	farms, 2007	775,893	13,866	264	3,829	10,977	26,247
	2002	874,634	13,097	199	2,218	12,924	29,176
	$1,000, 2007	11,740,521	87,849	2,167	199,392	276,030	991,450
	2002	7,598,706	59,062	2,176	58,502	143,862	722,080
Livestock and poultry purchased or leased (see text)	farms, 2007	490,819	11,619	118	2,283	12,921	10,881
	2002	553,714	13,420	117	1,631	15,183	10,745
	$1,000, 2007	38,003,682	701,381	303	315,343	828,459	1,264,818
	2002	27,420,965	505,196	569	171,369	515,620	949,697
Breeding livestock purchased or leased (see text) [2]	farms, 2007	278,572	5,994	46	1,374	7,012	5,951
	2002	316,013	7,124	51	954	8,543	6,070
	$1,000, 2007	3,599,873	56,499	107	46,303	49,799	186,901
	2002	2,037,136	17,300	432	21,233	22,752	114,594
Other livestock and poultry purchased or leased (see text)	farms, 2007	279,155	7,022	86	1,257	7,713	6,356
	2002	309,818	7,830	80	869	8,638	6,404
	$1,000, 2007	34,403,809	644,882	196	269,040	778,660	1,077,917
	2002	25,383,829	487,896	137	150,137	492,868	835,104
Feed purchased	farms, 2007	1,135,968	30,051	299	12,611	30,394	29,596
	2002	1,240,747	32,201	293	4,524	34,143	28,663
	$1,000, 2007	49,095,106	1,611,020	5,096	617,035	2,023,611	4,274,263
	2002	31,694,850	927,774	4,078	307,212	1,250,849	2,494,806
Gasoline, fuels, and oils	farms, 2007	2,148,806	47,750	667	15,143	48,357	78,163
	2002	2,024,139	42,178	568	7,053	45,735	76,747
	$1,000, 2007	12,912,179	163,784	3,786	146,118	395,167	1,124,340
	2002	6,675,419	93,418	2,125	67,183	188,568	610,228
Utilities (see text)	farms, 2007	1,102,530	21,735	439	7,559	22,493	55,511
	2002	1,241,247	22,713	442	4,620	25,743	58,359
	$1,000, 2007	5,917,615	94,692	2,974	104,463	154,488	1,231,547
	2002	4,874,139	72,885	1,517	71,533	107,383	986,812
Supplies, repairs, and maintenance	farms, 2007	1,992,234	44,622	599	12,018	45,387	74,487
	2002	1,898,607	40,423	554	6,578	42,876	72,338
	$1,000, 2007	15,896,723	188,980	6,310	144,191	324,927	1,782,730
	2002	13,386,560	178,923	4,089	133,522	280,599	1,532,050
Hired farm labor	farms, 2007	482,186	9,541	220	3,200	10,265	29,661
	2002	554,434	10,123	240	2,678	12,225	34,342
	$1,000, 2007	21,877,661	208,023	16,463	380,491	268,860	5,015,513
	2002	18,568,446	180,937	13,427	343,422	253,395	4,317,078
Contract labor	farms, 2007	182,701	3,557	57	964	4,133	22,586
	2002	228,692	4,202	95	1,648	5,253	24,716
	$1,000, 2007	4,514,166	24,373	1,838	76,645	36,102	2,265,515
	2002	3,451,190	21,559	926	95,038	27,758	1,665,671
Customwork and custom hauling	farms, 2007	362,475	4,715	48	894	5,836	15,667
	2002	449,633	6,120	65	1,226	7,473	19,733
	$1,000, 2007	4,091,038	20,956	357	51,758	58,647	860,315
	2002	3,313,737	28,347	151	52,671	45,059	706,279
Cash rent for land, buildings, and grazing fees	farms, 2007	490,372	8,172	110	1,537	8,716	13,299
	2002	497,885	8,185	123	1,063	8,609	14,367
	$1,000, 2007	13,274,530	67,370	658	111,351	209,658	1,013,008
	2002	9,045,945	44,215	397	71,355	119,961	754,122
Rent and lease expenses for machinery, equipment, and farm share of vehicles	farms, 2007	109,199	1,738	49	482	1,842	6,623
	2002	150,761	1,741	63	831	2,744	9,639
	$1,000, 2007	1,385,219	17,709	143	27,822	50,000	216,265
	2002	1,468,423	15,225	244	32,771	41,031	222,702
Interest expense	farms, 2007	667,454	11,714	162	1,634	16,157	23,854
	2002	758,437	11,903	198	2,170	18,484	26,941
	$1,000, 2007	10,880,731	130,780	2,655	65,119	231,796	1,099,536
	2002	9,571,577	112,871	2,892	58,562	203,361	930,722
Secured by real estate	farms, 2007	519,095	9,272	117	1,139	12,150	18,896
	2002	575,525	9,150	100	1,464	13,461	20,755
	$1,000, 2007	7,185,334	101,681	1,370	35,257	151,605	773,509
	2002	6,704,002	91,228	657	30,979	136,209	687,470
Not secured by real estate	farms, 2007	413,327	6,707	92	992	10,323	12,843
	2002	405,177	5,249	127	1,248	10,148	12,177
	$1,000, 2007	3,695,397	29,099	1,285	29,862	80,191	326,028
	2002	2,867,575	21,643	2,235	27,583	67,152	243,252
Property taxes paid	farms, 2007	1,995,808	44,234	501	6,446	45,468	72,181
	2002	1,962,637	40,970	466	6,530	43,779	71,688
	$1,000, 2007	6,223,048	43,059	1,312	32,745	76,778	638,682
	2002	5,350,817	34,590	968	26,286	56,674	525,721
All other production expenses (see text)	farms, 2007	1,115,703	20,733	370	6,651	25,214	44,163
	2002	1,254,079	22,395	362	4,406	27,058	48,667
	$1,000, 2007	17,119,339	308,835	3,868	211,727	435,596	2,501,352
	2002	13,418,059	127,579	3,843	183,925	203,063	2,171,720
Depreciation expenses claimed (see text) [1]	farms, 2007	963,340	18,883	316	2,549	21,217	37,834
	2002	853,797	14,471	256	2,965	18,733	36,531
	$1,000, 2007	20,185,540	249,083	5,839	160,562	416,410	1,800,646
	2002	15,389,666	180,487	6,230	143,767	295,494	1,575,604

See footnote(s) at end of table.

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Table 3. **Farm Production Expenses: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Total farm production expenses [1]	farms, 2007	37,054	4,916	2,546	47,463	47,846	7,521
	2002	31,358	4,205	2,391	44,081	49,304	5,438
	$1,000, 2007	5,431,280	469,319	823,103	5,762,883	5,982,253	486,648
	2002	4,412,593	397,687	471,674	4,734,590	3,845,512	450,946
Average per farm	dollars, 2007	146,577	95,468	323,293	121,418	125,031	64,705
	2002	140,717	94,575	197,271	107,407	77,996	82,925
Fertilizer, lime, and soil conditioners purchased	farms, 2007	11,685	2,746	1,414	27,041	26,820	5,653
	2002	11,201	2,236	1,424	26,563	27,037	4,326
	$1,000, 2007	201,343	15,142	35,665	439,145	353,104	29,807
	2002	115,405	14,211	23,780	289,115	190,338	17,791
Chemicals purchased	farms, 2007	11,860	1,545	1,309	20,462	20,092	4,207
	2002	10,319	1,426	1,423	21,458	20,872	3,627
	$1,000, 2007	102,032	7,711	23,147	376,699	250,881	17,238
	2002	64,906	6,681	15,174	321,442	197,468	16,134
Seeds, plants, vines, and trees	farms, 2007	8,935	1,952	1,282	13,124	14,517	2,579
	2002	8,972	1,794	1,196	14,865	16,847	1,887
	$1,000, 2007	163,708	45,871	25,271	379,703	184,635	17,950
	2002	113,949	34,632	18,135	308,778	117,965	11,188
Livestock and poultry purchased or leased (see text)	farms, 2007	8,517	1,077	981	8,322	10,114	547
	2002	8,174	948	1,039	8,931	12,342	329
	$1,000, 2007	1,778,706	7,164	102,328	175,186	871,341	3,343
	2002	1,662,797	8,644	55,182	147,080	372,108	6,025
Breeding livestock purchased or leased (see text) [2]	farms, 2007	4,866	392	131	5,111	4,907	267
	2002	4,686	361	158	5,337	6,460	179
	$1,000, 2007	86,507	2,058	1,043	59,350	43,265	1,135
	2002	46,389	686	444	49,880	27,615	873
Other livestock and poultry purchased or leased (see text)	farms, 2007	4,944	846	899	4,460	6,399	345
	2002	4,650	701	928	4,919	7,172	193
	$1,000, 2007	1,692,199	5,106	101,284	115,836	828,076	2,208
	2002	1,616,409	7,957	54,738	97,200	344,493	5,152
Feed purchased	farms, 2007	18,817	2,458	1,426	27,297	26,287	1,939
	2002	18,525	2,372	1,540	26,515	32,119	1,267
	$1,000, 2007	1,221,367	55,295	416,368	547,947	2,121,379	24,678
	2002	866,170	42,832	207,528	410,603	1,365,162	27,997
Gasoline, fuels, and oils	farms, 2007	35,901	4,709	2,473	45,826	46,952	7,091
	2002	29,202	3,797	2,339	42,746	46,566	4,721
	$1,000, 2007	252,730	29,508	20,685	266,387	301,942	24,443
	2002	123,357	13,064	21,131	146,528	149,582	14,458
Utilities (see text)	farms, 2007	19,465	2,608	1,539	22,600	21,462	3,881
	2002	19,049	2,244	1,690	26,345	25,089	2,912
	$1,000, 2007	141,173	12,894	13,032	107,341	129,618	25,473
	2002	115,798	10,740	11,822	97,800	99,923	19,474
Supplies, repairs, and maintenance	farms, 2007	32,421	4,326	2,331	42,144	43,940	6,611
	2002	26,692	3,622	2,195	39,972	43,888	4,626
	$1,000, 2007	300,187	39,671	27,954	421,996	306,086	53,497
	2002	233,632	36,823	25,183	354,556	276,568	50,411
Hired farm labor	farms, 2007	7,393	1,140	647	10,081	10,225	1,783
	2002	7,747	1,106	891	10,672	11,636	1,527
	$1,000, 2007	390,625	141,360	36,460	1,208,631	361,419	178,496
	2002	367,016	127,084	31,579	1,157,569	326,621	177,692
Contract labor	farms, 2007	3,793	274	178	6,865	3,949	1,005
	2002	4,350	318	190	10,204	5,175	824
	$1,000, 2007	42,835	8,744	3,569	546,016	64,557	14,240
	2002	32,013	5,211	2,818	422,218	60,861	7,159
Customwork and custom hauling	farms, 2007	6,178	289	376	5,453	4,879	393
	2002	6,931	383	485	7,831	6,431	282
	$1,000, 2007	78,971	2,501	2,409	194,711	41,766	1,789
	2002	55,481	1,840	2,839	217,113	44,921	9,232
Cash rent for land, buildings, and grazing fees	farms, 2007	7,755	624	780	4,322	7,715	1,718
	2002	7,014	559	737	4,494	7,748	1,655
	$1,000, 2007	142,850	7,820	19,612	141,937	154,249	20,211
	2002	96,970	6,104	16,584	102,564	101,768	19,723
Rent and lease expenses for machinery, equipment, and farm share of vehicles	farms, 2007	1,722	203	155	1,994	1,705	350
	2002	1,947	196	222	3,244	2,590	343
	$1,000, 2007	24,370	3,204	2,139	28,979	20,169	2,675
	2002	22,247	3,410	3,537	27,578	29,393	3,066
Interest expense	farms, 2007	11,114	975	801	10,609	12,375	1,223
	2002	12,410	793	1,024	12,165	13,335	955
	$1,000, 2007	229,425	16,913	14,590	203,987	225,086	14,838
	2002	199,300	9,036	14,025	163,345	193,171	8,633
Secured by real estate	farms, 2007	8,764	747	638	8,921	10,081	777
	2002	9,415	551	843	9,849	10,763	611
	$1,000, 2007	152,793	13,823	11,126	165,996	173,911	10,950
	2002	133,319	7,256	10,769	131,710	161,781	6,114
Not secured by real estate	farms, 2007	6,700	516	478	6,260	6,613	723
	2002	6,396	351	435	4,599	5,226	430
	$1,000, 2007	76,632	3,089	3,465	37,991	51,176	3,888
	2002	65,982	1,779	3,255	31,635	31,389	2,519
Property taxes paid	farms, 2007	33,380	4,420	2,252	43,882	44,054	5,975
	2002	28,597	3,753	2,194	41,922	45,745	4,195
	$1,000, 2007	89,405	23,053	4,524	180,155	139,812	10,873
	2002	72,884	16,975	4,556	139,310	113,694	6,463
All other production expenses (see text)	farms, 2007	18,208	2,698	1,577	22,097	21,301	2,843
	2002	19,625	2,523	1,677	24,901	23,585	2,389
	$1,000, 2007	271,553	52,470	75,351	544,062	456,207	47,097
	2002	270,668	60,401	17,803	428,994	205,969	55,499
Depreciation expenses claimed (see text) [1]	farms, 2007	14,870	1,823	1,217	14,751	17,862	2,341
	2002	13,247	1,259	1,061	13,093	15,785	1,709
	$1,000, 2007	353,613	29,707	33,409	390,420	374,338	46,427
	2002	286,282	21,253	28,682	330,261	277,167	34,498

See footnote(s) at end of table.

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Table 3. **Farm Production Expenses: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Total farm production expenses [1]	farms, 2007	25,349	76,860	60,938	92,856	65,531	85,260
	2002	25,016	73,000	60,286	90,648	64,390	86,591
	$1,000, 2007	4,604,040	9,045,080	6,280,596	15,443,759	12,364,531	3,930,240
	2002	3,440,579	6,223,876	4,310,513	10,303,448	8,443,180	2,604,069
Average per farm	dollars, 2007	181,626	117,683	103,065	166,319	188,682	46,097
	2002	137,535	85,259	71,501	113,664	131,126	30,073
Fertilizer, lime, and soil conditioners purchased	farms, 2007	11,049	49,671	36,853	58,664	39,479	44,729
	2002	10,602	52,258	37,155	61,514	40,576	54,539
	$1,000, 2007	370,237	1,480,395	888,112	1,344,600	840,338	308,598
	2002	202,192	731,424	435,657	665,890	413,519	180,986
Chemicals purchased	farms, 2007	11,849	43,618	29,009	53,136	32,028	27,108
	2002	11,226	47,465	31,184	54,776	30,563	36,236
	$1,000, 2007	160,030	731,968	373,897	618,336	358,384	100,920
	2002	120,830	559,165	258,403	464,509	200,234	77,715
Seeds, plants, vines, and trees	farms, 2007	7,693	43,539	29,538	52,703	26,613	27,313
	2002	8,439	49,231	33,636	59,724	29,131	35,000
	$1,000, 2007	147,784	1,001,039	514,775	989,162	358,008	133,724
	2002	120,163	596,072	326,799	603,316	221,766	94,685
Livestock and poultry purchased or leased (see text)	farms, 2007	6,598	11,350	11,645	22,679	15,145	18,470
	2002	7,350	12,734	14,613	25,756	16,103	21,156
	$1,000, 2007	584,795	588,949	511,239	3,290,203	5,192,954	523,127
	2002	616,224	411,546	307,156	1,854,227	3,554,091	298,839
Breeding livestock purchased or leased (see text) [2]	farms, 2007	3,473	6,443	5,669	10,743	9,558	11,737
	2002	3,871	6,918	6,852	13,436	9,506	13,530
	$1,000, 2007	128,710	57,009	57,350	180,644	150,517	171,651
	2002	93,697	40,328	39,425	100,883	60,943	71,492
Other livestock and poultry purchased or leased (see text)	farms, 2007	4,074	6,404	7,398	15,086	7,797	9,159
	2002	4,439	7,362	9,431	16,372	8,750	9,936
	$1,000, 2007	456,085	531,940	453,890	3,109,559	5,042,438	351,475
	2002	522,527	371,218	267,731	1,753,344	3,493,148	227,347
Feed purchased	farms, 2007	13,075	23,374	24,908	35,808	29,672	46,766
	2002	14,692	24,652	29,682	41,037	33,531	51,368
	$1,000, 2007	1,137,906	705,155	1,092,067	3,058,988	2,237,287	793,669
	2002	646,250	528,144	660,587	1,922,817	1,410,837	443,883
Gasoline, fuels, and oils	farms, 2007	24,734	74,841	58,717	89,899	63,693	83,309
	2002	22,998	70,346	56,917	87,485	60,781	83,246
	$1,000, 2007	220,007	562,346	344,253	666,373	574,447	203,942
	2002	109,251	280,056	171,335	348,189	309,599	111,695
Utilities (see text)	farms, 2007	16,234	37,566	27,459	51,903	32,620	40,616
	2002	15,604	44,354	34,564	62,217	38,761	46,071
	$1,000, 2007	174,139	141,827	106,869	234,210	140,364	79,696
	2002	151,832	126,128	88,783	215,675	123,586	72,019
Supplies, repairs, and maintenance	farms, 2007	23,032	68,871	53,959	83,411	58,985	77,321
	2002	21,634	65,798	52,988	81,393	57,036	77,394
	$1,000, 2007	330,249	591,737	423,721	792,166	550,628	284,408
	2002	263,214	476,733	340,507	646,011	472,105	267,605
Hired farm labor	farms, 2007	6,588	16,369	11,240	23,287	14,437	18,846
	2002	6,995	19,750	14,256	28,135	16,549	24,882
	$1,000, 2007	499,505	483,699	320,902	492,091	412,164	322,169
	2002	369,892	421,803	300,988	409,190	332,498	291,881
Contract labor	farms, 2007	2,584	3,043	2,665	5,005	4,906	7,370
	2002	3,113	3,791	4,078	6,425	4,749	11,778
	$1,000, 2007	41,669	20,393	31,559	50,828	42,624	56,810
	2002	33,410	18,530	25,888	37,829	32,466	58,808
Customwork and custom hauling	farms, 2007	5,570	15,123	10,229	25,512	13,720	11,023
	2002	6,423	18,689	13,649	30,366	16,214	15,129
	$1,000, 2007	115,139	112,968	62,518	216,307	166,577	32,431
	2002	77,267	95,153	58,364	160,788	121,409	30,952
Cash rent for land, buildings, and grazing fees	farms, 2007	5,761	23,595	15,678	34,668	19,820	9,563
	2002	5,532	22,737	20,221	34,940	19,486	9,295
	$1,000, 2007	232,167	1,210,803	701,777	1,712,297	383,968	128,975
	2002	168,764	745,690	531,802	1,182,053	227,683	91,818
Rent and lease expenses for machinery, equipment, and farm share of vehicles	farms, 2007	1,540	5,170	3,224	6,163	3,450	2,435
	2002	1,807	7,257	4,180	8,558	4,938	3,616
	$1,000, 2007	31,256	70,328	40,697	70,584	41,787	15,849
	2002	37,240	63,241	37,849	68,636	44,379	29,119
Interest expense	farms, 2007	7,976	28,707	20,451	41,181	25,569	26,249
	2002	9,212	33,744	24,895	49,156	29,707	28,738
	$1,000, 2007	220,279	498,091	316,937	762,070	408,926	240,331
	2002	192,730	476,340	294,199	704,077	409,944	212,332
Secured by real estate	farms, 2007	6,149	21,058	16,685	30,888	19,799	22,047
	2002	7,174	24,302	20,035	36,961	22,187	23,631
	$1,000, 2007	128,104	299,322	212,189	449,215	231,594	186,194
	2002	123,196	322,087	215,324	456,338	260,677	175,945
Not secured by real estate	farms, 2007	5,150	19,133	12,469	27,436	16,687	14,118
	2002	5,002	20,957	13,351	30,368	18,532	11,374
	$1,000, 2007	92,175	198,769	104,748	312,855	177,333	54,137
	2002	69,533	154,253	78,875	247,739	149,267	36,387
Property taxes paid	farms, 2007	23,098	68,109	56,576	82,855	60,184	79,174
	2002	23,696	65,530	57,299	82,051	61,481	80,524
	$1,000, 2007	62,915	245,586	207,559	353,029	191,132	102,439
	2002	67,753	261,469	175,948	346,765	192,522	87,610
All other production expenses (see text)	farms, 2007	13,926	42,358	30,546	57,702	36,406	39,330
	2002	15,446	45,410	36,317	64,832	42,320	46,222
	$1,000, 2007	275,962	599,794	343,714	792,516	464,941	603,152
	2002	263,569	432,380	296,246	673,475	376,541	254,122
Depreciation expenses claimed (see text) [1]	farms, 2007	11,141	39,068	28,306	51,922	30,850	37,692
	2002	10,106	37,072	25,712	49,049	28,886	29,304
	$1,000, 2007	387,357	937,711	608,309	1,356,932	669,721	481,580
	2002	293,763	682,002	464,258	1,005,074	525,988	352,134

See footnote(s) at end of table.

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Table 3. **Farm Production Expenses: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Total farm production expenses [1]	farms, 2007	30,106	8,136	12,834	7,691	56,014	80,992
	2002	27,394	7,121	12,179	6,077	53,296	80,785
	$1,000, 2007	2,118,965	493,693	1,546,646	461,483	4,786,767	10,320,405
	2002	1,615,624	399,767	1,127,590	364,833	3,333,716	7,288,947
Average per farm	dollars, 2007	70,383	60,680	120,512	60,003	85,457	127,425
	2002	58,977	56,139	92,585	60,035	62,551	90,226
Fertilizer, lime, and soil conditioners purchased	farms, 2007	14,696	3,364	7,287	3,964	29,252	44,332
	2002	15,292	3,510	7,367	3,393	28,156	44,286
	$1,000, 2007	228,664	24,426	98,320	14,788	453,795	999,236
	2002	126,666	18,170	55,169	11,852	241,158	493,994
Chemicals purchased	farms, 2007	11,837	2,059	5,724	2,272	22,986	40,143
	2002	11,726	2,176	5,746	2,101	23,602	38,940
	$1,000, 2007	179,158	20,210	50,845	12,490	229,101	449,837
	2002	159,159	17,397	33,887	9,166	181,198	350,354
Seeds, plants, vines, and trees	farms, 2007	8,500	2,209	5,749	2,439	23,690	40,295
	2002	9,921	2,504	6,307	2,427	25,048	43,195
	$1,000, 2007	130,179	21,985	75,021	24,634	356,913	786,553
	2002	80,476	16,887	57,940	21,958	257,178	485,998
Livestock and poultry purchased or leased (see text)	farms, 2007	5,909	1,741	3,087	1,450	11,151	17,464
	2002	6,664	1,845	3,300	1,101	11,647	20,375
	$1,000, 2007	120,621	13,601	171,246	5,819	308,543	1,304,042
	2002	89,122	16,895	96,056	6,482	196,578	836,490
Breeding livestock purchased or leased (see text) [2]	farms, 2007	3,899	721	1,216	556	4,442	8,243
	2002	4,440	1,007	1,208	373	5,274	9,757
	$1,000, 2007	27,852	4,596	10,151	1,776	68,144	115,218
	2002	13,593	5,319	7,486	2,703	31,345	75,727
Other livestock and poultry purchased or leased (see text)	farms, 2007	2,804	1,291	2,236	1,064	8,184	11,354
	2002	3,140	1,112	2,376	816	7,934	12,945
	$1,000, 2007	92,769	9,005	161,095	4,043	240,399	1,188,825
	2002	75,529	11,576	88,569	3,779	165,233	760,762
Feed purchased	farms, 2007	16,578	3,640	6,474	3,821	22,314	30,806
	2002	17,496	3,567	6,740	2,698	24,297	37,871
	$1,000, 2007	369,975	103,475	456,411	45,134	740,126	1,944,488
	2002	260,900	73,459	318,290	26,253	390,264	1,271,172
Gasoline, fuels, and oils	farms, 2007	29,217	7,825	12,548	7,382	54,468	79,261
	2002	26,134	6,406	11,490	5,597	50,597	74,441
	$1,000, 2007	179,282	35,779	67,511	31,070	300,854	618,971
	2002	89,018	16,300	43,006	14,927	145,503	322,649
Utilities (see text)	farms, 2007	13,666	3,778	6,648	4,027	26,811	45,581
	2002	15,019	3,817	7,257	3,695	30,422	54,386
	$1,000, 2007	42,129	18,097	35,814	16,599	114,239	187,999
	2002	37,354	13,270	29,948	11,067	91,391	176,246
Supplies, repairs, and maintenance	farms, 2007	27,193	7,119	11,850	6,754	50,239	74,306
	2002	24,892	6,018	10,962	5,352	47,754	71,046
	$1,000, 2007	200,444	48,228	110,024	46,053	391,491	693,634
	2002	188,682	39,619	102,101	37,850	334,489	583,946
Hired farm labor	farms, 2007	6,278	1,886	3,058	1,972	11,315	19,337
	2002	7,567	2,045	3,321	1,770	12,279	22,623
	$1,000, 2007	191,748	90,323	151,232	118,224	606,717	521,852
	2002	181,647	78,420	127,779	99,292	469,731	459,332
Contract labor	farms, 2007	2,225	718	876	801	3,234	3,848
	2002	2,365	740	1,241	712	3,614	4,746
	$1,000, 2007	28,534	10,263	12,131	12,889	42,587	41,671
	2002	14,232	6,005	15,194	11,378	35,023	29,399
Customwork and custom hauling	farms, 2007	2,914	709	2,159	623	8,304	18,993
	2002	3,819	894	2,545	573	9,148	22,114
	$1,000, 2007	34,331	6,141	16,902	6,698	94,519	157,929
	2002	33,906	4,403	18,197	3,067	63,676	118,850
Cash rent for land, buildings, and grazing fees	farms, 2007	5,521	846	2,727	1,136	12,378	26,132
	2002	5,843	885	2,543	990	12,399	25,526
	$1,000, 2007	116,382	12,529	55,393	10,138	294,570	1,019,476
	2002	88,671	9,033	37,683	7,932	216,140	737,291
Rent and lease expenses for machinery, equipment, and farm share of vehicles	farms, 2007	1,174	309	656	306	3,040	6,325
	2002	1,722	505	1,081	381	3,940	8,192
	$1,000, 2007	20,554	3,445	5,655	2,445	29,011	75,977
	2002	24,172	4,784	9,793	2,758	33,771	72,773
Interest expense	farms, 2007	6,183	1,800	3,402	1,531	16,625	32,517
	2002	6,660	1,813	3,409	1,269	18,089	37,826
	$1,000, 2007	69,870	18,277	64,323	19,171	261,676	584,665
	2002	73,597	15,230	50,924	13,451	211,406	546,747
Secured by real estate	farms, 2007	4,310	1,391	2,559	1,185	13,502	25,282
	2002	4,327	1,454	2,422	981	14,332	29,200
	$1,000, 2007	39,136	12,542	49,739	15,623	180,621	347,297
	2002	43,028	11,533	38,751	11,124	154,977	365,154
Not secured by real estate	farms, 2007	3,871	1,137	2,073	925	9,981	22,100
	2002	3,651	887	1,757	565	8,737	23,276
	$1,000, 2007	30,733	5,735	14,584	3,548	81,054	237,368
	2002	30,569	3,697	12,174	2,326	56,428	181,593
Property taxes paid	farms, 2007	25,666	7,466	11,339	6,761	52,283	75,030
	2002	22,720	6,823	11,015	5,504	50,494	75,624
	$1,000, 2007	26,956	24,156	41,361	32,509	188,916	241,383
	2002	20,432	21,081	34,982	23,431	157,933	194,722
All other production expenses (see text)	farms, 2007	13,298	3,889	6,792	3,921	27,134	45,424
	2002	14,586	4,352	7,443	3,494	30,851	53,001
	$1,000, 2007	180,138	42,759	134,458	62,823	373,709	692,692
	2002	147,589	48,812	96,641	63,969	308,277	608,983
Depreciation expenses claimed (see text) [1]	farms, 2007	10,537	2,944	6,284	2,626	25,510	44,410
	2002	8,939	2,411	5,056	2,204	21,682	40,429
	$1,000, 2007	181,939	56,382	144,804	37,569	534,770	1,054,788
	2002	155,164	32,511	103,136	37,740	386,335	830,311

See footnote(s) at end of table.

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Table 3. **Farm Production Expenses: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Total farm production expenses [1]	farms, 2007	41,959	107,825	29,524	47,712	3,131	4,166
	2002	42,175	106,749	27,873	49,356	2,988	3,378
	$1,000, 2007	4,288,729	6,135,205	2,399,635	12,325,329	401,986	195,791
	2002	2,767,787	4,578,834	1,862,305	9,050,038	335,437	145,342
Average per farm	dollars, 2007	102,212	56,900	81,277	258,328	128,389	46,997
	2002	65,626	42,893	66,814	183,362	112,261	43,026
Fertilizer, lime, and soil conditioners purchased	farms, 2007	21,157	57,932	11,009	30,276	921	1,845
	2002	20,726	63,363	12,264	32,982	1,043	1,531
	$1,000, 2007	263,845	671,131	225,315	914,427	20,975	4,627
	2002	127,224	355,973	115,112	465,636	11,894	2,797
Chemicals purchased	farms, 2007	14,470	36,523	11,549	27,697	850	900
	2002	14,988	35,192	11,731	29,632	912	843
	$1,000, 2007	219,911	250,883	120,522	404,471	11,776	2,367
	2002	209,634	190,396	81,365	281,683	7,056	2,043
Seeds, plants, vines, and trees	farms, 2007	12,155	33,347	8,038	26,847	719	1,175
	2002	14,435	36,287	9,274	30,944	840	1,095
	$1,000, 2007	176,730	366,266	51,509	596,673	9,114	18,033
	2002	105,861	220,016	44,179	370,108	7,047	8,643
Livestock and poultry purchased or leased (see text)	farms, 2007	7,762	25,620	7,287	13,253	854	994
	2002	9,917	30,120	7,935	16,074	908	705
	$1,000, 2007	469,684	761,333	291,561	4,066,702	32,202	4,470
	2002	380,748	546,196	207,332	3,211,783	34,954	1,638
Breeding livestock purchased or leased (see text) [2]	farms, 2007	4,012	17,469	5,523	8,516	613	360
	2002	5,128	19,512	5,514	9,741	574	227
	$1,000, 2007	31,192	142,362	90,394	175,943	9,493	1,786
	2002	18,496	97,217	41,400	90,966	8,620	522
Other livestock and poultry purchased or leased (see text)	farms, 2007	4,616	11,591	2,996	6,927	393	768
	2002	5,894	14,508	3,700	9,173	447	537
	$1,000, 2007	438,492	618,971	201,167	3,890,759	22,710	2,684
	2002	362,251	448,979	165,932	3,120,817	26,335	1,116
Feed purchased	farms, 2007	21,203	59,938	13,716	21,335	1,965	2,308
	2002	26,071	69,368	15,381	26,376	2,062	2,010
	$1,000, 2007	1,468,308	1,383,506	219,242	2,045,635	76,549	30,644
	2002	804,106	1,136,939	192,619	1,490,523	58,036	20,933
Gasoline, fuels, and oils	farms, 2007	41,149	106,121	28,271	46,873	3,037	4,049
	2002	40,015	102,981	25,356	46,325	2,767	3,088
	$1,000, 2007	227,904	412,227	221,523	608,153	29,689	13,170
	2002	122,546	205,423	118,897	331,458	16,249	5,663
Utilities (see text)	farms, 2007	15,382	52,812	16,365	30,941	1,897	2,029
	2002	17,707	62,089	18,268	36,103	1,791	1,964
	$1,000, 2007	92,265	117,628	72,745	217,214	29,122	6,869
	2002	69,737	107,972	63,845	173,402	21,239	4,248
Supplies, repairs, and maintenance	farms, 2007	38,778	98,832	25,818	43,662	2,749	3,663
	2002	37,408	94,673	23,637	44,184	2,488	2,979
	$1,000, 2007	241,876	453,315	227,050	624,920	35,465	21,128
	2002	199,085	376,075	188,106	465,069	32,867	17,613
Hired farm labor	farms, 2007	8,441	18,263	6,492	14,603	827	860
	2002	9,966	22,168	7,649	17,489	1,024	793
	$1,000, 2007	213,631	325,526	164,119	417,067	65,134	36,176
	2002	184,111	287,744	139,334	371,650	53,802	32,013
Contract labor	farms, 2007	2,722	6,225	2,708	4,435	339	268
	2002	3,276	8,584	3,766	5,016	419	258
	$1,000, 2007	35,708	32,556	20,707	39,369	5,538	2,791
	2002	18,524	37,297	20,836	26,263	5,023	3,567
Customwork and custom hauling	farms, 2007	3,884	18,323	4,941	13,419	476	303
	2002	5,062	24,826	6,152	15,996	587	377
	$1,000, 2007	50,248	76,874	46,094	148,214	7,679	2,324
	2002	40,213	66,851	37,957	105,236	7,538	1,858
Cash rent for land, buildings, and grazing fees	farms, 2007	6,520	20,767	9,502	20,041	587	373
	2002	7,188	20,006	8,623	20,243	502	397
	$1,000, 2007	222,744	344,925	223,363	831,078	14,053	4,445
	2002	141,274	183,466	126,354	471,124	11,226	2,650
Rent and lease expenses for machinery, equipment, and farm share of vehicles	farms, 2007	1,374	3,421	1,857	4,435	169	139
	2002	1,954	4,889	2,429	6,037	201	132
	$1,000, 2007	44,860	25,001	17,057	59,717	2,402	1,241
	2002	40,339	30,197	19,131	58,333	3,006	1,301
Interest expense	farms, 2007	9,573	37,243	10,051	23,107	795	875
	2002	10,201	42,907	12,286	28,741	981	778
	$1,000, 2007	138,598	388,746	185,028	480,896	19,984	8,718
	2002	124,247	362,803	187,994	468,738	22,034	5,468
Secured by real estate	farms, 2007	7,263	30,015	7,559	17,345	577	709
	2002	7,557	33,617	9,049	21,006	787	604
	$1,000, 2007	91,081	277,471	131,417	264,321	13,372	6,917
	2002	88,708	276,331	136,909	283,382	16,166	4,252
Not secured by real estate	farms, 2007	5,813	22,632	6,590	15,622	510	485
	2002	4,825	22,763	7,409	18,686	563	346
	$1,000, 2007	47,517	111,275	53,612	216,575	6,612	1,801
	2002	35,539	86,473	51,084	185,356	5,867	1,216
Property taxes paid	farms, 2007	37,253	101,652	26,017	43,473	2,573	3,754
	2002	36,841	101,982	26,148	45,731	2,731	3,235
	$1,000, 2007	78,158	172,858	115,971	316,430	13,189	19,974
	2002	55,954	144,577	109,744	272,832	11,470	13,606
All other production expenses (see text)	farms, 2007	16,015	55,923	16,515	32,562	1,769	2,121
	2002	18,753	65,068	18,239	36,449	1,923	2,142
	$1,000, 2007	344,260	352,428	197,827	554,363	29,114	18,815
	2002	144,183	326,910	209,499	486,199	31,996	21,298
Depreciation expenses claimed (see text) [1]	farms, 2007	13,561	47,749	13,207	28,558	1,328	1,336
	2002	11,341	42,879	12,698	28,236	1,364	1,318
	$1,000, 2007	267,739	679,390	330,113	790,639	47,379	18,058
	2002	185,281	483,858	228,306	579,279	41,997	16,645

See footnote(s) at end of table.

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Table 3. **Farm Production Expenses: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Total farm production expenses [1]	farms, 2007	10,327	20,930	36,352	52,913	31,970	75,861
	2002	9,920	15,211	37,252	53,935	30,580	77,788
	$1,000, 2007	835,211	1,904,465	3,503,312	8,309,765	4,239,872	5,459,960
	2002	647,202	1,500,021	2,796,920	5,645,471	2,706,081	3,925,358
Average per farm	dollars, 2007	80,876	90,992	96,372	157,046	132,620	71,973
	2002	65,242	98,614	75,081	104,672	88,492	50,462
Fertilizer, lime, and soil conditioners purchased	farms, 2007	6,287	6,158	17,500	33,805	15,800	43,627
	2002	5,530	4,868	18,049	36,121	16,193	46,108
	$1,000, 2007	43,892	57,807	172,920	376,476	674,950	655,238
	2002	28,203	32,645	103,849	238,389	293,625	325,128
Chemicals purchased	farms, 2007	3,670	4,962	12,609	25,209	15,841	34,721
	2002	3,784	4,514	14,190	26,680	15,991	38,490
	$1,000, 2007	28,288	29,835	103,710	228,484	428,021	254,732
	2002	22,541	19,735	80,700	220,109	258,775	193,596
Seeds, plants, vines, and trees	farms, 2007	4,526	4,729	14,164	20,277	14,931	36,234
	2002	4,697	3,506	16,721	23,959	15,759	41,146
	$1,000, 2007	86,620	28,983	159,353	249,975	397,673	415,876
	2002	69,770	18,514	120,601	160,111	213,028	289,540
Livestock and poultry purchased or leased (see text)	farms, 2007	1,768	4,054	8,447	12,342	6,074	16,523
	2002	1,819	3,708	9,678	11,972	7,129	19,791
	$1,000, 2007	11,977	187,501	117,208	1,666,076	204,142	538,127
	2002	8,265	217,212	122,666	1,049,514	124,054	269,910
Breeding livestock purchased or leased (see text) [2]	farms, 2007	572	2,569	4,657	5,004	4,901	7,668
	2002	562	2,344	5,796	5,119	5,406	9,275
	$1,000, 2007	4,681	66,729	49,526	131,277	59,706	78,925
	2002	1,971	71,093	50,639	57,036	31,117	37,335
Other livestock and poultry purchased or leased (see text)	farms, 2007	1,380	2,066	5,103	8,677	2,022	11,055
	2002	1,397	2,060	5,053	7,997	2,841	13,139
	$1,000, 2007	7,296	120,772	67,683	1,534,800	144,436	459,202
	2002	6,294	146,119	72,026	992,478	92,937	232,575
Feed purchased	farms, 2007	4,669	12,073	18,994	28,263	9,597	34,423
	2002	4,654	9,443	22,148	30,938	11,956	40,506
	$1,000, 2007	41,361	697,004	695,165	3,183,993	158,337	959,439
	2002	31,277	486,979	537,185	1,917,997	118,559	648,768
Gasoline, fuels, and oils	farms, 2007	10,008	20,343	35,769	51,860	30,303	74,090
	2002	9,289	13,777	35,446	51,753	26,894	74,930
	$1,000, 2007	51,333	112,281	226,204	332,524	374,451	319,466
	2002	25,155	51,544	115,975	170,533	169,655	168,692
Utilities (see text)	farms, 2007	4,949	10,958	21,864	24,777	16,951	38,087
	2002	4,967	8,747	25,237	28,141	19,929	45,396
	$1,000, 2007	25,514	69,630	123,576	137,087	66,925	102,485
	2002	19,000	48,567	101,727	118,921	58,686	93,314
Supplies, repairs, and maintenance	farms, 2007	9,166	18,129	33,506	48,659	27,431	68,834
	2002	8,474	12,894	33,742	48,838	25,222	69,599
	$1,000, 2007	83,885	131,980	379,409	338,501	351,705	413,074
	2002	78,553	100,927	344,052	319,142	267,416	385,348
Hired farm labor	farms, 2007	2,415	4,773	9,273	12,284	7,881	14,057
	2002	2,374	4,249	10,494	16,091	9,208	16,585
	$1,000, 2007	237,683	218,193	583,051	623,130	169,978	411,941
	2002	186,913	182,380	448,924	552,486	140,999	362,702
Contract labor	farms, 2007	570	2,085	2,222	4,683	1,681	3,743
	2002	612	2,610	2,634	5,599	1,989	4,583
	$1,000, 2007	23,097	31,486	27,441	115,346	14,459	38,191
	2002	19,629	27,307	23,019	65,193	11,704	27,071
Customwork and custom hauling	farms, 2007	747	2,292	6,305	5,323	8,094	13,110
	2002	1,025	2,666	7,365	6,937	9,456	16,909
	$1,000, 2007	5,759	37,507	76,039	44,513	89,324	66,116
	2002	6,132	31,922	60,643	42,331	68,019	51,566
Cash rent for land, buildings, and grazing fees	farms, 2007	1,384	4,028	7,419	11,718	14,636	17,931
	2002	1,385	3,515	8,012	11,885	14,655	17,747
	$1,000, 2007	16,810	54,226	92,070	196,528	573,719	423,015
	2002	13,781	40,403	61,303	209,033	405,271	320,970
Rent and lease expenses for machinery, equipment, and farm share of vehicles	farms, 2007	398	745	2,123	1,898	3,407	4,478
	2002	655	1,134	3,111	2,921	4,176	6,579
	$1,000, 2007	7,817	10,440	24,668	17,262	45,619	28,753
	2002	7,643	7,942	30,797	25,402	43,395	40,511
Interest expense	farms, 2007	1,652	3,890	10,998	12,480	14,137	25,172
	2002	1,752	4,613	11,967	14,250	16,925	28,112
	$1,000, 2007	24,207	86,921	159,396	176,525	258,449	296,918
	2002	19,898	82,017	128,020	164,828	222,187	266,004
Secured by real estate	farms, 2007	1,259	3,040	8,508	9,754	10,305	20,578
	2002	1,283	3,558	8,786	10,803	12,237	22,226
	$1,000, 2007	19,161	55,623	107,761	130,361	129,772	213,350
	2002	14,970	51,978	89,128	124,251	128,087	204,149
Not secured by real estate	farms, 2007	899	2,368	7,366	7,164	10,446	14,992
	2002	798	2,286	7,068	6,259	11,620	13,783
	$1,000, 2007	5,047	31,298	51,635	46,163	128,676	83,568
	2002	4,927	30,038	38,892	40,577	94,100	61,855
Property taxes paid	farms, 2007	9,192	15,110	33,912	48,424	28,777	70,100
	2002	9,167	14,027	35,189	50,423	27,824	72,128
	$1,000, 2007	54,754	29,117	188,015	127,148	110,963	164,687
	2002	41,999	24,348	170,947	109,636	85,650	165,640
All other production expenses (see text)	farms, 2007	4,734	8,603	21,652	24,253	19,135	39,308
	2002	5,479	8,264	25,103	26,766	20,653	46,821
	$1,000, 2007	92,214	121,552	375,086	496,197	321,157	371,901
	2002	68,441	127,580	346,512	281,848	225,057	316,599
Depreciation expenses claimed (see text) [1]	farms, 2007	3,674	6,058	17,736	20,422	18,468	36,878
	2002	3,129	5,670	16,185	17,713	16,509	33,002
	$1,000, 2007	60,919	166,065	398,834	400,776	545,888	576,916
	2002	43,898	141,546	355,453	326,025	360,780	459,891

See footnote(s) at end of table.

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Table 3. **Farm Production Expenses: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Total farm production expenses [1]	farms, 2007	86,565	38,553	63,163	1,219	25,867
	2002	83,282	40,055	58,144	858	24,535
	$1,000, 2007	5,223,365	3,734,859	4,909,109	65,062	2,012,179
	2002	4,069,112	2,786,838	3,614,072	48,029	1,313,233
Average per farm	dollars, 2007	60,340	96,876	77,721	53,373	77,789
	2002	48,859	69,575	62,157	55,978	53,525
Fertilizer, lime, and soil conditioners purchased	farms, 2007	37,256	19,781	33,575	707	14,472
	2002	39,623	20,402	33,528	533	13,723
	$1,000, 2007	286,976	245,374	205,463	3,175	143,408
	2002	168,328	147,940	135,921	1,853	86,434
Chemicals purchased	farms, 2007	33,724	17,556	25,980	399	9,803
	2002	33,342	18,539	26,444	339	9,390
	$1,000, 2007	90,112	165,957	111,666	1,441	73,930
	2002	60,663	130,190	77,774	1,047	62,783
Seeds, plants, vines, and trees	farms, 2007	18,266	10,999	26,345	499	8,374
	2002	22,146	12,640	29,726	446	9,351
	$1,000, 2007	78,039	158,305	185,879	3,319	81,099
	2002	57,951	112,969	127,372	3,707	60,591
Livestock and poultry purchased or leased (see text)	farms, 2007	24,499	9,557	15,367	203	4,097
	2002	27,203	11,223	17,996	169	4,828
	$1,000, 2007	1,463,556	281,444	482,913	748	170,676
	2002	1,244,354	201,604	333,396	730	97,058
Breeding livestock purchased or leased (see text) [2]	farms, 2007	15,462	4,840	6,716	90	1,977
	2002	16,355	5,484	8,990	75	2,557
	$1,000, 2007	187,690	33,064	76,826	214	14,017
	2002	80,813	22,334	66,562	118	6,302
Other livestock and poultry purchased or leased (see text)	farms, 2007	12,523	6,048	10,712	143	2,613
	2002	14,409	7,244	11,417	122	2,654
	$1,000, 2007	1,275,865	248,380	406,087	534	156,659
	2002	1,163,542	179,270	266,834	612	90,756
Feed purchased	farms, 2007	57,396	21,691	32,576	583	12,517
	2002	64,090	24,322	36,011	425	13,901
	$1,000, 2007	1,307,568	454,733	1,267,184	5,171	761,414
	2002	917,560	259,418	937,355	3,121	369,275
Gasoline, fuels, and oils	farms, 2007	85,505	37,614	60,621	1,174	25,395
	2002	78,726	36,792	55,102	801	22,990
	$1,000, 2007	316,477	190,604	245,604	3,950	102,948
	2002	173,813	98,710	126,126	1,823	59,334
Utilities (see text)	farms, 2007	40,351	22,381	31,188	652	9,803
	2002	44,114	24,034	35,797	528	11,087
	$1,000, 2007	97,967	114,150	148,033	1,946	41,332
	2002	89,808	92,847	120,745	1,426	32,688
Supplies, repairs, and maintenance	farms, 2007	79,351	34,977	55,090	1,081	23,986
	2002	73,251	34,763	52,591	784	21,421
	$1,000, 2007	350,931	312,176	476,884	6,347	122,381
	2002	300,016	262,153	387,473	5,577	123,943
Hired farm labor	farms, 2007	16,826	10,300	11,722	324	4,310
	2002	17,700	10,978	13,512	277	4,821
	$1,000, 2007	255,062	817,277	590,891	16,165	173,196
	2002	237,162	620,422	443,050	13,508	158,993
Contract labor	farms, 2007	7,816	4,741	2,532	97	1,320
	2002	10,468	5,812	3,115	59	1,803
	$1,000, 2007	49,286	90,683	62,941	1,112	21,872
	2002	38,838	62,764	35,792	1,259	22,198
Customwork and custom hauling	farms, 2007	12,956	5,523	11,359	56	1,912
	2002	15,572	6,688	13,281	55	2,275
	$1,000, 2007	90,772	74,390	97,625	1,360	17,399
	2002	65,083	63,028	74,354	450	14,324
Cash rent for land, buildings, and grazing fees	farms, 2007	21,092	6,447	12,729	193	3,915
	2002	22,398	6,816	11,539	135	3,631
	$1,000, 2007	167,558	193,669	148,292	2,582	62,216
	2002	125,005	143,878	93,126	1,555	38,536
Rent and lease expenses for machinery, equipment, and farm share of vehicles	farms, 2007	2,896	2,389	3,129	52	717
	2002	3,883	3,231	4,273	35	997
	$1,000, 2007	16,351	27,875	18,660	328	6,579
	2002	24,443	29,591	26,841	456	7,796
Interest expense	farms, 2007	28,011	10,649	17,056	221	4,820
	2002	30,978	12,192	18,505	201	5,164
	$1,000, 2007	287,123	196,025	220,775	3,159	58,971
	2002	243,623	162,360	187,899	1,455	55,104
Secured by real estate	farms, 2007	21,591	8,598	13,390	157	3,808
	2002	22,907	9,435	14,232	154	4,072
	$1,000, 2007	187,562	134,588	164,776	2,685	44,652
	2002	168,363	115,333	147,267	1,145	44,350
Not secured by real estate	farms, 2007	17,690	6,142	10,361	117	2,788
	2002	17,143	5,942	9,477	90	2,020
	$1,000, 2007	99,560	61,436	56,000	474	14,319
	2002	75,260	47,027	40,632	310	10,753
Property taxes paid	farms, 2007	79,340	34,871	56,634	1,062	23,544
	2002	77,092	37,290	52,196	777	22,298
	$1,000, 2007	106,592	101,411	211,603	6,421	37,423
	2002	98,889	87,884	167,248	3,640	38,128
All other production expenses (see text)	farms, 2007	44,669	20,311	31,282	607	9,304
	2002	48,927	23,245	35,469	511	10,692
	$1,000, 2007	258,996	310,787	434,697	7,837	137,337
	2002	223,575	311,080	339,600	6,423	86,048
Depreciation expenses claimed (see text) [1]	farms, 2007	36,002	17,422	25,724	378	7,764
	2002	29,882	16,548	21,636	246	6,213
	$1,000, 2007	467,223	316,142	448,828	5,877	121,045
	2002	326,830	247,433	341,717	3,575	99,266

See footnote(s) at end of table.

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Table 3. **Farm Production Expenses: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		South Dakota	Tennessee	Texas	Utah	Vermont
Total farm production expenses [1]	farms, 2007	31,169	79,280	247,437	16,700	6,984
	2002	31,710	87,587	228,886	15,292	6,576
	$1,000, 2007	4,989,172	2,620,841	19,223,099	1,215,579	549,904
	2002	3,311,884	1,996,798	13,734,706	933,114	427,717
Average per farm	dollars, 2007	160,068	33,058	77,689	72,789	78,738
	2002	104,443	22,798	60,007	61,020	65,042
Fertilizer, lime, and soil conditioners purchased	farms, 2007	16,491	44,443	104,083	7,017	2,865
	2002	17,387	51,404	108,277	6,737	2,605
	$1,000, 2007	524,327	301,586	931,140	34,635	19,789
	2002	239,257	171,689	555,239	23,771	10,879
Chemicals purchased	farms, 2007	17,398	28,400	85,148	6,504	1,403
	2002	17,118	30,874	85,665	5,999	1,618
	$1,000, 2007	257,553	126,529	492,500	14,033	5,637
	2002	163,371	101,619	345,210	11,110	4,944
Seeds, plants, vines, and trees	farms, 2007	15,733	22,444	52,335	4,716	1,888
	2002	17,240	29,154	63,681	5,133	1,876
	$1,000, 2007	376,934	173,849	483,493	29,641	8,990
	2002	224,745	105,870	308,361	17,914	8,778
Livestock and poultry purchased or leased (see text)	farms, 2007	10,196	16,930	55,194	4,826	1,541
	2002	11,307	21,962	65,435	5,172	1,660
	$1,000, 2007	881,582	213,700	6,017,794	132,323	25,230
	2002	580,920	175,145	4,524,369	158,687	23,993
Breeding livestock purchased or leased (see text) [2]	farms, 2007	7,637	10,548	36,667	2,864	789
	2002	8,111	12,957	43,559	2,702	1,042
	$1,000, 2007	160,850	47,611	420,373	31,074	16,178
	2002	64,732	32,136	186,906	18,789	14,949
Other livestock and poultry purchased or leased (see text)	farms, 2007	4,644	8,552	25,541	2,836	970
	2002	5,317	11,274	30,388	3,092	803
	$1,000, 2007	720,732	166,089	5,597,421	101,250	9,052
	2002	516,188	143,009	4,337,463	139,898	9,045
Feed purchased	farms, 2007	15,462	49,442	158,144	9,214	3,637
	2002	19,389	57,492	167,033	9,479	3,978
	$1,000, 2007	617,725	547,993	4,226,444	389,568	144,129
	2002	433,345	386,790	2,700,281	244,175	108,693
Gasoline, fuels, and oils	farms, 2007	30,430	77,402	242,625	16,397	6,734
	2002	30,630	83,141	225,007	14,148	5,942
	$1,000, 2007	310,328	160,637	1,053,222	82,302	32,656
	2002	160,186	93,416	533,321	42,227	14,895
Utilities (see text)	farms, 2007	19,055	32,708	107,727	10,076	3,851
	2002	23,034	39,454	121,694	9,380	4,355
	$1,000, 2007	94,296	54,900	445,871	42,687	18,760
	2002	84,141	51,715	334,071	30,779	14,942
Supplies, repairs, and maintenance	farms, 2007	28,563	71,411	224,498	15,164	6,308
	2002	29,117	77,699	209,473	13,403	5,210
	$1,000, 2007	339,058	210,755	1,132,765	98,739	64,724
	2002	259,190	209,225	926,466	81,828	49,566
Hired farm labor	farms, 2007	8,465	14,575	45,081	4,271	1,884
	2002	10,364	17,223	49,206	4,570	1,913
	$1,000, 2007	177,684	214,487	1,169,767	147,213	72,316
	2002	134,685	173,255	969,979	114,694	62,720
Contract labor	farms, 2007	2,132	5,020	28,743	1,410	562
	2002	2,595	7,174	37,394	1,649	593
	$1,000, 2007	18,850	47,410	207,267	12,694	4,998
	2002	11,787	34,127	172,668	9,939	3,549
Customwork and custom hauling	farms, 2007	8,921	8,662	35,639	2,910	1,135
	2002	11,096	12,082	45,209	3,430	1,338
	$1,000, 2007	99,590	27,353	320,740	27,481	19,829
	2002	69,026	27,000	229,904	23,661	13,929
Cash rent for land, buildings, and grazing fees	farms, 2007	14,161	11,522	45,190	4,020	1,230
	2002	14,162	12,748	48,714	3,975	1,547
	$1,000, 2007	499,619	105,705	503,722	32,408	11,363
	2002	272,995	73,368	351,243	24,791	9,209
Rent and lease expenses for machinery, equipment, and farm share of vehicles	farms, 2007	2,684	2,559	7,823	815	360
	2002	3,738	3,608	11,215	986	344
	$1,000, 2007	29,097	14,261	64,684	7,194	2,699
	2002	29,741	13,812	77,361	6,384	3,378
Interest expense	farms, 2007	14,920	19,067	54,057	4,205	1,936
	2002	18,338	22,286	61,028	4,656	1,718
	$1,000, 2007	306,448	158,689	676,379	58,768	26,913
	2002	266,573	147,275	523,438	48,332	18,881
Secured by real estate	farms, 2007	11,342	15,374	39,185	3,137	1,532
	2002	14,010	17,979	42,614	3,318	1,323
	$1,000, 2007	182,119	120,778	426,140	40,956	19,878
	2002	174,259	120,033	335,987	35,815	13,875
Not secured by real estate	farms, 2007	10,269	10,756	33,826	2,641	1,223
	2002	11,531	9,434	31,715	2,465	850
	$1,000, 2007	124,328	37,912	250,239	17,812	7,035
	2002	92,314	27,243	187,451	12,518	5,005
Property taxes paid	farms, 2007	27,952	73,873	221,113	14,729	6,320
	2002	29,052	81,759	206,050	14,166	6,067
	$1,000, 2007	148,940	97,014	489,194	28,431	30,579
	2002	135,833	94,350	370,215	21,679	28,464
All other production expenses (see text)	farms, 2007	20,702	36,296	106,733	8,162	4,021
	2002	23,851	43,517	121,277	9,283	3,784
	$1,000, 2007	307,143	165,974	1,008,116	77,462	61,290
	2002	246,089	138,141	812,579	73,145	50,897
Depreciation expenses claimed (see text) [1]	farms, 2007	18,112	31,582	93,398	6,282	3,088
	2002	17,943	26,493	76,721	5,818	2,323
	$1,000, 2007	592,234	297,137	1,467,205	125,886	57,311
	2002	401,185	236,120	998,769	89,441	44,526

See footnote(s) at end of table.

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Table 3. **Farm Production Expenses: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Virginia	Washington	West Virginia	Wisconsin	Wyoming
Total farm production expenses [1]	farms, 2007	47,383	39,284	23,618	78,463	11,069
	2002	47,605	35,959	20,764	77,133	9,432
	$1,000, 2007	2,711,537	5,390,313	545,855	6,748,715	970,138
	2002	2,045,598	4,430,693	408,650	4,642,287	828,003
Average per farm	dollars, 2007	57,226	137,214	23,112	86,011	87,645
	2002	42,970	123,215	19,681	60,185	87,787
Fertilizer, lime, and soil conditioners purchased	farms, 2007	26,303	17,083	10,049	43,025	3,021
	2002	28,686	17,937	9,421	42,048	3,085
	$1,000, 2007	189,325	380,358	19,364	495,308	31,959
	2002	114,943	231,964	12,976	260,006	22,555
Chemicals purchased	farms, 2007	16,027	16,386	4,853	35,784	3,405
	2002	17,870	17,580	4,267	37,052	3,038
	$1,000, 2007	76,060	317,784	6,054	263,235	11,630
	2002	67,506	262,331	5,591	184,368	10,532
Seeds, plants, vines, and trees	farms, 2007	13,700	11,005	4,371	37,999	2,224
	2002	17,156	13,292	4,298	39,746	2,348
	$1,000, 2007	97,235	200,704	7,213	371,941	13,267
	2002	73,863	155,355	7,592	223,674	8,978
Livestock and poultry purchased or leased (see text)	farms, 2007	11,487	8,589	5,845	19,948	3,493
	2002	13,434	7,365	5,911	21,117	3,673
	$1,000, 2007	323,214	326,256	96,910	356,954	215,888
	2002	277,272	394,109	63,817	294,121	199,126
Breeding livestock purchased or leased (see text) [2]	farms, 2007	6,167	4,247	2,800	10,799	2,354
	2002	6,974	3,765	3,255	12,329	2,565
	$1,000, 2007	38,777	37,873	8,821	139,475	38,436
	2002	27,806	26,454	8,075	108,518	21,091
Other livestock and poultry purchased or leased (see text)	farms, 2007	6,815	5,553	3,814	11,816	1,803
	2002	8,182	4,690	3,393	11,343	1,747
	$1,000, 2007	284,437	288,383	88,089	217,479	177,453
	2002	249,466	367,655	55,742	185,603	178,035
Feed purchased	farms, 2007	29,233	19,927	14,027	38,826	6,398
	2002	31,374	18,421	14,291	43,074	6,761
	$1,000, 2007	727,195	663,387	177,847	1,091,862	150,962
	2002	507,692	471,553	130,696	785,165	137,943
Gasoline, fuels, and oils	farms, 2007	46,775	38,350	22,895	75,533	10,557
	2002	45,285	33,510	18,969	73,275	9,110
	$1,000, 2007	156,818	265,061	37,698	425,000	66,227
	2002	84,041	145,339	20,134	193,005	36,091
Utilities (see text)	farms, 2007	19,930	21,707	8,187	45,030	6,671
	2002	22,952	23,685	8,074	50,736	6,611
	$1,000, 2007	52,952	186,322	10,698	204,032	32,933
	2002	48,221	165,260	8,843	159,689	25,318
Supplies, repairs, and maintenance	farms, 2007	43,815	35,609	21,157	70,221	9,850
	2002	42,932	31,733	18,249	69,388	8,424
	$1,000, 2007	219,378	439,705	48,207	635,867	77,189
	2002	180,927	380,491	45,276	473,225	67,731
Hired farm labor	farms, 2007	10,571	11,063	3,251	17,889	2,716
	2002	12,907	13,598	3,539	19,275	3,102
	$1,000, 2007	293,996	1,151,383	32,794	785,018	97,820
	2002	242,131	987,399	31,843	515,473	81,799
Contract labor	farms, 2007	3,043	3,293	894	3,381	1,400
	2002	4,169	3,702	1,064	3,630	1,792
	$1,000, 2007	29,483	58,442	5,105	29,740	11,202
	2002	22,545	55,607	4,766	20,181	10,344
Customwork and custom hauling	farms, 2007	5,560	5,149	1,614	22,496	1,759
	2002	7,662	6,834	2,168	25,607	2,455
	$1,000, 2007	29,291	108,062	4,001	169,816	15,994
	2002	21,574	96,634	3,448	125,552	15,539
Cash rent for land, buildings, and grazing fees	farms, 2007	9,457	5,807	2,315	21,257	3,558
	2002	9,874	6,081	2,201	21,310	3,645
	$1,000, 2007	88,021	260,112	7,263	356,370	71,455
	2002	67,238	180,856	7,322	245,901	45,743
Rent and lease expenses for machinery, equipment, and farm share of vehicles	farms, 2007	1,592	2,633	443	5,382	626
	2002	2,322	3,798	513	7,017	846
	$1,000, 2007	9,579	42,158	1,393	53,828	4,634
	2002	9,601	48,787	1,654	45,463	5,399
Interest expense	farms, 2007	11,897	10,448	4,612	28,899	3,874
	2002	12,688	12,115	4,121	31,847	4,191
	$1,000, 2007	123,286	219,629	28,549	523,903	68,386
	2002	90,843	248,172	20,711	342,250	63,529
Secured by real estate	farms, 2007	9,064	8,139	3,616	23,834	3,059
	2002	9,224	9,285	2,986	25,521	2,984
	$1,000, 2007	94,658	136,486	22,060	374,491	49,300
	2002	69,572	173,455	16,454	249,580	44,574
Not secured by real estate	farms, 2007	7,186	6,206	2,693	16,838	2,377
	2002	6,280	5,991	1,984	16,392	2,614
	$1,000, 2007	28,628	83,143	6,488	149,411	19,086
	2002	21,270	74,717	4,257	92,670	18,954
Property taxes paid	farms, 2007	43,406	35,748	21,808	73,764	10,073
	2002	44,043	33,714	19,378	72,184	8,545
	$1,000, 2007	96,068	161,799	19,612	307,453	30,904
	2002	74,908	146,685	15,227	254,629	23,867
All other production expenses (see text)	farms, 2007	23,600	20,135	9,843	44,299	6,568
	2002	27,633	22,319	9,677	49,818	6,554
	$1,000, 2007	199,637	609,150	43,146	678,388	69,688
	2002	162,293	460,151	28,754	519,585	73,510
Depreciation expenses claimed (see text) [1]	farms, 2007	20,797	16,262	7,786	39,448	5,367
	2002	17,772	16,286	4,974	36,463	4,475
	$1,000, 2007	268,614	430,311	56,670	817,853	118,174
	2002	201,680	397,602	36,105	602,103	92,212

[1] 2002 data are based on a sample of farms.
[2] 2002 data do not include breeding livestock leased.

Table 4. **Net Cash Farm Income of Operations and Operators: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Net cash farm income of the operations (see text) [1] $1,000, 2007	74,581,098	737,898	11,341	583,946	1,773,782	7,983,228
2002	40,514,055	905,961	10,511	652,021	1,384,246	5,931,847
Average per farm .... dollars, 2007	33,827	15,135	16,532	37,344	35,946	98,518
2002	19,032	20,077	17,260	89,391	29,158	74,469
Farms with net gains [2] ....number, 2007	1,037,041	21,176	292	3,410	23,251	35,095
2002	993,861	20,607	285	2,438	22,347	35,789
Average per farm .... dollars, 2007	89,479	47,747	85,720	235,501	89,925	282,231
2002	56,679	54,657	63,224	315,795	74,247	211,826
Farms with net losses ....number, 2007	1,167,751	27,577	394	12,227	26,095	45,938
2002	1,134,879	24,517	324	4,856	25,127	43,866
Average per farm .... dollars, 2007	15,596	9,906	34,744	17,920	12,150	41,832
2002	13,937	8,988	23,171	24,277	10,943	37,596
Net cash farm income of operators (see text) [1] $1,000, 2007	64,197,836	314,063	11,324	378,078	1,064,211	7,746,152
2002	33,736,140	322,527	10,521	638,837	604,082	5,666,128
Average per farm .... dollars, 2007	29,117	6,442	16,507	24,178	21,566	95,593
2002	15,848	7,148	17,277	87,584	12,724	71,133
Farm operators reporting net gains ....farms, 2007	1,025,783	20,791	291	3,406	22,597	34,860
2002	996,318	20,607	286	2,493	22,014	36,023
Average per farm .... dollars, 2007	81,061	29,006	85,975	176,829	63,191	278,379
2002	50,295	27,286	62,955	302,385	41,208	206,154
Farm operators reporting net losses ....farms, 2007	1,179,009	27,962	395	12,231	26,749	46,173
2002	1,132,422	24,517	323	4,801	25,460	43,632
Average per farm .... dollars, 2007	16,075	10,336	34,670	18,331	13,597	42,409
2002	14,459	9,780	23,169	23,955	11,904	40,341

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Net cash farm income of the operations (see text) [1] $1,000, 2007	968,925	123,327	291,326	2,268,275	1,566,809	75,878
2002	367,349	92,591	168,894	1,652,232	1,381,354	98,145
Average per farm .... dollars, 2007	26,149	25,087	114,425	47,790	32,747	10,089
2002	11,715	22,019	70,637	37,482	28,017	18,048
Farms with net gains [2] ....number, 2007	14,684	1,771	1,571	17,099	17,856	3,483
2002	12,908	1,553	1,403	18,117	18,965	3,278
Average per farm .... dollars, 2007	96,001	104,400	197,326	171,587	114,497	46,914
2002	58,261	84,787	136,673	118,305	93,544	41,991
Farms with net losses ....number, 2007	22,370	3,145	975	30,364	29,990	4,038
2002	18,450	2,652	988	25,964	30,339	2,160
Average per farm .... dollars, 2007	19,703	19,576	19,152	21,924	15,927	21,675
2002	20,850	14,737	23,136	18,915	12,944	18,287
Net cash farm income of operators (see text) [1] $1,000, 2007	1,019,674	124,075	108,810	2,223,990	929,467	75,170
2002	345,793	93,246	57,223	1,590,640	768,110	98,563
Average per farm .... dollars, 2007	27,519	25,239	42,738	46,857	19,426	9,995
2002	11,027	22,175	23,933	36,084	15,579	18,125
Farm operators reporting net gains ....farms, 2007	14,486	1,770	1,508	17,060	17,530	3,476
2002	12,946	1,566	1,216	18,419	19,046	3,283
Average per farm .... dollars, 2007	101,534	104,632	86,207	169,638	81,175	46,821
2002	56,268	84,372	78,703	113,568	62,437	42,210
Farm operators reporting net losses ....farms, 2007	22,568	3,146	1,038	30,403	30,316	4,045
2002	18,412	2,639	1,175	25,662	30,258	2,155
Average per farm .... dollars, 2007	19,990	19,429	20,415	22,039	16,279	21,652
2002	20,783	14,733	32,749	19,529	13,916	18,567

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Net cash farm income of the operations (see text) [1] $1,000, 2007	1,361,761	5,242,533	2,498,884	6,451,702	2,961,691	1,285,433
2002	699,093	2,094,037	833,052	2,863,769	841,600	847,511
Average per farm .... dollars, 2007	53,720	68,209	41,007	69,481	45,195	15,077
2002	27,946	28,685	13,818	31,592	13,070	9,788
Farms with net gains [2] ....number, 2007	11,748	51,916	33,888	69,025	39,293	40,067
2002	10,641	46,024	28,258	60,139	36,274	45,370
Average per farm .... dollars, 2007	137,270	106,939	85,565	101,667	87,656	44,708
2002	87,640	53,645	46,218	58,054	38,154	27,012
Farms with net losses ....number, 2007	13,601	24,944	27,050	23,831	26,238	45,193
2002	14,375	26,976	32,028	30,509	28,116	41,221
Average per farm .... dollars, 2007	18,446	12,399	14,814	23,744	18,393	11,194
2002	16,243	13,898	14,768	20,570	19,291	9,170
Net cash farm income of operators (see text) [1] $1,000, 2007	1,281,219	4,218,592	2,138,776	5,816,030	2,621,376	1,083,773
2002	671,828	1,589,645	671,107	2,624,949	763,656	676,420
Average per farm .... dollars, 2007	50,543	54,887	35,098	62,635	40,002	12,711
2002	26,856	21,776	11,132	28,958	11,860	7,812
Farm operators reporting net gains ....farms, 2007	11,620	51,079	33,381	68,303	38,494	39,762
2002	10,650	44,399	27,975	59,502	35,434	45,868
Average per farm .... dollars, 2007	132,663	89,320	76,734	93,991	82,686	40,453
2002	84,661	45,258	41,801	54,850	38,945	23,525
Farm operators reporting net losses ....farms, 2007	13,729	25,781	27,557	24,553	27,037	45,498
2002	14,366	28,601	32,311	31,146	28,956	40,723
Average per farm .... dollars, 2007	18,961	13,336	15,339	24,592	20,769	11,533
2002	15,997	14,676	15,421	20,508	21,284	9,887

See footnote(s) at end of table.

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Table 4. **Net Cash Farm Income of Operations and Operators: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Net cash farm income of the operations (see text) [1] $1,000, 2007	761,740	167,671	412,752	96,266	1,308,930	3,927,990
2002	383,542	107,571	246,383	64,610	724,021	1,925,185
Average per farm ....dollars, 2007	25,302	20,609	32,161	12,517	23,368	48,498
2002	14,000	15,106	20,230	10,632	13,585	23,831
Farms with net gains [2] .... number, 2007	13,174	3,235	5,725	2,950	25,004	50,508
2002	11,511	2,663	5,097	2,404	22,737	45,902
Average per farm ....dollars, 2007	73,922	71,086	98,587	63,627	67,154	87,914
2002	52,448	57,698	77,003	50,718	47,047	53,308
Farms with net losses .... number, 2007	16,932	4,901	7,109	4,741	31,010	30,484
2002	15,884	4,458	7,082	3,673	30,559	34,883
Average per farm ....dollars, 2007	12,527	12,710	21,333	19,286	11,938	16,807
2002	13,862	10,336	20,630	15,604	11,312	14,958
Net cash farm income of operators (see text) [1] $1,000, 2007	568,615	165,909	207,136	95,807	1,230,624	3,752,045
2002	230,457	108,861	112,295	65,482	705,489	1,813,036
Average per farm ....dollars, 2007	18,887	20,392	16,140	12,457	21,970	46,326
2002	8,412	15,287	9,220	10,775	13,237	22,443
Farm operators reporting net gains ....farms, 2007	13,003	3,231	5,619	2,947	24,835	50,320
2002	11,376	2,671	4,973	2,460	23,069	46,119
Average per farm ....dollars, 2007	61,165	70,623	64,637	63,560	64,874	85,093
2002	41,233	57,792	55,190	49,770	45,546	50,735
Farm operators reporting net losses ....farms, 2007	17,103	4,905	7,215	4,744	31,179	30,672
2002	16,019	4,450	7,206	3,617	30,227	34,666
Average per farm ....dollars, 2007	13,256	12,696	21,630	19,288	12,205	17,275
2002	14,896	10,225	22,504	15,746	11,421	15,197

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Net cash farm income of the operations (see text) [1] $1,000, 2007	972,410	1,959,854	827,156	3,966,860	125,672	26,721
2002	626,916	802,946	350,334	1,225,016	128,806	17,403
Average per farm ....dollars, 2007	23,175	18,176	28,016	83,142	40,138	6,414
2002	14,865	7,522	12,569	24,820	43,108	5,152
Farms with net gains [2] .... number, 2007	17,807	54,106	15,031	33,468	1,260	1,313
2002	17,525	53,518	14,182	30,579	1,083	1,130
Average per farm ....dollars, 2007	73,426	48,151	74,160	129,212	125,372	56,233
2002	51,206	26,594	44,967	56,201	158,194	38,755
Farms with net losses .... number, 2007	24,152	53,719	14,493	14,244	1,871	2,853
2002	24,650	53,231	13,691	18,777	1,905	2,248
Average per farm ....dollars, 2007	13,874	12,014	19,840	25,105	17,262	16,513
2002	10,973	11,653	20,991	26,285	22,320	11,739
Net cash farm income of operators (see text) [1] $1,000, 2007	608,021	1,468,838	726,378	3,482,705	116,777	27,149
2002	272,806	651,698	298,672	1,089,630	129,367	18,567
Average per farm ....dollars, 2007	14,491	13,622	24,603	72,994	37,297	6,517
2002	6,468	6,105	10,715	22,077	43,295	5,496
Farm operators reporting net gains ....farms, 2007	17,584	53,368	14,853	32,925	1,245	1,310
2002	17,529	53,778	14,124	29,693	1,106	1,139
Average per farm ....dollars, 2007	54,276	40,480	68,869	118,796	123,990	56,467
2002	31,921	23,589	42,303	53,567	154,973	39,247
Farm operators reporting net losses ....farms, 2007	24,375	54,457	14,671	14,787	1,886	2,856
2002	24,646	52,971	13,749	19,663	1,882	2,239
Average per farm ....dollars, 2007	14,210	12,698	20,213	28,988	19,931	16,395
2002	11,634	11,645	21,734	25,477	22,334	11,673

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Net cash farm income of the operations (see text) [1] $1,000, 2007	251,360	367,493	1,182,644	2,409,247	2,589,025	2,080,357
2002	149,535	294,688	538,670	1,557,074	1,008,285	694,544
Average per farm ....dollars, 2007	24,340	17,558	32,533	45,532	80,983	27,423
2002	15,074	19,373	14,460	28,869	32,972	8,929
Farms with net gains [2] .... number, 2007	4,049	7,404	16,047	22,901	25,174	39,770
2002	3,803	5,927	16,523	25,037	22,964	32,837
Average per farm ....dollars, 2007	87,040	73,142	96,333	122,133	107,275	62,977
2002	61,687	68,645	56,405	75,631	50,768	37,815
Farms with net losses .... number, 2007	6,278	13,526	20,305	30,012	6,796	36,091
2002	6,117	9,284	20,729	28,898	7,616	44,951
Average per farm ....dollars, 2007	16,098	12,868	17,888	12,919	16,408	11,754
2002	13,906	12,082	18,974	11,644	20,686	12,173
Net cash farm income of operators (see text) [1] $1,000, 2007	250,825	357,341	1,174,764	1,393,655	2,474,353	1,809,390
2002	150,686	297,086	548,991	1,025,309	951,933	591,965
Average per farm ....dollars, 2007	24,288	17,073	32,316	26,339	77,396	23,851
2002	15,190	19,531	14,737	19,010	31,129	7,610
Farm operators reporting net gains ....farms, 2007	4,048	7,369	16,006	22,492	25,046	39,302
2002	3,888	5,998	16,646	25,196	22,751	33,034
Average per farm ....dollars, 2007	86,950	72,457	96,240	80,033	103,556	57,249
2002	60,412	68,329	56,494	55,054	49,056	34,814
Farm operators reporting net losses ....farms, 2007	6,279	13,561	20,346	30,421	6,924	36,559
2002	6,032	9,213	20,606	28,739	7,829	44,754
Average per farm ....dollars, 2007	16,109	13,022	17,971	13,361	17,230	12,053
2002	13,958	12,239	18,995	12,590	20,967	12,470

See footnote(s) at end of table.

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Table 4. **Net Cash Farm Income of Operations and Operators: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Net cash farm income of the operations (see text) [1]	$1,000, 2007	1,028,845	903,728	1,172,716	6,921	509,026
	2002	684,606	607,092	863,628	12,404	311,880
Average per farm	dollars, 2007	11,885	23,441	18,567	5,678	19,679
	2002	8,220	15,156	14,853	14,457	12,712
Farms with net gains [2]	number, 2007	33,708	13,455	26,920	446	9,144
	2002	36,375	14,380	23,619	364	8,214
Average per farm	dollars, 2007	51,479	95,534	59,587	53,803	82,202
	2002	31,559	62,889	53,644	56,739	68,174
Farms with net losses	number, 2007	52,857	25,098	36,243	773	16,723
	2002	46,907	25,675	34,525	494	16,321
Average per farm	dollars, 2007	13,364	15,208	11,902	22,089	14,509
	2002	9,878	11,577	11,684	16,699	15,201
Net cash farm income of operators (see text) [1]	$1,000, 2007	813,849	840,635	1,030,531	6,934	250,280
	2002	567,407	573,363	753,646	12,514	90,542
Average per farm	dollars, 2007	9,402	21,805	16,315	5,689	9,676
	2002	6,813	14,314	12,962	14,585	3,690
Farm operators reporting net gains	farms, 2007	33,315	13,367	26,744	445	9,053
	2002	36,382	14,624	23,992	368	8,538
Average per farm	dollars, 2007	46,536	91,894	54,913	53,945	56,015
	2002	28,207	59,757	48,438	56,315	40,680
Farm operators reporting net losses	farms, 2007	53,250	25,186	36,419	774	16,814
	2002	46,900	25,431	34,152	490	15,997
Average per farm	dollars, 2007	13,831	15,394	12,028	22,056	15,275
	2002	9,783	11,817	11,960	16,755	16,052

Item		South Dakota	Tennessee	Texas	Utah	Vermont
Net cash farm income of the operations (see text) [1]	$1,000, 2007	2,217,996	243,778	3,167,114	259,403	159,346
	2002	902,091	366,526	1,447,457	220,270	101,678
Average per farm	dollars, 2007	71,160	3,075	12,800	15,533	22,816
	2002	28,448	4,185	6,324	14,404	15,462
Farms with net gains [2]	number, 2007	21,983	28,835	82,282	6,631	3,051
	2002	20,480	33,203	81,164	5,935	3,157
Average per farm	dollars, 2007	109,965	23,371	66,694	58,939	69,973
	2002	56,871	22,249	37,605	55,661	43,928
Farms with net losses	number, 2007	9,186	50,445	165,155	10,069	3,933
	2002	11,230	54,384	147,722	9,357	3,419
Average per farm	dollars, 2007	21,702	8,527	14,051	13,052	13,766
	2002	23,387	6,844	10,863	11,764	10,823
Net cash farm income of operators (see text) [1]	$1,000, 2007	2,106,109	129,610	2,689,662	239,518	159,352
	2002	848,668	301,791	1,044,631	222,350	103,124
Average per farm	dollars, 2007	67,571	1,635	10,870	14,342	22,817
	2002	26,763	3,446	4,564	14,540	15,682
Farm operators reporting net gains	farms, 2007	21,792	28,486	81,557	6,562	3,044
	2002	20,412	34,141	83,317	6,024	3,188
Average per farm	dollars, 2007	106,223	20,230	62,030	57,194	70,144
	2002	54,913	19,990	32,063	54,998	43,755
Farm operators reporting net losses	farms, 2007	9,377	50,794	165,880	10,138	3,940
	2002	11,298	53,446	145,569	9,268	3,388
Average per farm	dollars, 2007	22,257	8,794	14,283	13,394	13,748
	2002	24,093	7,123	11,175	11,756	10,734

Item		Virginia	Washington	West Virginia	Wisconsin	Wyoming
Net cash farm income of the operations (see text) [1]	$1,000, 2007	419,946	1,785,615	71,019	2,739,043	275,712
	2002	503,951	1,219,896	103,329	1,384,224	115,282
Average per farm	dollars, 2007	8,863	45,454	3,007	34,909	24,909
	2002	10,586	33,925	4,976	17,946	12,222
Farms with net gains [2]	number, 2007	17,943	14,690	8,495	40,240	4,667
	2002	21,898	14,857	7,580	38,527	4,290
Average per farm	dollars, 2007	49,030	156,938	19,003	78,109	90,044
	2002	32,517	106,715	22,877	43,553	48,758
Farms with net losses	number, 2007	29,440	24,594	15,123	38,223	6,402
	2002	25,707	21,102	13,184	38,606	5,142
Average per farm	dollars, 2007	15,618	21,135	5,978	10,572	22,575
	2002	8,095	17,324	5,315	7,609	18,260
Net cash farm income of operators (see text) [1]	$1,000, 2007	250,593	1,666,293	22,711	2,677,445	249,203
	2002	304,601	1,154,566	40,708	1,353,663	108,960
Average per farm	dollars, 2007	5,289	42,417	962	34,124	22,514
	2002	6,398	32,108	1,960	17,550	11,552
Farm operators reporting net gains	farms, 2007	17,767	14,586	8,406	40,117	4,625
	2002	22,278	14,788	7,943	38,808	4,238
Average per farm	dollars, 2007	40,621	150,045	13,647	77,077	85,803
	2002	23,142	103,114	13,821	42,540	48,359
Farm operators reporting net losses	farms, 2007	29,616	24,698	15,212	38,346	6,444
	2002	25,327	21,171	12,821	38,325	5,194
Average per farm	dollars, 2007	15,908	21,146	6,048	10,813	22,911
	2002	8,329	17,490	5,388	7,756	18,480

[1] 2002 data are based on a sample of farms.
[2] Farms with total production expenses equal to total of market value of agricultural products sold, government payments, and farm-related income are included as farms with net gains.

Table 5. **Government Payments and Commodity Credit Corporation Loans: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
GOVERNMENT PAYMENTS						
Total received ....farms, 2007	838,391	14,428	78	1,140	11,461	7,444
2002	707,596	12,863	72	833	7,811	7,228
$1,000, 2007	7,983,922	124,692	1,645	55,947	269,448	240,242
2002	6,545,678	77,930	1,765	31,760	238,577	168,698
Average per farm ....dollars, 2007	9,523	8,642	21,086	49,077	23,510	32,273
2002	9,251	6,058	24,516	38,127	30,544	23,340
Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs (see text) [1] ....farms, 2007	346,227	6,652	38	3	2,948	668
2002	268,830	5,371	35	4	1,393	778
$1,000, 2007	1,756,226	21,324	(D)	107	17,526	7,528
2002	1,387,956	20,260	988	(D)	6,117	6,994
Average per farm ....dollars, 2007	5,072	3,206	(D)	35,714	5,945	11,270
2002	5,163	3,772	28,220	(D)	4,391	8,990
Amount from other federal farm programs ....farms, 2007	687,434	10,806	56	1,139	10,331	7,084
2002	531,316	8,737	52	830	6,864	6,616
$1,000, 2007	6,227,696	103,368	(D)	55,840	251,922	232,714
2002	5,157,722	57,670	777	(D)	232,460	161,704
Average per farm ....dollars, 2007	9,059	9,566	(D)	49,026	24,385	32,851
2002	9,707	6,601	14,951	(D)	33,867	24,441
COMMODITY CREDIT CORPORATION LOANS						
Total ....farms, 2007	50,572	362	1	70	1,176	1,098
2002	106,120	709	1	179	2,109	1,550
$1,000, 2007	4,445,758	24,418	(D)	16,498	251,805	181,426
2002	3,833,308	19,551	(D)	19,622	215,327	183,714

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
GOVERNMENT PAYMENTS						
Total received ....farms, 2007	11,572	352	950	4,664	14,546	218
2002	10,163	254	617	2,554	15,510	113
$1,000, 2007	155,980	4,122	8,896	45,343	224,523	2,378
2002	125,774	3,681	8,643	21,818	118,535	886
Average per farm ....dollars, 2007	13,479	11,710	9,364	9,722	15,435	10,908
2002	12,376	14,492	14,009	8,543	7,642	7,841
Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs (see text) [1] ....farms, 2007	5,883	38	226	2,418	5,090	2
2002	3,775	23	157	1,281	5,907	7
$1,000, 2007	72,695	57	908	7,874	12,916	(D)
2002	48,286	39	726	3,760	16,041	(D)
Average per farm ....dollars, 2007	12,357	1,506	4,017	3,257	2,538	(D)
2002	12,791	1,676	4,626	2,935	2,716	(D)
Amount from other federal farm programs ....farms, 2007	8,513	335	828	3,144	12,131	218
2002	7,977	241	525	1,451	10,940	107
$1,000, 2007	83,285	4,065	7,988	37,469	211,606	(D)
2002	77,489	3,643	7,917	18,058	102,494	(D)
Average per farm ....dollars, 2007	9,783	12,133	9,647	11,918	17,443	(D)
2002	9,714	15,114	15,080	12,445	9,369	(D)
COMMODITY CREDIT CORPORATION LOANS						
Total ....farms, 2007	214	1	43	155	1,236	-
2002	711	10	119	157	1,330	1
$1,000, 2007	11,563	(D)	1,978	13,279	116,575	-
2002	18,724	249	1,965	7,511	46,013	(D)

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
GOVERNMENT PAYMENTS						
Total received ....farms, 2007	9,214	56,811	35,864	74,939	44,433	29,511
2002	7,098	47,857	26,841	63,074	39,191	22,825
$1,000, 2007	99,494	487,293	260,809	706,286	427,144	103,104
2002	93,934	412,636	224,701	538,896	328,244	94,053
Average per farm ....dollars, 2007	10,798	8,577	7,272	9,425	9,613	3,494
2002	13,234	8,622	8,372	8,544	8,375	4,121
Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs (see text) [1] ....farms, 2007	3,285	26,660	14,127	40,502	21,481	8,437
2002	2,334	21,845	9,108	30,454	18,620	7,136
$1,000, 2007	31,198	84,995	32,264	208,329	116,182	26,988
2002	27,341	76,074	21,459	150,444	94,436	24,764
Average per farm ....dollars, 2007	9,497	3,188	2,284	5,144	5,409	3,199
2002	11,714	3,482	2,356	4,940	5,072	3,470
Amount from other federal farm programs ....farms, 2007	7,675	47,130	30,467	58,664	37,548	26,163
2002	5,572	34,694	21,167	45,009	29,444	17,768
$1,000, 2007	68,296	402,298	228,545	497,956	310,962	76,115
2002	66,593	336,561	203,242	388,452	233,808	69,290
Average per farm ....dollars, 2007	8,899	8,536	7,501	8,488	8,282	2,909
2002	11,951	9,701	9,602	8,631	7,941	3,900
COMMODITY CREDIT CORPORATION LOANS						
Total ....farms, 2007	252	3,289	2,756	9,727	1,450	528
2002	863	9,472	5,451	17,025	5,260	1,341
$1,000, 2007	9,899	296,321	293,157	732,579	46,082	33,060
2002	27,542	295,789	207,832	709,718	75,003	25,033

See footnote(s) at end of table.

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Table 5. **Government Payments and Commodity Credit Corporation Loans: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
GOVERNMENT PAYMENTS						
Total received ..... farms, 2007	10,621	1,459	4,588	593	23,239	56,657
2002	7,562	1,244	3,372	415	18,133	43,927
$1,000, 2007	169,333	8,815	33,386	4,603	118,871	445,861
2002	123,599	8,664	33,131	4,268	144,771	350,709
Average per farm ..... dollars, 2007	15,943	6,042	7,277	7,763	5,115	7,869
2002	16,345	6,965	9,825	10,284	7,984	7,984
Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs (see text) [1] ..... farms, 2007	4,160	695	2,525	30	8,592	27,687
2002	1,988	476	1,611	17	6,603	20,211
$1,000, 2007	23,610	1,508	9,697	46	21,880	112,226
2002	9,833	1,223	6,569	(D)	19,364	84,535
Average per farm ..... dollars, 2007	5,675	2,170	3,840	1,517	2,547	4,053
2002	4,946	2,569	4,078	(D)	2,933	4,183
Amount from other federal farm programs ..... farms, 2007	8,897	1,008	3,109	576	18,545	41,951
2002	6,091	844	2,212	404	13,246	29,661
$1,000, 2007	145,723	7,307	23,690	4,558	96,991	333,635
2002	113,766	7,441	26,562	(D)	125,406	266,175
Average per farm ..... dollars, 2007	16,379	7,249	7,620	7,913	5,230	7,953
2002	18,678	8,816	12,008	(D)	9,467	8,974
COMMODITY CREDIT CORPORATION LOANS						
Total ..... farms, 2007	538	8	135	4	1,073	6,495
2002	1,022	71	361	21	2,601	10,035
$1,000, 2007	93,121	(D)	8,127	342	79,301	615,141
2002	63,238	551	8,081	(D)	72,023	454,241

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
GOVERNMENT PAYMENTS						
Total received ..... farms, 2007	17,187	45,102	13,080	34,924	331	423
2002	12,383	43,379	12,389	32,007	439	359
$1,000, 2007	231,382	319,519	221,977	387,340	4,007	2,474
2002	145,508	264,475	210,749	347,517	4,322	3,823
Average per farm ..... dollars, 2007	13,463	7,084	16,971	11,091	12,105	5,848
2002	11,751	6,097	17,011	10,858	9,845	10,648
Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs (see text) [1] ..... farms, 2007	10,714	20,678	5,984	12,511	5	24
2002	8,056	15,066	5,469	10,403	38	18
$1,000, 2007	43,507	106,800	108,592	73,108	42	26
2002	29,157	86,933	102,307	59,681	515	47
Average per farm ..... dollars, 2007	4,061	5,165	18,147	5,843	8,490	1,078
2002	3,619	5,770	18,707	5,737	13,547	2,611
Amount from other federal farm programs ..... farms, 2007	11,316	36,882	10,763	31,590	327	410
2002	5,695	34,000	9,517	26,240	410	346
$1,000, 2007	187,875	212,719	113,385	314,232	3,964	2,448
2002	116,350	177,542	108,442	287,836	3,807	3,776
Average per farm ..... dollars, 2007	16,603	5,768	10,535	9,947	12,123	5,970
2002	20,430	5,222	11,395	10,969	9,286	10,912
COMMODITY CREDIT CORPORATION LOANS						
Total ..... farms, 2007	646	2,075	468	3,366	-	-
2002	1,028	4,171	1,170	7,199	6	15
$1,000, 2007	138,554	180,035	26,355	289,640	-	-
2002	94,558	126,418	31,367	258,686	(D)	186

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
GOVERNMENT PAYMENTS						
Total received ..... farms, 2007	857	3,329	10,596	13,856	26,708	38,069
2002	582	3,246	9,896	12,312	23,892	28,851
$1,000, 2007	6,988	43,377	62,652	147,334	359,532	232,184
2002	4,441	50,201	110,234	97,696	293,067	197,425
Average per farm ..... dollars, 2007	8,154	13,030	5,913	10,633	13,462	6,099
2002	7,630	15,466	11,139	7,935	12,266	6,843
Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs (see text) [1] ..... farms, 2007	143	1,357	2,478	4,181	15,253	13,734
2002	62	1,205	2,390	3,536	12,471	8,988
$1,000, 2007	315	16,556	5,249	9,606	108,166	35,319
2002	135	16,700	7,576	7,456	92,091	23,482
Average per farm ..... dollars, 2007	2,206	12,200	2,118	2,298	7,091	2,572
2002	2,177	13,859	3,170	2,109	7,384	2,613
Amount from other federal farm programs ..... farms, 2007	810	2,547	9,480	11,537	20,169	32,987
2002	526	2,409	8,413	9,536	16,222	23,026
$1,000, 2007	6,673	26,822	57,402	137,728	251,366	196,865
2002	4,306	33,501	102,658	90,239	200,976	173,943
Average per farm ..... dollars, 2007	8,238	10,531	6,055	11,938	12,463	5,968
2002	8,186	13,907	12,202	9,463	12,389	7,554
COMMODITY CREDIT CORPORATION LOANS						
Total ..... farms, 2007	25	67	411	749	1,257	1,733
2002	87	144	678	1,958	3,187	5,003
$1,000, 2007	668	5,833	31,214	41,729	87,231	165,193
2002	1,682	5,501	18,814	37,289	106,238	113,659

See footnote(s) at end of table.

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Table 5. **Government Payments and Commodity Credit Corporation Loans: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
GOVERNMENT PAYMENTS					
Total received ....farms, 2007	27,015	5,115	17,441	101	7,715
2002	24,316	4,430	11,991	52	6,112
$1,000, 2007	209,465	76,491	75,975	743	67,253
2002	149,942	52,085	85,794	528	38,384
Average per farm ....dollars, 2007	7,754	14,954	4,356	7,353	8,717
2002	6,166	11,757	7,155	10,145	6,280
Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs (see text) [1] ....farms, 2007	6,833	1,756	6,784	-	3,908
2002	5,968	1,320	3,614	3	3,268
$1,000, 2007	34,347	27,169	20,079	-	8,972
2002	31,783	18,824	8,448	(D)	7,231
Average per farm ....dollars, 2007	5,027	15,472	2,960	-	2,296
2002	5,326	14,261	2,338	(D)	2,213
Amount from other federal farm programs ....farms, 2007	24,061	4,494	13,424	101	5,709
2002	20,117	3,633	9,172	50	3,540
$1,000, 2007	175,117	49,322	55,896	743	58,282
2002	118,158	33,261	77,346	(D)	31,153
Average per farm ....dollars, 2007	7,278	10,975	4,164	7,353	10,209
2002	5,874	9,155	8,433	(D)	8,800
COMMODITY CREDIT CORPORATION LOANS					
Total ....farms, 2007	600	86	440	-	329
2002	2,070	358	1,054	2	475
$1,000, 2007	20,196	4,175	16,598	-	24,312
2002	30,658	7,745	10,541	(D)	10,879

Item	South Dakota	Tennessee	Texas	Utah	Vermont
GOVERNMENT PAYMENTS					
Total received ....farms, 2007	22,911	17,320	48,027	2,960	1,351
2002	20,259	16,034	42,217	2,987	1,296
$1,000, 2007	270,748	95,744	720,903	22,759	6,773
2002	215,084	59,231	528,979	26,669	24,377
Average per farm ....dollars, 2007	11,817	5,528	15,010	7,689	5,014
2002	10,617	3,694	12,530	8,928	18,809
Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs (see text) [1] ....farms, 2007	10,602	5,220	15,665	668	183
2002	8,236	4,376	13,177	588	48
$1,000, 2007	63,038	15,836	138,422	5,826	405
2002	50,878	11,673	104,010	5,485	83
Average per farm ....dollars, 2007	5,946	3,034	8,836	8,722	2,213
2002	6,178	2,667	7,893	9,329	1,739
Amount from other federal farm programs ....farms, 2007	19,689	15,037	40,463	2,635	1,293
2002	15,818	12,596	32,970	2,589	1,272
$1,000, 2007	207,710	79,908	582,481	16,933	6,368
2002	164,206	47,559	424,970	21,184	24,293
Average per farm ....dollars, 2007	10,550	5,314	14,395	6,426	4,925
2002	10,381	3,776	12,890	8,182	19,099
COMMODITY CREDIT CORPORATION LOANS					
Total ....farms, 2007	2,019	896	2,158	44	2
2002	3,721	1,786	4,805	145	71
$1,000, 2007	170,262	56,021	243,247	948	(D)
2002	129,855	82,404	166,699	1,442	788

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
GOVERNMENT PAYMENTS					
Total received ....farms, 2007	9,852	6,899	2,173	47,477	2,790
2002	9,206	7,332	1,675	37,234	3,163
$1,000, 2007	54,940	138,272	2,929	195,787	28,157
2002	54,677	133,763	5,180	247,942	37,913
Average per farm ....dollars, 2007	5,577	20,042	1,348	4,124	10,092
2002	5,939	18,244	3,093	6,659	11,986
Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs (see text) [1] ....farms, 2007	2,792	3,722	225	18,105	555
2002	2,600	3,143	383	14,729	541
$1,000, 2007	3,821	68,463	305	44,356	7,016
2002	4,777	53,297	437	39,038	6,583
Average per farm ....dollars, 2007	1,369	18,394	1,357	2,450	12,642
2002	1,837	16,958	1,142	2,650	12,169
Amount from other federal farm programs ....farms, 2007	8,422	5,370	2,105	36,940	2,555
2002	7,286	5,676	1,342	25,607	2,856
$1,000, 2007	51,119	69,809	2,623	151,431	21,141
2002	49,899	80,466	4,743	208,905	31,330
Average per farm ....dollars, 2007	6,070	13,000	1,246	4,099	8,274
2002	6,849	14,176	3,534	8,158	10,970
COMMODITY CREDIT CORPORATION LOANS					
Total ....farms, 2007	251	153	42	2,116	28
2002	717	783	87	4,852	149
$1,000, 2007	10,122	9,701	255	98,105	(D)
2002	12,507	38,998	1,493	92,266	736

[1] 2002 data do not include farms with land in Farmable Wetlands or Conservation Reserve Enhancement Programs.

Table 6. **Income From Farm-Related Sources: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item		United States	Alabama	Alaska	Arizona	Arkansas	California
Total income from farm-related sources, gross before taxes and expenses (see text)	farms, 2007	693,187	9,777	117	1,751	9,792	16,846
	2002	621,926	8,757	100	1,332	8,155	14,961
	$1,000, 2007	10,489,874	119,799	3,224	76,233	130,397	820,562
	2002	5,859,226	67,187	1,727	46,346	85,641	528,518
Average per farm	dollars, 2007	15,133	12,253	27,555	43,537	13,317	48,710
	2002	9,421	7,672	17,268	34,794	10,502	35,326
Customwork and other agricultural services	farms, 2007	121,874	1,364	24	423	1,589	3,869
	2002	124,697	1,222	40	287	1,648	4,058
	$1,000, 2007	1,875,665	11,809	799	19,695	26,985	257,785
	2002	1,391,573	7,516	735	15,843	21,868	205,984
Gross cash rent or share payments (see text)	farms, 2007	241,923	3,136	20	304	2,375	4,652
	2002	183,502	2,556	16	261	1,586	4,215
	$1,000, 2007	2,883,897	14,020	84	16,336	37,785	170,043
	2002	1,630,485	11,449	65	10,737	23,039	135,990
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products	farms, 2007	47,603	1,948	15	152	1,268	546
	2002	45,866	1,830	18	11	1,640	503
	$1,000, 2007	594,944	44,159	37	222	16,952	9,408
	2002	465,046	26,516	44	39	14,586	8,163
Agri-tourism and recreational services (see text)	farms, 2007	23,350	591	28	111	268	685
	2002	28,016	839	13	55	478	499
	$1,000, 2007	566,834	7,107	1,476	6,291	4,124	34,880
	2002	202,184	5,216	195	1,146	3,119	6,587
Patronage dividends and refunds from cooperatives	farms, 2007	288,196	2,787	3	269	4,378	5,381
	2002	254,296	2,215	7	330	3,415	4,934
	$1,000, 2007	854,995	4,610	(D)	12,703	20,873	113,546
	2002	505,449	4,404	2	6,392	13,402	76,373
Crop and livestock insurance payments (see text)	farms, 2007	82,001	880	-	42	854	1,511
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	1,676,727	27,607	-	1,037	10,318	63,418
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Amount from state and local government agricultural program payments	farms, 2007	34,410	749	3	254	517	223
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	145,413	1,459	(D)	1,071	1,334	2,460
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Average per farm	dollars, 2007	4,226	1,948	(D)	4,216	2,580	11,032
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other farm-related income sources (see text)	farms, 2007	118,939	827	51	503	796	3,875
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	1,891,400	9,029	815	18,879	12,026	169,021
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

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Table 6. **Income From Farm-Related Sources: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Total income from farm-related sources, gross before taxes and expenses (see text)	farms, 2007	11,075	1,233	1,063	6,877	10,936	636
	2002	9,085	1,116	857	5,382	10,681	449
	$1,000, 2007	183,091	36,971	22,499	200,587	211,673	46,522
	2002	108,052	17,670	7,391	112,039	147,692	19,237
Average per farm	dollars, 2007	16,532	29,985	21,165	29,168	19,356	73,147
	2002	11,893	15,834	8,624	20,817	13,828	42,844
Customwork and other agricultural services	farms, 2007	2,191	187	123	983	1,575	197
	2002	2,131	131	157	914	1,709	181
	$1,000, 2007	38,570	1,601	2,481	24,716	24,677	6,273
	2002	24,563	945	1,530	16,329	18,829	7,448
Gross cash rent or share payments (see text)	farms, 2007	4,387	236	367	1,888	4,285	116
	2002	2,529	173	269	1,252	3,742	103
	$1,000, 2007	40,317	1,177	2,896	31,599	39,089	5,729
	2002	22,282	638	1,068	22,875	29,902	3,482
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products	farms, 2007	269	219	38	769	2,043	23
	2002	183	158	16	694	2,118	21
	$1,000, 2007	1,110	908	157	15,986	53,550	(D)
	2002	1,209	790	116	16,053	34,285	243
Agri-tourism and recreational services (see text)	farms, 2007	679	101	24	281	602	121
	2002	867	30	36	278	1,059	24
	$1,000, 2007	32,913	8,582	445	11,404	14,654	22,911
	2002	12,042	335	153	2,844	6,117	1,607
Patronage dividends and refunds from cooperatives	farms, 2007	3,647	225	450	1,523	1,968	49
	2002	3,188	263	433	1,086	1,876	40
	$1,000, 2007	6,189	678	1,147	19,306	11,475	(D)
	2002	6,044	1,001	1,015	7,295	7,529	90
Crop and livestock insurance payments (see text)	farms, 2007	1,307	23	220	334	1,329	7
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	24,358	255	8,746	18,405	34,818	19
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Amount from state and local government agricultural program payments	farms, 2007	417	98	97	324	332	39
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	1,699	1,975	588	2,023	1,710	(D)
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Average per farm	dollars, 2007	4,074	20,156	6,062	6,244	5,150	(D)
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other farm-related income sources (see text)	farms, 2007	2,359	506	139	2,030	1,614	151
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	37,935	21,795	6,038	77,148	31,701	10,290
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

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Table 6. **Income From Farm-Related Sources: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Total income from farm-related sources, gross before taxes and expenses (see text)	farms, 2007	7,717	33,127	21,501	49,954	28,874	27,706
	2002	6,643	27,456	18,507	40,681	23,962	33,083
	$1,000, 2007	177,542	471,212	247,380	771,079	485,896	288,008
	2002	130,540	213,081	137,324	339,770	179,214	210,952
Average per farm	dollars, 2007	23,007	14,224	11,506	15,436	16,828	10,395
	2002	19,651	7,761	7,420	8,352	7,479	6,376
Customwork and other agricultural services	farms, 2007	1,765	6,866	4,089	9,911	5,775	2,891
	2002	1,769	7,707	4,681	10,771	5,799	2,772
	$1,000, 2007	39,487	89,050	40,809	137,354	92,067	20,137
	2002	29,598	68,588	35,682	103,243	63,361	14,346
Gross cash rent or share payments (see text)	farms, 2007	3,700	12,261	9,850	20,621	12,585	5,765
	2002	2,580	6,625	7,027	12,081	7,225	8,986
	$1,000, 2007	81,525	216,620	116,189	452,100	101,558	38,353
	2002	72,402	79,474	57,772	170,001	47,051	28,274
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products	farms, 2007	465	740	1,241	697	356	2,488
	2002	487	751	1,159	688	288	1,727
	$1,000, 2007	6,576	6,978	13,720	6,129	1,438	23,093
	2002	6,829	5,777	10,807	4,934	834	16,994
Agri-tourism and recreational services (see text)	farms, 2007	135	665	267	245	930	428
	2002	105	606	172	256	1,290	421
	$1,000, 2007	5,340	11,776	2,688	3,122	8,091	3,332
	2002	1,100	3,668	838	880	2,886	1,153
Patronage dividends and refunds from cooperatives	farms, 2007	2,335	17,592	6,879	28,817	14,724	4,462
	2002	1,744	15,644	5,774	24,233	13,194	4,293
	$1,000, 2007	11,357	34,858	12,408	61,629	24,635	11,218
	2002	3,577	19,850	7,949	27,174	15,276	2,356
Crop and livestock insurance payments (see text)	farms, 2007	573	3,691	2,237	4,259	9,009	1,174
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	16,031	43,547	31,963	48,599	230,143	29,875
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Amount from state and local government agricultural program payments	farms, 2007	182	789	671	2,132	-	3,173
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	1,003	3,512	2,026	8,125	-	7,666
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Average per farm	dollars, 2007	5,512	4,451	3,019	3,811	-	2,416
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other farm-related income sources (see text)	farms, 2007	1,154	3,108	2,723	4,302	2,556	15,994
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	16,222	64,871	27,578	54,022	27,964	154,334
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

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Table 6. **Income From Farm-Related Sources: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Total income from farm-related sources, gross before taxes and expenses (see text)	farms, 2007	4,951	1,884	4,741	2,087	17,728	44,751
	2002	4,964	1,865	3,847	1,766	15,056	37,874
	$1,000, 2007	93,392	35,359	90,921	63,327	223,607	622,068
	2002	67,770	15,419	40,404	34,623	133,320	282,089
Average per farm	dollars, 2007	18,863	18,768	19,178	30,343	12,613	13,901
	2002	13,652	8,267	10,503	19,605	8,855	7,448
Customwork and other agricultural services	farms, 2007	791	296	776	318	3,006	6,543
	2002	778	337	809	315	3,087	6,577
	$1,000, 2007	17,254	12,809	8,560	3,677	42,258	85,305
	2002	12,806	1,924	7,484	2,503	29,184	55,529
Gross cash rent or share payments (see text)	farms, 2007	1,823	292	1,542	246	7,532	16,798
	2002	2,250	274	1,168	242	5,446	11,000
	$1,000, 2007	31,037	1,733	9,143	902	47,264	230,537
	2002	23,704	1,075	4,621	925	29,230	116,720
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products	farms, 2007	594	688	297	482	1,524	862
	2002	554	705	264	361	1,557	1,116
	$1,000, 2007	15,063	5,816	3,334	2,401	12,551	5,596
	2002	8,346	3,839	3,477	1,928	11,799	5,414
Agri-tourism and recreational services (see text)	farms, 2007	170	112	231	154	645	367
	2002	307	73	238	52	615	400
	$1,000, 2007	2,486	1,012	7,329	5,306	22,899	7,744
	2002	2,346	433	1,178	665	3,295	1,843
Patronage dividends and refunds from cooperatives	farms, 2007	1,370	257	1,468	407	4,698	28,662
	2002	1,141	308	1,318	333	3,247	25,850
	$1,000, 2007	9,494	405	3,252	9,534	16,161	101,506
	2002	6,392	506	2,891	1,467	8,745	51,818
Crop and livestock insurance payments (see text)	farms, 2007	301	55	628	89	1,560	7,239
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	3,641	1,080	16,199	1,423	21,075	128,173
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Amount from state and local government agricultural program payments	farms, 2007	338	148	557	115	607	1,315
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	2,173	1,205	3,968	1,951	1,908	4,715
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Average per farm	dollars, 2007	6,428	8,140	7,124	16,968	3,143	3,586
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other farm-related income sources (see text)	farms, 2007	575	503	1,176	766	3,356	3,732
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	12,245	11,299	39,137	38,133	59,490	58,491
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

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Table 6. **Income From Farm-Related Sources: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Total income from farm-related sources, gross before taxes and expenses (see text)	farms, 2007	9,672	32,143	11,344	26,568	551	1,063
	2002	7,871	29,866	9,968	23,664	597	881
	$1,000, 2007	152,976	262,604	201,752	398,814	10,383	20,988
	2002	96,948	162,848	103,574	227,333	10,204	14,433
Average per farm	dollars, 2007	15,816	8,170	17,785	15,011	18,844	19,744
	2002	12,317	5,453	10,391	9,607	17,092	16,382
Customwork and other agricultural services	farms, 2007	1,171	6,172	1,674	5,680	171	202
	2002	1,136	6,400	1,782	5,845	162	174
	$1,000, 2007	20,772	58,063	25,161	96,927	3,828	1,016
	2002	19,766	49,033	18,825	69,589	2,698	1,582
Gross cash rent or share payments (see text)	farms, 2007	2,844	11,019	4,510	10,428	191	93
	2002	1,868	7,939	3,109	7,299	170	83
	$1,000, 2007	35,102	90,908	61,253	192,618	2,778	272
	2002	18,843	53,833	34,448	100,318	4,311	168
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products	farms, 2007	2,146	2,764	370	86	4	376
	2002	2,070	2,596	327	93	13	294
	$1,000, 2007	40,275	19,261	10,671	287	8	4,107
	2002	27,513	14,322	5,542	510	148	4,519
Agri-tourism and recreational services (see text)	farms, 2007	506	588	790	301	38	88
	2002	608	773	1,044	350	55	16
	$1,000, 2007	7,928	7,722	18,543	4,455	799	2,316
	2002	3,475	3,222	7,760	1,375	442	265
Patronage dividends and refunds from cooperatives	farms, 2007	3,492	15,268	5,474	16,989	69	145
	2002	2,910	13,977	4,729	14,835	65	106
	$1,000, 2007	19,326	26,079	7,651	23,285	(D)	420
	2002	15,413	10,534	3,410	14,270	108	259
Crop and livestock insurance payments (see text)	farms, 2007	524	2,994	2,339	4,624	9	23
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	15,173	35,804	60,443	53,182	224	219
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Amount from state and local government agricultural program payments	farms, 2007	482	1,718	221	717	4	88
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	1,818	5,124	1,101	2,514	(D)	1,186
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Average per farm	dollars, 2007	3,771	2,982	4,981	3,507	(D)	13,478
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other farm-related income sources (see text)	farms, 2007	680	3,047	2,556	2,367	186	354
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	12,583	19,643	16,929	25,545	2,500	11,452
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

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Table 6. **Income From Farm-Related Sources: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Total income from farm-related sources, gross before taxes and expenses (see text) ....farms, 2007	3,337	3,170	13,891	15,622	20,204	26,316
2002	2,850	2,413	12,253	15,786	18,258	23,477
$1,000, 2007	92,697	53,501	204,670	257,582	385,147	237,920
2002	37,345	38,696	121,091	154,614	173,736	151,788
Average per farm ....dollars, 2007	27,778	16,877	14,734	16,488	19,063	9,041
2002	13,104	16,036	9,883	9,794	9,516	6,465
Customwork and other agricultural services ....farms, 2007	294	752	2,285	2,229	2,848	5,174
2002	323	620	2,182	2,211	2,797	5,787
$1,000, 2007	4,269	11,965	27,380	27,050	42,359	43,515
2002	3,135	9,269	20,170	18,765	28,753	34,851
Gross cash rent or share payments (see text) ....farms, 2007	479	942	3,453	5,113	9,607	9,414
2002	408	716	2,776	5,397	7,342	7,250
$1,000, 2007	1,963	8,929	14,208	23,875	142,859	70,576
2002	1,548	6,895	7,556	24,527	89,444	35,746
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products ....farms, 2007	1,131	244	2,199	1,632	15	2,248
2002	926	76	2,170	1,669	6	2,067
$1,000, 2007	1,393	(D)	19,103	25,131	11	19,112
2002	997	4,464	16,233	19,037	10	15,809
Agri-tourism and recreational services (see text) ....farms, 2007	322	345	575	602	213	418
2002	204	372	419	622	200	299
$1,000, 2007	24,700	14,958	17,985	12,661	1,450	4,965
2002	1,229	3,797	1,420	1,870	914	2,198
Patronage dividends and refunds from cooperatives ....farms, 2007	312	534	3,692	3,345	12,680	9,371
2002	317	446	4,217	3,375	12,029	7,428
$1,000, 2007	1,395	2,673	16,393	10,743	29,732	15,893
2002	899	4,743	16,468	10,376	12,745	8,251
Crop and livestock insurance payments (see text) ....farms, 2007	91	181	448	1,933	5,731	2,769
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	1,468	2,166	7,585	51,411	151,370	26,231
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Amount from state and local government agricultural program payments ....farms, 2007	53	314	4,282	758	397	1,022
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	669	(D)	27,673	5,923	1,894	3,169
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Average per farm ....dollars, 2007	12,629	(D)	6,463	7,813	4,770	3,100
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other farm-related income sources (see text) ....farms, 2007	1,206	523	3,430	5,494	2,513	4,561
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
$1,000, 2007	56,840	7,995	74,345	100,788	15,471	54,459
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

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Table 6. **Income From Farm-Related Sources: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Total income from farm-related sources, gross before taxes and expenses (see text)	farms, 2007	17,270	10,529	17,846	261	5,458
	2002	15,043	9,943	16,667	164	4,912
	$1,000, 2007	236,684	175,953	197,047	5,333	101,271
	2002	101,237	131,959	127,728	4,359	71,770
Average per farm	dollars, 2007	13,705	16,711	11,042	20,434	18,555
	2002	6,730	13,272	7,664	26,578	14,611
Customwork and other agricultural services	farms, 2007	4,122	2,095	3,752	28	738
	2002	3,801	2,125	3,718	18	665
	$1,000, 2007	53,374	41,273	37,595	121	7,112
	2002	35,430	36,822	25,815	76	5,452
Gross cash rent or share payments (see text)	farms, 2007	5,927	4,225	5,293	30	1,790
	2002	4,601	3,622	4,011	21	1,473
	$1,000, 2007	30,776	35,197	19,348	104	7,394
	2002	27,835	26,008	13,134	170	6,535
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products	farms, 2007	622	1,488	2,130	65	1,140
	2002	540	1,492	2,091	40	1,294
	$1,000, 2007	3,319	26,603	19,450	301	27,445
	2002	2,330	22,643	17,084	238	26,861
Agri-tourism and recreational services (see text)	farms, 2007	616	376	552	43	376
	2002	891	350	303	6	528
	$1,000, 2007	6,088	6,571	14,926	689	8,162
	2002	2,953	3,000	2,209	23	2,768
Patronage dividends and refunds from cooperatives	farms, 2007	4,996	2,611	5,505	39	901
	2002	4,772	1,981	5,579	21	757
	$1,000, 2007	7,807	13,519	11,074	152	2,190
	2002	5,301	11,751	12,297	28	2,172
Crop and livestock insurance payments (see text)	farms, 2007	3,265	396	1,281	5	657
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	98,618	15,888	16,811	62	22,737
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Amount from state and local government agricultural program payments	farms, 2007	1,568	152	690	8	251
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	3,399	1,142	3,426	48	1,849
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Average per farm	dollars, 2007	2,168	7,513	4,965	5,954	7,367
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Other farm-related income sources (see text)	farms, 2007	1,787	2,112	5,011	107	1,200
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	33,305	35,761	74,417	3,857	24,383
	2002	(NA)	(NA)	(NA)	(NA)	(NA)

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Table 6. **Income From Farm-Related Sources: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		South Dakota	Tennessee	Texas	Utah	Vermont
Total income from farm-related sources, gross before taxes and expenses (see text)	farms, 2007	18,707	22,015	43,311	3,541	2,433
	2002	16,869	22,847	39,481	2,869	2,065
	$1,000, 2007	365,971	151,481	668,236	36,546	28,764
	2002	160,264	91,379	412,041	20,951	22,840
Average per farm	dollars, 2007	19,563	6,881	15,429	10,321	11,822
	2002	9,500	4,000	10,436	7,302	11,061
Customwork and other agricultural services	farms, 2007	3,137	2,578	9,570	955	416
	2002	3,588	2,824	9,338	863	341
	$1,000, 2007	45,106	17,723	156,995	8,300	2,954
	2002	32,972	13,583	107,503	6,279	2,645
Gross cash rent or share payments (see text)	farms, 2007	7,669	4,514	15,179	1,376	420
	2002	5,213	6,234	12,096	976	347
	$1,000, 2007	137,004	19,164	133,670	5,772	1,507
	2002	64,296	15,554	82,637	4,057	936
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products	farms, 2007	36	2,248	1,676	40	827
	2002	47	2,171	1,645	28	604
	$1,000, 2007	176	22,420	23,153	122	5,216
	2002	490	18,585	18,860	250	3,513
Agri-tourism and recreational services (see text)	farms, 2007	667	510	5,322	191	109
	2002	735	637	8,230	212	57
	$1,000, 2007	14,936	6,507	109,904	6,034	1,490
	2002	6,155	2,416	77,616	1,868	2,875
Patronage dividends and refunds from cooperatives	farms, 2007	12,150	7,698	12,184	820	739
	2002	11,607	7,102	9,279	598	763
	$1,000, 2007	28,079	6,873	57,407	6,024	2,324
	2002	16,864	4,041	34,174	2,715	4,224
Crop and livestock insurance payments (see text)	farms, 2007	5,149	1,112	4,567	197	68
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	112,387	23,187	91,955	2,054	1,276
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Amount from state and local government agricultural program payments	farms, 2007	548	2,494	1,721	135	443
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	2,473	8,094	6,727	1,081	1,561
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Average per farm	dollars, 2007	4,512	3,245	3,909	8,010	3,524
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Other farm-related income sources (see text)	farms, 2007	2,204	8,079	4,999	659	506
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	25,809	47,513	88,424	7,157	12,435
	2002	(NA)	(NA)	(NA)	(NA)	(NA)

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Table 6. **Income From Farm-Related Sources: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Virginia	Washington	West Virginia	Wisconsin	Wyoming
Total income from farm-related sources, gross before taxes and expenses (see text)	farms, 2007	14,910	10,733	4,004	39,314	3,850
	2002	15,317	9,534	3,314	35,240	3,198
	$1,000, 2007	170,355	244,801	22,280	324,614	60,157
	2002	119,904	150,154	16,115	178,137	31,771
Average per farm	dollars, 2007	11,426	22,808	5,564	8,257	15,625
	2002	7,828	15,749	4,863	5,055	9,935
Customwork and other agricultural services	farms, 2007	1,800	1,852	479	5,551	597
	2002	1,914	2,011	462	5,206	524
	$1,000, 2007	13,917	46,653	1,172	69,278	7,629
	2002	11,834	37,718	1,344	45,992	5,836
Gross cash rent or share payments (see text)	farms, 2007	3,371	3,318	778	13,784	1,375
	2002	3,727	2,385	613	11,222	998
	$1,000, 2007	11,064	66,542	1,354	72,378	11,247
	2002	10,983	46,065	1,168	50,405	10,289
Sales of forest products, excluding Christmas trees, short rotation woody crops, and maple products	farms, 2007	1,700	933	1,040	2,657	62
	2002	1,679	762	1,025	3,220	72
	$1,000, 2007	24,137	20,812	10,979	20,711	(D)
	2002	20,692	11,435	8,108	20,348	1,484
Agri-tourism and recreational services (see text)	farms, 2007	476	342	112	568	464
	2002	610	250	175	628	729
	$1,000, 2007	12,909	11,292	970	6,836	15,126
	2002	2,681	2,271	561	1,876	5,301
Patronage dividends and refunds from cooperatives	farms, 2007	6,236	4,496	1,089	23,350	1,660
	2002	6,189	4,166	805	20,127	1,250
	$1,000, 2007	14,635	24,917	1,262	35,936	1,491
	2002	6,457	14,364	771	20,341	923
Crop and livestock insurance payments (see text)	farms, 2007	1,280	616	134	3,644	642
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	30,668	23,510	951	59,544	11,074
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Amount from state and local government agricultural program payments	farms, 2007	970	193	280	1,598	223
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	4,376	1,396	516	3,809	(D)
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Average per farm	dollars, 2007	4,511	7,235	1,844	2,383	(D)
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
Other farm-related income sources (see text)	farms, 2007	4,280	2,037	839	4,648	758
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	$1,000, 2007	58,651	49,678	5,076	56,123	11,799
	2002	(NA)	(NA)	(NA)	(NA)	(NA)

Table 7. **Hired Farm Labor - Workers and Payroll: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Hired farm labor ..... farms	482,186	9,541	220	3,200	10,265	29,661
workers	2,636,509	30,932	1,651	28,754	32,502	448,183
$1,000 payroll	21,877,661	208,023	16,463	380,491	268,860	5,015,513
Farms with-						
1 worker ..... farms	166,390	3,762	50	1,397	3,870	7,051
workers	166,390	3,762	50	1,397	3,870	7,051
2 workers ..... farms	110,779	2,380	41	502	2,481	5,262
workers	221,558	4,760	82	1,004	4,962	10,524
3 or 4 workers ..... farms	97,311	1,950	48	484	2,259	5,033
workers	330,447	6,599	166	1,679	7,710	17,286
5 to 9 workers ..... farms	64,593	1,031	33	385	1,261	4,950
workers	406,110	6,323	210	2,455	7,861	32,127
10 workers or more ..... farms	43,113	418	48	432	394	7,365
workers	1,512,004	9,488	1,143	22,219	8,099	381,195
Workers by days worked:						
150 days or more ..... farms	201,292	3,119	101	1,415	4,727	16,852
workers	911,439	9,443	468	15,350	12,993	191,438
Farms with-						
1 worker ..... farms	86,117	1,522	36	397	2,027	4,729
workers	86,117	1,522	36	397	2,027	4,729
2 workers ..... farms	45,512	747	17	285	1,179	3,108
workers	91,024	1,494	34	570	2,358	6,216
3 or 4 workers ..... farms	35,050	497	16	238	961	2,792
workers	117,750	1,641	55	809	3,219	9,527
5 to 9 workers ..... farms	19,999	209	19	204	429	2,756
workers	125,463	1,288	118	1,278	2,627	17,878
10 workers or more ..... farms	14,614	144	13	291	131	3,467
workers	491,085	3,498	225	12,296	2,762	153,088
Less than 150 days ..... farms	384,051	7,870	191	2,410	7,858	21,433
workers	1,725,070	21,489	1,183	13,404	19,509	256,745
Farms with-						
1 worker ..... farms	150,376	3,411	53	1,254	3,560	6,109
workers	150,376	3,411	53	1,254	3,560	6,109
2 workers ..... farms	89,963	1,953	30	409	2,026	3,979
workers	179,926	3,906	60	818	4,052	7,958
3 or 4 workers ..... farms	74,760	1,567	45	366	1,507	3,808
workers	251,323	5,234	153	1,246	5,029	12,957
5 to 9 workers ..... farms	42,007	688	35	187	602	3,055
workers	258,998	4,142	239	1,138	3,586	19,020
10 workers or more ..... farms	26,945	251	28	194	163	4,482
workers	884,447	4,796	678	8,948	3,282	210,701
Reported only workers working 150 days or more ..... farms	98,135	1,671	29	790	2,407	8,228
workers	361,948	4,638	91	5,775	6,153	72,689
$1,000 payroll	6,947,799	86,791	1,652	137,595	104,534	1,699,025
Reported only workers working less than 150 days ..... farms	280,894	6,422	119	1,785	5,538	12,809
workers	816,908	15,423	391	5,427	11,554	71,099
$1,000 payroll	1,459,561	19,078	713	32,163	20,489	212,685
Reported both - workers working 150 days or more and workers working less than 150 days ..... farms	103,157	1,448	72	625	2,320	8,624
150 days or more, workers	549,491	4,805	377	9,575	6,840	118,749
less than 150 days, workers	908,162	6,066	792	7,977	7,955	185,646
$1,000 payroll	13,470,301	102,153	14,098	210,733	143,836	3,103,803
Migrant farm labor on farms with hired labor (see text) ..... farms	38,784	530	3	238	578	5,866
Migrant farm labor on farms reporting only contract labor (see text) ..... farms	8,488	131	5	27	144	1,598

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Table 7. **Hired Farm Labor - Workers and Payroll: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Hired farm labor ....farms	7,393	1,140	647	10,081	10,225	1,783
workers	38,915	13,061	3,223	115,306	48,088	11,523
$1,000 payroll	390,625	141,360	36,460	1,208,631	361,419	178,496
Farms with-						
1 worker ....farms	2,536	231	229	2,892	3,783	427
workers	2,536	231	229	2,892	3,783	427
2 workers ....farms	1,793	207	143	2,192	2,478	387
workers	3,586	414	286	4,384	4,956	774
3 or 4 workers ....farms	1,415	202	120	1,915	1,910	402
workers	4,841	708	408	6,535	6,459	1,378
5 to 9 workers ....farms	955	250	94	1,533	1,288	324
workers	6,013	1,645	591	9,743	8,082	2,032
10 workers or more ....farms	694	250	61	1,549	766	243
workers	21,939	10,063	1,709	91,752	24,808	6,912
Workers by days worked:						
150 days or more ....farms	3,646	679	390	5,321	4,505	876
workers	15,486	5,546	1,343	52,141	17,187	6,612
Farms with-						
1 worker ....farms	1,582	176	164	1,587	1,939	236
workers	1,582	176	164	1,587	1,939	236
2 workers ....farms	850	148	83	1,091	1,175	193
workers	1,700	296	166	2,182	2,350	386
3 or 4 workers ....farms	618	153	74	975	732	179
workers	2,086	538	249	3,245	2,446	610
5 to 9 workers ....farms	338	115	51	739	410	151
workers	2,077	734	307	4,727	2,552	970
10 workers or more ....farms	258	87	18	929	249	117
workers	8,041	3,802	457	40,400	7,900	4,410
Less than 150 days ....farms	5,683	904	417	7,148	7,650	1,295
workers	23,429	7,515	1,880	63,165	30,901	4,911
Farms with-						
1 worker ....farms	2,255	236	179	2,549	3,237	375
workers	2,255	236	179	2,549	3,237	375
2 workers ....farms	1,370	164	88	1,632	1,826	322
workers	2,740	328	176	3,264	3,652	644
3 or 4 workers ....farms	1,083	199	74	1,323	1,308	285
workers	3,632	681	242	4,509	4,390	968
5 to 9 workers ....farms	578	151	40	872	786	218
workers	3,571	1,003	244	5,341	4,898	1,311
10 workers or more ....farms	397	154	36	772	493	95
workers	11,231	5,267	1,039	47,502	14,724	1,613
Reported only workers working 150 days or more ....farms	1,710	236	230	2,933	2,575	488
workers	6,180	1,386	744	20,906	8,208	3,492
$1,000 payroll	131,509	20,430	18,887	424,238	151,013	83,402
Reported only workers working less than 150 days ....farms	3,747	461	257	4,760	5,720	907
workers	9,219	1,897	763	17,727	16,526	2,827
$1,000 payroll	19,272	5,723	3,413	45,027	27,847	5,877
Reported both - workers working 150 days or more and workers working less than 150 days ....farms	1,936	443	160	2,388	1,930	388
150 days or more, workers	9,306	4,160	599	31,235	8,979	3,120
less than 150 days, workers	14,210	5,618	1,117	45,438	14,375	2,084
$1,000 payroll	239,844	115,207	14,160	739,366	182,559	89,217
Migrant farm labor on farms with hired labor (see text) ....farms	680	111	68	1,205	785	166
Migrant farm labor on farms reporting only contract labor (see text) ....farms	183	14	7	1,558	152	80

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Table 7. **Hired Farm Labor - Workers and Payroll: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Hired farm labor ..... farms	6,588	16,369	11,240	23,287	14,437	18,846
workers	46,934	56,444	41,414	71,924	47,663	74,496
$1,000 payroll	499,505	483,699	320,902	492,091	412,164	322,169
Farms with-						
1 worker ..... farms	1,830	6,118	3,928	9,147	5,686	5,677
workers	1,830	6,118	3,928	9,147	5,686	5,677
2 workers ..... farms	1,359	4,072	2,612	5,763	3,533	4,443
workers	2,718	8,144	5,224	11,526	7,066	8,886
3 or 4 workers ..... farms	1,318	3,517	2,440	4,834	3,142	4,106
workers	4,471	11,877	8,198	16,288	10,548	13,977
5 to 9 workers ..... farms	1,063	1,967	1,599	2,647	1,551	3,060
workers	6,914	12,048	10,035	16,343	9,494	19,125
10 workers or more ..... farms	1,018	695	661	896	525	1,560
workers	31,001	18,257	14,029	18,620	14,869	26,831
Workers by days worked:						
150 days or more ..... farms	3,282	6,233	4,225	8,093	5,698	4,667
workers	18,744	18,647	12,354	21,658	16,981	14,963
Farms with-						
1 worker ..... farms	1,014	3,003	1,866	4,300	2,901	2,153
workers	1,014	3,003	1,866	4,300	2,901	2,153
2 workers ..... farms	699	1,559	1,068	1,825	1,304	1,134
workers	1,398	3,118	2,136	3,650	2,608	2,268
3 or 4 workers ..... farms	682	1,009	761	1,254	993	735
workers	2,330	3,361	2,564	4,154	3,315	2,441
5 to 9 workers ..... farms	487	453	370	488	309	419
workers	3,146	2,770	2,242	2,978	1,893	2,614
10 workers or more ..... farms	400	209	160	226	191	226
workers	10,856	6,395	3,546	6,576	6,264	5,487
Less than 150 days ..... farms	5,231	13,446	9,283	19,204	11,558	16,807
workers	28,190	37,797	29,060	50,266	30,682	59,533
Farms with-						
1 worker ..... farms	1,738	5,684	3,742	8,307	5,238	5,407
workers	1,738	5,684	3,742	8,307	5,238	5,407
2 workers ..... farms	1,182	3,484	2,190	4,793	2,898	4,007
workers	2,364	6,968	4,380	9,586	5,796	8,014
3 or 4 workers ..... farms	1,013	2,712	1,896	3,815	2,245	3,612
workers	3,391	9,025	6,331	12,716	7,457	12,233
5 to 9 workers ..... farms	664	1,173	1,047	1,740	907	2,588
workers	4,150	7,013	6,457	10,640	5,472	15,966
10 workers or more ..... farms	634	393	408	549	270	1,193
workers	16,547	9,107	8,150	9,017	6,719	17,913
Reported only workers working 150 days or more ..... farms	1,357	2,923	1,957	4,083	2,879	2,039
workers	7,471	7,692	5,207	9,832	7,696	5,587
$1,000 payroll	171,635	159,038	101,394	165,910	161,789	81,768
Reported only workers working less than 150 days ..... farms	3,306	10,136	7,015	15,194	8,739	14,179
workers	9,683	23,815	18,999	36,156	19,647	47,721
$1,000 payroll	23,787	53,945	30,956	55,053	35,303	50,136
Reported both - workers working 150 days or more and workers working less than 150 days ..... farms	1,925	3,310	2,268	4,010	2,819	2,628
150 days or more, workers	11,273	10,955	7,147	11,826	9,285	9,376
less than 150 days, workers	18,507	13,982	10,061	14,110	11,035	11,812
$1,000 payroll	304,083	270,716	188,552	271,128	215,072	190,265
Migrant farm labor on farms with hired labor (see text) ..... farms	944	529	468	123	193	2,282
Migrant farm labor on farms reporting only contract labor (see text) ..... farms	104	78	74	4	72	439

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Table 7. **Hired Farm Labor - Workers and Payroll: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Hired farm labor ....farms	6,278	1,886	3,058	1,972	11,315	19,337
workers	27,470	15,634	14,938	13,039	86,072	76,808
$1,000 payroll	191,748	90,323	151,232	118,224	606,717	521,852
Farms with-						
1 worker ....farms	2,018	411	934	488	2,994	6,571
workers	2,018	411	934	488	2,994	6,571
2 workers ....farms	1,542	343	681	381	2,197	4,273
workers	3,084	686	1,362	762	4,394	8,546
3 or 4 workers ....farms	1,314	349	660	387	2,353	4,217
workers	4,478	1,218	2,269	1,328	8,070	14,264
5 to 9 workers ....farms	850	404	486	364	1,984	2,815
workers	5,373	2,638	3,030	2,325	12,662	17,709
10 workers or more ....farms	554	379	297	352	1,787	1,461
workers	12,517	10,681	7,343	8,136	57,952	29,718
Workers by days worked:						
150 days or more ....farms	2,635	822	1,608	1,086	4,702	7,493
workers	9,064	3,561	6,598	4,736	24,284	21,957
Farms with-						
1 worker ....farms	1,053	210	607	345	1,469	3,457
workers	1,053	210	607	345	1,469	3,457
2 workers ....farms	584	205	377	262	1,093	1,736
workers	1,168	410	754	524	2,186	3,472
3 or 4 workers ....farms	515	227	351	219	948	1,403
workers	1,723	754	1,177	740	3,202	4,709
5 to 9 workers ....farms	304	127	148	162	722	602
workers	1,921	789	926	1,016	4,543	3,700
10 workers or more ....farms	179	53	125	98	470	295
workers	3,199	1,398	3,134	2,111	12,884	6,619
Less than 150 days ....farms	5,054	1,633	2,212	1,510	9,494	16,085
workers	18,406	12,073	8,340	8,303	61,788	54,851
Farms with-						
1 worker ....farms	1,905	401	805	406	2,819	5,961
workers	1,905	401	805	406	2,819	5,961
2 workers ....farms	1,288	342	502	312	1,921	3,756
workers	2,576	684	1,004	624	3,842	7,512
3 or 4 workers ....farms	1,042	305	462	305	2,030	3,464
workers	3,520	1,058	1,593	1,029	6,913	11,604
5 to 9 workers ....farms	510	298	293	271	1,438	1,932
workers	3,140	1,945	1,764	1,680	8,927	11,960
10 workers or more ....farms	309	287	150	216	1,286	972
workers	7,265	7,985	3,174	4,564	39,287	17,814
Reported only workers working 150 days or more ....farms	1,224	253	846	462	1,821	3,252
workers	4,019	928	2,907	1,572	6,560	8,101
$1,000 payroll	66,322	13,845	53,584	27,678	127,046	129,658
Reported only workers working less than 150 days ....farms	3,643	1,064	1,450	886	6,613	11,844
workers	11,012	4,772	4,077	3,468	25,339	32,436
$1,000 payroll	17,838	7,687	9,860	11,361	46,323	54,441
Reported both - workers working 150 days or more and workers working less than 150 days ....farms	1,411	569	762	624	2,881	4,241
150 days or more, workers	5,045	2,633	3,691	3,164	17,724	13,856
less than 150 days, workers	7,394	7,301	4,263	4,835	36,449	22,415
$1,000 payroll	107,588	68,792	87,787	79,185	433,349	337,753
Migrant farm labor on farms with hired labor (see text) ....farms	573	158	236	237	1,499	1,186
Migrant farm labor on farms reporting only contract labor (see text) ....farms	74	34	20	30	136	105

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Table 7. **Hired Farm Labor - Workers and Payroll: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Hired farm labor ..... farms	8,441	18,263	6,492	14,603	827	860
workers	31,510	47,033	22,377	46,997	4,428	5,020
$1,000 payroll	213,631	325,526	164,119	417,067	65,134	36,176
Farms with-						
1 worker ..... farms	3,017	8,925	2,187	5,498	258	263
workers	3,017	8,925	2,187	5,498	258	263
2 workers ..... farms	2,089	4,467	1,615	3,546	164	173
workers	4,178	8,934	3,230	7,092	328	346
3 or 4 workers ..... farms	1,684	2,996	1,481	3,221	186	151
workers	5,734	10,056	4,989	10,910	643	516
5 to 9 workers ..... farms	1,084	1,465	816	1,706	109	165
workers	6,765	8,956	5,123	10,541	689	1,084
10 workers or more ..... farms	567	410	393	632	110	108
workers	11,816	10,162	6,848	12,956	2,510	2,811
Workers by days worked:						
150 days or more ..... farms	3,217	5,869	3,435	6,673	527	439
workers	9,983	13,609	8,092	17,414	2,438	1,727
Farms with-						
1 worker ..... farms	1,334	3,742	1,522	3,345	191	156
workers	1,334	3,742	1,522	3,345	191	156
2 workers ..... farms	779	1,075	963	1,535	97	113
workers	1,558	2,150	1,926	3,070	194	226
3 or 4 workers ..... farms	596	668	632	1,098	118	79
workers	1,999	2,232	2,090	3,664	411	269
5 to 9 workers ..... farms	365	273	250	482	65	55
workers	2,303	1,677	1,510	2,931	435	344
10 workers or more ..... farms	143	111	68	213	56	36
workers	2,789	3,808	1,044	4,404	1,207	732
Less than 150 days ..... farms	6,958	15,052	4,775	11,261	564	689
workers	21,527	33,424	14,285	29,583	1,990	3,293
Farms with-						
1 worker ..... farms	2,873	8,063	1,999	4,973	230	244
workers	2,873	8,063	1,999	4,973	230	244
2 workers ..... farms	1,812	3,462	1,120	2,803	125	136
workers	3,624	6,924	2,240	5,606	250	272
3 or 4 workers ..... farms	1,296	2,294	961	2,228	103	131
workers	4,357	7,586	3,217	7,463	335	449
5 to 9 workers ..... farms	648	1,006	461	939	65	107
workers	3,967	6,111	2,858	5,672	396	681
10 workers or more ..... farms	329	227	234	318	41	71
workers	6,706	4,740	3,971	5,869	779	1,647
Reported only workers working 150 days or more ..... farms	1,483	3,211	1,717	3,342	263	171
workers	4,101	5,985	3,666	7,319	1,008	479
$1,000 payroll	71,516	96,599	55,457	135,076	22,957	7,002
Reported only workers working less than 150 days ..... farms	5,224	12,394	3,057	7,930	300	421
workers	13,241	24,955	7,855	18,058	682	1,187
$1,000 payroll	20,224	33,170	16,319	35,259	2,062	2,814
Reported both - workers working 150 days or more and workers working less than 150 days ..... farms	1,734	2,658	1,718	3,331	264	268
150 days or more, workers	5,882	7,624	4,426	10,095	1,430	1,248
less than 150 days, workers	8,286	8,469	6,430	11,525	1,308	2,106
$1,000 payroll	121,891	195,756	92,343	246,732	40,115	26,360
Migrant farm labor on farms with hired labor (see text) ..... farms	457	745	428	468	79	76
Migrant farm labor on farms reporting only contract labor (see text) ..... farms	73	189	71	91	10	5

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Table 7. **Hired Farm Labor - Workers and Payroll: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Hired farm labor ....farms	2,415	4,773	9,273	12,284	7,881	14,057
workers	24,385	22,996	59,683	77,400	23,706	58,271
$1,000 payroll	237,683	218,193	583,051	623,130	169,978	411,941
Farms with-						
1 worker ....farms	616	1,746	2,294	3,678	3,489	4,895
workers	616	1,746	2,294	3,678	3,489	4,895
2 workers ....farms	468	1,054	1,921	2,545	1,821	3,225
workers	936	2,108	3,842	5,090	3,642	6,450
3 or 4 workers ....farms	446	914	1,870	2,506	1,515	3,050
workers	1,512	3,108	6,409	8,618	5,095	10,365
5 to 9 workers ....farms	412	638	1,758	1,957	687	1,952
workers	2,633	3,962	11,321	12,547	4,214	12,235
10 workers or more ....farms	473	421	1,430	1,598	369	935
workers	18,688	12,072	35,817	47,467	7,266	24,326
Workers by days worked:						
150 days or more ....farms	1,403	1,932	5,324	5,767	3,489	4,895
workers	9,692	9,365	23,993	29,095	7,307	17,986
Farms with-						
1 worker ....farms	387	802	1,718	2,166	1,986	2,105
workers	387	802	1,718	2,166	1,986	2,105
2 workers ....farms	252	416	1,171	1,383	769	1,186
workers	504	832	2,342	2,766	1,538	2,372
3 or 4 workers ....farms	261	312	1,101	1,027	510	882
workers	889	1,063	3,745	3,474	1,686	2,964
5 to 9 workers ....farms	268	195	816	660	158	447
workers	1,728	1,220	5,181	4,225	974	2,753
10 workers or more ....farms	235	207	518	531	66	275
workers	6,184	5,448	11,007	16,464	1,123	7,792
Less than 150 days ....farms	1,738	3,848	6,790	9,521	6,164	11,700
workers	14,693	13,631	35,690	48,305	16,399	40,285
Farms with-						
1 worker ....farms	536	1,641	2,040	3,180	3,065	4,497
workers	536	1,641	2,040	3,180	3,065	4,497
2 workers ....farms	362	827	1,486	2,117	1,386	2,719
workers	724	1,654	2,972	4,234	2,772	5,438
3 or 4 workers ....farms	337	753	1,393	1,833	1,028	2,518
workers	1,139	2,528	4,698	6,230	3,399	8,488
5 to 9 workers ....farms	232	406	1,032	1,411	432	1,369
workers	1,407	2,465	6,480	8,936	2,624	8,421
10 workers or more ....farms	271	221	839	980	253	597
workers	10,887	5,343	19,500	25,725	4,539	13,441
Reported only workers working 150 days or more ....farms	677	925	2,483	2,763	1,717	2,357
workers	3,752	4,516	9,708	11,444	2,990	7,332
$1,000 payroll	66,321	92,643	188,471	198,891	43,406	119,562
Reported only workers working less than 150 days ....farms	1,012	2,841	3,949	6,517	4,392	9,162
workers	3,630	6,912	13,699	21,904	8,822	24,744
$1,000 payroll	12,607	8,615	32,057	46,054	25,305	32,666
Reported both - workers working 150 days or more and workers working less than 150 days ....farms	726	1,007	2,841	3,004	1,772	2,538
150 days or more, workers	5,940	4,849	14,285	17,651	4,317	10,654
less than 150 days, workers	11,063	6,719	21,991	26,401	7,577	15,541
$1,000 payroll	158,755	116,936	362,523	378,184	101,268	259,713
Migrant farm labor on farms with hired labor (see text) ....farms	429	340	1,243	2,266	488	661
Migrant farm labor on farms reporting only contract labor (see text) ....farms	41	86	86	252	58	123

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Table 7. **Hired Farm Labor - Workers and Payroll: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Hired farm labor ....farms	16,826	10,300	11,722	324	4,310
workers	48,644	106,320	60,721	1,641	23,197
$1,000 payroll	255,062	817,277	590,891	16,165	173,196
Farms with-					
1 worker ....farms	6,776	2,591	3,818	83	1,454
workers	6,776	2,591	3,818	83	1,454
2 workers ....farms	4,470	1,971	2,471	78	1,034
workers	8,940	3,942	4,942	156	2,068
3 or 4 workers ....farms	3,551	2,086	2,426	58	908
workers	11,898	7,139	8,273	203	3,119
5 to 9 workers ....farms	1,580	1,697	1,843	55	571
workers	9,621	10,788	11,651	349	3,607
10 workers or more ....farms	449	1,955	1,164	50	343
workers	11,409	81,860	32,037	850	12,949
Workers by days worked:					
150 days or more ....farms	5,221	4,353	5,728	206	1,868
workers	14,318	28,384	24,498	784	9,280
Farms with-					
1 worker ....farms	2,811	1,461	2,320	63	761
workers	2,811	1,461	2,320	63	761
2 workers ....farms	1,320	936	1,290	53	448
workers	2,640	1,872	2,580	106	896
3 or 4 workers ....farms	740	792	1,132	46	349
workers	2,435	2,688	3,769	150	1,179
5 to 9 workers ....farms	225	629	615	24	195
workers	1,332	4,005	3,846	155	1,243
10 workers or more ....farms	125	535	371	20	115
workers	5,100	18,358	11,983	310	5,201
Less than 150 days ....farms	13,991	8,764	8,841	226	3,363
workers	34,326	77,936	36,223	857	13,917
Farms with-					
1 worker ....farms	6,076	2,402	3,257	71	1,295
workers	6,076	2,402	3,257	71	1,295
2 workers ....farms	3,792	1,744	1,940	56	817
workers	7,584	3,488	3,880	112	1,634
3 or 4 workers ....farms	2,769	1,820	1,805	47	705
workers	9,169	6,214	6,121	161	2,388
5 to 9 workers ....farms	1,073	1,323	1,138	32	352
workers	6,368	8,351	7,068	195	2,162
10 workers or more ....farms	281	1,475	701	20	194
workers	5,129	57,481	15,897	318	6,438
Reported only workers working 150 days or more ....farms	2,835	1,536	2,881	98	947
workers	7,288	5,733	9,966	352	4,066
$1,000 payroll	104,859	113,383	180,858	4,629	69,057
Reported only workers working less than 150 days ....farms	11,605	5,947	5,994	118	2,442
workers	26,423	25,855	17,913	320	6,172
$1,000 payroll	32,307	37,551	32,553	771	10,226
Reported both - workers working 150 days or more and workers working less than 150 days ....farms	2,386	2,817	2,847	108	921
150 days or more, workers	7,030	22,651	14,532	432	5,214
less than 150 days, workers	7,903	52,081	18,310	537	7,745
$1,000 payroll	117,896	666,343	377,479	10,765	93,913
Migrant farm labor on farms with hired labor (see text) ....farms	647	1,430	811	14	363
Migrant farm labor on farms reporting only contract labor (see text) ....farms	272	266	81	1	54

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Table 7. **Hired Farm Labor - Workers and Payroll: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Hired farm labor ..... farms	8,465	14,575	45,081	4,271	1,884
workers	24,678	45,716	154,793	19,748	8,343
$1,000 payroll	177,684	214,487	1,169,767	147,213	72,316
Farms with-					
1 worker ..... farms	3,481	5,614	17,948	1,269	565
workers	3,481	5,614	17,948	1,269	565
2 workers ..... farms	2,058	3,681	11,769	932	366
workers	4,116	7,362	23,538	1,864	732
3 or 4 workers ..... farms	1,629	2,933	8,744	1,010	413
workers	5,502	9,872	29,635	3,499	1,422
5 to 9 workers ..... farms	981	1,730	4,586	711	355
workers	6,057	10,659	28,502	4,424	2,295
10 workers or more ..... farms	316	617	2,034	349	185
workers	5,522	12,209	55,170	8,692	3,329
Workers by days worked:					
150 days or more ..... farms	3,515	3,722	17,450	1,754	998
workers	8,206	10,122	53,829	6,992	3,293
Farms with-					
1 worker ..... farms	1,831	1,862	9,714	651	342
workers	1,831	1,862	9,714	651	342
2 workers ..... farms	797	856	3,742	420	235
workers	1,594	1,712	7,484	840	470
3 or 4 workers ..... farms	561	624	2,241	388	245
workers	1,879	2,092	7,466	1,320	831
5 to 9 workers ..... farms	245	252	1,037	189	120
workers	1,482	1,515	6,420	1,171	748
10 workers or more ..... farms	81	128	716	106	56
workers	1,420	2,941	22,745	3,010	902
Less than 150 days ..... farms	6,603	12,690	35,453	3,503	1,412
workers	16,472	35,594	100,964	12,756	5,050
Farms with-					
1 worker ..... farms	3,052	5,244	15,792	1,221	515
workers	3,052	5,244	15,792	1,221	515
2 workers ..... farms	1,600	3,185	8,915	803	313
workers	3,200	6,370	17,830	1,606	626
3 or 4 workers ..... farms	1,207	2,537	6,566	813	289
workers	4,037	8,517	21,989	2,765	987
5 to 9 workers ..... farms	586	1,300	3,053	468	191
workers	3,534	7,951	18,780	2,847	1,203
10 workers or more ..... farms	158	424	1,127	198	104
workers	2,649	7,512	26,573	4,317	1,719
Reported only workers working 150 days or more ..... farms	1,862	1,885	9,628	768	472
workers	3,892	4,649	27,926	2,647	1,373
$1,000 payroll	62,233	72,738	518,673	37,442	26,177
Reported only workers working less than 150 days ..... farms	4,950	10,853	27,631	2,517	886
workers	11,077	27,407	65,748	7,410	2,559
$1,000 payroll	19,755	28,594	96,746	9,634	5,836
Reported both - workers working 150 days or more and workers working less than 150 days ..... farms	1,653	1,837	7,822	986	526
150 days or more, workers	4,314	5,473	25,903	4,345	1,920
less than 150 days, workers	5,395	8,187	35,216	5,346	2,491
$1,000 payroll	95,696	113,154	554,348	100,137	40,303
Migrant farm labor on farms with hired labor (see text) ..... farms	220	1,127	2,996	349	161
Migrant farm labor on farms reporting only contract labor (see text) ..... farms	1	195	1,010	61	17

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Table 7. **Hired Farm Labor - Workers and Payroll: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
Hired farm labor ....farms	10,571	11,063	3,251	17,889	2,716
workers	39,484	238,428	9,738	76,452	9,826
$1,000 payroll	293,996	1,151,383	32,794	785,018	97,820
Farms with-					
1 worker ....farms	3,918	2,255	1,246	5,609	867
workers	3,918	2,255	1,246	5,609	867
2 workers ....farms	2,511	1,781	813	4,066	625
workers	5,022	3,562	1,626	8,132	1,250
3 or 4 workers ....farms	2,109	1,944	728	3,773	604
workers	7,149	6,710	2,438	12,842	2,036
5 to 9 workers ....farms	1,357	1,776	367	2,890	451
workers	8,519	11,390	2,264	18,265	2,871
10 workers or more ....farms	676	3,307	97	1,551	169
workers	14,876	214,511	2,164	31,604	2,802
Workers by days worked:					
150 days or more ....farms	4,038	5,445	777	9,445	1,627
workers	13,647	48,896	1,964	30,531	4,440
Farms with-					
1 worker ....farms	1,767	1,652	383	3,649	623
workers	1,767	1,652	383	3,649	623
2 workers ....farms	933	1,121	213	2,264	423
workers	1,866	2,242	426	4,528	846
3 or 4 workers ....farms	776	1,025	121	2,032	362
workers	2,620	3,465	398	6,866	1,211
5 to 9 workers ....farms	364	793	41	1,034	190
workers	2,314	4,987	267	6,376	1,227
10 workers or more ....farms	198	854	19	466	29
workers	5,080	36,550	490	9,112	533
Less than 150 days ....farms	8,394	9,451	2,848	13,169	1,907
workers	25,837	189,532	7,774	45,921	5,386
Farms with-					
1 worker ....farms	3,493	2,148	1,178	4,862	798
workers	3,493	2,148	1,178	4,862	798
2 workers ....farms	2,047	1,600	696	3,157	469
workers	4,094	3,200	1,392	6,314	938
3 or 4 workers ....farms	1,561	1,596	622	2,706	376
workers	5,248	5,457	2,076	9,123	1,271
5 to 9 workers ....farms	904	1,320	285	1,603	198
workers	5,558	8,402	1,758	9,935	1,261
10 workers or more ....farms	389	2,787	67	841	66
workers	7,444	170,325	1,370	15,687	1,118
Reported only workers working 150 days or more ....farms	2,177	1,612	403	4,720	809
workers	6,363	12,365	880	12,320	1,994
$1,000 payroll	110,899	171,593	10,028	215,474	33,112
Reported only workers working less than 150 days ....farms	6,533	5,618	2,474	8,444	1,089
workers	16,940	41,724	6,168	23,058	2,467
$1,000 payroll	23,449	59,900	4,401	35,312	6,394
Reported both - workers working 150 days or more and workers working less than 150 days ....farms	1,861	3,833	374	4,725	818
150 days or more, workers	7,284	36,531	1,084	18,211	2,446
less than 150 days, workers	8,897	147,808	1,606	22,863	2,919
$1,000 payroll	159,648	919,890	18,365	534,231	58,313
Migrant farm labor on farms with hired labor (see text) ....farms	940	2,410	85	636	257
Migrant farm labor on farms reporting only contract labor (see text) ....farms	122	116	8	70	60

Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
FARMS AND LAND IN FARMS						
Farms ..... number, 2007	2,204,792	48,753	686	15,637	49,346	81,033
2002	2,128,982	45,126	609	7,294	47,483	79,631
Land in farms ..... acres, 2007	922,095,840	9,033,537	881,585	26,117,899	13,872,862	25,364,695
2002	938,279,056	8,904,387	900,715	26,586,577	14,502,793	27,589,027
Average size of farm ..... acres, 2007	418	185	1,285	1,670	281	313
2002	441	197	1,479	3,645	305	346
Estimated market value of land and buildings ..... farms, 2007	2,204,792	48,753	686	15,637	49,346	81,033
2002	2,128,739	45,124	609	7,294	47,474	79,655
$1,000, 2007	1,744,295,252	20,704,133	344,607	19,545,145	32,505,792	162,533,390
2002	1,144,905,925	15,126,339	330,816	10,625,602	21,225,836	96,129,402
Average per farm ..... dollars, 2007	791,138	424,674	502,342	1,249,929	658,732	2,005,768
2002	537,833	335,217	543,213	1,456,759	447,104	1,206,822
Average per acre ..... dollars, 2007	1,892	2,292	391	748	2,343	6,408
2002	1,213	1,698	367	398	1,469	3,526
2007 farms by value group:						
$1 to $49,999	223,182	5,954	49	8,090	5,047	5,029
$50,000 to $99,999	212,783	6,413	54	807	5,872	3,759
$100,000 to $199,999	374,783	10,340	104	1,126	9,304	6,414
$200,000 to $499,999	631,939	14,769	273	2,101	13,660	17,710
$500,000 to $999,999	371,783	6,730	132	1,413	7,920	21,030
$1,000,000 to $1,999,999	206,282	3,077	55	809	4,229	11,981
$2,000,000 to $4,999,999	132,549	1,229	12	615	2,299	8,865
$5,000,000 to $9,999,999	36,072	199	6	259	805	3,291
$10,000,000 or more	15,419	42	1	417	210	2,954
Approximate land area ..... acres, 2007	2,260,994,361	32,412,281	366,013,154	72,696,492	33,287,812	99,689,515
Proportion in farms ..... percent, 2007	40.8	27.9	0.2	35.9	41.7	25.4
2007 size of farm:						
1 to 9 acres ..... farms	232,849	3,374	165	9,873	2,581	25,278
acres	1,080,019	17,368	603	25,464	13,375	100,816
10 to 49 acres ..... farms	620,283	16,215	164	2,657	15,119	28,080
acres	15,918,542	443,231	3,859	57,354	416,051	637,914
50 to 69 acres ..... farms	153,862	4,480	36	264	4,068	3,776
acres	8,930,361	259,199	2,121	15,026	235,384	217,567
70 to 99 acres ..... farms	192,043	5,319	41	383	5,049	3,678
acres	15,783,304	437,757	3,256	31,032	412,401	300,943
100 to 139 acres ..... farms	175,146	4,896	46	291	4,544	3,067
acres	20,313,722	566,433	5,462	33,952	526,197	353,529
140 to 179 acres ..... farms	139,479	3,113	33	283	3,255	2,418
acres	21,954,090	488,459	5,171	44,297	511,959	381,684
180 to 219 acres ..... farms	87,502	2,068	20	146	2,123	1,626
acres	17,283,570	408,585	3,925	29,100	418,315	321,033
220 to 259 acres ..... farms	68,313	1,492	18	100	1,690	1,305
acres	16,258,454	356,214	4,227	23,732	401,900	310,154
260 to 499 acres ..... farms	212,553	4,052	73	380	4,777	4,083
acres	75,892,077	1,426,089	26,041	135,873	1,694,363	1,461,559
500 to 999 acres ..... farms	149,713	2,235	38	436	2,959	3,267
acres	104,140,461	1,533,002	24,895	306,473	2,028,825	2,280,819
1,000 to 1,999 acres ..... farms	92,656	960	24	309	1,803	2,194
acres	127,595,277	1,297,715	31,078	446,604	2,499,817	2,999,788
2,000 acres or more ..... farms	80,393	549	28	515	1,378	2,261
acres	496,945,963	1,799,485	770,947	24,968,992	4,714,275	15,998,889
2002 size of farm:						
1 to 9 acres ..... farms	179,346	2,571	127	2,331	1,728	21,827
acres	847,601	13,305	489	8,718	8,802	86,392
10 to 49 acres ..... farms	563,772	14,175	129	1,900	11,222	27,307
acres	14,712,409	397,032	2,845	44,787	321,802	637,104
50 to 69 acres ..... farms	151,823	4,259	27	240	3,732	4,143
acres	8,802,045	246,955	1,554	13,626	215,892	238,771
70 to 99 acres ..... farms	190,728	5,063	32	321	5,156	4,044
acres	15,672,135	416,887	2,608	26,334	422,534	331,779
100 to 139 acres ..... farms	174,524	4,639	54	287	4,914	3,505
acres	20,237,716	535,792	6,161	32,485	569,078	402,344
140 to 179 acres ..... farms	141,630	2,989	49	266	3,495	2,664
acres	22,289,695	467,960	7,653	41,861	548,472	419,296
180 to 219 acres ..... farms	91,262	2,190	12	149	2,687	1,690
acres	18,033,867	431,314	2,372	29,471	529,444	333,502
220 to 259 acres ..... farms	71,842	1,551	19	112	1,927	1,459
acres	17,092,961	369,355	4,451	26,857	458,372	346,364
260 to 499 acres ..... farms	225,513	3,951	62	403	5,755	4,592
acres	80,620,413	1,380,623	21,919	146,441	2,035,247	1,652,825
500 to 999 acres ..... farms	161,552	2,237	41	447	3,526	3,604
acres	112,444,149	1,538,219	28,243	318,410	2,410,673	2,499,755
1,000 to 1,999 acres ..... farms	99,020	978	29	337	2,122	2,374
acres	135,675,665	1,308,990	35,005	468,829	2,891,902	3,251,019
2,000 acres or more ..... farms	77,970	523	28	501	1,219	2,422
acres	491,850,400	1,797,955	787,415	25,428,758	4,090,575	17,389,876
LAND IN FARMS ACCORDING TO USE						
Total cropland ..... farms, 2007	1,685,339	31,773	512	7,475	35,154	61,215
2002	1,751,450	34,073	479	4,440	36,908	61,810
acres, 2007	406,424,909	3,142,958	86,238	1,205,425	8,432,221	9,464,647
2002	434,164,946	3,732,751	98,131	1,261,894	9,576,047	10,994,161
Harvested cropland ..... farms, 2007	1,328,004	23,336	424	4,993	29,050	53,000
2002	1,362,608	23,327	393	3,139	29,466	54,115
acres, 2007	309,607,601	1,994,743	30,772	832,406	7,367,068	7,633,173
2002	302,697,252	1,995,139	31,824	887,966	7,457,599	8,466,321
Cropland used only for pasture or grazing ..... farms, 2007	404,753	10,126	94	1,431	8,790	10,890
2002	716,202	19,293	134	1,584	18,658	10,589
acres, 2007	35,771,154	626,995	7,114	(D)	724,044	800,204
2002	60,557,805	1,180,991	8,917	213,681	1,705,723	1,345,359

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
FARMS AND LAND IN FARMS						
Farms ..... number, 2007	37,054	4,916	2,546	47,463	47,846	7,521
2002	31,369	4,191	2,391	44,081	49,311	5,398
Land in farms ..... acres, 2007	31,604,911	405,616	510,253	9,231,570	10,150,539	1,121,329
2002	31,093,336	357,154	540,080	10,414,877	10,744,239	1,300,499
Average size of farm ..... acres, 2007	853	83	200	195	212	149
2002	991	85	226	236	218	241
Estimated market value of land and buildings ..... farms, 2007	37,054	4,916	2,546	47,463	47,846	7,521
2002	31,358	4,205	2,391	44,081	49,304	5,438
$1,000, 2007	33,058,456	5,137,872	5,279,399	52,053,543	31,635,808	8,620,668
2002	23,757,228	3,533,470	2,343,953	29,330,433	22,552,975	4,583,552
Average per farm ..... dollars, 2007	892,170	1,045,133	2,073,605	1,096,718	661,201	1,146,213
2002	757,613	840,302	980,323	665,376	457,427	842,875
Average per acre ..... dollars, 2007	1,046	12,667	10,347	5,639	3,117	7,688
2002	756	9,491	4,054	2,836	2,112	3,507
2007 farms by value group:						
$1 to $49,999	4,070	276	158	3,156	4,181	621
$50,000 to $99,999	2,624	222	144	3,644	4,377	381
$100,000 to $199,999	4,221	377	228	6,994	8,234	913
$200,000 to $499,999	10,587	1,511	583	14,602	14,984	1,934
$500,000 to $999,999	7,428	1,256	589	9,763	8,601	2,317
$1,000,000 to $1,999,999	4,358	738	377	4,544	4,422	780
$2,000,000 to $4,999,999	2,727	403	232	3,186	2,383	362
$5,000,000 to $9,999,999	801	81	106	833	473	96
$10,000,000 or more	238	52	129	741	191	117
Approximate land area ..... acres, 2007	66,327,849	3,100,721	1,249,176	34,313,428	36,798,743	4,110,586
Proportion in farms ..... percent, 2007	47.6	13.1	40.8	26.9	27.6	27.3
2007 size of farm:						
1 to 9 acres ..... farms	4,276	1,232	651	12,184	3,504	4,813
acres	20,120	5,712	2,549	56,909	18,271	17,330
10 to 49 acres ..... farms	9,359	1,894	802	20,680	16,243	1,972
acres	262,041	45,203	18,684	444,758	431,191	39,725
50 to 69 acres ..... farms	1,631	403	154	2,546	4,568	156
acres	94,680	23,282	8,952	146,086	263,461	8,849
70 to 99 acres ..... farms	2,717	319	177	2,422	4,347	110
acres	217,999	26,434	14,721	197,727	358,966	9,216
100 to 139 acres ..... farms	1,783	364	158	2,129	4,503	94
acres	206,709	41,496	17,979	245,375	521,254	10,410
140 to 179 acres ..... farms	2,345	201	79	1,446	2,826	63
acres	370,059	31,426	12,297	227,084	443,788	9,748
180 to 219 acres ..... farms	986	144	63	923	2,059	35
acres	195,269	28,152	12,419	182,959	406,344	6,780
220 to 259 acres ..... farms	826	58	41	645	1,377	17
acres	196,921	13,699	9,780	153,623	328,608	4,055
260 to 499 acres ..... farms	3,689	198	176	1,893	3,996	102
acres	1,331,348	67,447	64,313	677,051	1,415,853	34,313
500 to 999 acres ..... farms	3,185	63	99	1,225	2,470	44
acres	2,272,531	40,546	69,192	833,620	1,686,205	29,813
1,000 to 1,999 acres ..... farms	2,521	30	99	653	1,253	50
acres	3,552,054	39,470	131,204	872,604	1,704,301	71,132
2,000 acres or more ..... farms	3,736	10	47	717	700	65
acres	22,885,180	42,749	148,163	5,193,774	2,572,297	879,958
2002 size of farm:						
1 to 9 acres ..... farms	2,813	984	456	10,267	3,569	3,440
acres	13,037	4,695	2,176	45,809	18,137	12,110
10 to 49 acres ..... farms	7,475	1,625	794	18,360	15,759	1,309
acres	205,925	39,380	18,230	412,934	419,957	26,972
50 to 69 acres ..... farms	1,300	324	164	2,643	5,000	130
acres	74,831	18,814	9,384	151,874	287,551	7,363
70 to 99 acres ..... farms	2,157	292	164	2,463	4,540	81
acres	173,804	23,944	13,577	201,537	375,142	6,670
100 to 139 acres ..... farms	1,460	294	150	2,214	4,651	82
acres	168,610	34,078	17,674	254,585	536,129	9,291
140 to 179 acres ..... farms	2,039	167	84	1,456	2,969	42
acres	321,856	25,796	13,065	228,610	464,850	6,655
180 to 219 acres ..... farms	951	118	70	979	2,212	34
acres	188,014	23,363	13,826	193,352	436,550	6,724
220 to 259 acres ..... farms	804	65	53	661	1,529	19
acres	191,663	15,540	12,629	157,857	363,699	4,447
260 to 499 acres ..... farms	3,260	204	193	2,044	4,221	93
acres	1,175,356	71,677	68,653	726,097	1,485,866	31,740
500 to 999 acres ..... farms	2,998	91	122	1,330	2,735	61
acres	2,139,843	59,768	82,751	915,050	1,872,638	40,307
1,000 to 1,999 acres ..... farms	2,492	23	89	822	1,394	41
acres	3,490,542	30,316	120,683	1,099,567	1,890,213	56,159
2,000 acres or more ..... farms	3,620	4	52	842	732	66
acres	22,949,855	9,783	167,432	6,027,605	2,593,507	1,092,061
LAND IN FARMS ACCORDING TO USE						
Total cropland ..... farms, 2007	24,938	3,884	1,989	26,555	31,924	6,281
2002	22,240	3,395	1,826	27,348	34,660	4,755
acres, 2007	11,483,936	163,686	432,773	2,953,340	4,478,168	177,626
2002	11,530,700	170,673	457,201	3,715,257	4,676,567	211,120
Harvested cropland ..... farms, 2007	17,899	3,517	1,615	20,486	23,179	6,044
2002	14,655	3,000	1,548	20,495	24,424	4,522
acres, 2007	5,888,926	136,833	409,468	2,112,129	3,390,437	103,120
2002	4,346,955	131,248	433,105	2,313,537	3,245,784	109,461
Cropland used only for pasture or grazing ..... farms, 2007	5,970	836	432	7,331	9,826	366
2002	8,534	1,302	510	9,940	17,534	451
acres, 2007	1,242,231	12,514	8,842	571,490	587,428	23,493
2002	1,797,455	23,431	6,851	1,104,890	866,553	36,540

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
FARMS AND LAND IN FARMS						
Farms ..... number, 2007	25,349	76,860	60,938	92,856	65,531	85,260
2002	25,017	73,027	60,296	90,655	64,414	86,541
Land in farms ..... acres, 2007	11,497,383	26,775,100	14,773,184	30,747,550	46,345,827	13,993,121
2002	11,767,294	27,310,833	15,058,670	31,729,490	47,227,944	13,843,706
Average size of farm ..... acres, 2007	454	348	242	331	707	164
2002	470	374	250	350	733	160
Estimated market value of land and buildings ..... farms, 2007	25,349	76,860	60,938	92,856	65,531	85,260
2002	25,016	73,000	60,286	90,648	64,390	86,591
$1,000, 2007	22,674,602	101,538,246	52,936,772	104,186,583	42,204,526	37,532,557
2002	15,342,391	66,667,341	38,441,073	64,154,298	32,581,256	25,462,631
Average per farm ..... dollars, 2007	894,497	1,321,080	868,699	1,122,023	644,039	440,213
2002	613,303	913,251	637,645	707,730	505,999	294,056
Average per acre ..... dollars, 2007	1,972	3,792	3,583	3,388	911	2,682
2002	1,270	2,425	2,567	2,005	687	1,824
2007 farms by value group:						
$1 to $49,999	2,615	11,937	7,511	8,802	8,347	9,211
$50,000 to $99,999	1,960	7,248	6,517	7,606	7,769	12,278
$100,000 to $199,999	4,194	11,064	12,159	12,663	12,159	19,331
$200,000 to $499,999	7,581	14,775	15,904	20,519	16,959	25,883
$500,000 to $999,999	4,125	9,278	7,845	14,779	9,220	10,982
$1,000,000 to $1,999,999	2,448	7,907	4,735	12,965	6,115	5,010
$2,000,000 to $4,999,999	1,679	9,311	3,951	11,541	4,082	1,902
$5,000,000 to $9,999,999	490	3,846	1,671	3,223	704	490
$10,000,000 or more	257	1,494	645	758	176	173
Approximate land area ..... acres, 2007	52,894,974	35,529,619	22,924,685	35,747,594	52,320,102	25,275,577
Proportion in farms ..... percent, 2007	21.7	75.4	64.4	86.0	88.6	55.4
2007 size of farm:						
1 to 9 acres ..... farms	4,891	8,603	9,720	8,709	2,123	4,579
acres	23,427	44,319	48,215	39,686	10,148	23,611
10 to 49 acres ..... farms	7,497	20,592	19,533	17,824	10,041	25,235
acres	178,295	488,403	472,974	456,783	279,339	677,845
50 to 69 acres ..... farms	1,183	3,938	4,052	4,428	2,772	8,818
acres	68,584	229,129	236,502	258,754	161,851	510,060
70 to 99 acres ..... farms	1,542	5,849	4,915	7,253	6,170	9,825
acres	125,888	479,801	404,523	592,231	500,897	814,601
100 to 139 acres ..... farms	1,298	4,760	4,300	6,280	3,819	10,346
acres	150,461	554,339	499,618	736,483	447,018	1,196,821
140 to 179 acres ..... farms	1,202	3,863	2,726	6,731	6,231	6,390
acres	189,647	606,413	427,924	1,059,126	984,002	1,001,132
180 to 219 acres ..... farms	743	2,629	1,878	4,364	2,324	4,610
acres	147,013	519,269	371,537	861,308	457,748	911,182
220 to 259 acres ..... farms	619	2,211	1,427	3,943	2,630	3,142
acres	146,784	526,332	339,385	937,864	626,220	749,700
260 to 499 acres ..... farms	2,083	8,276	4,707	14,047	9,154	7,328
acres	746,082	3,008,494	1,689,204	5,104,492	3,323,229	2,548,585
500 to 999 acres ..... farms	1,808	8,309	3,774	11,826	7,932	3,242
acres	1,264,754	5,880,719	2,662,513	8,248,050	5,654,900	2,158,863
1,000 to 1,999 acres ..... farms	1,214	5,520	2,621	5,898	6,238	1,207
acres	1,679,122	7,512,648	3,623,024	7,866,091	8,769,146	1,597,921
2,000 acres or more ..... farms	1,269	2,310	1,285	1,553	6,097	538
acres	6,777,326	6,925,234	3,997,765	4,586,682	25,131,329	1,802,800
2002 size of farm:						
1 to 9 acres ..... farms	4,871	3,510	5,436	4,811	1,578	5,342
acres	22,854	17,869	28,074	25,779	7,662	25,436
10 to 49 acres ..... farms	7,439	16,162	18,595	16,278	9,611	24,758
acres	172,833	430,285	477,843	414,842	270,431	676,004
50 to 69 acres ..... farms	1,134	4,242	4,622	3,843	2,708	9,339
acres	65,241	247,070	269,226	224,086	158,495	542,031
70 to 99 acres ..... farms	1,490	6,046	6,008	6,821	5,528	10,274
acres	120,690	495,828	493,676	556,342	449,438	851,689
100 to 139 acres ..... farms	1,194	5,227	4,862	6,300	3,529	10,507
acres	138,281	611,366	565,225	736,158	409,999	1,214,322
140 to 179 acres ..... farms	1,099	4,476	3,199	7,286	5,535	6,508
acres	172,869	704,448	501,786	1,147,324	875,593	1,020,380
180 to 219 acres ..... farms	747	3,179	2,139	4,621	2,168	4,449
acres	147,319	628,107	422,241	913,565	428,699	879,602
220 to 259 acres ..... farms	576	2,700	1,681	4,506	2,492	3,020
acres	137,080	642,680	400,421	1,071,679	592,628	719,863
260 to 499 acres ..... farms	1,956	9,983	5,443	15,592	8,972	7,481
acres	702,800	3,638,212	1,959,795	5,665,052	3,281,186	2,599,904
500 to 999 acres ..... farms	1,873	9,847	4,494	13,063	8,641	3,175
acres	1,313,479	6,957,318	3,134,785	9,083,537	6,191,018	2,131,414
1,000 to 1,999 acres ..... farms	1,346	5,896	2,827	6,213	7,371	1,214
acres	1,872,820	7,925,609	3,861,665	8,189,394	10,324,931	1,615,450
2,000 acres or more ..... farms	1,292	1,759	990	1,321	6,281	474
acres	6,901,028	5,012,041	2,943,933	3,701,732	24,237,864	1,567,611
LAND IN FARMS ACCORDING TO USE						
Total cropland ..... farms, 2007	18,782	67,431	51,283	82,785	55,272	72,015
2002	18,366	68,750	53,725	84,755	56,703	80,927
acres, 2007	5,918,899	23,707,699	12,716,037	26,316,332	28,216,064	7,278,098
2002	6,152,611	24,171,260	12,909,002	27,153,291	29,542,022	8,412,354
Harvested cropland ..... farms, 2007	13,975	54,185	41,743	63,672	43,553	57,528
2002	13,444	56,083	44,298	67,338	44,073	65,815
acres, 2007	4,225,786	22,611,443	12,108,940	23,799,380	19,886,655	5,057,883
2002	4,313,288	22,562,904	11,937,370	23,994,343	18,976,719	4,978,994
Cropland used only for pasture or grazing ..... farms, 2007	5,676	9,113	10,331	13,522	8,362	24,187
2002	8,733	13,650	18,279	20,676	13,750	46,364
acres, 2007	489,260	308,259	282,017	829,784	1,274,320	1,473,676
2002	743,835	528,275	448,588	1,355,161	2,401,459	2,580,719

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
FARMS AND LAND IN FARMS						
Farms ..... number, 2007	30,106	8,136	12,834	7,691	56,014	80,992
2002	27,413	7,196	12,198	6,075	53,315	80,839
Land in farms ..... acres, 2007	8,109,975	1,347,566	2,051,756	517,879	10,031,807	26,917,962
2002	7,830,664	1,369,768	2,077,630	518,570	10,142,958	27,512,270
Average size of farm ..... acres, 2007	269	166	160	67	179	332
2002	286	190	170	85	190	340
Estimated market value of land and buildings ..... farms, 2007	30,106	8,136	12,834	7,691	56,014	80,992
2002	27,394	7,121	12,179	6,077	53,296	80,785
$1,000, 2007	16,686,859	2,968,067	14,432,211	6,376,531	34,199,659	69,164,551
2002	12,163,119	2,297,877	8,452,963	4,589,677	27,143,604	41,776,544
Average per farm ..... dollars, 2007	554,270	364,807	1,124,529	829,090	610,556	853,968
2002	444,007	322,690	694,061	755,254	509,299	517,132
Average per acre ..... dollars, 2007	2,058	2,203	7,034	12,313	3,409	2,569
2002	1,534	1,637	4,084	9,234	2,667	1,513
2007 farms by value group:						
$1 to $49,999	4,762	970	552	537	4,818	5,427
$50,000 to $99,999	4,348	864	601	372	5,737	5,928
$100,000 to $199,999	5,937	1,648	1,121	675	11,336	11,470
$200,000 to $499,999	7,738	3,050	3,405	2,237	18,991	25,389
$500,000 to $999,999	3,521	1,057	3,180	2,068	7,798	15,084
$1,000,000 to $1,999,999	2,009	420	2,142	1,082	4,057	9,164
$2,000,000 to $4,999,999	1,374	110	1,346	606	2,458	6,660
$5,000,000 to $9,999,999	325	9	372	85	568	1,505
$10,000,000 or more	92	8	115	29	251	365
Approximate land area ..... acres, 2007	27,668,285	19,745,809	6,251,090	4,992,934	36,176,779	50,906,881
Proportion in farms ..... percent, 2007	29.3	6.8	32.8	10.4	27.7	52.9
2007 size of farm:						
1 to 9 acres ..... farms	3,282	1,046	1,554	2,199	4,219	3,687
acres	16,707	4,304	7,667	(D)	21,026	18,838
10 to 49 acres ..... farms	10,394	2,383	4,589	2,885	20,726	16,927
acres	268,376	61,782	115,477	68,928	558,422	465,583
50 to 69 acres ..... farms	2,365	734	1,176	545	4,889	4,570
acres	136,632	42,415	68,057	31,773	284,748	266,586
70 to 99 acres ..... farms	2,307	852	1,074	561	6,772	7,577
acres	189,089	69,912	88,764	46,327	550,798	617,303
100 to 139 acres ..... farms	2,230	942	1,116	525	4,607	6,556
acres	255,998	107,726	128,925	60,717	534,164	765,566
140 to 179 acres ..... farms	1,555	491	701	272	2,938	6,976
acres	244,920	76,934	110,737	42,548	460,022	1,099,482
180 to 219 acres ..... farms	1,180	318	482	212	1,994	4,155
acres	232,769	62,856	95,458	41,458	392,840	820,811
220 to 259 acres ..... farms	881	239	362	127	1,386	3,813
acres	209,407	57,091	86,114	30,251	329,719	906,523
260 to 499 acres ..... farms	2,489	621	875	247	3,895	12,220
acres	871,082	219,665	306,247	85,653	1,378,106	4,389,498
500 to 999 acres ..... farms	1,501	330	539	90	2,619	8,323
acres	1,028,969	222,660	369,302	57,127	1,812,327	5,783,926
1,000 to 1,999 acres ..... farms	1,103	131	255	24	1,424	4,264
acres	1,519,788	174,762	340,876	32,389	1,899,837	5,809,990
2,000 acres or more ..... farms	819	49	111	4	545	1,924
acres	3,136,238	247,459	334,132	(D)	1,809,798	5,973,856
2002 size of farm:						
1 to 9 acres ..... farms	2,526	918	1,418	1,429	3,235	3,591
acres	12,369	4,017	7,104	(D)	15,635	17,821
10 to 49 acres ..... farms	8,766	1,861	4,412	2,217	18,663	16,546
acres	229,807	47,680	108,191	52,542	506,880	439,459
50 to 69 acres ..... farms	2,164	580	961	504	4,425	4,089
acres	125,148	33,122	55,762	29,170	257,982	237,780
70 to 99 acres ..... farms	2,349	680	985	432	6,444	6,983
acres	192,254	56,102	81,757	35,673	523,738	567,587
100 to 139 acres ..... farms	2,209	730	977	466	4,573	5,999
acres	253,637	83,767	112,733	53,110	531,314	701,897
140 to 179 acres ..... farms	1,378	516	660	271	3,163	6,884
acres	216,090	80,746	104,408	42,356	497,561	1,085,056
180 to 219 acres ..... farms	1,123	352	482	185	2,084	4,350
acres	222,018	69,620	95,525	36,509	411,090	858,841
220 to 259 acres ..... farms	823	283	365	113	1,618	3,992
acres	195,810	67,701	87,082	27,050	383,752	947,306
260 to 499 acres ..... farms	2,256	699	989	296	4,291	13,030
acres	801,012	246,195	347,703	103,172	1,525,932	4,694,069
500 to 999 acres ..... farms	1,828	393	562	129	2,856	8,986
acres	1,267,613	266,787	381,976	82,074	1,981,384	6,251,102
1,000 to 1,999 acres ..... farms	1,253	135	277	30	1,468	4,554
acres	1,695,768	177,615	371,534	40,930	1,968,565	6,185,579
2,000 acres or more ..... farms	738	49	110	3	495	1,835
acres	2,619,138	236,416	323,855	(D)	1,539,125	5,525,773
LAND IN FARMS ACCORDING TO USE						
Total cropland ..... farms, 2007	19,866	6,557	10,235	5,508	48,592	71,970
2002	20,368	5,929	10,188	4,898	47,904	73,458
acres, 2007	4,691,344	529,253	1,405,442	187,406	7,803,643	21,948,603
2002	5,071,537	536,839	1,487,218	207,734	7,983,574	22,729,158
Harvested cropland ..... farms, 2007	13,783	5,189	8,278	4,792	37,868	53,943
2002	14,017	4,869	8,335	4,210	38,244	57,323
acres, 2007	3,342,048	393,738	1,246,603	153,993	6,859,081	19,267,018
2002	3,332,146	394,121	1,282,004	159,253	6,827,903	19,398,309
Cropland used only for pasture or grazing ..... farms, 2007	6,203	1,358	2,371	1,184	10,274	12,077
2002	9,988	2,187	3,990	1,748	16,190	17,418
acres, 2007	635,317	37,019	(D)	16,219	309,101	725,403
2002	841,621	47,862	107,463	29,858	409,296	728,593

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
FARMS AND LAND IN FARMS						
Farms ..... number, 2007	41,959	107,825	29,524	47,712	3,131	4,166
2002	42,186	106,797	27,870	49,355	2,989	3,363
Land in farms ..... acres, 2007	11,456,241	29,026,573	61,388,462	45,480,358	5,865,392	471,911
2002	11,097,543	29,946,035	59,612,403	45,903,116	6,330,622	444,879
Average size of farm ..... acres, 2007	273	269	2,079	953	1,873	113
2002	263	280	2,139	930	2,118	132
Estimated market value of land and buildings ..... farms, 2007	41,959	107,825	29,524	47,712	3,131	4,166
2002	42,175	106,749	27,873	49,356	2,988	3,378
$1,000, 2007	21,418,146	63,237,014	47,567,755	52,692,729	3,596,558	2,326,230
2002	15,633,797	45,298,629	23,280,911	35,726,993	2,849,414	1,354,386
Average per farm ..... dollars, 2007	510,454	586,478	1,611,155	1,104,392	1,148,693	558,385
2002	370,689	424,347	835,250	723,863	953,619	400,943
Average per acre ..... dollars, 2007	1,870	2,179	775	1,159	613	4,929
2002	1,381	1,508	386	776	446	3,131
2007 farms by value group:						
$1 to $49,999	5,656	7,889	3,059	4,552	278	290
$50,000 to $99,999	5,728	11,206	1,917	4,020	255	206
$100,000 to $199,999	8,412	22,016	3,155	6,455	394	483
$200,000 to $499,999	11,742	34,438	6,936	10,233	878	1,802
$500,000 to $999,999	6,039	17,342	5,197	7,167	698	886
$1,000,000 to $1,999,999	2,586	8,700	3,901	7,190	318	322
$2,000,000 to $4,999,999	1,281	5,106	3,285	6,467	223	153
$5,000,000 to $9,999,999	359	877	1,172	1,337	43	21
$10,000,000 or more	156	251	902	291	44	3
Approximate land area ..... acres, 2007	30,012,193	43,974,665	93,134,579	49,168,368	70,252,997	5,729,316
Proportion in farms ..... percent, 2007	38.2	66.0	65.9	92.5	8.3	8.2
2007 size of farm:						
1 to 9 acres ..... farms	2,056	3,868	1,917	2,270	631	754
acres	10,062	20,683	7,926	10,538	2,444	3,336
10 to 49 acres ..... farms	10,234	25,186	5,462	6,581	898	1,405
acres	293,980	715,590	136,566	167,006	21,636	35,090
50 to 69 acres ..... farms	3,656	7,573	944	1,456	151	363
acres	213,367	441,329	54,734	84,379	8,601	20,992
70 to 99 acres ..... farms	4,537	12,287	1,170	2,825	159	357
acres	374,951	1,006,179	95,713	229,180	12,955	29,640
100 to 139 acres ..... farms	4,882	11,494	1,184	2,232	141	351
acres	566,942	1,338,562	137,945	260,923	15,764	40,121
140 to 179 acres ..... farms	3,444	8,892	1,673	3,591	120	233
acres	542,269	1,394,772	264,227	566,909	19,052	36,681
180 to 219 acres ..... farms	2,433	6,105	853	1,507	100	169
acres	481,542	1,203,968	168,087	298,221	19,830	33,401
220 to 259 acres ..... farms	1,732	4,733	643	1,576	64	96
acres	411,969	1,124,887	153,471	375,718	15,099	22,765
260 to 499 acres ..... farms	4,458	13,699	2,968	6,755	203	281
acres	1,568,828	4,859,001	1,068,160	2,486,990	73,620	96,114
500 to 999 acres ..... farms	2,283	8,180	2,919	7,717	217	119
acres	1,556,189	5,615,557	2,083,004	5,515,550	145,685	77,600
1,000 to 1,999 acres ..... farms	1,243	3,887	2,935	5,965	151	26
acres	1,708,456	5,278,212	4,196,641	8,254,188	208,222	35,112
2,000 acres or more ..... farms	1,001	1,921	6,856	5,237	296	12
acres	3,727,686	6,027,833	53,021,988	27,230,756	5,322,484	41,059
2002 size of farm:						
1 to 9 acres ..... farms	1,807	3,057	1,484	1,656	579	507
acres	8,727	15,785	6,534	7,708	2,147	2,268
10 to 49 acres ..... farms	10,834	21,639	5,005	5,664	817	1,035
acres	309,379	632,691	125,871	149,724	21,312	24,869
50 to 69 acres ..... farms	4,115	6,999	975	1,483	117	340
acres	237,636	407,780	56,583	86,124	6,650	19,750
70 to 99 acres ..... farms	4,869	12,106	1,119	2,732	150	283
acres	401,000	991,130	90,657	221,213	12,268	23,557
100 to 139 acres ..... farms	4,889	11,364	1,135	2,247	125	282
acres	566,026	1,325,174	131,064	262,433	14,495	32,614
140 to 179 acres ..... farms	3,423	9,209	1,268	3,718	119	233
acres	538,366	1,448,004	199,807	587,459	18,761	36,542
180 to 219 acres ..... farms	2,190	6,524	750	1,647	82	150
acres	432,239	1,287,011	147,638	326,043	16,062	29,680
220 to 259 acres ..... farms	1,605	5,293	624	1,742	70	93
acres	381,983	1,256,052	148,443	414,649	16,547	22,326
260 to 499 acres ..... farms	4,257	15,679	2,590	7,921	207	266
acres	1,489,075	5,565,024	938,633	2,931,251	72,380	93,001
500 to 999 acres ..... farms	2,105	9,163	2,770	9,049	214	134
acres	1,432,706	6,284,165	1,988,406	6,443,140	144,562	86,246
1,000 to 1,999 acres ..... farms	1,124	4,079	3,034	6,632	170	22
acres	1,556,008	5,513,691	4,345,573	9,090,967	230,672	28,890
2,000 acres or more ..... farms	968	1,685	7,116	4,864	339	18
acres	3,744,398	5,219,528	51,433,194	25,382,405	5,774,766	45,136
LAND IN FARMS ACCORDING TO USE						
Total cropland ..... farms, 2007	27,349	86,299	21,809	40,798	2,060	2,929
2002	29,021	89,662	21,854	43,722	2,001	2,505
acres, 2007	5,530,825	16,405,595	18,241,710	21,486,025	753,718	128,938
2002	5,822,786	18,884,920	18,315,514	22,520,874	940,295	129,388
Harvested cropland ..... farms, 2007	18,773	69,585	16,441	34,715	1,572	2,494
2002	19,405	71,698	16,543	37,143	1,521	2,043
acres, 2007	4,223,708	12,980,113	9,163,867	18,169,876	504,311	99,520
2002	4,139,341	13,137,184	8,742,111	17,336,624	549,076	95,983
Cropland used only for pasture or grazing ..... farms, 2007	8,109	21,757	5,093	6,045	626	734
2002	13,352	44,338	7,702	10,047	994	1,129
acres, 2007	741,307	1,858,684	1,677,851	891,810	185,465	17,435
2002	896,978	4,178,574	1,726,012	1,881,599	314,430	19,911

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
FARMS AND LAND IN FARMS						
Farms ..... number, 2007	10,327	20,930	36,352	52,913	31,970	75,861
2002	9,924	15,170	37,255	53,930	30,619	77,797
Land in farms ..... acres, 2007	733,450	43,238,049	7,174,743	8,474,671	39,674,586	13,956,563
2002	805,682	44,810,083	7,660,969	9,079,001	39,294,879	14,583,435
Average size of farm ..... acres, 2007	71	2,066	197	160	1,241	184
2002	81	2,954	206	168	1,283	187
Estimated market value of land and buildings ..... farms, 2007	10,327	20,930	36,352	52,913	31,970	75,861
2002	9,920	15,211	37,252	53,935	30,580	77,788
$1,000, 2007	11,255,226	14,568,969	16,322,415	34,715,171	30,596,974	49,243,626
2002	7,358,731	10,631,082	12,870,727	27,977,090	15,823,558	39,617,975
Average per farm ..... dollars, 2007	1,089,883	696,081	449,010	656,080	957,053	649,130
2002	741,808	698,908	345,504	518,719	517,448	509,307
Average per acre ..... dollars, 2007	15,346	337	2,275	4,096	771	3,528
2002	9,245	234	1,708	3,088	404	2,732
2007 farms by value group:						
$1 to $49,999	633	5,751	3,312	4,637	3,399	6,513
$50,000 to $99,999	461	1,923	4,314	4,899	3,450	6,976
$100,000 to $199,999	824	2,716	8,658	9,731	4,850	15,312
$200,000 to $499,999	2,870	4,616	11,950	16,416	6,970	25,049
$500,000 to $999,999	2,905	2,738	4,972	9,011	4,628	10,725
$1,000,000 to $1,999,999	1,543	1,557	1,921	4,819	4,267	5,877
$2,000,000 to $4,999,999	744	1,172	962	2,578	3,350	4,129
$5,000,000 to $9,999,999	221	342	187	604	968	1,015
$10,000,000 or more	126	115	76	218	88	265
Approximate land area ..... acres, 2007	4,707,863	77,629,852	30,162,489	31,113,828	44,161,773	26,149,825
Proportion in farms ..... percent, 2007	15.6	55.7	23.8	27.2	89.8	53.4
2007 size of farm:						
1 to 9 acres ..... farms	2,950	6,471	2,914	5,001	387	7,767
acres	18,298	22,078	13,348	24,548	1,527	39,160
10 to 49 acres ..... farms	4,814	4,405	8,799	20,772	2,268	24,361
acres	101,545	97,168	236,585	540,463	65,730	631,478
50 to 69 acres ..... farms	577	636	3,230	5,536	769	6,555
acres	33,131	36,945	187,620	321,748	44,384	382,090
70 to 99 acres ..... farms	467	770	3,684	5,360	1,368	8,065
acres	38,564	63,195	307,126	442,485	111,888	667,494
100 to 139 acres ..... farms	402	731	4,158	4,408	1,312	6,744
acres	46,488	84,391	484,709	508,614	153,320	783,518
140 to 179 acres ..... farms	229	935	2,775	2,526	2,619	4,445
acres	35,920	148,271	438,674	395,849	414,180	699,048
180 to 219 acres ..... farms	149	393	2,061	1,710	955	3,025
acres	29,403	77,125	408,853	337,358	189,146	596,625
220 to 259 acres ..... farms	123	350	1,537	1,089	1,009	2,106
acres	29,443	83,379	364,771	259,243	240,110	501,548
260 to 499 acres ..... farms	317	1,398	4,141	2,987	4,746	6,059
acres	111,770	505,068	1,462,961	1,048,650	1,742,271	2,166,767
500 to 999 acres ..... farms	191	1,286	2,014	1,862	4,687	4,020
acres	128,338	907,365	1,351,552	1,268,484	3,381,942	2,756,939
1,000 to 1,999 acres ..... farms	91	1,092	760	1,108	5,369	2,062
acres	119,248	1,534,242	1,003,538	1,487,974	7,701,911	2,784,874
2,000 acres or more ..... farms	17	2,463	279	554	6,481	652
acres	41,302	39,678,822	915,006	1,839,255	25,628,177	1,947,022
2002 size of farm:						
1 to 9 acres ..... farms	2,511	3,586	2,959	4,405	277	7,471
acres	15,494	15,388	13,246	21,147	1,183	36,872
10 to 49 acres ..... farms	4,481	3,195	8,359	20,207	1,763	23,261
acres	95,198	72,544	219,784	541,781	51,313	605,295
50 to 69 acres ..... farms	691	548	3,102	5,930	743	6,503
acres	39,884	31,448	179,391	344,994	42,799	379,502
70 to 99 acres ..... farms	544	648	3,415	5,655	1,088	8,419
acres	44,825	52,757	285,111	465,676	88,754	698,107
100 to 139 acres ..... farms	453	530	4,109	4,614	1,114	7,501
acres	52,449	61,083	477,598	532,108	129,942	872,517
140 to 179 acres ..... farms	271	591	2,848	2,812	2,259	5,004
acres	42,760	93,379	448,086	440,225	356,408	786,707
180 to 219 acres ..... farms	165	312	2,308	1,797	837	3,441
acres	32,810	61,245	457,302	355,068	165,893	680,566
220 to 259 acres ..... farms	108	273	1,591	1,258	847	2,365
acres	25,684	65,180	378,336	299,319	201,694	562,857
260 to 499 acres ..... farms	356	1,121	5,078	3,343	4,294	6,809
acres	125,658	403,317	1,812,617	1,179,746	1,588,473	2,420,318
500 to 999 acres ..... farms	228	1,006	2,457	2,146	4,919	4,309
acres	157,504	709,513	1,633,303	1,471,615	3,589,261	2,967,746
1,000 to 1,999 acres ..... farms	99	927	812	1,212	5,994	2,107
acres	130,792	1,291,857	1,065,724	1,647,895	8,596,327	2,826,809
2,000 acres or more ..... farms	17	2,433	217	551	6,484	607
acres	42,624	41,952,372	690,471	1,779,427	24,482,832	1,746,139
LAND IN FARMS ACCORDING TO USE						
Total cropland ..... farms, 2007	8,138	13,191	31,083	39,879	29,378	64,775
2002	8,342	10,855	33,351	45,268	28,502	69,620
acres, 2007	488,697	2,334,018	4,314,954	4,895,204	27,527,180	10,832,772
2002	547,668	2,575,107	4,841,367	5,472,128	26,506,477	11,424,499
Harvested cropland ..... farms, 2007	7,180	9,311	26,814	32,803	20,408	54,790
2002	7,230	7,204	29,162	36,622	20,789	58,577
acres, 2007	415,542	1,009,683	3,651,278	4,188,658	22,035,717	9,991,007
2002	444,670	856,166	3,846,368	4,308,209	19,908,697	10,041,416
Cropland used only for pasture or grazing ..... farms, 2007	1,808	3,447	7,768	9,846	4,025	12,849
2002	2,886	4,269	15,044	21,225	4,974	25,146
acres, 2007	39,980	639,279	279,940	338,605	812,553	348,923
2002	56,908	821,547	511,046	668,353	1,285,642	697,745

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
FARMS AND LAND IN FARMS					
Farms ..... number, 2007	86,565	38,553	63,163	1,219	25,867
2002	83,300	40,033	58,105	858	24,541
Land in farms ..... acres, 2007	35,087,269	16,399,647	7,809,244	67,819	4,889,339
2002	33,661,826	17,080,422	7,745,336	61,223	4,845,923
Average size of farm ..... acres, 2007	405	425	124	56	189
2002	404	427	133	71	197
Estimated market value of land and buildings ..... farms, 2007	86,565	38,553	63,163	1,219	25,867
2002	83,282	40,055	58,144	858	24,535
$1,000, 2007	40,582,468	31,002,186	37,289,908	1,141,263	13,973,359
2002	23,796,169	20,383,264	26,331,894	564,812	10,081,357
Average per farm ..... dollars, 2007	468,809	804,145	590,376	936,229	540,200
2002	285,730	508,882	452,874	658,290	410,897
Average per acre ..... dollars, 2007	1,157	1,890	4,775	16,828	2,858
2002	699	1,202	3,419	9,225	2,067
2007 farms by value group:					
$1 to $49,999	9,930	2,570	3,990	59	2,930
$50,000 to $99,999	11,421	2,047	4,256	29	2,974
$100,000 to $199,999	19,014	3,951	10,143	77	4,603
$200,000 to $499,999	25,447	13,105	21,080	390	7,854
$500,000 to $999,999	11,732	9,759	14,343	339	4,154
$1,000,000 to $1,999,999	5,491	4,209	6,496	185	2,129
$2,000,000 to $4,999,999	2,921	2,096	2,419	110	978
$5,000,000 to $9,999,999	519	605	351	27	191
$10,000,000 or more	90	211	85	3	54
Approximate land area ..... acres, 2007	43,905,445	61,431,595	28,631,687	661,627	19,255,034
Proportion in farms ..... percent, 2007	79.9	26.7	27.3	10.3	25.4
2007 size of farm:					
1 to 9 acres ..... farms	3,802	9,546	5,601	353	1,970
acres	18,258	47,104	24,955	(D)	10,092
10 to 49 acres ..... farms	18,700	14,142	20,267	484	8,959
acres	499,712	334,788	525,323	11,752	234,700
50 to 69 acres ..... farms	4,972	2,131	6,949	97	2,549
acres	287,343	123,384	405,932	5,480	147,638
70 to 99 acres ..... farms	8,907	2,182	7,833	87	2,371
acres	722,333	178,698	651,631	7,287	196,068
100 to 139 acres ..... farms	7,013	1,699	7,333	90	2,526
acres	811,542	196,898	845,418	10,228	292,515
140 to 179 acres ..... farms	8,827	1,418	3,934	34	1,587
acres	1,392,771	222,725	614,961	5,360	249,396
180 to 219 acres ..... farms	3,930	796	2,660	20	1,106
acres	774,145	156,904	525,281	3,970	218,488
220 to 259 acres ..... farms	3,545	598	1,752	13	749
acres	842,614	142,450	416,976	3,124	178,648
260 to 499 acres ..... farms	11,665	1,946	4,387	34	2,126
acres	4,182,620	699,381	1,528,963	11,836	749,699
500 to 999 acres ..... farms	7,484	1,531	1,816	5	1,059
acres	5,188,747	1,062,737	1,205,755	3,000	718,132
1,000 to 1,999 acres ..... farms	4,165	998	490	-	553
acres	5,708,527	1,381,218	633,548	-	759,777
2,000 acres or more ..... farms	3,555	1,566	141	2	312
acres	14,658,657	11,853,360	430,501	(D)	1,134,186
2002 size of farm:					
1 to 9 acres ..... farms	3,091	9,377	5,102	208	1,706
acres	14,835	47,226	22,456	(D)	8,945
10 to 49 acres ..... farms	17,072	15,628	16,862	305	8,536
acres	461,588	365,357	433,546	7,111	224,971
50 to 69 acres ..... farms	4,733	2,204	5,994	98	2,522
acres	273,234	126,820	349,660	5,580	145,398
70 to 99 acres ..... farms	8,821	2,261	7,029	60	2,343
acres	715,900	185,191	582,580	4,811	193,085
100 to 139 acres ..... farms	6,721	1,719	7,108	76	2,220
acres	778,101	199,095	822,869	8,444	255,628
140 to 179 acres ..... farms	8,501	1,325	4,037	37	1,419
acres	1,343,543	208,129	633,347	5,870	222,664
180 to 219 acres ..... farms	3,973	804	2,794	23	1,061
acres	782,806	159,446	551,437	4,513	209,915
220 to 259 acres ..... farms	3,619	577	1,933	8	671
acres	860,850	137,045	459,851	1,910	159,716
260 to 499 acres ..... farms	11,765	2,038	4,833	32	2,017
acres	4,233,000	731,659	1,687,628	10,472	709,038
500 to 999 acres ..... farms	7,668	1,546	1,800	6	1,107
acres	5,317,775	1,075,620	1,187,696	3,539	751,659
1,000 to 1,999 acres ..... farms	4,119	985	496	4	626
acres	5,603,196	1,356,210	645,414	5,921	848,246
2,000 acres or more ..... farms	3,217	1,569	117	1	313
acres	13,276,998	12,488,624	368,852	(D)	1,116,658
LAND IN FARMS ACCORDING TO USE					
Total cropland ..... farms, 2007	59,040	26,650	54,772	926	18,534
2002	61,779	30,305	52,365	688	19,450
acres, 2007	13,007,625	5,010,408	4,870,287	24,457	2,151,219
2002	14,843,357	5,417,387	5,120,685	23,506	2,270,084
Harvested cropland ..... farms, 2007	46,224	22,131	44,269	823	12,962
2002	43,930	23,013	45,374	628	13,321
acres, 2007	7,650,080	3,037,261	3,942,079	19,325	1,551,670
2002	7,705,860	3,119,384	4,079,276	17,820	1,374,617
Cropland used only for pasture or grazing ..... farms, 2007	17,304	7,259	12,985	187	4,992
2002	33,912	13,997	23,414	192	9,090
acres, 2007	2,780,523	676,743	397,131	2,194	264,049
2002	5,050,399	997,717	591,274	2,934	395,050

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
FARMS AND LAND IN FARMS					
Farms ..... number, 2007	31,169	79,280	247,437	16,700	6,984
2002	31,736	87,595	228,926	15,282	6,571
Land in farms ..... acres, 2007	43,666,403	10,969,798	130,398,753	11,094,700	1,233,313
2002	43,785,079	11,681,533	129,877,666	11,731,228	1,244,909
Average size of farm ..... acres, 2007	1,401	138	527	664	177
2002	1,380	133	567	768	189
Estimated market value of land and buildings ..... farms, 2007	31,169	79,280	247,437	16,700	6,984
2002	31,710	87,587	228,886	15,292	6,576
$1,000, 2007	39,127,431	37,057,079	165,573,377	13,857,925	3,580,584
2002	19,617,432	28,534,393	100,496,055	8,965,857	2,542,909
Average per farm ..... dollars, 2007	1,255,332	467,420	669,154	829,816	512,684
2002	618,651	325,783	439,066	586,310	386,695
Average per acre ..... dollars, 2007	896	3,378	1,270	1,249	2,903
2002	442	2,405	768	756	2,051
2007 farms by value group:					
$1 to $49,999	3,209	5,962	28,437	2,102	505
$50,000 to $99,999	2,486	8,492	28,232	1,241	375
$100,000 to $199,999	3,724	16,759	44,405	2,267	973
$200,000 to $499,999	6,003	28,322	67,420	4,906	2,867
$500,000 to $999,999	4,943	12,779	42,929	3,128	1,427
$1,000,000 to $1,999,999	4,989	4,511	21,369	1,806	606
$2,000,000 to $4,999,999	4,386	1,883	10,368	847	205
$5,000,000 to $9,999,999	1,108	412	2,803	277	24
$10,000,000 or more	321	160	1,474	126	2
Approximate land area ..... acres, 2007	48,511,810	26,383,003	167,145,209	52,553,947	5,898,698
Proportion in farms ..... percent, 2007	90.0	41.6	78.0	21.1	20.9
2007 size of farm:					
1 to 9 acres ..... farms	920	5,814	21,024	4,194	635
acres	4,485	31,407	107,011	17,827	2,751
10 to 49 acres ..... farms	3,898	29,396	72,837	5,127	1,862
acres	103,542	781,709	1,801,433	119,814	46,781
50 to 69 acres ..... farms	920	8,606	17,697	790	567
acres	53,465	498,582	1,022,423	45,788	32,854
70 to 99 acres ..... farms	1,492	8,672	18,448	951	593
acres	120,817	715,330	1,530,252	77,890	49,329
100 to 139 acres ..... farms	1,283	7,680	20,212	904	777
acres	147,938	890,774	2,331,589	104,901	89,920
140 to 179 acres ..... farms	2,214	4,630	14,907	709	459
acres	349,640	725,992	2,355,785	111,630	72,161
180 to 219 acres ..... farms	882	3,113	10,433	404	417
acres	174,908	614,373	2,066,791	79,423	82,161
220 to 259 acres ..... farms	929	2,258	7,267	328	279
acres	221,051	536,822	1,731,496	78,501	66,630
260 to 499 acres ..... farms	4,063	5,476	24,431	1,092	861
acres	1,501,281	1,908,537	8,699,711	392,140	303,640
500 to 999 acres ..... farms	4,714	2,287	17,843	895	390
acres	3,386,253	1,525,271	12,421,272	614,076	252,371
1,000 to 1,999 acres ..... farms	4,362	892	11,326	571	114
acres	6,124,293	1,199,502	15,717,269	785,271	148,188
2,000 acres or more ..... farms	5,492	456	11,012	735	30
acres	31,478,730	1,541,499	80,613,721	8,667,439	86,527
2002 size of farm:					
1 to 9 acres ..... farms	777	6,066	13,669	3,673	477
acres	3,841	31,788	70,306	16,290	2,012
10 to 49 acres ..... farms	3,549	32,116	61,015	4,695	1,738
acres	94,709	863,502	1,559,806	107,265	43,242
50 to 69 acres ..... farms	879	9,791	17,379	768	506
acres	51,095	568,594	1,000,299	44,243	29,475
70 to 99 acres ..... farms	1,568	10,063	18,436	827	550
acres	127,950	831,367	1,525,400	68,092	45,037
100 to 139 acres ..... farms	1,209	8,976	19,719	820	644
acres	141,065	1,038,884	2,276,287	94,989	74,642
140 to 179 acres ..... farms	2,099	5,442	15,046	522	516
acres	331,614	851,917	2,375,085	82,066	80,841
180 to 219 acres ..... farms	883	3,559	10,397	420	370
acres	175,032	702,811	2,059,470	82,594	73,390
220 to 259 acres ..... farms	959	2,303	7,368	322	294
acres	228,132	547,156	1,757,388	76,615	70,072
260 to 499 acres ..... farms	4,249	5,495	24,710	1,090	922
acres	1,568,253	1,900,870	8,813,936	392,468	328,902
500 to 999 acres ..... farms	5,353	2,446	18,625	856	406
acres	3,884,673	1,632,546	12,952,604	592,188	265,623
1,000 to 1,999 acres ..... farms	4,758	896	12,049	586	123
acres	6,609,931	1,205,047	16,612,660	798,180	161,538
2,000 acres or more ..... farms	5,453	442	10,513	703	25
acres	30,568,784	1,507,051	78,874,425	9,376,238	70,135
LAND IN FARMS ACCORDING TO USE					
Total cropland ..... farms, 2007	26,625	61,274	153,276	12,398	5,439
2002	28,110	74,086	160,352	12,652	5,103
acres, 2007	19,094,311	6,047,348	33,667,177	1,837,904	516,924
2002	20,318,036	6,992,992	38,657,710	2,067,437	567,509
Harvested cropland ..... farms, 2007	21,902	48,292	111,671	10,259	4,707
2002	22,931	56,316	106,827	9,661	4,373
acres, 2007	15,278,709	4,226,440	19,174,301	964,702	433,074
2002	13,492,286	4,365,360	17,750,938	961,037	454,699
Cropland used only for pasture or grazing ..... farms, 2007	4,958	21,089	49,894	3,545	1,458
2002	8,060	43,804	89,081	6,412	2,523
acres, 2007	1,257,737	1,190,823	7,832,896	403,022	46,686
2002	2,351,951	2,066,097	12,937,991	602,341	80,443

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
FARMS AND LAND IN FARMS					
Farms ..... number, 2007	47,383	39,284	23,618	78,463	11,069
2002	47,606	35,939	20,812	77,131	9,422
Land in farms ..... acres, 2007	8,103,925	14,972,789	3,697,606	15,190,804	30,169,526
2002	8,624,829	15,318,008	3,584,668	15,741,552	34,402,726
Average size of farm ..... acres, 2007	171	381	157	194	2,726
2002	181	426	172	204	3,651
Estimated market value of land and buildings ..... farms, 2007	47,383	39,284	23,618	78,463	11,069
2002	47,605	35,959	20,764	77,133	9,432
$1,000, 2007	34,141,249	29,822,309	8,819,799	48,994,488	15,471,039
2002	23,329,488	22,414,438	4,817,217	35,799,490	10,195,477
Average per farm ..... dollars, 2007	720,538	759,146	373,435	624,428	1,397,691
2002	490,064	623,333	231,999	464,127	1,080,945
Average per acre ..... dollars, 2007	4,213	1,992	2,385	3,225	513
2002	2,675	1,486	1,315	2,272	290
2007 farms by value group:					
$1 to $49,999	3,769	2,852	2,247	5,639	892
$50,000 to $99,999	3,536	2,647	3,297	6,233	637
$100,000 to $199,999	6,675	5,774	5,751	14,327	1,322
$200,000 to $499,999	13,837	13,945	7,851	26,881	2,986
$500,000 to $999,999	10,137	8,376	2,947	14,319	2,047
$1,000,000 to $1,999,999	5,975	2,953	1,034	6,764	1,340
$2,000,000 to $4,999,999	2,812	1,893	417	3,275	1,156
$5,000,000 to $9,999,999	491	600	51	751	478
$10,000,000 or more	151	244	23	274	211
Approximate land area ..... acres, 2007	25,275,225	42,540,079	15,383,174	34,655,459	62,130,538
Proportion in farms ..... percent, 2007	32.1	35.2	24.0	43.8	48.6
2007 size of farm:					
1 to 9 acres ..... farms	3,530	9,211	1,207	4,861	652
acres	18,051	44,360	5,729	23,591	3,028
10 to 49 acres ..... farms	15,177	14,790	5,749	19,895	2,004
acres	396,364	343,160	162,751	566,800	54,858
50 to 69 acres ..... farms	4,656	1,959	2,534	6,018	419
acres	270,210	113,333	147,761	352,564	24,586
70 to 99 acres ..... farms	4,980	2,188	3,076	9,291	664
acres	413,077	178,155	256,569	762,225	53,687
100 to 139 acres ..... farms	4,929	1,758	3,230	8,347	672
acres	572,222	201,820	374,915	977,487	77,626
140 to 179 acres ..... farms	3,024	1,402	1,899	6,109	706
acres	476,173	220,706	299,183	960,990	111,906
180 to 219 acres ..... farms	2,137	805	1,431	4,498	328
acres	422,467	158,400	282,713	887,970	64,887
220 to 259 acres ..... farms	1,564	638	1,006	3,674	306
acres	372,833	151,809	239,360	872,734	72,700
260 to 499 acres ..... farms	4,076	2,036	2,244	9,665	1,078
acres	1,425,079	729,409	785,259	3,392,335	387,400
500 to 999 acres ..... farms	1,985	1,731	908	4,149	1,107
acres	1,336,394	1,206,606	604,157	2,802,061	775,393
1,000 to 1,999 acres ..... farms	960	1,218	265	1,399	859
acres	1,279,786	1,688,140	343,038	1,835,105	1,207,636
2,000 acres or more ..... farms	365	1,548	69	557	2,274
acres	1,121,269	9,936,891	196,171	1,756,942	27,335,819
2002 size of farm:					
1 to 9 acres ..... farms	3,027	7,482	996	4,141	477
acres	14,914	36,071	5,244	19,660	1,977
10 to 49 acres ..... farms	14,082	13,187	4,676	17,152	1,536
acres	378,963	303,919	132,247	490,616	42,041
50 to 69 acres ..... farms	4,729	2,148	2,137	5,466	350
acres	274,876	123,791	123,917	320,834	19,960
70 to 99 acres ..... farms	5,204	2,065	2,539	9,020	561
acres	432,624	168,174	211,753	739,920	45,606
100 to 139 acres ..... farms	4,980	1,663	2,809	8,297	377
acres	580,168	191,386	324,717	972,360	43,542
140 to 179 acres ..... farms	3,402	1,347	1,852	6,675	460
acres	535,208	211,371	291,040	1,053,224	72,581
180 to 219 acres ..... farms	2,319	814	1,244	5,152	275
acres	458,977	161,184	245,890	1,019,523	54,254
220 to 259 acres ..... farms	1,736	596	944	4,063	212
acres	413,691	141,745	224,544	966,508	50,382
260 to 499 acres ..... farms	4,558	2,029	2,304	10,806	978
acres	1,596,252	726,499	803,393	3,787,096	349,978
500 to 999 acres ..... farms	2,183	1,635	956	4,465	961
acres	1,474,804	1,159,943	634,020	2,974,650	680,498
1,000 to 1,999 acres ..... farms	1,023	1,364	280	1,395	819
acres	1,361,779	1,910,378	365,049	1,844,072	1,149,754
2,000 acres or more ..... farms	363	1,609	75	499	2,416
acres	1,102,573	10,183,547	222,854	1,553,089	31,892,153
LAND IN FARMS ACCORDING TO USE					
Total cropland ..... farms, 2007	35,954	26,005	19,446	68,478	6,838
2002	41,047	28,184	17,821	69,883	7,017
acres, 2007	3,274,137	7,609,210	942,132	10,116,279	2,576,017
2002	4,194,158	8,038,469	1,173,032	10,728,655	2,989,804
Harvested cropland ..... farms, 2007	30,563	20,091	17,494	54,105	5,573
2002	33,791	21,802	15,827	54,741	5,003
acres, 2007	2,544,997	4,387,169	692,003	8,884,628	1,536,240
2002	2,623,776	4,894,634	648,635	8,928,083	1,298,709
Cropland used only for pasture or grazing ..... farms, 2007	10,083	6,166	4,578	15,368	2,030
2002	23,357	10,730	9,171	26,270	3,581
acres, 2007	486,550	371,026	191,707	391,728	419,772
2002	1,267,163	499,226	472,310	764,212	906,831

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
LAND IN FARMS ACCORDING TO USE - Con.						
Total cropland - Con.						
Other cropland ....farms, 2007	469,860	8,140	213	2,238	4,819	9,372
2002	506,163	8,103	211	1,106	4,738	10,104
acres, 2007	61,046,154	521,220	48,352	(D)	341,109	1,031,270
2002	70,909,889	556,621	57,390	160,247	412,725	1,182,481
Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed (see text) ....farms, 2007	360,225	5,652	153	1,931	3,683	6,118
2002	380,300	6,268	156	930	3,521	7,473
acres, 2007	37,968,749	371,411	40,533	172,700	259,318	667,291
2002	37,281,096	416,049	48,851	148,890	273,440	800,070
Cropland on which all crops failed ....farms, 2007	89,587	2,568	62	214	959	2,631
2002	119,642	1,780	64	237	1,039	2,308
acres, 2007	7,405,898	112,891	1,883	7,803	47,770	173,651
2002	17,069,564	105,073	3,821	9,857	79,789	198,649
Cropland in cultivated summer fallow ....farms, 2007	67,960	977	62	156	500	1,435
2002	72,335	982	36	12	661	1,264
acres, 2007	15,671,507	36,918	5,936	(D)	34,021	190,328
2002	16,559,229	35,499	4,718	1,500	59,496	183,762
Total woodland ....farms, 2007	843,294	27,892	364	347	24,437	6,913
2002	818,105	25,898	332	252	24,581	5,136
acres, 2007	75,098,603	3,375,438	41,698	279,779	2,239,119	1,270,720
2002	75,878,213	3,179,257	42,244	32,450	2,369,950	1,191,484
Woodland pastured ....farms, 2007	370,297	14,007	105	217	13,462	3,520
2002	379,795	14,194	103	159	13,403	2,534
acres, 2007	28,609,690	591,967	4,271	(D)	742,648	782,561
2002	31,128,955	803,377	5,820	13,402	909,796	679,384
Woodland not pastured ....farms, 2007	596,123	19,050	314	165	14,587	4,083
2002	568,956	17,177	281	112	15,154	3,199
acres, 2007	46,488,913	2,783,471	37,427	(D)	1,496,471	488,159
2002	44,749,258	2,375,880	36,424	19,048	1,460,154	512,100
Permanent pasture and rangeland, other than cropland and woodland pastured (see text) ....farms, 2007	1,132,606	29,142	213	3,358	28,251	21,348
2002	850,913	21,137	130	2,555	21,592	18,053
acres, 2007	408,832,116	2,017,079	737,746	22,900,777	2,637,556	13,275,042
2002	395,278,829	1,514,500	730,478	23,240,467	1,977,177	13,987,763
Land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc. ....farms, 2007	1,126,272	22,501	448	10,637	19,272	34,169
2002	1,165,564	22,684	445	3,849	21,435	36,043
acres, 2007	31,740,212	498,062	15,903	1,731,918	563,966	1,354,286
2002	32,957,068	477,879	29,862	2,051,766	579,619	1,415,619
Pastureland, all types ....farms, 2007	1,433,892	36,822	303	4,590	35,983	31,560
2002	1,384,798	35,029	269	3,660	36,326	26,462
acres, 2007	473,212,960	3,236,041	749,131	23,096,576	4,104,248	14,857,807
2002	486,965,589	3,498,868	745,215	23,467,550	4,592,696	16,012,506
CONSERVATION PRACTICES AND CROP INSURANCE						
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) [1] ....farms, 2007	346,231	6,652	38	3	2,948	668
2002	268,748	5,371	35	4	1,393	777
acres, 2007	38,547,450	494,441	28,298	(D)	441,655	254,013
2002	32,723,967	472,332	29,175	2,880	147,878	220,240
Land enrolled in crop insurance programs (see text) ....farms, 2007	349,408	2,470	19	474	4,176	14,236
2002	394,538	2,955	26	657	5,157	15,804
acres, 2007	222,267,817	1,004,146	6,212	454,164	3,901,756	4,018,816
2002	214,806,181	1,023,615	5,741	423,979	4,461,655	4,109,214

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
LAND IN FARMS ACCORDING TO USE - Con.							
Total cropland - Con.							
Other cropland	farms, 2007	9,876	737	308	3,662	8,725	1,329
	2002	11,150	738	430	3,806	9,242	1,015
	acres, 2007	4,352,779	14,339	14,463	269,721	500,303	51,013
	2002	5,386,290	15,994	17,245	296,830	564,230	65,119
Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed (see text)	farms, 2007	6,283	566	213	2,536	5,994	1,021
	2002	5,028	575	274	2,762	6,505	858
	acres, 2007	2,075,910	12,597	10,663	200,215	328,998	44,336
	2002	1,656,848	12,326	9,662	233,443	358,476	61,559
Cropland on which all crops failed	farms, 2007	1,799	139	83	992	2,524	298
	2002	6,212	198	147	1,002	2,812	200
	acres, 2007	220,666	1,015	3,350	37,754	118,512	1,846
	2002	1,745,725	2,879	6,585	30,711	144,811	1,407
Cropland in cultivated summer fallow	farms, 2007	3,517	97	32	441	1,207	126
	2002	3,292	80	58	437	1,195	55
	acres, 2007	2,056,203	727	450	31,752	52,793	4,831
	2002	1,983,717	789	998	32,676	60,943	2,153
Total woodland	farms, 2007	3,883	2,807	848	12,946	28,695	572
	2002	3,047	2,354	1,100	11,048	30,415	308
	acres, 2007	1,381,543	124,875	46,126	2,330,336	3,712,672	79,041
	2002	1,345,230	127,231	53,729	2,485,733	4,285,708	117,685
Woodland pastured	farms, 2007	2,430	919	116	6,603	12,111	171
	2002	1,960	637	213	6,067	13,728	86
	acres, 2007	886,808	16,953	2,069	1,307,815	521,587	22,570
	2002	994,359	20,348	5,198	1,559,261	885,314	41,467
Woodland not pastured	farms, 2007	1,837	2,357	777	7,871	21,365	429
	2002	1,430	2,003	967	6,504	22,091	248
	acres, 2007	494,735	107,922	44,057	1,022,521	3,191,085	56,471
	2002	350,871	106,883	48,531	926,472	3,400,394	76,218
Permanent pasture and rangeland, other than cropland and woodland pastured (see text)	farms, 2007	21,976	2,090	553	24,721	25,644	1,706
	2002	15,787	1,274	442	19,461	21,095	858
	acres, 2007	17,830,125	32,823	6,773	3,221,202	1,341,985	738,271
	2002	17,341,749	21,988	6,540	3,400,193	1,173,187	852,626
Land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc.	farms, 2007	17,962	3,097	1,231	21,619	23,974	2,998
	2002	16,674	2,848	1,559	21,838	27,006	1,973
	acres, 2007	909,307	84,232	24,581	726,692	617,714	126,391
	2002	875,657	37,262	22,610	813,694	608,777	119,068
Pastureland, all types	farms, 2007	26,448	2,821	946	31,064	33,328	2,028
	2002	21,872	2,427	868	27,393	35,219	1,209
	acres, 2007	19,959,164	62,290	17,684	5,100,507	2,451,000	784,334
	2002	20,133,563	65,767	18,589	6,064,344	2,925,054	930,633
CONSERVATION PRACTICES AND CROP INSURANCE							
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) [1]	farms, 2007	5,883	38	226	2,418	5,090	2
	2002	3,775	23	156	1,281	5,905	5
	acres, 2007	2,489,360	911	9,221	224,867	331,166	(D)
	2002	1,735,353	675	6,792	97,267	458,183	243
Land enrolled in crop insurance programs (see text)	farms, 2007	5,603	261	521	5,427	5,476	241
	2002	5,548	296	432	3,582	5,275	185
	acres, 2007	5,574,501	28,044	260,565	881,151	2,325,933	41,333
	2002	4,775,534	31,708	241,683	1,073,477	2,024,786	27,759

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
LAND IN FARMS ACCORDING TO USE - Con.						
Total cropland - Con.						
Other cropland ....farms, 2007	5,676	18,863	11,010	27,198	25,771	18,156
2002	4,901	22,637	13,811	30,411	28,053	21,722
acres, 2007	1,203,853	787,997	325,080	1,687,168	7,055,089	746,539
2002	1,095,488	1,080,081	523,044	1,803,787	8,163,844	852,641
Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed (see text) ....farms, 2007	4,105	17,626	9,673	26,316	16,185	14,120
2002	3,526	20,582	11,503	29,532	17,847	17,361
acres, 2007	949,842	735,671	291,491	1,656,509	2,621,094	617,045
2002	789,441	971,602	423,053	1,758,758	2,439,208	750,796
Cropland on which all crops failed ....farms, 2007	1,079	1,084	998	1,166	5,227	3,233
2002	1,014	2,058	2,211	1,395	7,394	2,605
acres, 2007	58,077	21,920	16,368	28,635	1,218,145	87,757
2002	56,014	78,091	83,479	45,029	1,995,904	54,880
Cropland in cultivated summer fallow ....farms, 2007	1,290	757	770	182	9,033	2,255
2002	1,027	999	942	-	10,587	3,959
acres, 2007	195,934	30,406	17,221	2,024	3,215,850	41,737
2002	250,033	30,388	16,512	-	3,728,732	46,965
Total woodland ....farms, 2007	3,532	24,433	23,809	21,047	14,071	49,003
2002	3,254	25,067	28,629	21,515	10,877	51,064
acres, 2007	531,767	1,428,922	1,020,287	1,193,303	792,858	3,107,137
2002	579,238	1,536,646	1,153,779	1,336,752	686,628	3,111,626
Woodland pastured ....farms, 2007	1,919	7,126	7,064	7,961	6,289	24,495
2002	1,982	8,527	9,171	9,809	5,450	26,239
acres, 2007	341,499	265,759	161,564	399,613	337,671	808,124
2002	424,407	374,571	222,523	548,815	356,223	903,863
Woodland not pastured ....farms, 2007	2,078	20,010	19,576	15,512	9,487	34,024
2002	1,678	19,846	23,042	14,593	6,902	35,008
acres, 2007	190,268	1,163,163	858,723	793,690	455,187	2,299,013
2002	154,831	1,162,075	931,256	787,937	330,405	2,207,763
Permanent pasture and rangeland, other than cropland and woodland pastured (see text) ....farms, 2007	12,641	22,070	21,368	27,352	40,051	48,775
2002	10,382	15,877	16,344	23,863	35,056	29,802
acres, 2007	4,602,886	887,274	542,941	1,914,924	15,932,985	2,912,424
2002	4,522,883	770,995	427,190	1,735,421	15,504,008	1,613,681
Land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc. ....farms, 2007	13,009	38,049	34,001	49,591	33,961	46,192
2002	14,005	40,078	38,387	56,291	34,066	50,695
acres, 2007	443,831	751,205	493,919	1,322,991	1,403,920	695,462
2002	512,562	831,932	568,699	1,504,026	1,495,286	706,045
Pastureland, all types ....farms, 2007	17,076	30,219	29,679	38,519	45,197	64,183
2002	17,209	27,354	31,182	39,529	42,841	63,470
acres, 2007	5,433,645	1,461,292	986,522	3,144,321	17,544,976	5,194,224
2002	5,691,125	1,673,841	1,098,301	3,639,397	18,261,690	5,098,263
CONSERVATION PRACTICES AND CROP INSURANCE						
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) [1] ....farms, 2007	3,285	26,660	14,127	40,502	21,481	8,437
2002	2,334	21,845	9,108	30,454	18,619	7,135
acres, 2007	836,910	885,837	365,321	2,050,714	3,281,157	375,049
2002	755,547	923,906	291,664	1,694,138	2,566,762	403,946
Land enrolled in crop insurance programs (see text) ....farms, 2007	2,632	26,826	12,466	40,392	20,630	4,949
2002	2,557	28,751	12,712	45,205	24,706	9,718
acres, 2007	2,003,472	16,397,926	7,557,077	18,868,184	15,918,778	1,690,465
2002	1,949,638	15,527,599	7,099,066	19,609,071	16,271,555	1,626,678

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
LAND IN FARMS ACCORDING TO USE - Con.							
Total cropland - Con.							
Other cropland	farms, 2007	4,845	2,093	2,881	1,080	17,831	25,382
	2002	5,307	2,046	2,972	1,071	18,353	27,399
	acres, 2007	713,979	98,496	(D)	17,194	635,461	1,956,182
	2002	897,770	94,856	97,751	18,623	746,375	2,602,256
Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed (see text)	farms, 2007	4,099	1,779	2,264	812	14,255	21,519
	2002	3,494	1,735	2,227	787	15,120	22,250
	acres, 2007	582,623	90,124	70,506	13,305	497,981	1,711,881
	2002	522,794	81,936	70,219	12,895	607,936	1,930,941
Cropland on which all crops failed	farms, 2007	641	301	633	264	3,100	3,366
	2002	1,626	375	841	355	3,113	5,509
	acres, 2007	39,497	4,423	15,521	2,452	69,881	148,216
	2002	220,953	7,370	22,415	4,551	69,071	527,429
Cropland in cultivated summer fallow	farms, 2007	291	215	287	167	2,733	2,334
	2002	830	205	262	120	2,567	2,508
	acres, 2007	91,859	3,949	(D)	1,437	67,599	96,085
	2002	154,023	5,550	5,117	1,177	69,368	143,886
Total woodland	farms, 2007	10,053	5,561	7,210	4,259	28,792	30,036
	2002	8,746	5,138	6,665	3,325	27,818	29,197
	acres, 2007	1,188,689	660,679	373,002	212,539	1,196,212	1,862,251
	2002	1,017,937	702,555	356,626	210,891	1,224,237	1,975,495
Woodland pastured	farms, 2007	4,112	1,056	1,665	1,160	5,100	11,617
	2002	4,244	1,024	1,779	859	5,316	12,519
	acres, 2007	210,997	26,230	(D)	21,853	125,897	527,233
	2002	299,824	38,484	44,658	22,641	162,169	642,571
Woodland not pastured	farms, 2007	7,069	5,144	6,332	3,670	26,138	23,390
	2002	5,730	4,719	5,700	2,910	24,853	22,188
	acres, 2007	977,692	634,449	(D)	190,686	1,070,315	1,335,018
	2002	718,113	664,071	311,968	188,250	1,062,068	1,332,924
Permanent pasture and rangeland, other than cropland and woodland pastured (see text)	farms, 2007	15,844	3,413	6,051	3,359	18,787	27,466
	2002	11,771	2,155	4,125	1,650	11,447	20,940
	acres, 2007	1,544,080	62,014	156,375	48,120	376,625	1,469,816
	2002	1,194,963	40,967	120,419	31,279	254,062	1,187,082
Land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc.	farms, 2007	12,006	5,052	7,980	5,005	36,399	51,243
	2002	12,771	4,716	7,798	4,086	35,435	52,586
	acres, 2007	685,862	95,620	116,937	69,814	655,327	1,637,292
	2002	546,227	89,407	113,367	68,666	681,085	1,620,535
Pastureland, all types	farms, 2007	20,721	4,469	7,741	4,399	26,751	38,291
	2002	18,987	4,042	7,146	3,221	24,986	36,500
	acres, 2007	2,390,394	125,263	253,903	86,192	811,623	2,722,452
	2002	2,336,408	127,313	272,540	83,778	825,527	2,558,246
CONSERVATION PRACTICES AND CROP INSURANCE							
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) [1]	farms, 2007	4,160	695	2,525	30	8,596	27,687
	2002	1,986	476	1,610	17	6,593	20,211
	acres, 2007	524,824	32,812	85,046	580	302,144	1,929,007
	2002	273,839	26,259	57,397	191	296,666	1,628,796
Land enrolled in crop insurance programs (see text)	farms, 2007	2,689	527	1,522	722	8,337	26,713
	2002	3,584	385	1,453	641	7,921	29,741
	acres, 2007	2,296,014	104,796	665,929	32,811	3,617,808	15,069,112
	2002	2,613,634	91,234	585,455	32,846	3,401,787	16,245,194

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
LAND IN FARMS ACCORDING TO USE - Con.						
Total cropland - Con.						
Other cropland ....farms, 2007	7,315	20,778	10,404	13,291	510	623
2002	8,586	20,794	10,964	17,350	473	612
acres, 2007	565,810	1,566,798	7,399,992	2,424,339	63,942	11,983
2002	786,467	1,569,162	7,847,391	3,302,651	76,789	13,494
Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed (see text) ....farms, 2007	5,850	17,813	6,560	9,625	279	486
2002	7,019	17,785	6,055	9,985	305	479
acres, 2007	473,000	1,374,183	3,710,267	1,238,092	29,554	9,674
2002	640,345	1,388,689	3,390,045	1,146,195	44,467	11,093
Cropland on which all crops failed ....farms, 2007	1,170	2,599	1,516	1,506	183	119
2002	1,484	2,791	2,939	6,723	178	156
acres, 2007	56,816	118,387	309,497	140,574	28,798	1,582
2002	104,855	113,124	987,881	949,677	26,787	1,817
Cropland in cultivated summer fallow ....farms, 2007	818	1,358	4,849	3,818	104	79
2002	825	1,482	5,232	4,268	68	64
acres, 2007	35,994	74,228	3,380,228	1,045,673	5,590	727
2002	41,267	67,349	3,469,465	1,206,779	5,535	584
Total woodland ....farms, 2007	24,190	57,389	4,132	6,632	132	2,966
2002	23,531	57,684	3,882	5,378	96	2,552
acres, 2007	3,610,991	4,414,396	2,284,011	409,785	36,327	278,244
2002	3,264,040	4,852,574	2,200,562	382,151	43,688	266,468
Woodland pastured ....farms, 2007	10,051	31,842	2,781	2,666	51	689
2002	11,363	34,825	2,806	2,433	46	614
acres, 2007	561,225	1,866,337	1,778,313	230,066	26,845	13,703
2002	807,485	2,281,064	1,698,879	233,765	15,075	21,839
Woodland not pastured ....farms, 2007	17,968	35,372	1,850	4,643	91	2,732
2002	16,295	33,176	1,508	3,555	59	2,289
acres, 2007	3,049,766	2,548,059	505,698	179,719	9,482	264,541
2002	2,456,555	2,571,510	501,683	148,386	28,613	244,629
Permanent pasture and rangeland, other than cropland and woodland pastured (see text) ....farms, 2007	21,085	63,016	19,864	26,377	1,504	1,983
2002	18,285	45,011	16,847	24,925	1,268	1,065
acres, 2007	1,639,243	6,864,391	40,003,265	22,619,904	4,855,316	33,508
2002	1,403,451	4,854,438	38,241,382	21,940,679	4,974,195	19,848
Land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc. ....farms, 2007	18,292	54,431	14,211	25,805	1,965	2,840
2002	20,908	56,965	15,765	28,555	1,957	2,338
acres, 2007	675,182	1,342,191	859,476	964,644	220,031	31,221
2002	607,266	1,354,103	854,945	1,059,412	372,444	29,175
Pastureland, all types ....farms, 2007	27,668	79,823	22,866	30,232	1,917	2,565
2002	29,156	80,135	21,580	30,649	1,891	2,104
acres, 2007	2,941,775	10,589,412	43,459,429	23,741,780	5,067,626	64,646
2002	3,107,914	11,314,076	41,666,273	24,056,043	5,303,700	61,598
CONSERVATION PRACTICES AND CROP INSURANCE						
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) [1] ....farms, 2007	10,714	20,678	5,984	12,511	5	24
2002	8,056	15,066	5,469	10,403	38	18
acres, 2007	1,107,406	1,691,694	3,561,031	1,396,457	(D)	629
2002	807,340	1,418,874	3,533,432	1,166,443	7,682	1,161
Land enrolled in crop insurance programs (see text) ....farms, 2007	2,801	13,666	6,597	22,114	127	115
2002	3,488	15,005	7,635	25,441	119	129
acres, 2007	2,819,629	6,673,331	10,223,103	14,481,258	110,442	12,557
2002	3,101,842	6,932,263	9,383,758	14,143,140	132,866	14,398

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
LAND IN FARMS ACCORDING TO USE - Con.							
Total cropland - Con.							
Other cropland	farms, 2007	1,533	4,237	9,833	10,730	17,326	16,020
	2002	1,778	3,549	11,250	12,657	17,927	18,393
	acres, 2007	33,175	685,056	383,736	367,941	4,678,910	492,842
	2002	46,090	897,394	483,953	495,566	5,312,138	685,338
Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed (see text)	farms, 2007	1,142	3,054	7,408	7,230	13,489	14,335
	2002	1,240	2,236	8,477	8,799	11,670	15,370
	acres, 2007	24,560	537,282	268,172	225,038	3,549,898	449,987
	2002	28,715	566,723	328,855	293,498	2,842,984	561,040
Cropland on which all crops failed	farms, 2007	392	996	2,494	3,447	2,855	2,403
	2002	617	1,375	3,486	3,813	5,262	4,208
	acres, 2007	5,495	58,982	68,483	95,333	530,496	42,855
	2002	14,925	245,560	112,585	133,028	1,566,574	123,221
Cropland in cultivated summer fallow	farms, 2007	190	625	1,529	1,788	3,443	-
	2002	168	455	1,242	2,362	4,396	146
	acres, 2007	3,120	88,792	47,081	47,570	598,516	-
	2002	2,450	85,111	42,513	69,040	902,580	1,077
Total woodland	farms, 2007	4,803	1,533	23,730	32,241	2,587	38,477
	2002	4,548	1,101	24,133	33,597	2,098	40,545
	acres, 2007	131,312	2,868,929	1,559,522	2,201,609	233,883	1,473,638
	2002	150,029	2,548,379	1,649,585	2,520,118	235,927	1,686,207
Woodland pastured	farms, 2007	1,026	1,065	5,659	13,214	1,017	11,464
	2002	1,221	781	5,955	15,349	974	12,812
	acres, 2007	11,473	2,032,322	165,855	287,543	112,722	279,125
	2002	15,458	1,739,507	236,349	472,701	125,487	338,149
Woodland not pastured	farms, 2007	4,145	655	21,467	25,343	1,824	32,222
	2002	3,664	499	21,456	25,667	1,421	33,683
	acres, 2007	119,839	836,607	1,393,667	1,914,066	121,161	1,194,513
	2002	134,571	808,872	1,413,236	2,047,417	110,440	1,348,058
Permanent pasture and rangeland, other than cropland and woodland pastured (see text)	farms, 2007	4,246	9,447	19,682	26,671	14,964	33,446
	2002	2,884	6,728	14,065	18,844	14,111	24,508
	acres, 2007	54,007	37,597,641	714,615	941,609	10,418,885	1,046,728
	2002	41,579	39,136,229	550,225	605,860	10,984,441	796,078
Land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc.	farms, 2007	6,658	9,068	25,260	28,328	17,110	47,764
	2002	6,707	5,801	25,800	30,695	17,478	50,853
	acres, 2007	59,434	437,461	585,652	436,249	1,494,638	603,425
	2002	66,406	550,368	619,792	480,895	1,568,034	676,651
Pastureland, all types	farms, 2007	5,679	12,134	24,194	33,785	17,080	42,385
	2002	5,574	9,777	24,790	34,742	16,386	43,467
	acres, 2007	105,460	40,269,242	1,160,410	1,567,757	11,344,160	1,674,776
	2002	113,945	41,697,283	1,297,620	1,746,914	12,395,570	1,831,972
CONSERVATION PRACTICES AND CROP INSURANCE							
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) [1]	farms, 2007	143	1,357	2,478	4,181	15,253	13,734
	2002	62	1,202	2,390	3,536	12,468	8,987
	acres, 2007	5,976	592,766	115,546	163,676	3,434,036	385,442
	2002	2,605	545,884	211,996	183,000	3,043,439	365,636
Land enrolled in crop insurance programs (see text)	farms, 2007	638	1,412	2,877	5,809	14,317	13,233
	2002	674	1,428	3,183	8,424	15,453	12,266
	acres, 2007	165,242	3,146,730	833,783	2,538,638	19,793,137	5,515,619
	2002	163,347	2,562,464	765,574	2,585,734	18,108,278	4,737,453

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
LAND IN FARMS ACCORDING TO USE - Con.					
Total cropland - Con.					
Other cropland ....farms, 2007	14,012	5,464	16,826	186	6,504
2002	12,297	6,546	14,571	146	6,713
acres, 2007	2,577,022	1,296,404	531,077	2,938	335,500
2002	2,087,098	1,300,286	450,135	2,752	500,417
Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed (see text) ....farms, 2007	7,868	3,762	13,619	138	4,677
2002	8,231	4,995	10,817	111	4,614
acres, 2007	1,032,301	693,471	443,785	2,298	223,039
2002	1,008,785	705,825	348,524	2,167	276,655
Cropland on which all crops failed ....farms, 2007	5,660	1,056	3,107	55	1,922
2002	3,833	1,089	4,458	32	2,595
acres, 2007	1,164,977	55,566	51,177	520	81,018
2002	818,289	98,302	82,300	403	190,181
Cropland in cultivated summer fallow ....farms, 2007	2,213	1,416	1,857	24	843
2002	1,803	1,378	1,322	22	766
acres, 2007	379,744	547,367	36,115	120	31,443
2002	260,024	496,159	19,311	182	33,581
Total woodland ....farms, 2007	26,024	12,776	37,457	674	15,914
2002	22,143	12,470	33,070	487	15,644
acres, 2007	2,468,152	1,729,761	1,717,791	28,874	1,827,191
2002	2,266,746	2,166,401	1,579,829	24,976	1,850,968
Woodland pastured ....farms, 2007	18,579	6,156	9,224	197	6,079
2002	16,588	6,367	9,949	129	6,805
acres, 2007	1,708,501	1,171,477	150,184	2,240	219,636
2002	1,638,323	1,544,267	220,818	2,004	376,725
Woodland not pastured ....farms, 2007	10,177	8,346	33,448	577	12,377
2002	8,187	7,735	28,506	412	11,602
acres, 2007	759,651	558,284	1,567,607	26,634	1,607,555
2002	628,423	622,134	1,359,011	22,972	1,474,243
Permanent pasture and rangeland, other than cropland and woodland pastured (see text) ....farms, 2007	61,866	20,011	33,803	517	12,294
2002	49,270	14,900	22,185	275	9,249
acres, 2007	18,713,085	9,148,119	732,275	6,144	617,136
2002	15,732,765	8,855,459	526,723	5,080	448,140
Land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc. ....farms, 2007	32,076	21,962	42,287	824	12,380
2002	34,640	24,242	39,150	635	12,954
acres, 2007	898,407	511,359	488,891	8,344	293,793
2002	818,958	641,175	518,099	7,661	276,731
Pastureland, all types ....farms, 2007	73,356	26,379	42,007	681	16,161
2002	71,417	27,272	38,796	451	16,494
acres, 2007	23,202,109	10,996,339	1,279,590	10,578	1,100,821
2002	22,421,487	11,397,443	1,338,815	10,018	1,219,915
CONSERVATION PRACTICES AND CROP INSURANCE					
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) [1] ....farms, 2007	6,833	1,756	6,784	-	3,908
2002	5,968	1,319	3,607	3	3,268
acres, 2007	1,150,524	612,894	232,543	-	264,950
2002	1,103,520	483,237	190,959	42	228,443
Land enrolled in crop insurance programs (see text) ....farms, 2007	7,869	1,766	5,982	55	2,099
2002	9,974	2,005	7,027	50	2,404
acres, 2007	5,217,331	1,181,855	1,133,314	2,418	969,030
2002	5,332,419	1,250,425	1,111,534	2,789	925,437

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		South Dakota	Tennessee	Texas	Utah	Vermont
LAND IN FARMS ACCORDING TO USE - Con.						
Total cropland - Con.						
Other cropland	farms, 2007	10,580	12,828	34,510	2,935	1,372
	2002	11,661	15,402	35,419	3,426	1,142
	acres, 2007	2,557,865	630,085	6,659,980	470,180	37,164
	2002	4,473,799	561,535	7,968,781	504,059	32,367
Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed (see text)	farms, 2007	7,236	9,625	23,145	1,610	1,114
	2002	6,730	13,790	23,839	1,699	895
	acres, 2007	1,454,163	416,333	4,602,973	293,699	29,895
	2002	1,196,185	508,592	4,609,293	258,446	22,561
Cropland on which all crops failed	farms, 2007	3,139	3,980	8,836	1,106	269
	2002	5,382	2,397	11,115	1,740	286
	acres, 2007	669,734	213,530	931,977	64,383	5,401
	2002	2,818,372	51,955	2,513,763	134,868	7,531
Cropland in cultivated summer fallow	farms, 2007	1,685	96	6,269	754	146
	2002	1,427	127	5,721	651	106
	acres, 2007	433,968	222	1,125,030	112,098	1,868
	2002	459,242	988	845,725	110,745	2,275
Total woodland	farms, 2007	3,441	43,439	61,601	1,220	5,165
	2002	2,753	48,618	48,774	859	5,096
	acres, 2007	258,973	2,042,868	7,099,790	385,193	502,823
	2002	236,025	2,338,495	5,651,181	332,884	523,204
Woodland pastured	farms, 2007	1,180	25,028	45,466	642	1,145
	2002	1,101	27,764	36,611	502	1,120
	acres, 2007	164,832	769,416	5,278,964	244,942	40,985
	2002	165,652	850,513	4,202,337	210,506	54,249
Woodland not pastured	farms, 2007	2,487	26,310	21,754	664	4,719
	2002	1,887	29,932	17,238	418	4,675
	acres, 2007	94,141	1,273,452	1,820,826	140,251	461,838
	2002	70,373	1,487,982	1,448,844	122,378	468,955
Permanent pasture and rangeland, other than cropland and woodland pastured (see text)	farms, 2007	19,950	48,245	165,484	8,737	3,828
	2002	17,798	36,769	125,951	5,586	2,349
	acres, 2007	23,025,539	2,545,047	87,217,416	8,601,640	137,165
	2002	22,025,971	1,948,445	83,402,865	9,007,771	89,095
Land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc.	farms, 2007	18,338	35,426	89,874	7,476	4,515
	2002	19,086	41,935	93,425	7,153	4,389
	acres, 2007	1,287,580	334,535	2,414,370	269,963	76,401
	2002	1,205,047	401,601	2,165,910	323,136	65,101
Pastureland, all types	farms, 2007	22,346	62,682	204,260	11,145	4,619
	2002	22,017	68,685	187,768	10,194	4,325
	acres, 2007	24,448,108	4,505,286	100,329,276	9,249,604	224,836
	2002	24,543,574	4,865,055	100,543,193	9,820,618	223,787
CONSERVATION PRACTICES AND CROP INSURANCE						
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) [1]	farms, 2007	10,602	5,220	15,665	668	183
	2002	8,236	4,346	13,166	588	48
	acres, 2007	1,599,477	289,200	4,170,044	207,420	6,752
	2002	1,342,598	227,996	3,302,766	207,609	1,376
Land enrolled in crop insurance programs (see text)	farms, 2007	14,332	3,275	17,756	963	597
	2002	15,524	5,973	23,544	1,112	516
	acres, 2007	16,126,298	1,864,247	16,361,113	421,150	114,958
	2002	13,645,242	1,900,567	15,739,894	539,777	83,826

See footnote(s) at end of table.

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Table 8. **Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Virginia	Washington	West Virginia	Wisconsin	Wyoming
LAND IN FARMS ACCORDING TO USE - Con.						
Total cropland - Con.						
Other cropland	farms, 2007	6,734	7,678	2,620	22,931	1,875
	2002	8,081	7,694	2,351	24,780	2,275
	acres, 2007	242,590	2,851,015	58,422	839,923	620,005
	2002	303,219	2,644,609	52,087	1,036,360	784,264
Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed (see text)	farms, 2007	4,793	5,672	1,978	19,836	978
	2002	5,731	5,697	1,778	20,732	907
	acres, 2007	169,436	1,527,638	50,063	761,695	356,209
	2002	211,740	1,217,397	45,126	909,728	338,230
Cropland on which all crops failed	farms, 2007	1,805	1,038	700	3,115	758
	2002	2,145	948	549	4,228	1,318
	acres, 2007	48,001	27,627	6,768	60,829	129,059
	2002	61,801	30,657	5,145	92,957	288,513
Cropland in cultivated summer fallow	farms, 2007	948	2,125	269	1,394	456
	2002	1,248	2,419	271	1,818	470
	acres, 2007	25,153	1,295,750	1,591	17,399	134,737
	2002	29,678	1,396,555	1,816	33,675	157,521
Total woodland	farms, 2007	28,955	10,438	17,381	47,667	820
	2002	30,332	8,787	15,994	47,444	723
	acres, 2007	2,319,491	1,988,322	1,461,714	2,920,214	395,806
	2002	2,667,732	1,932,794	1,482,067	3,179,502	722,570
Woodland pastured	farms, 2007	13,421	5,045	9,195	13,614	576
	2002	14,887	4,530	8,817	14,865	578
	acres, 2007	490,798	1,516,554	454,177	526,008	348,436
	2002	637,236	1,513,329	493,806	683,703	591,254
Woodland not pastured	farms, 2007	21,596	6,761	12,288	40,733	309
	2002	21,961	5,551	11,187	39,843	215
	acres, 2007	1,828,693	471,768	1,007,537	2,394,206	47,370
	2002	2,030,496	419,465	988,261	2,495,799	131,316
Permanent pasture and rangeland, other than cropland and woodland pastured (see text)	farms, 2007	30,674	18,898	17,106	34,174	8,555
	2002	19,635	12,052	10,854	23,528	6,175
	acres, 2007	2,150,933	4,775,287	1,105,292	1,065,814	27,012,269
	2002	1,412,483	4,847,324	754,045	777,616	30,247,024
Land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc.	farms, 2007	23,502	20,427	13,489	56,225	5,343
	2002	25,242	19,626	12,684	53,978	5,335
	acres, 2007	359,364	599,970	188,468	1,088,497	185,434
	2002	350,456	499,421	175,524	1,055,779	443,328
Pastureland, all types	farms, 2007	37,284	24,581	19,853	45,498	9,574
	2002	37,283	21,309	17,951	45,284	8,100
	acres, 2007	3,128,281	6,662,867	1,751,176	1,983,550	27,780,477
	2002	3,316,882	6,859,879	1,720,161	2,225,531	31,745,109
CONSERVATION PRACTICES AND CROP INSURANCE						
Land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs (see text) [1]	farms, 2007	2,792	3,722	225	18,105	555
	2002	2,597	3,143	383	14,727	541
	acres, 2007	70,112	1,602,342	4,667	654,486	281,307
	2002	107,610	1,267,744	12,658	614,047	255,741
Land enrolled in crop insurance programs (see text)	farms, 2007	2,849	4,545	369	14,553	1,383
	2002	4,639	4,910	652	14,448	1,224
	acres, 2007	910,478	2,621,075	44,745	4,267,668	1,999,675
	2002	878,685	2,728,512	54,856	3,796,612	931,581

[1] 2002 data do not include farms with land in Farmable Wetlands or Conservation Reserve Enhancement Programs.

Table 9. **Harvested Cropland by Size of Farm and Acres Harvested: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Farms ..... number, 2007	1,328,004	23,336	424	4,993	29,050	53,000
2002	1,362,608	23,327	393	3,139	29,466	54,115
acres harvested, 2007	309,607,601	1,994,743	30,772	832,406	7,367,068	7,633,173
2002	302,697,252	1,995,139	31,824	887,966	7,457,599	8,466,321
HARVESTED CROPLAND BY SIZE OF FARM						
2007 size of farm:						
1 to 9 acres ..... farms	91,191	921	80	2,834	633	15,948
acres harvested	291,828	2,892	128	6,597	2,277	48,197
10 to 49 acres ..... farms	298,858	5,750	82	1,005	6,323	18,425
acres harvested	4,296,973	75,529	688	12,335	102,189	309,862
50 to 69 acres ..... farms	88,505	2,120	25	98	2,274	2,647
acres harvested	2,451,606	47,955	501	3,176	62,658	107,665
70 to 99 acres ..... farms	117,021	2,699	34	123	3,052	2,526
acres harvested	4,500,846	75,619	1,151	4,222	105,985	148,849
100 to 139 acres ..... farms	109,554	2,679	38	92	2,829	1,991
acres harvested	5,775,871	98,794	1,659	5,825	130,888	164,950
140 to 179 acres ..... farms	88,133	1,768	22	79	2,132	1,525
acres harvested	6,590,706	82,232	986	6,139	124,590	171,762
180 to 219 acres ..... farms	60,334	1,221	16	41	1,434	1,078
acres harvested	5,588,532	70,782	990	4,166	95,244	153,602
220 to 259 acres ..... farms	48,977	977	12	26	1,195	899
acres harvested	5,730,418	65,216	1,044	3,570	97,337	156,291
260 to 499 acres ..... farms	159,319	2,571	56	145	3,716	2,899
acres harvested	30,444,392	258,570	5,754	35,041	463,432	762,434
500 to 999 acres ..... farms	121,080	1,483	30	202	2,514	2,306
acres harvested	51,556,447	324,058	6,215	100,305	842,258	1,187,402
1,000 to 1,999 acres ..... farms	78,927	697	12	158	1,642	1,479
acres harvested	69,844,694	356,335	4,441	153,835	1,648,887	1,391,250
2,000 acres or more ..... farms	66,105	450	17	190	1,306	1,277
acres harvested	122,535,288	536,761	7,215	497,195	3,691,323	3,030,909
2002 size of farm:						
1 to 9 acres ..... farms	78,325	746	63	887	357	13,739
acres harvested	249,242	2,433	115	2,436	1,191	42,828
10 to 49 acres ..... farms	281,732	5,361	67	813	4,386	18,778
acres harvested	4,111,751	72,835	653	11,010	73,062	334,807
50 to 69 acres ..... farms	89,994	2,134	19	106	1,987	2,995
acres harvested	2,468,654	47,004	399	3,359	52,565	129,596
70 to 99 acres ..... farms	120,784	2,741	29	150	3,024	2,927
acres harvested	4,649,652	75,496	924	4,764	99,477	180,859
100 to 139 acres ..... farms	116,069	2,743	37	128	3,098	2,527
acres harvested	6,114,934	97,065	1,658	7,430	131,748	224,901
140 to 179 acres ..... farms	96,693	1,841	41	100	2,435	1,838
acres harvested	7,273,320	84,532	1,856	7,894	137,030	217,166
180 to 219 acres ..... farms	66,232	1,405	11	56	1,959	1,232
acres harvested	6,217,966	79,165	893	5,762	132,783	183,443
220 to 259 acres ..... farms	54,344	1,045	15	46	1,449	1,070
acres harvested	6,455,901	73,808	1,332	8,003	120,627	187,296
260 to 499 acres ..... farms	176,671	2,632	45	202	4,542	3,342
acres harvested	34,088,945	264,343	4,886	51,386	583,225	917,412
500 to 999 acres ..... farms	134,118	1,513	36	253	3,101	2,624
acres harvested	56,659,861	319,695	8,223	130,667	1,046,000	1,374,701
1,000 to 1,999 acres ..... farms	85,362	742	15	209	1,937	1,661
acres harvested	72,787,584	372,113	4,396	197,718	1,901,221	1,556,840
2,000 acres or more ..... farms	62,284	424	15	189	1,191	1,382
acres harvested	101,619,442	506,650	6,489	457,537	3,178,670	3,116,472
HARVESTED CROPLAND BY ACRES HARVESTED						
2007 acres harvested:						
1 to 9 acres ..... farms	233,119	4,473	173	3,381	2,797	22,216
acres	989,575	19,459	(D)	8,699	13,221	76,646
10 to 19 acres ..... farms	182,514	4,468	24	453	4,344	7,442
acres	2,403,405	58,430	308	5,772	56,762	101,744
20 to 29 acres ..... farms	126,330	3,525	39	167	3,807	4,009
acres	2,868,498	79,287	864	3,789	84,000	90,982
30 to 49 acres ..... farms	158,303	3,838	46	147	5,175	4,526
acres	5,837,835	139,897	1,621	5,424	188,321	169,004
50 to 99 acres ..... farms	179,055	3,425	68	133	5,027	4,326
acres	12,214,828	224,252	4,688	8,767	333,349	298,960
100 to 199 acres ..... farms	141,875	1,734	33	120	2,895	3,399
acres	19,387,506	220,477	4,252	16,046	370,954	472,328
200 to 499 acres ..... farms	143,776	1,140	30	181	1,778	3,620
acres	44,906,549	332,495	9,333	56,436	513,466	1,126,298
500 to 999 acres ..... farms	82,211	384	9	178	1,036	1,819
acres	57,533,461	256,115	6,417	122,979	735,472	1,266,100
1,000 acres or more ..... farms	80,821	349	2	233	2,191	1,643
acres	163,465,944	664,331	(D)	604,494	5,071,523	4,031,111
2002 acres harvested:						
1 to 9 acres ..... farms	223,038	4,215	126	1,371	2,160	19,477
acres	933,750	19,139	(D)	4,212	10,289	69,010
10 to 19 acres ..... farms	177,964	4,736	39	368	3,814	7,463
acres	2,343,694	61,792	528	4,645	49,151	101,363
20 to 29 acres ..... farms	126,713	3,395	31	189	3,770	4,377
acres	2,882,145	76,538	707	4,227	83,093	99,133
30 to 49 acres ..... farms	160,777	3,877	49	178	5,320	5,099
acres	5,943,845	140,738	1,751	6,734	194,213	191,087
50 to 99 acres ..... farms	186,980	3,427	59	148	5,308	5,220
acres	12,790,218	224,407	4,155	9,995	351,974	361,380
100 to 199 acres ..... farms	158,005	1,785	44	160	3,262	4,306
acres	21,716,628	229,563	5,749	22,143	414,962	593,910
200 to 499 acres ..... farms	163,027	1,166	32	250	2,279	4,322
acres	51,022,603	340,721	9,009	80,853	675,171	1,353,393
500 to 999 acres ..... farms	90,412	392	12	229	1,329	2,084
acres	63,171,775	272,333	8,127	164,544	943,478	1,449,697
1,000 acres or more ..... farms	75,692	334	1	246	2,224	1,767
acres	141,892,594	629,908	(D)	590,613	4,735,268	4,247,348

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Table 9. **Harvested Cropland by Size of Farm and Acres Harvested: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Farms ..... number, 2007	17,899	3,517	1,615	20,486	23,179	6,044
2002	14,655	3,000	1,548	20,495	24,424	4,522
acres harvested, 2007	5,888,926	136,833	409,468	2,112,129	3,390,437	103,120
2002	4,346,955	131,248	433,105	2,313,537	3,245,784	109,461
HARVESTED CROPLAND BY SIZE OF FARM						
2007 size of farm:						
1 to 9 acres ..... farms	1,485	686	256	5,971	1,119	4,303
acres harvested	5,521	1,700	723	19,198	3,470	10,716
10 to 49 acres ..... farms	4,050	1,267	421	7,101	5,701	1,438
acres harvested	65,627	13,771	7,158	96,007	69,636	12,078
50 to 69 acres ..... farms	800	342	109	1,118	1,998	96
acres harvested	25,929	8,129	4,653	34,872	44,310	1,936
70 to 99 acres ..... farms	1,199	271	134	1,021	2,220	55
acres harvested	52,963	9,038	8,164	39,710	62,681	1,694
100 to 139 acres ..... farms	829	320	131	952	2,310	35
acres harvested	51,300	14,594	11,228	50,493	86,600	1,309
140 to 179 acres ..... farms	963	174	71	714	1,534	25
acres harvested	80,534	9,335	8,452	44,383	77,876	1,174
180 to 219 acres ..... farms	514	135	53	488	1,172	10
acres harvested	50,827	9,320	8,045	38,245	77,304	603
220 to 259 acres ..... farms	390	55	36	335	836	6
acres harvested	45,731	4,315	6,839	34,305	68,204	690
260 to 499 acres ..... farms	1,754	180	166	1,074	2,715	25
acres harvested	313,073	27,095	51,464	156,834	374,679	2,633
500 to 999 acres ..... farms	1,674	61	95	752	1,928	13
acres harvested	531,387	20,203	57,938	226,507	661,339	3,939
1,000 to 1,999 acres ..... farms	1,565	22	97	451	1,056	12
acres harvested	876,095	13,466	116,781	252,516	820,674	1,942
2,000 acres or more ..... farms	2,676	4	46	509	590	26
acres harvested	3,789,939	5,867	128,023	1,119,059	1,043,664	64,406
2002 size of farm:						
1 to 9 acres ..... farms	993	561	121	5,213	1,308	3,205
acres harvested	3,778	(D)	336	16,698	4,016	8,042
10 to 49 acres ..... farms	3,054	1,073	419	7,174	5,298	1,050
acres harvested	47,574	11,843	6,038	103,869	65,668	10,280
50 to 69 acres ..... farms	592	265	121	1,234	2,235	75
acres harvested	18,773	5,870	4,184	39,487	45,663	1,713
70 to 99 acres ..... farms	907	234	127	1,212	2,327	39
acres harvested	37,864	7,496	6,273	50,716	61,745	1,166
100 to 139 acres ..... farms	647	259	134	1,052	2,564	32
acres harvested	39,955	11,791	9,248	59,002	97,243	1,492
140 to 179 acres ..... farms	796	147	71	714	1,751	20
acres harvested	64,816	8,210	7,614	48,920	85,038	1,087
180 to 219 acres ..... farms	433	99	59	479	1,323	21
acres harvested	42,013	7,821	8,630	42,854	79,913	1,526
220 to 259 acres ..... farms	385	57	49	348	1,002	9
acres harvested	46,129	5,229	8,035	37,889	78,976	1,029
260 to 499 acres ..... farms	1,492	200	188	1,221	2,908	22
acres harvested	259,959	30,497	54,847	181,973	354,150	2,549
500 to 999 acres ..... farms	1,561	78	118	797	2,006	17
acres harvested	493,727	21,863	68,046	233,140	589,123	3,966
1,000 to 1,999 acres ..... farms	1,486	23	89	494	1,093	11
acres harvested	780,415	16,149	108,757	272,378	800,415	4,788
2,000 acres or more ..... farms	2,309	4	52	557	609	21
acres harvested	2,511,952	(D)	151,097	1,226,611	983,834	71,823
HARVESTED CROPLAND BY ACRES HARVESTED						
2007 acres harvested:						
1 to 9 acres ..... farms	2,958	1,492	397	9,065	4,912	5,338
acres	13,464	5,328	1,402	32,750	21,014	14,856
10 to 19 acres ..... farms	2,112	623	163	3,537	4,322	410
acres	28,155	8,235	2,109	44,668	56,257	5,158
20 to 29 acres ..... farms	1,316	381	114	1,831	2,775	118
acres	30,049	8,643	2,668	40,866	62,724	2,768
30 to 49 acres ..... farms	1,936	378	130	1,865	3,003	83
acres	71,285	13,736	4,833	68,619	109,950	3,038
50 to 99 acres ..... farms	2,241	353	209	1,645	2,804	41
acres	153,758	23,404	14,812	110,088	186,688	2,799
100 to 199 acres ..... farms	2,093	161	182	970	1,799	22
acres	282,443	21,658	24,044	129,131	238,700	2,929
200 to 499 acres ..... farms	2,325	99	204	845	1,816	15
acres	723,853	30,420	64,921	254,994	555,632	3,980
500 to 999 acres ..... farms	1,300	22	89	384	966	7
acres	901,092	13,625	62,280	254,085	668,040	4,949
1,000 acres or more ..... farms	1,618	8	127	344	782	10
acres	3,684,827	11,784	232,399	1,176,928	1,491,432	62,643
2002 acres harvested:						
1 to 9 acres ..... farms	2,276	1,242	287	8,290	5,588	3,899
acres	10,271	4,396	1,170	30,404	24,036	10,917
10 to 19 acres ..... farms	1,675	532	203	3,471	4,358	336
acres	22,036	6,998	2,707	43,743	56,786	4,332
20 to 29 acres ..... farms	1,077	317	130	1,982	2,981	105
acres	24,497	7,251	2,965	44,323	67,558	2,407
30 to 49 acres ..... farms	1,467	314	144	2,023	3,197	75
acres	53,960	11,301	5,416	74,304	117,071	2,715
50 to 99 acres ..... farms	1,822	270	170	1,837	3,076	49
acres	125,720	18,349	11,704	124,581	204,456	3,331
100 to 199 acres ..... farms	1,747	165	177	1,212	1,899	23
acres	240,958	22,083	25,002	160,961	252,646	3,060
200 to 499 acres ..... farms	2,152	130	214	948	1,690	15
acres	674,501	36,501	70,102	284,484	519,071	4,716
500 to 999 acres ..... farms	1,279	24	99	371	867	6
acres	896,960	15,547	68,096	251,784	600,675	4,424
1,000 acres or more ..... farms	1,160	6	124	361	768	14
acres	2,298,052	8,822	245,943	1,298,953	1,403,485	73,559

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Table 9. **Harvested Cropland by Size of Farm and Acres Harvested: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Farms ..... number, 2007	13,975	54,185	41,743	63,672	43,553	57,528
2002	13,444	56,083	44,298	67,338	44,073	65,815
acres harvested, 2007	4,225,786	22,611,443	12,108,940	23,799,380	19,886,655	5,057,883
2002	4,313,288	22,562,904	11,937,370	23,994,343	18,976,719	4,978,994
HARVESTED CROPLAND BY SIZE OF FARM						
2007 size of farm:						
1 to 9 acres ..... farms	1,394	3,239	3,315	2,305	604	1,726
acres harvested	5,321	12,804	12,822	8,245	2,217	5,604
10 to 49 acres ..... farms	3,804	10,752	11,330	8,078	4,787	13,620
acres harvested	59,233	167,781	183,138	133,840	80,591	180,596
50 to 69 acres ..... farms	677	2,397	2,846	2,221	1,491	5,745
acres harvested	23,075	87,625	100,274	81,865	45,842	129,109
70 to 99 acres ..... farms	955	3,934	3,750	4,348	3,198	7,021
acres harvested	47,001	222,099	186,395	247,166	128,887	207,274
100 to 139 acres ..... farms	789	3,347	3,449	4,050	2,119	7,566
acres harvested	54,573	269,074	252,402	330,096	120,114	300,031
140 to 179 acres ..... farms	680	3,041	2,266	4,932	3,296	4,946
acres harvested	64,446	349,842	238,493	580,512	253,783	255,677
180 to 219 acres ..... farms	460	2,126	1,623	3,331	1,551	3,563
acres harvested	53,639	320,614	232,348	482,040	140,046	230,566
220 to 259 acres ..... farms	408	1,882	1,261	3,164	1,753	2,588
acres harvested	53,013	354,024	220,104	567,097	197,640	197,529
260 to 499 acres ..... farms	1,394	7,573	4,356	12,509	6,619	6,220
acres harvested	297,179	2,319,654	1,267,712	3,671,366	1,190,655	723,481
500 to 999 acres ..... farms	1,346	8,128	3,681	11,390	6,574	2,909
acres harvested	549,774	5,188,495	2,331,224	6,835,303	2,505,041	764,262
1,000 to 1,999 acres ..... farms	998	5,472	2,587	5,812	5,716	1,116
acres harvested	802,871	6,907,700	3,338,942	6,867,626	4,434,426	813,752
2,000 acres or more ..... farms	1,070	2,294	1,279	1,532	5,845	508
acres harvested	2,215,661	6,411,731	3,745,086	3,994,224	10,787,413	1,250,002
2002 size of farm:						
1 to 9 acres ..... farms	1,097	1,496	1,739	1,249	492	3,333
acres harvested	4,127	5,784	6,520	4,787	1,665	8,864
10 to 49 acres ..... farms	3,364	8,339	10,924	6,965	4,041	15,825
acres harvested	51,732	139,245	164,409	112,526	71,560	187,518
50 to 69 acres ..... farms	643	2,527	3,309	2,120	1,208	6,957
acres harvested	22,160	86,339	103,534	74,661	38,475	143,489
70 to 99 acres ..... farms	930	4,130	4,728	4,384	2,908	8,132
acres harvested	44,108	222,497	222,985	235,674	126,730	226,896
100 to 139 acres ..... farms	759	3,930	3,979	4,481	1,987	8,570
acres harvested	52,853	309,975	274,436	343,599	121,447	316,026
140 to 179 acres ..... farms	699	3,728	2,759	5,803	3,197	5,486
acres harvested	66,290	421,670	279,448	665,855	259,729	259,325
180 to 219 acres ..... farms	478	2,758	1,921	3,769	1,481	3,768
acres harvested	54,784	400,022	259,987	522,009	144,485	226,527
220 to 259 acres ..... farms	402	2,436	1,537	3,932	1,751	2,658
acres harvested	55,926	448,240	265,526	678,920	203,237	195,187
260 to 499 acres ..... farms	1,425	9,445	5,187	14,456	6,774	6,608
acres harvested	307,762	2,823,216	1,479,392	4,068,100	1,219,868	744,613
500 to 999 acres ..... farms	1,429	9,672	4,411	12,728	7,482	2,873
acres harvested	597,836	6,028,222	2,698,486	7,306,624	2,822,131	750,491
1,000 to 1,999 acres ..... farms	1,119	5,867	2,816	6,141	6,830	1,147
acres harvested	867,537	7,161,032	3,504,128	6,902,124	4,952,002	844,801
2,000 acres or more ..... farms	1,099	1,755	988	1,310	5,922	458
acres harvested	2,188,173	4,516,662	2,678,519	3,079,464	9,015,390	1,075,257
HARVESTED CROPLAND BY ACRES HARVESTED						
2007 acres harvested:						
1 to 9 acres ..... farms	2,771	7,545	7,458	5,501	2,385	9,559
acres	12,790	36,636	35,667	25,124	11,811	43,751
10 to 19 acres ..... farms	1,837	4,949	5,418	4,073	3,371	10,683
acres	24,181	65,020	72,559	54,077	44,765	139,628
20 to 29 acres ..... farms	1,097	2,697	3,271	2,585	2,829	8,017
acres	25,232	61,950	75,900	60,130	64,735	181,441
30 to 49 acres ..... farms	1,346	3,590	4,172	3,807	4,075	9,953
acres	49,917	134,426	156,337	143,394	151,774	364,184
50 to 99 acres ..... farms	1,695	5,551	5,061	6,939	5,978	9,826
acres	118,779	399,005	351,505	501,312	417,727	648,853
100 to 199 acres ..... farms	1,544	6,105	4,319	9,873	6,071	5,328
acres	212,205	875,412	603,808	1,417,738	845,824	690,906
200 to 499 acres ..... farms	1,696	9,316	5,181	15,044	7,549	2,634
acres	532,903	3,062,547	1,641,859	4,889,322	2,417,541	759,634
500 to 999 acres ..... farms	894	7,462	3,352	9,905	5,232	763
acres	630,051	5,306,998	2,367,123	6,898,760	3,705,621	531,004
1,000 acres or more ..... farms	1,095	6,970	3,511	5,945	6,063	765
acres	2,619,728	12,669,449	6,804,182	9,809,523	12,226,857	1,698,482
2002 acres harvested:						
1 to 9 acres ..... farms	2,389	4,832	6,505	4,320	1,976	16,700
acres	11,077	24,084	32,098	21,718	9,679	58,110
10 to 19 acres ..... farms	1,653	4,212	5,608	3,813	2,692	11,288
acres	21,892	56,865	74,941	50,583	35,933	149,038
20 to 29 acres ..... farms	900	2,705	3,524	2,616	2,420	8,598
acres	20,571	62,400	81,261	60,826	55,558	196,107
30 to 49 acres ..... farms	1,304	3,793	4,473	3,938	3,870	10,110
acres	48,504	142,871	168,019	148,678	145,538	371,356
50 to 99 acres ..... farms	1,658	6,036	5,920	7,557	5,969	9,815
acres	116,437	433,434	413,827	542,299	422,722	647,895
100 to 199 acres ..... farms	1,585	7,638	5,018	11,660	6,579	5,074
acres	220,416	1,095,161	708,002	1,677,257	922,065	662,984
200 to 499 acres ..... farms	1,814	11,607	6,054	17,404	8,644	2,667
acres	564,459	3,776,162	1,942,820	5,613,338	2,782,330	773,757
500 to 999 acres ..... farms	1,030	8,823	3,868	10,515	6,157	795
acres	722,108	6,250,547	2,712,346	7,319,342	4,327,279	544,952
1,000 acres or more ..... farms	1,111	6,437	3,328	5,515	5,766	768
acres	2,587,824	10,721,380	5,804,056	8,560,302	10,275,615	1,574,795

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Table 9. **Harvested Cropland by Size of Farm and Acres Harvested: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Farms ..... number, 2007	13,783	5,189	8,278	4,792	37,868	53,943
2002	14,017	4,869	8,335	4,210	38,244	57,323
acres harvested, 2007	3,342,048	393,738	1,246,603	153,993	6,859,081	19,267,018
2002	3,332,146	394,121	1,282,004	159,253	6,827,903	19,398,309
HARVESTED CROPLAND BY SIZE OF FARM						
2007 size of farm:						
1 to 9 acres ..... farms	811	508	619	884	1,718	1,159
acres harvested	2,828	1,090	1,587	(D)	5,337	4,032
10 to 49 acres ..... farms	3,433	1,309	2,399	1,720	11,499	7,644
acres harvested	47,849	13,854	30,608	16,907	165,457	110,869
50 to 69 acres ..... farms	992	507	792	422	3,266	2,292
acres harvested	25,850	10,658	21,915	9,614	97,212	67,699
70 to 99 acres ..... farms	1,114	506	770	449	4,618	4,265
acres harvested	36,707	11,755	29,464	12,082	193,515	184,634
100 to 139 acres ..... farms	1,171	645	797	442	3,373	4,029
acres harvested	52,594	23,092	44,957	18,928	217,050	262,022
140 to 179 acres ..... farms	800	349	565	241	2,363	4,628
acres harvested	48,546	15,297	46,676	11,019	215,977	456,214
180 to 219 acres ..... farms	650	215	391	189	1,697	3,036
acres harvested	43,577	13,542	42,493	13,292	209,320	384,191
220 to 259 acres ..... farms	474	185	306	108	1,211	2,910
acres harvested	43,496	15,049	42,620	9,119	191,677	460,035
260 to 499 acres ..... farms	1,549	509	775	226	3,637	10,256
acres harvested	213,122	65,581	172,943	30,260	929,064	2,689,577
500 to 999 acres ..... farms	1,135	293	506	84	2,537	7,691
acres harvested	406,369	75,779	264,128	18,644	1,428,849	4,414,266
1,000 to 1,999 acres ..... farms	950	119	252	24	1,407	4,135
acres harvested	898,057	64,336	284,078	11,312	1,612,129	4,968,593
2,000 acres or more ..... farms	704	44	106	3	542	1,898
acres harvested	1,523,053	83,705	265,134	(D)	1,593,494	5,264,886
2002 size of farm:						
1 to 9 acres ..... farms	804	509	661	767	1,372	995
acres harvested	2,621	1,082	1,907	(D)	4,322	3,403
10 to 49 acres ..... farms	2,931	1,034	2,361	1,398	11,007	7,636
acres harvested	41,379	10,172	30,472	14,475	163,702	115,832
50 to 69 acres ..... farms	974	382	675	395	3,128	2,232
acres harvested	24,389	6,880	19,004	8,546	93,873	69,914
70 to 99 acres ..... farms	1,166	466	741	357	4,625	4,387
acres harvested	39,151	11,102	29,996	10,331	191,593	193,923
100 to 139 acres ..... farms	1,181	525	761	375	3,553	4,144
acres harvested	53,165	17,330	44,392	14,534	224,888	269,874
140 to 179 acres ..... farms	824	373	576	242	2,625	5,065
acres harvested	47,623	16,244	46,570	14,093	232,337	502,226
180 to 219 acres ..... farms	695	272	421	161	1,813	3,459
acres harvested	52,402	15,751	44,986	10,897	215,374	433,284
220 to 259 acres ..... farms	537	219	329	106	1,432	3,377
acres harvested	53,588	16,077	46,872	8,795	215,519	520,787
260 to 499 acres ..... farms	1,601	574	903	265	3,994	11,411
acres harvested	248,316	75,660	196,791	35,074	985,834	2,923,728
500 to 999 acres ..... farms	1,504	341	531	113	2,761	8,407
acres harvested	554,942	85,038	257,887	24,708	1,520,052	4,645,086
1,000 to 1,999 acres ..... farms	1,133	128	270	28	1,444	4,397
acres harvested	966,694	65,442	304,179	11,895	1,646,462	5,103,068
2,000 acres or more ..... farms	667	46	106	3	490	1,813
acres harvested	1,247,876	73,343	258,948	(D)	1,333,947	4,617,184
HARVESTED CROPLAND BY ACRES HARVESTED						
2007 acres harvested:						
1 to 9 acres ..... farms	2,385	1,699	1,898	2,136	6,961	5,002
acres	10,224	5,481	7,666	(D)	30,505	22,863
10 to 19 acres ..... farms	2,212	933	1,240	904	5,600	4,459
acres	28,734	12,150	16,290	11,790	74,061	59,149
20 to 29 acres ..... farms	1,591	518	805	435	3,769	3,019
acres	35,507	11,657	18,597	9,915	86,970	69,040
30 to 49 acres ..... farms	1,907	638	933	481	4,593	4,328
acres	69,321	23,635	34,662	17,824	169,999	161,071
50 to 99 acres ..... farms	1,822	541	1,126	466	5,323	6,549
acres	120,687	36,262	77,572	31,089	366,630	462,749
100 to 199 acres ..... farms	1,109	411	886	241	4,097	8,470
acres	141,816	54,325	122,545	32,157	569,838	1,202,732
200 to 499 acres ..... farms	980	312	753	113	3,953	10,953
acres	291,848	92,298	228,487	31,244	1,235,043	3,468,334
500 to 999 acres ..... farms	733	96	357	14	2,048	6,101
acres	514,200	63,867	247,082	8,902	1,429,010	4,255,362
1,000 acres or more ..... farms	1,044	41	280	2	1,524	5,062
acres	2,129,711	94,063	493,702	(D)	2,897,025	9,565,718
2002 acres harvested:						
1 to 9 acres ..... farms	2,358	1,619	1,886	1,774	6,341	4,577
acres	9,781	5,205	7,662	(D)	28,858	21,909
10 to 19 acres ..... farms	2,042	741	1,205	705	5,636	4,550
acres	26,553	9,587	15,796	9,039	73,953	59,925
20 to 29 acres ..... farms	1,493	519	756	468	3,761	3,293
acres	33,297	11,783	17,437	10,641	85,973	75,770
30 to 49 acres ..... farms	1,750	539	944	447	4,748	4,656
acres	63,770	19,665	35,472	16,391	176,137	173,714
50 to 99 acres ..... farms	1,839	530	1,109	403	5,571	7,093
acres	122,250	35,242	77,080	26,915	385,049	499,237
100 to 199 acres ..... farms	1,234	419	950	260	4,350	9,647
acres	161,869	55,718	131,074	34,219	605,698	1,370,438
200 to 499 acres ..... farms	1,351	353	863	132	4,188	12,063
acres	423,391	105,013	263,532	38,347	1,301,289	3,818,654
500 to 999 acres ..... farms	988	111	336	17	2,181	6,467
acres	691,698	74,471	233,336	10,705	1,532,300	4,499,091
1,000 acres or more ..... farms	962	38	286	4	1,468	4,977
acres	1,799,537	77,437	500,615	(D)	2,638,646	8,879,571

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Table 9. **Harvested Cropland by Size of Farm and Acres Harvested: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Farms ..... number, 2007	18,773	69,585	16,441	34,715	1,572	2,494
2002	19,405	71,698	16,543	37,143	1,521	2,043
acres harvested, 2007	4,223,708	12,980,113	9,163,867	18,169,876	504,311	99,520
2002	4,139,341	13,137,184	8,742,111	17,336,624	549,076	95,983
HARVESTED CROPLAND BY SIZE OF FARM						
2007 size of farm:						
1 to 9 acres ..... farms	551	1,027	600	665	128	322
acres harvested	1,653	3,682	1,972	2,175	430	638
10 to 49 acres ..... farms	3,408	11,870	2,483	3,082	383	719
acres harvested	49,505	188,328	37,243	47,618	6,136	7,054
50 to 69 acres ..... farms	1,412	4,298	489	688	75	213
acres harvested	34,760	116,989	14,019	24,073	2,265	3,714
70 to 99 acres ..... farms	2,062	7,317	578	1,588	97	245
acres harvested	58,508	261,755	23,271	81,661	4,068	6,675
100 to 139 acres ..... farms	2,127	7,070	463	1,321	88	257
acres harvested	81,836	330,368	25,938	99,205	5,195	7,808
140 to 179 acres ..... farms	1,569	6,010	590	2,294	57	191
acres harvested	74,615	369,075	44,239	238,581	5,040	9,078
180 to 219 acres ..... farms	1,180	4,334	374	1,044	61	135
acres harvested	71,399	332,074	32,695	130,620	6,041	7,302
220 to 259 acres ..... farms	893	3,581	307	1,171	33	68
acres harvested	64,956	330,151	31,656	185,519	4,711	5,176
260 to 499 acres ..... farms	2,442	11,213	1,260	5,482	133	219
acres harvested	268,995	1,596,546	193,445	1,382,585	29,233	25,289
500 to 999 acres ..... farms	1,405	7,313	1,510	6,939	159	98
acres harvested	409,987	2,441,401	414,614	3,536,393	62,710	17,597
1,000 to 1,999 acres ..... farms	879	3,704	1,877	5,600	121	18
acres harvested	784,133	3,202,695	876,581	5,082,335	73,414	3,532
2,000 acres or more ..... farms	845	1,848	5,910	4,841	237	9
acres harvested	2,323,361	3,807,049	7,468,194	7,359,111	305,068	5,657
2002 size of farm:						
1 to 9 acres ..... farms	488	794	504	478	80	212
acres harvested	1,482	2,751	1,784	1,711	295	(D)
10 to 49 acres ..... farms	3,415	9,859	2,318	2,496	327	519
acres harvested	49,458	170,134	35,546	42,094	4,748	4,921
50 to 69 acres ..... farms	1,651	3,994	465	678	66	184
acres harvested	37,036	115,393	14,195	24,864	2,241	3,141
70 to 99 acres ..... farms	2,177	7,377	560	1,553	92	196
acres harvested	61,438	274,406	23,975	84,249	4,606	4,739
100 to 139 acres ..... farms	2,301	7,457	539	1,250	61	206
acres harvested	89,423	368,194	30,070	94,769	4,020	7,309
140 to 179 acres ..... farms	1,678	6,548	557	2,486	71	175
acres harvested	77,633	420,074	43,114	261,269	6,699	8,208
180 to 219 acres ..... farms	1,143	4,858	348	1,204	49	113
acres harvested	68,074	385,283	30,109	156,978	6,093	5,999
220 to 259 acres ..... farms	844	4,114	334	1,362	50	68
acres harvested	59,385	390,875	38,918	210,263	6,665	4,344
260 to 499 acres ..... farms	2,554	12,984	1,327	6,676	151	224
acres harvested	282,800	1,919,198	217,977	1,646,556	31,492	25,242
500 to 999 acres ..... farms	1,405	8,213	1,578	8,230	156	112
acres harvested	387,533	2,727,035	442,468	3,959,611	57,183	21,148
1,000 to 1,999 acres ..... farms	913	3,865	2,074	6,260	144	17
acres harvested	784,284	3,229,931	989,103	5,238,535	81,126	(D)
2,000 acres or more ..... farms	836	1,635	5,939	4,470	274	17
acres harvested	2,240,795	3,133,910	6,874,852	5,615,725	343,908	7,090
HARVESTED CROPLAND BY ACRES HARVESTED						
2007 acres harvested:						
1 to 9 acres ..... farms	2,768	5,626	1,554	2,071	234	1,007
acres	11,902	28,133	6,825	9,633	946	(D)
10 to 19 acres ..... farms	3,045	8,657	1,410	1,709	204	448
acres	39,589	115,358	18,785	22,510	2,587	5,747
20 to 29 acres ..... farms	2,546	7,899	928	1,128	113	263
acres	56,878	177,913	20,946	25,828	2,550	5,954
30 to 49 acres ..... farms	3,144	11,282	1,188	1,757	162	252
acres	114,989	413,531	43,869	66,149	5,820	9,141
50 to 99 acres ..... farms	2,861	13,282	1,579	3,190	168	258
acres	189,235	902,891	109,885	228,387	11,467	17,004
100 to 199 acres ..... farms	1,641	9,392	1,886	4,801	158	153
acres	208,948	1,252,452	259,026	680,976	20,455	20,634
200 to 499 acres ..... farms	1,071	7,256	2,911	7,980	268	101
acres	311,509	2,161,157	927,450	2,617,202	82,178	27,172
500 to 999 acres ..... farms	555	3,138	2,110	6,555	146	10
acres	385,569	2,168,048	1,481,038	4,622,131	95,343	(D)
1,000 acres or more ..... farms	1,142	3,053	2,875	5,524	119	2
acres	2,905,089	5,760,630	6,296,043	9,897,060	282,965	(D)
2002 acres harvested:						
1 to 9 acres ..... farms	2,931	4,570	1,393	1,461	221	751
acres	13,142	22,465	6,494	7,122	928	(D)
10 to 19 acres ..... farms	3,363	7,814	1,319	1,547	147	329
acres	43,437	104,581	17,432	20,540	2,040	4,151
20 to 29 acres ..... farms	2,746	7,584	900	1,117	88	223
acres	61,624	172,086	20,463	25,639	2,019	5,066
30 to 49 acres ..... farms	3,181	11,690	1,279	1,816	130	226
acres	115,984	432,567	47,152	68,588	4,847	8,298
50 to 99 acres ..... farms	2,804	14,416	1,638	3,624	157	246
acres	186,231	981,521	114,852	259,924	11,035	16,507
100 to 199 acres ..... farms	1,649	10,906	2,060	5,795	209	155
acres	213,551	1,462,281	284,862	830,596	29,257	20,643
200 to 499 acres ..... farms	1,060	8,451	3,079	9,609	282	101
acres	312,694	2,549,119	984,788	3,165,901	86,861	28,366
500 to 999 acres ..... farms	555	3,467	2,145	7,341	148	10
acres	387,647	2,376,771	1,511,267	5,142,044	102,151	(D)
1,000 acres or more ..... farms	1,116	2,800	2,730	4,833	139	2
acres	2,805,031	5,035,793	5,754,801	7,816,270	309,938	(D)

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Table 9. **Harvested Cropland by Size of Farm and Acres Harvested: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Farms ..... number, 2007	7,180	9,311	26,814	32,803	20,408	54,790
2002	7,230	7,204	29,162	36,622	20,789	58,577
acres harvested, 2007	415,542	1,009,683	3,651,278	4,188,658	22,035,717	9,991,007
2002	444,670	856,166	3,846,368	4,308,209	19,908,697	10,041,416
HARVESTED CROPLAND BY SIZE OF FARM						
2007 size of farm:						
1 to 9 acres ..... farms	1,746	3,071	1,293	1,990	108	2,696
acres harvested	6,777	9,854	3,417	5,638	331	9,019
10 to 49 acres ..... farms	3,209	2,786	4,972	10,640	819	14,914
acres harvested	34,852	34,682	67,114	123,243	13,543	223,985
50 to 69 acres ..... farms	439	337	2,317	3,699	255	4,630
acres harvested	11,859	10,036	59,364	82,896	7,646	143,957
70 to 99 acres ..... farms	381	377	2,812	3,603	432	6,302
acres harvested	16,226	14,003	101,526	106,073	20,204	287,722
100 to 139 acres ..... farms	358	320	3,265	3,052	430	5,514
acres harvested	21,770	16,083	164,062	131,138	25,411	368,148
140 to 179 acres ..... farms	209	247	2,301	1,840	847	3,816
acres harvested	17,580	14,049	163,188	112,276	76,647	354,880
180 to 219 acres ..... farms	138	149	1,760	1,338	362	2,673
acres harvested	16,930	9,529	158,928	107,477	36,446	329,837
220 to 259 acres ..... farms	114	135	1,344	908	401	1,915
acres harvested	17,766	13,837	156,326	92,143	49,159	303,204
260 to 499 acres ..... farms	302	437	3,799	2,464	2,247	5,724
acres harvested	71,625	64,059	685,780	431,510	453,702	1,517,804
500 to 999 acres ..... farms	181	448	1,939	1,685	3,219	3,911
acres harvested	92,494	107,631	767,243	723,844	1,340,862	2,270,823
1,000 to 1,999 acres ..... farms	86	368	740	1,047	4,927	2,054
acres harvested	81,691	156,434	672,916	1,022,787	4,522,014	2,493,951
2,000 acres or more ..... farms	17	636	272	537	6,361	641
acres harvested	25,972	559,486	651,414	1,249,633	15,489,752	1,687,677
2002 size of farm:						
1 to 9 acres ..... farms	1,592	2,392	1,545	2,117	74	2,583
acres harvested	6,249	7,537	3,967	6,293	254	8,977
10 to 49 acres ..... farms	3,056	1,845	5,057	11,310	594	14,869
acres harvested	33,889	22,460	68,282	135,488	11,251	228,568
50 to 69 acres ..... farms	556	279	2,324	4,222	205	4,882
acres harvested	14,351	8,025	57,028	88,894	6,622	152,578
70 to 99 acres ..... farms	433	310	2,720	4,195	322	6,907
acres harvested	17,534	10,207	97,982	122,373	16,100	310,320
100 to 139 acres ..... farms	414	259	3,369	3,515	350	6,356
acres harvested	25,013	13,938	168,124	146,059	24,424	404,077
140 to 179 acres ..... farms	243	206	2,473	2,213	798	4,419
acres harvested	20,975	13,868	176,730	129,773	76,042	393,758
180 to 219 acres ..... farms	152	115	2,061	1,483	337	3,088
acres harvested	16,113	8,654	186,282	113,243	35,840	370,432
220 to 259 acres ..... farms	107	113	1,464	1,031	376	2,176
acres harvested	16,886	9,029	170,761	101,821	49,898	327,184
260 to 499 acres ..... farms	345	372	4,794	2,879	2,321	6,459
acres harvested	75,795	56,859	883,670	465,300	481,622	1,614,509
500 to 999 acres ..... farms	217	380	2,350	1,945	3,700	4,152
acres harvested	106,746	105,156	889,808	790,807	1,548,381	2,306,904
1,000 to 1,999 acres ..... farms	98	335	791	1,167	5,509	2,087
acres harvested	80,627	160,473	674,978	1,084,117	4,823,961	2,451,402
2,000 acres or more ..... farms	17	598	214	545	6,203	599
acres harvested	30,492	439,960	468,756	1,124,041	12,834,302	1,472,707
HARVESTED CROPLAND BY ACRES HARVESTED						
2007 acres harvested:						
1 to 9 acres ..... farms	3,516	4,781	4,328	8,789	524	8,911
acres	15,036	18,222	16,696	36,766	2,474	41,071
10 to 19 acres ..... farms	1,297	1,325	3,080	6,647	612	7,913
acres	16,877	17,113	40,615	86,660	8,016	105,266
20 to 29 acres ..... farms	501	636	2,643	3,702	466	5,080
acres	11,485	14,528	60,646	84,686	10,580	117,020
30 to 49 acres ..... farms	506	625	3,668	3,894	886	6,754
acres	18,877	23,095	136,474	142,467	33,132	251,964
50 to 99 acres ..... farms	500	604	4,706	3,604	1,339	8,186
acres	34,565	40,459	323,148	240,013	95,622	566,475
100 to 199 acres ..... farms	353	425	3,940	2,189	1,983	6,340
acres	48,734	58,595	535,521	292,472	278,235	881,784
200 to 499 acres ..... farms	314	419	2,969	1,845	3,631	6,162
acres	95,356	130,100	875,902	568,500	1,198,285	1,954,798
500 to 999 acres ..... farms	133	258	922	1,075	3,474	3,180
acres	89,941	180,248	626,595	743,447	2,515,622	2,207,296
1,000 acres or more ..... farms	60	238	558	1,058	7,493	2,264
acres	84,671	527,323	1,035,681	1,993,647	17,893,751	3,865,333
2002 acres harvested:						
1 to 9 acres ..... farms	3,385	3,697	4,730	9,926	323	8,978
acres	14,741	13,220	17,789	41,685	1,577	40,284
10 to 19 acres ..... farms	1,272	894	3,274	7,295	467	8,308
acres	16,659	11,552	42,963	95,130	6,163	110,430
20 to 29 acres ..... farms	531	416	2,704	4,412	434	5,570
acres	12,329	9,432	61,717	100,584	9,831	128,941
30 to 49 acres ..... farms	510	458	3,607	4,304	739	7,550
acres	18,862	16,930	133,862	158,147	27,537	282,257
50 to 99 acres ..... farms	592	470	4,955	3,927	1,333	9,125
acres	40,221	32,190	339,621	264,872	95,582	632,269
100 to 199 acres ..... farms	403	396	4,597	2,522	2,258	7,059
acres	55,276	53,726	631,153	336,181	320,485	981,923
200 to 499 acres ..... farms	327	415	3,817	2,061	4,140	6,574
acres	98,827	130,377	1,124,103	637,754	1,372,013	2,058,218
500 to 999 acres ..... farms	150	245	989	1,153	4,063	3,232
acres	102,407	165,410	660,641	809,461	2,911,299	2,233,517
1,000 acres or more ..... farms	60	213	489	1,022	7,032	2,181
acres	85,348	423,329	834,519	1,864,395	15,164,210	3,573,577

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Table 9. **Harvested Cropland by Size of Farm and Acres Harvested: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Farms ..... number, 2007	46,224	22,131	44,269	823	12,962
2002	43,930	23,013	45,374	628	13,321
acres harvested, 2007	7,650,080	3,037,261	3,942,079	19,325	1,551,670
2002	7,705,860	3,119,384	4,079,276	17,820	1,374,617
HARVESTED CROPLAND BY SIZE OF FARM					
2007 size of farm:					
1 to 9 acres ..... farms	728	4,376	2,394	202	738
acres harvested	2,502	12,926	6,759	(D)	2,292
10 to 49 acres ..... farms	6,978	7,902	11,966	312	3,763
acres harvested	118,750	101,430	160,680	3,203	46,644
50 to 69 acres ..... farms	2,334	1,360	5,146	76	1,189
acres harvested	69,680	38,654	151,741	1,380	25,982
70 to 99 acres ..... farms	4,361	1,368	5,988	69	1,204
acres harvested	162,285	57,575	250,978	1,864	36,798
100 to 139 acres ..... farms	3,565	1,103	5,539	67	1,305
acres harvested	167,247	60,283	327,227	3,033	55,724
140 to 179 acres ..... farms	4,234	841	3,177	28	864
acres harvested	257,524	61,387	257,552	1,604	49,075
180 to 219 acres ..... farms	2,245	533	2,196	20	633
acres harvested	147,826	49,334	235,289	1,510	43,975
220 to 259 acres ..... farms	2,115	399	1,518	10	434
acres harvested	167,493	43,327	204,210	628	37,218
260 to 499 acres ..... farms	7,628	1,324	4,012	32	1,380
acres harvested	836,243	230,463	862,119	4,432	180,349
500 to 999 acres ..... farms	5,576	1,028	1,731	5	739
acres harvested	1,151,010	347,284	778,271	1,090	228,772
1,000 to 1,999 acres ..... farms	3,388	716	481	-	462
acres harvested	1,465,996	459,056	449,283	-	369,137
2,000 acres or more ..... farms	3,072	1,181	121	2	251
acres harvested	3,103,524	1,575,542	257,970	(D)	475,704
2002 size of farm:					
1 to 9 acres ..... farms	666	4,481	2,430	135	680
acres harvested	2,108	13,947	6,777	(D)	2,249
10 to 49 acres ..... farms	5,607	8,543	10,870	217	4,026
acres harvested	96,269	109,391	156,057	2,105	47,579
50 to 69 acres ..... farms	1,994	1,337	4,942	78	1,296
acres harvested	61,041	37,894	154,775	1,669	28,405
70 to 99 acres ..... farms	4,032	1,319	6,122	45	1,281
acres harvested	149,286	53,292	271,704	1,396	37,438
100 to 139 acres ..... farms	3,331	1,133	6,198	55	1,217
acres harvested	159,016	63,472	370,843	2,747	47,944
140 to 179 acres ..... farms	4,361	849	3,623	31	851
acres harvested	271,443	67,537	299,024	2,063	41,137
180 to 219 acres ..... farms	2,240	533	2,555	22	649
acres harvested	152,107	49,484	261,491	1,715	43,904
220 to 259 acres ..... farms	2,165	364	1,786	7	433
acres harvested	179,432	42,646	237,504	418	31,644
260 to 499 acres ..... farms	7,702	1,380	4,521	28	1,357
acres harvested	954,137	259,405	934,746	3,553	161,986
500 to 999 acres ..... farms	5,723	1,118	1,733	6	787
acres harvested	1,332,700	402,584	724,546	1,604	204,830
1,000 to 1,999 acres ..... farms	3,404	729	480	3	485
acres harvested	1,600,796	469,847	413,988	(D)	313,091
2,000 acres or more ..... farms	2,705	1,227	114	1	259
acres harvested	2,747,525	1,549,885	247,821	(D)	414,410
HARVESTED CROPLAND BY ACRES HARVESTED					
2007 acres harvested:					
1 to 9 acres ..... farms	3,197	8,241	8,538	430	3,120
acres	14,484	31,418	35,646	(D)	12,871
10 to 19 acres ..... farms	5,047	3,686	6,563	147	2,462
acres	65,658	48,456	85,942	1,869	32,013
20 to 29 acres ..... farms	5,112	1,955	4,772	78	1,543
acres	112,705	44,697	108,859	1,824	35,005
30 to 49 acres ..... farms	8,148	2,071	6,478	68	1,745
acres	298,738	76,191	243,119	2,479	63,906
50 to 99 acres ..... farms	9,502	2,033	8,020	52	1,619
acres	644,747	139,662	544,801	3,456	107,093
100 to 199 acres ..... farms	6,758	1,394	5,063	35	1,042
acres	902,224	188,066	689,600	4,410	137,956
200 to 499 acres ..... farms	4,973	1,349	3,534	12	716
acres	1,492,182	416,342	1,047,661	3,505	218,026
500 to 999 acres ..... farms	1,978	685	967	1	344
acres	1,355,931	470,892	640,214	(D)	239,093
1,000 acres or more ..... farms	1,509	717	334	-	371
acres	2,763,411	1,621,537	546,237	-	705,707
2002 acres harvested:					
1 to 9 acres ..... farms	2,948	8,753	7,693	299	3,464
acres	12,807	34,379	31,538	(D)	14,467
10 to 19 acres ..... farms	4,438	3,854	6,065	109	2,595
acres	58,039	50,367	79,284	1,392	33,217
20 to 29 acres ..... farms	4,612	1,903	4,559	64	1,621
acres	102,188	43,299	104,693	1,464	36,682
30 to 49 acres ..... farms	7,543	2,062	6,910	51	1,671
acres	275,781	75,542	260,647	1,851	60,738
50 to 99 acres ..... farms	8,732	1,919	9,411	58	1,647
acres	595,777	131,319	642,405	3,728	108,810
100 to 199 acres ..... farms	6,689	1,512	5,818	35	977
acres	893,663	205,796	791,142	4,431	128,887
200 to 499 acres ..... farms	5,351	1,484	3,766	11	745
acres	1,627,495	461,449	1,108,240	3,550	224,660
500 to 999 acres ..... farms	2,049	816	852	1	297
acres	1,407,636	566,478	562,815	(D)	203,653
1,000 acres or more ..... farms	1,568	710	300	-	304
acres	2,732,474	1,550,755	498,512	-	563,503

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Table 9. **Harvested Cropland by Size of Farm and Acres Harvested: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Farms ..... number, 2007	21,902	48,292	111,671	10,259	4,707
2002	22,931	56,316	106,827	9,661	4,373
acres harvested, 2007	15,278,709	4,226,440	19,174,301	964,702	433,074
2002	13,492,286	4,365,360	17,750,938	961,037	454,699
HARVESTED CROPLAND BY SIZE OF FARM					
2007 size of farm:					
1 to 9 acres .....farms	217	1,533	5,408	1,790	306
acres harvested	855	5,116	21,177	6,829	724
10 to 49 acres .....farms	1,785	14,315	26,843	3,321	948
acres harvested	27,015	191,753	397,635	50,428	10,413
50 to 69 acres .....farms	431	5,217	7,908	568	358
acres harvested	13,266	124,046	207,369	18,563	7,604
70 to 99 acres .....farms	728	5,735	8,860	662	403
acres harvested	34,149	174,667	282,934	29,824	10,328
100 to 139 acres .....farms	629	5,516	9,407	574	538
acres harvested	42,150	224,758	380,162	33,859	21,148
140 to 179 acres .....farms	1,202	3,589	6,760	427	351
acres harvested	112,442	189,694	349,937	31,301	18,471
180 to 219 acres .....farms	467	2,461	5,291	291	334
acres harvested	53,633	151,609	301,826	26,901	21,650
220 to 259 acres .....farms	583	1,796	3,858	231	240
acres harvested	84,403	134,343	260,567	24,056	19,627
260 to 499 acres .....farms	2,950	4,711	12,948	790	739
acres harvested	663,081	527,569	1,298,458	116,080	99,488
500 to 999 acres .....farms	3,995	2,110	10,350	642	351
acres harvested	1,785,758	590,713	2,331,296	156,448	100,651
1,000 to 1,999 acres .....farms	3,975	857	7,391	422	109
acres harvested	3,283,140	686,945	4,297,283	138,992	77,794
2,000 acres or more .....farms	4,940	452	6,647	541	30
acres harvested	9,178,817	1,225,227	9,045,657	331,421	45,176
2002 size of farm:					
1 to 9 acres .....farms	172	2,576	4,051	1,622	223
acres harvested	634	7,300	15,671	6,462	564
10 to 49 acres .....farms	1,424	17,058	23,717	2,912	766
acres harvested	23,009	226,576	361,731	43,563	8,504
50 to 69 acres .....farms	360	6,327	7,413	518	314
acres harvested	12,444	145,623	197,803	17,863	6,098
70 to 99 acres .....farms	787	6,886	8,429	590	336
acres harvested	39,807	203,922	283,570	26,574	8,737
100 to 139 acres .....farms	633	6,437	8,999	577	433
acres harvested	48,000	254,541	372,009	34,113	16,969
140 to 179 acres .....farms	1,289	4,251	7,130	373	385
acres harvested	129,829	216,821	384,694	28,397	21,859
180 to 219 acres .....farms	582	2,801	5,146	323	291
acres harvested	73,021	173,715	326,073	31,646	20,935
220 to 259 acres .....farms	715	1,838	3,832	252	264
acres harvested	109,513	138,721	276,250	27,865	21,437
260 to 499 acres .....farms	3,396	4,661	13,249	854	835
acres harvested	808,276	543,835	1,450,622	144,658	127,334
500 to 999 acres .....farms	4,777	2,181	10,903	665	386
acres harvested	2,240,377	619,443	2,673,313	174,827	115,499
1,000 to 1,999 acres .....farms	4,363	867	7,883	445	115
acres harvested	3,527,917	697,670	4,508,579	157,502	73,253
2,000 acres or more .....farms	4,433	433	6,075	530	25
acres harvested	6,479,459	1,137,193	6,900,623	267,567	33,510
HARVESTED CROPLAND BY ACRES HARVESTED					
2007 acres harvested:					
1 to 9 acres .....farms	995	7,905	16,585	3,050	1,172
acres	4,897	37,922	81,519	13,519	4,187
10 to 19 acres .....farms	957	10,274	20,820	1,701	602
acres	12,385	135,010	273,990	22,166	7,845
20 to 29 acres .....farms	738	7,407	15,015	1,021	462
acres	16,580	166,905	340,401	23,423	10,433
30 to 49 acres .....farms	1,112	8,348	16,937	1,144	644
acres	41,711	303,123	619,337	42,496	23,935
50 to 99 acres .....farms	1,790	7,651	16,623	1,304	679
acres	128,573	502,801	1,097,638	90,232	45,942
100 to 199 acres .....farms	2,641	3,555	9,755	848	600
acres	373,627	455,169	1,277,999	114,948	78,812
200 to 499 acres .....farms	4,973	1,769	6,893	820	407
acres	1,645,395	504,469	2,076,540	248,252	121,694
500 to 999 acres .....farms	4,339	611	3,802	231	92
acres	3,075,812	422,544	2,677,221	152,911	62,173
1,000 acres or more .....farms	4,357	772	5,241	140	49
acres	9,979,729	1,698,497	10,729,656	256,755	78,053
2002 acres harvested:					
1 to 9 acres .....farms	703	11,603	14,437	2,738	945
acres	3,504	48,905	68,607	12,487	3,551
10 to 19 acres .....farms	846	11,946	19,179	1,560	516
acres	10,963	156,628	252,786	20,377	6,696
20 to 29 acres .....farms	684	8,569	14,002	883	403
acres	15,370	193,683	317,609	20,099	9,117
30 to 49 acres .....farms	1,071	9,110	15,839	1,073	559
acres	40,031	332,697	580,725	39,624	20,378
50 to 99 acres .....farms	1,941	7,915	15,863	1,193	638
acres	138,859	515,929	1,054,436	81,663	44,240
100 to 199 acres .....farms	3,167	3,797	10,273	922	640
acres	446,655	489,548	1,361,949	124,810	86,122
200 to 499 acres .....farms	5,806	1,983	8,229	910	520
acres	1,904,490	579,785	2,526,649	272,381	150,035
500 to 999 acres .....farms	4,878	672	4,463	266	113
acres	3,440,808	464,967	3,147,932	184,254	76,879
1,000 acres or more .....farms	3,835	721	4,542	116	39
acres	7,491,606	1,583,218	8,440,245	205,342	57,681

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Table 9. **Harvested Cropland by Size of Farm and Acres Harvested: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
Farms ..... number, 2007	30,563	20,091	17,494	54,105	5,573
2002	33,791	21,802	15,827	54,741	5,003
acres harvested, 2007	2,544,997	4,387,169	692,003	8,884,628	1,536,240
2002	2,623,776	4,894,634	648,635	8,928,083	1,298,709
HARVESTED CROPLAND BY SIZE OF FARM					
2007 size of farm:					
1 to 9 acres ..... farms	994	3,452	386	1,846	106
acres harvested	3,183	10,748	1,118	5,728	400
10 to 49 acres ..... farms	7,685	7,008	3,474	10,612	723
acres harvested	98,278	95,942	41,159	151,963	12,774
50 to 69 acres ..... farms	3,037	1,196	1,842	3,516	200
acres harvested	64,777	37,423	32,351	97,830	6,840
70 to 99 acres ..... farms	3,516	1,342	2,435	5,945	349
acres harvested	102,872	59,099	53,237	229,346	16,143
100 to 139 acres ..... farms	3,504	991	2,537	5,775	256
acres harvested	135,163	62,865	71,216	335,509	15,992
140 to 179 acres ..... farms	2,308	733	1,565	4,654	315
acres harvested	109,956	62,860	54,545	386,945	24,220
180 to 219 acres ..... farms	1,706	495	1,215	3,754	151
acres harvested	108,751	52,697	47,661	418,008	13,788
220 to 259 acres ..... farms	1,321	376	868	3,169	172
acres harvested	105,463	50,017	43,808	444,327	21,382
260 to 499 acres ..... farms	3,474	1,196	2,001	8,900	588
acres harvested	391,130	251,995	144,340	2,003,377	93,092
500 to 999 acres ..... farms	1,799	1,094	849	4,013	659
acres harvested	437,735	478,158	111,100	1,951,897	176,980
1,000 to 1,999 acres ..... farms	877	888	254	1,375	532
acres harvested	527,187	768,276	62,898	1,434,508	211,672
2,000 acres or more ..... farms	342	1,320	68	546	1,522
acres harvested	460,502	2,457,089	28,570	1,425,190	942,957
2002 size of farm:					
1 to 9 acres ..... farms	1,343	3,296	404	1,616	64
acres harvested	4,221	10,431	1,308	4,924	240
10 to 49 acres ..... farms	7,824	7,216	2,853	9,067	669
acres harvested	101,681	103,468	32,263	140,985	11,070
50 to 69 acres ..... farms	3,316	1,450	1,531	3,137	162
acres harvested	69,677	48,050	25,358	92,802	4,907
70 to 99 acres ..... farms	3,885	1,409	1,973	5,895	282
acres harvested	110,076	65,516	42,217	233,938	12,484
100 to 139 acres ..... farms	3,895	1,145	2,257	6,030	186
acres harvested	145,278	76,017	59,257	354,327	10,929
140 to 179 acres ..... farms	2,811	889	1,540	5,076	236
acres harvested	132,801	79,887	51,905	424,865	17,342
180 to 219 acres ..... farms	1,929	598	1,068	4,301	170
acres harvested	118,596	68,890	44,097	489,606	14,275
220 to 259 acres ..... farms	1,512	445	839	3,520	142
acres harvested	113,444	62,239	39,690	496,808	15,234
260 to 499 acres ..... farms	3,986	1,514	2,129	9,927	609
acres harvested	444,873	330,386	146,173	2,160,877	103,483
500 to 999 acres ..... farms	1,981	1,299	883	4,302	580
acres harvested	456,988	559,972	110,643	1,960,204	158,897
1,000 to 1,999 acres ..... farms	967	1,113	278	1,381	509
acres harvested	515,803	926,455	66,410	1,375,385	194,237
2,000 acres or more ..... farms	342	1,428	72	489	1,394
acres harvested	410,338	2,563,323	29,314	1,193,362	755,611
HARVESTED CROPLAND BY ACRES HARVESTED					
2007 acres harvested:					
1 to 9 acres ..... farms	5,450	6,536	3,224	7,755	310
acres	25,634	25,074	(D)	35,439	1,555
10 to 19 acres ..... farms	5,949	3,150	4,358	6,456	418
acres	78,438	41,589	56,968	86,361	5,590
20 to 29 acres ..... farms	4,229	1,708	2,942	4,392	336
acres	96,288	38,855	66,107	102,014	7,674
30 to 49 acres ..... farms	4,876	1,857	3,123	6,081	603
acres	178,400	68,270	113,713	228,216	22,421
50 to 99 acres ..... farms	4,749	1,813	2,370	8,529	895
acres	317,759	122,824	153,327	601,678	61,409
100 to 199 acres ..... farms	2,771	1,366	1,029	8,988	907
acres	362,482	187,014	130,169	1,272,336	122,594
200 to 499 acres ..... farms	1,667	1,406	381	8,173	1,239
acres	488,822	440,532	104,142	2,449,773	376,717
500 to 999 acres ..... farms	481	964	51	2,416	542
acres	324,633	690,131	33,257	1,652,734	365,059
1,000 acres or more ..... farms	391	1,291	16	1,315	323
acres	672,541	2,772,880	(D)	2,456,077	573,221
2002 acres harvested:					
1 to 9 acres ..... farms	6,579	6,406	3,212	6,370	314
acres	29,081	25,011	(D)	28,579	1,597
10 to 19 acres ..... farms	6,391	3,246	3,717	5,935	398
acres	84,854	42,376	48,611	79,514	5,326
20 to 29 acres ..... farms	4,518	1,749	2,459	4,232	323
acres	103,618	39,778	55,329	97,791	7,371
30 to 49 acres ..... farms	5,419	2,142	2,733	6,221	568
acres	198,973	78,489	99,087	233,876	20,970
50 to 99 acres ..... farms	5,185	2,179	2,270	9,068	788
acres	345,115	149,446	147,689	639,576	53,962
100 to 199 acres ..... farms	3,001	1,706	986	10,462	817
acres	392,471	234,769	124,549	1,485,901	110,063
200 to 499 acres ..... farms	1,825	1,783	390	8,917	1,053
acres	534,035	560,502	107,232	2,640,743	320,722
500 to 999 acres ..... farms	515	1,146	45	2,355	466
acres	345,759	825,576	30,565	1,599,873	311,470
1,000 acres or more ..... farms	358	1,445	15	1,181	276
acres	589,870	2,938,687	(D)	2,122,230	467,228

Table 10. **Irrigation: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Farms ..... number, 2007	301,028	2,035	184	5,094	5,393	53,400
2002	299,583	1,698	150	4,172	5,847	55,596
Land in irrigated farms ..... acres, 2007	231,003,205	751,005	71,074	2,692,407	6,430,100	16,231,930
2002	243,442,396	634,369	24,230	12,944,463	6,503,056	17,587,694
Harvested cropland ..... farms, 2007	259,591	1,801	175	3,849	5,347	45,769
2002	261,842	1,589	144	3,139	5,809	48,558
acres, 2007	86,529,391	377,570	6,720	827,581	5,755,725	7,465,841
2002	79,050,919	314,127	5,369	887,966	5,704,390	8,278,282
Other cropland, excluding cropland pastured ..... farms, 2007	62,617	619	53	756	863	6,318
2002	73,813	510	49	851	1,235	7,640
acres, 2007	11,875,921	37,864	4,675	132,679	101,349	620,748
2002	15,193,989	35,515	7,359	136,510	175,727	736,622
Pastureland, excluding woodland pastured ..... farms, 2007	144,856	1,048	41	1,860	1,211	15,458
2002	135,998	824	34	1,829	1,154	12,704
acres, 2007	113,241,325	115,863	(D)	(D)	207,143	6,630,443
2002	128,409,896	105,737	2,986	11,181,215	179,305	7,063,737
Irrigated land ..... acres, 2007	56,599,305	112,819	3,730	876,158	4,460,682	8,016,159
2002	55,311,236	108,783	2,742	931,735	4,149,766	8,709,353
Harvested cropland ..... farms, 2007	256,105	1,740	174	3,835	5,327	45,412
2002	258,030	1,550	142	3,139	5,780	48,133
acres, 2007	51,537,104	106,925	(D)	823,468	4,455,478	7,274,248
2002	50,334,022	101,965	(D)	887,966	4,144,606	7,949,051
Pastureland and other land ..... farms, 2007	72,585	358	13	1,519	131	10,546
2002	69,568	207	11	1,445	119	10,041
acres, 2007	5,062,201	5,894	(D)	52,690	5,204	741,911
2002	4,977,214	6,818	(D)	43,769	5,160	760,302
2007 irrigated acres by size of farm:						
1 to 9 acres ..... farms	60,926	317	78	2,444	210	15,614
acres irrigated	174,275	700	(D)	5,716	448	47,640
10 to 49 acres ..... farms	81,444	659	42	1,168	518	18,690
acres irrigated	1,015,333	3,560	89	14,754	5,975	297,094
50 to 69 acres ..... farms	13,514	122	12	117	142	2,560
acres irrigated	368,738	1,199	109	3,824	3,894	102,227
70 to 99 acres ..... farms	15,180	141	7	184	212	2,462
acres irrigated	590,571	2,009	(D)	6,639	8,515	143,394
100 to 139 acres ..... farms	12,908	119	9	132	192	2,038
acres irrigated	680,824	2,298	214	7,843	11,190	166,382
140 to 179 acres ..... farms	11,013	92	8	110	177	1,608
acres irrigated	834,371	2,226	199	8,559	14,214	176,842
180 to 219 acres ..... farms	7,042	60	-	62	118	1,117
acres irrigated	635,717	2,302	-	5,590	10,657	158,398
220 to 259 acres ..... farms	5,954	55	3	46	122	932
acres irrigated	681,808	3,214	(D)	5,117	14,151	159,057
260 to 499 acres ..... farms	22,281	144	11	177	547	2,977
acres irrigated	3,816,440	8,072	347	38,708	111,820	771,942
500 to 999 acres ..... farms	24,072	110	8	244	923	2,401
acres irrigated	7,842,051	16,243	987	104,742	455,445	1,208,174
1,000 to 1,999 acres ..... farms	21,330	111	3	182	1,124	1,563
acres irrigated	12,144,224	20,964	(D)	167,021	1,150,230	1,418,462
2,000 acres or more ..... farms	25,364	105	3	228	1,108	1,438
acres irrigated	27,814,953	50,032	(D)	507,645	2,674,143	3,366,547
2002 irrigated acres by size of farm:						
1 to 9 acres ..... farms	53,732	275	57	1,315	135	13,346
acres irrigated	154,680	495	80	3,840	255	41,746
10 to 49 acres ..... farms	78,883	475	37	1,120	392	19,761
acres irrigated	1,038,782	3,032	88	15,151	4,277	344,032
50 to 69 acres ..... farms	14,279	102	5	136	140	3,113
acres irrigated	401,428	1,194	31	4,322	3,465	131,792
70 to 99 acres ..... farms	15,827	115	7	182	237	3,047
acres irrigated	629,402	1,452	(D)	6,330	9,052	184,127
100 to 139 acres ..... farms	13,574	107	8	154	222	2,630
acres irrigated	741,245	1,708	208	9,513	10,308	226,871
140 to 179 acres ..... farms	11,817	87	10	131	210	1,943
acres irrigated	908,127	2,365	348	11,029	15,729	222,968
180 to 219 acres ..... farms	7,797	55	2	78	150	1,297
acres irrigated	718,849	1,506	(D)	8,118	13,881	186,331
220 to 259 acres ..... farms	6,577	41	3	66	161	1,073
acres irrigated	754,019	2,949	(D)	9,441	20,607	189,214
260 to 499 acres ..... farms	24,993	147	9	244	716	3,463
acres irrigated	4,329,539	8,914	339	55,325	148,903	919,904
500 to 999 acres ..... farms	26,253	129	8	295	1,142	2,695
acres irrigated	8,541,152	15,870	458	135,670	525,748	1,367,518
1,000 to 1,999 acres ..... farms	22,624	85	1	225	1,346	1,711
acres irrigated	12,631,088	22,272	(D)	202,049	1,259,023	1,528,973
2,000 acres or more ..... farms	23,227	80	3	226	996	1,517
acres irrigated	24,462,925	47,026	(D)	470,947	2,138,518	3,365,877

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Table 10. **Irrigation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Farms ..... number, 2007	15,774	789	560	12,868	5,716	2,810
2002	13,623	801	439	13,456	5,369	2,231
Land in irrigated farms ..... acres, 2007	14,237,479	57,519	283,829	4,116,545	3,439,646	388,891
2002	12,864,432	64,114	292,219	4,709,504	3,076,482	269,371
Harvested cropland ..... farms, 2007	12,938	775	532	11,416	5,316	2,729
2002	11,190	791	436	12,432	5,068	2,180
acres, 2007	3,526,000	28,519	257,409	1,620,290	1,989,358	60,557
2002	2,840,736	30,176	260,802	1,880,515	1,674,371	66,479
Other cropland, excluding cropland pastured ..... farms, 2007	3,725	197	67	1,110	1,388	647
2002	4,659	255	86	1,374	1,472	514
acres, 2007	1,218,236	4,468	2,385	128,910	137,740	43,483
2002	1,690,786	6,497	5,843	157,746	132,934	50,851
Pastureland, excluding woodland pastured ..... farms, 2007	10,539	217	97	4,029	2,546	402
2002	8,582	212	74	3,432	2,232	270
acres, 2007	8,190,902	3,206	2,409	1,302,384	273,819	177,055
2002	7,039,625	3,564	1,329	1,509,208	251,790	86,838
Irrigated land ..... acres, 2007	2,867,957	9,901	104,562	1,552,118	1,017,773	58,635
2002	2,590,654	10,139	97,167	1,815,174	870,810	69,194
Harvested cropland ..... farms, 2007	12,786	759	532	11,288	5,204	2,719
2002	11,039	783	435	12,325	4,945	2,174
acres, 2007	2,296,765	9,738	104,063	1,424,396	987,160	47,825
2002	2,178,748	10,010	97,024	1,696,259	848,024	58,691
Pastureland and other land ..... farms, 2007	6,220	37	36	1,891	783	173
2002	5,373	21	15	1,403	636	111
acres, 2007	571,192	163	499	127,722	30,613	10,810
2002	411,906	129	143	118,915	22,786	10,503
2007 irrigated acres by size of farm:						
1 to 9 acres ..... farms	1,830	276	155	4,652	561	1,878
acres irrigated	6,704	446	264	13,601	1,203	3,700
10 to 49 acres ..... farms	4,068	271	87	4,753	1,071	750
acres irrigated	65,268	932	1,226	57,360	7,607	4,845
50 to 69 acres ..... farms	738	52	14	569	260	44
acres irrigated	25,246	393	526	19,504	3,688	652
70 to 99 acres ..... farms	1,125	49	32	436	284	30
acres irrigated	53,372	519	1,352	20,932	6,893	522
100 to 139 acres ..... farms	763	48	18	406	275	23
acres irrigated	50,224	554	1,265	25,130	9,527	663
140 to 179 acres ..... farms	819	23	10	254	250	15
acres irrigated	70,493	393	583	21,614	10,027	851
180 to 219 acres ..... farms	476	15	9	171	216	8
acres irrigated	51,661	709	806	18,288	12,197	(D)
220 to 259 acres ..... farms	366	4	8	136	174	2
acres irrigated	45,691	126	686	17,044	15,282	(D)
260 to 499 acres ..... farms	1,494	32	66	476	763	16
acres irrigated	277,505	2,251	9,643	88,842	93,251	1,407
500 to 999 acres ..... farms	1,307	11	56	388	866	10
acres irrigated	401,302	1,960	16,419	117,753	189,307	3,118
1,000 to 1,999 acres ..... farms	1,106	6	67	278	596	10
acres irrigated	531,877	(D)	37,642	154,210	264,530	1,294
2,000 acres or more ..... farms	1,682	2	38	349	400	24
acres irrigated	1,288,614	(D)	34,150	997,840	404,261	41,161
2002 irrigated acres by size of farm:						
1 to 9 acres ..... farms	1,305	278	47	4,155	626	1,527
acres irrigated	5,075	421	89	12,351	1,271	2,971
10 to 49 acres ..... farms	3,531	274	72	4,931	961	531
acres irrigated	58,232	1,092	707	66,396	7,128	3,880
50 to 69 acres ..... farms	622	55	18	717	321	44
acres irrigated	21,435	416	392	24,108	5,492	760
70 to 99 acres ..... farms	961	39	17	606	312	24
acres irrigated	45,259	305	623	28,930	6,887	450
100 to 139 acres ..... farms	633	43	24	518	304	25
acres irrigated	41,900	698	1,077	32,378	9,005	833
140 to 179 acres ..... farms	721	26	17	339	242	13
acres irrigated	62,988	246	1,105	27,463	8,758	922
180 to 219 acres ..... farms	441	12	17	219	187	12
acres irrigated	45,448	425	1,387	24,427	9,783	653
220 to 259 acres ..... farms	372	10	12	168	170	6
acres irrigated	46,859	(D)	1,036	23,080	11,727	595
260 to 499 acres ..... farms	1,325	37	66	639	608	13
acres irrigated	241,533	2,561	9,293	108,156	65,940	1,364
500 to 999 acres ..... farms	1,239	19	47	449	720	10
acres irrigated	395,579	2,398	11,985	149,203	147,807	1,537
1,000 to 1,999 acres ..... farms	1,050	7	61	336	545	9
acres irrigated	508,699	1,252	31,486	200,675	239,206	5,058
2,000 acres or more ..... farms	1,423	1	41	379	373	17
acres irrigated	1,117,647	(D)	37,987	1,118,007	357,806	50,171

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Table 10. **Irrigation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Farms ..... number, 2007	16,124	2,388	2,391	1,287	5,957	2,980
2002	15,901	2,031	2,212	976	5,915	3,606
Land in irrigated farms .....acres, 2007	7,365,264	1,696,666	1,688,753	794,566	12,750,857	802,052
2002	7,679,606	1,410,137	1,257,063	577,230	11,653,949	873,591
Harvested cropland .....farms, 2007	11,106	2,343	2,332	1,264	5,895	2,964
2002	10,507	2,024	2,159	948	5,899	3,599
acres, 2007	3,178,537	1,555,043	1,564,502	705,907	7,219,588	459,843
2002	3,144,393	1,243,224	1,118,475	509,245	5,754,977	405,605
Other cropland, excluding cropland pastured .....farms, 2007	2,427	510	420	281	3,423	913
2002	2,509	629	537	223	3,818	1,106
acres, 2007	465,567	29,246	14,050	17,048	2,000,810	26,690
2002	448,534	34,502	29,342	14,825	2,530,690	38,569
Pastureland, excluding woodland pastured .....farms, 2007	11,128	500	673	352	3,592	1,757
2002	11,377	385	621	265	3,456	2,155
acres, 2007	3,307,579	22,884	24,072	32,659	3,195,474	173,126
2002	3,585,074	25,772	21,187	20,333	3,045,054	261,894
Irrigated land .....acres, 2007	3,299,889	474,454	397,113	189,518	2,762,748	58,730
2002	3,288,522	390,843	313,130	142,109	2,678,277	36,751
Harvested cropland .....farms, 2007	10,992	2,327	2,295	1,258	5,876	2,948
2002	10,301	2,021	2,122	934	5,891	3,598
acres, 2007	2,867,218	473,081	395,708	188,765	2,728,874	58,221
2002	2,829,982	390,480	311,963	141,438	2,665,750	36,718
Pastureland and other land .....farms, 2007	8,852	92	129	43	234	49
2002	9,650	18	121	45	53	10
acres, 2007	432,671	1,373	1,405	753	33,874	509
2002	458,540	363	1,167	671	12,527	33
2007 irrigated acres by size of farm:						
1 to 9 acres ..... farms	3,516	527	482	263	200	374
acres irrigated	13,992	868	824	409	369	658
10 to 49 acres ..... farms	5,043	357	440	191	277	745
acres irrigated	84,615	1,956	2,199	846	1,915	2,988
50 to 69 acres ..... farms	674	64	96	42	45	223
acres irrigated	27,518	1,145	1,344	740	850	1,192
70 to 99 acres ..... farms	904	84	92	47	96	236
acres irrigated	50,969	2,288	2,273	822	2,923	1,324
100 to 139 acres ..... farms	737	79	102	56	78	258
acres irrigated	56,630	2,814	3,436	3,208	4,680	2,181
140 to 179 acres ..... farms	620	62	67	63	152	178
acres irrigated	66,424	3,649	3,202	2,874	11,541	1,792
180 to 219 acres ..... farms	394	42	40	23	81	160
acres irrigated	54,518	2,957	2,611	1,100	6,384	1,779
220 to 259 acres ..... farms	349	51	61	26	98	114
acres irrigated	52,728	3,611	4,939	1,253	10,134	1,187
260 to 499 acres ..... farms	1,200	190	191	109	522	327
acres irrigated	283,406	25,161	21,998	12,035	78,341	6,022
500 to 999 acres ..... farms	1,132	348	242	193	854	204
acres irrigated	485,688	93,030	55,235	39,353	220,850	8,227
1,000 to 1,999 acres ..... farms	742	336	296	176	1,313	100
acres irrigated	567,058	148,123	114,833	60,091	506,964	7,313
2,000 acres or more ..... farms	813	248	282	98	2,241	61
acres irrigated	1,556,343	188,852	184,219	66,787	1,917,797	24,067
2002 irrigated acres by size of farm:						
1 to 9 acres ..... farms	3,249	308	412	182	185	476
acres irrigated	12,964	508	645	227	334	846
10 to 49 acres ..... farms	4,856	341	470	162	204	743
acres irrigated	81,894	1,879	2,131	848	1,748	2,359
50 to 69 acres ..... farms	668	62	78	19	48	270
acres irrigated	27,108	836	670	210	961	998
70 to 99 acres ..... farms	895	77	109	35	103	307
acres irrigated	50,085	2,067	1,826	439	3,304	1,165
100 to 139 acres ..... farms	709	84	79	35	84	326
acres irrigated	55,626	3,415	1,369	505	4,038	1,977
140 to 179 acres ..... farms	634	84	76	38	150	231
acres irrigated	68,266	4,758	3,215	1,486	11,899	1,399
180 to 219 acres ..... farms	430	46	47	22	65	207
acres irrigated	54,490	3,604	2,799	1,364	5,146	1,415
220 to 259 acres ..... farms	347	48	50	24	84	170
acres irrigated	56,650	4,202	3,570	2,816	8,337	1,248
260 to 499 acres ..... farms	1,257	184	200	104	518	471
acres irrigated	301,772	24,335	21,733	10,524	73,470	5,526
500 to 999 acres ..... farms	1,186	310	252	155	943	255
acres irrigated	515,321	73,266	50,279	27,742	246,939	5,655
1,000 to 1,999 acres ..... farms	847	306	270	138	1,474	105
acres irrigated	652,532	128,242	103,241	49,727	571,240	5,669
2,000 acres or more ..... farms	823	181	169	62	2,057	45
acres irrigated	1,411,814	143,731	121,652	46,221	1,750,861	8,494

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Table 10. **Irrigation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Farms ..... number, 2007	3,218	901	1,326	1,630	5,078	2,918
2002	3,496	1,031	1,265	1,580	4,413	2,433
Land in irrigated farms ..... acres, 2007	2,366,975	228,468	378,351	111,632	1,759,261	1,715,496
2002	2,532,446	239,801	351,861	118,992	1,563,762	1,432,119
Harvested cropland ..... farms, 2007	2,769	883	1,296	1,566	4,832	2,830
2002	3,349	1,017	1,227	1,560	4,301	2,369
acres, 2007	1,648,217	77,847	291,234	41,494	1,434,358	1,416,247
2002	1,618,584	61,352	263,648	43,445	1,249,184	1,157,046
Other cropland, excluding cropland pastured ..... farms, 2007	867	280	387	358	1,576	869
2002	1,364	364	398	408	1,539	739
acres, 2007	282,069	11,012	11,356	4,928	61,084	55,139
2002	415,942	21,947	12,793	5,999	71,850	73,115
Pastureland, excluding woodland pastured ..... farms, 2007	1,206	280	461	390	1,372	1,012
2002	1,032	313	374	319	1,021	736
acres, 2007	229,357	5,360	(D)	5,548	35,677	78,350
2002	254,694	5,715	9,058	4,816	32,322	59,869
Irrigated land ..... acres, 2007	954,353	20,994	92,805	23,133	500,428	506,357
2002	938,841	19,703	80,828	23,720	456,278	454,850
Harvested cropland ..... farms, 2007	2,682	873	1,284	1,543	4,728	2,787
2002	3,282	1,013	1,220	1,548	4,244	2,330
acres, 2007	910,458	20,799	91,926	22,662	496,295	499,583
2002	928,050	19,592	79,858	23,509	453,968	449,734
Pastureland and other land ..... farms, 2007	613	36	74	112	444	198
2002	273	35	81	48	235	141
acres, 2007	43,895	195	879	471	4,133	6,774
2002	10,791	111	970	211	2,310	5,116
2007 irrigated acres by size of farm:						
1 to 9 acres ..... farms	376	269	271	506	785	283
acres irrigated	953	371	428	934	1,465	486
10 to 49 acres ..... farms	604	235	350	611	1,655	532
acres irrigated	6,635	515	2,121	3,417	8,498	2,698
50 to 69 acres ..... farms	145	65	96	127	299	91
acres irrigated	3,808	125	789	1,548	3,490	1,097
70 to 99 acres ..... farms	140	67	71	92	348	134
acres irrigated	3,981	334	873	1,585	6,977	2,719
100 to 139 acres ..... farms	159	82	86	90	283	114
acres irrigated	8,616	432	2,409	1,901	7,264	3,640
140 to 179 acres ..... farms	155	27	50	47	199	144
acres irrigated	11,026	177	1,503	1,102	7,509	7,259
180 to 219 acres ..... farms	81	25	45	45	144	84
acres irrigated	6,623	223	2,108	1,876	8,001	4,991
220 to 259 acres ..... farms	88	23	38	32	107	115
acres irrigated	9,488	579	2,057	(D)	7,478	10,646
260 to 499 acres ..... farms	285	48	105	46	388	450
acres irrigated	51,449	757	11,221	3,423	40,179	52,220
500 to 999 acres ..... farms	374	23	110	21	383	445
acres irrigated	117,310	1,463	21,055	1,844	84,206	101,912
1,000 to 1,999 acres ..... farms	452	21	65	12	284	328
acres irrigated	290,080	2,410	25,200	3,988	122,055	131,795
2,000 acres or more ..... farms	359	16	39	1	203	198
acres irrigated	444,384	13,608	23,041	(D)	203,306	186,894
2002 irrigated acres by size of farm:						
1 to 9 acres ..... farms	406	301	272	466	581	277
acres irrigated	892	417	406	919	996	448
10 to 49 acres ..... farms	576	285	361	562	1,317	411
acres irrigated	5,598	626	1,739	3,669	7,359	1,956
50 to 69 acres ..... farms	151	68	77	123	266	80
acres irrigated	3,173	179	697	1,381	3,503	1,070
70 to 99 acres ..... farms	129	71	81	91	326	120
acres irrigated	4,268	342	768	1,379	5,439	1,768
100 to 139 acres ..... farms	165	79	64	94	248	79
acres irrigated	8,336	320	1,610	1,719	6,434	2,131
140 to 179 acres ..... farms	100	47	48	77	191	117
acres irrigated	5,835	556	1,846	2,202	7,576	6,935
180 to 219 acres ..... farms	91	38	34	46	136	86
acres irrigated	8,143	711	1,760	1,989	7,029	7,880
220 to 259 acres ..... farms	101	29	31	29	116	104
acres irrigated	11,019	(D)	1,508	(D)	8,167	9,384
260 to 499 acres ..... farms	369	45	103	59	403	366
acres irrigated	64,210	1,298	10,569	4,146	39,398	46,584
500 to 999 acres ..... farms	546	28	89	21	372	335
acres irrigated	175,285	1,117	14,586	1,948	83,180	74,417
1,000 to 1,999 acres ..... farms	516	27	64	11	278	296
acres irrigated	287,377	3,512	22,705	2,107	114,730	122,210
2,000 acres or more ..... farms	346	13	41	1	179	162
acres irrigated	364,705	(D)	22,634	(D)	172,467	180,067

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Table 10. **Irrigation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Farms ..... number, 2007	2,284	3,613	10,457	17,128	2,054	505
2002	2,235	3,304	10,150	17,970	1,981	451
Land in irrigated farms .....acres, 2007	2,741,290	3,003,497	23,982,172	26,065,265	4,671,396	33,983
2002	2,556,788	2,534,396	21,561,740	24,809,923	5,584,482	42,964
Harvested cropland .....farms, 2007	2,223	3,495	8,345	16,814	1,572	497
2002	2,150	3,220	8,307	17,667	1,515	443
acres, 2007	2,402,403	2,564,142	3,198,994	13,105,563	504,311	9,732
2002	2,151,695	2,206,126	2,985,455	11,541,865	549,055	11,173
Other cropland, excluding cropland pastured .....farms, 2007	449	786	2,329	4,244	370	126
2002	595	713	2,531	6,285	407	144
acres, 2007	47,212	52,741	1,317,298	905,410	53,531	1,519
2002	106,649	41,541	1,352,187	1,394,867	71,153	1,546
Pastureland, excluding woodland pastured .....farms, 2007	576	1,455	8,301	9,902	1,293	161
2002	615	1,069	8,059	10,449	1,344	112
acres, 2007	61,465	196,269	18,314,254	11,426,435	3,894,053	1,946
2002	61,305	129,616	16,075,150	11,234,881	4,565,728	1,312
Irrigated land .....acres, 2007	1,368,661	1,199,981	2,013,167	8,558,559	691,030	2,482
2002	1,175,530	1,032,973	1,976,111	7,625,170	746,653	2,292
Harvested cropland .....farms, 2007	2,199	3,407	8,201	16,759	1,570	493
2002	2,129	3,182	8,150	17,613	1,515	440
acres, 2007	1,364,157	1,190,101	1,558,122	8,448,373	502,978	2,417
2002	1,174,964	1,027,214	1,556,656	7,506,900	534,652	2,256
Pastureland and other land .....farms, 2007	104	266	4,536	1,345	916	16
2002	126	191	4,414	1,191	906	16
acres, 2007	4,504	9,880	455,045	110,186	188,052	65
2002	566	5,759	419,455	118,270	212,001	36
2007 irrigated acres by size of farm:						
1 to 9 acres ..... farms	211	293	814	286	256	179
acres irrigated	451	524	2,913	605	867	265
10 to 49 acres ..... farms	365	596	2,587	534	570	169
acres irrigated	3,400	3,593	40,098	7,680	9,759	410
50 to 69 acres ..... farms	87	140	430	174	106	39
acres irrigated	1,966	1,784	14,056	6,786	3,583	139
70 to 99 acres ..... farms	96	223	517	396	115	22
acres irrigated	1,854	4,141	24,062	22,263	5,263	121
100 to 139 acres ..... farms	104	184	439	359	100	23
acres irrigated	3,279	4,989	26,402	27,886	7,193	269
140 to 179 acres ..... farms	73	135	435	789	75	17
acres irrigated	4,738	9,085	33,865	87,850	7,121	200
180 to 219 acres ..... farms	49	116	286	321	69	18
acres irrigated	3,756	6,034	25,555	38,474	8,024	105
220 to 259 acres ..... farms	34	72	237	447	38	7
acres irrigated	3,174	7,044	26,060	63,828	6,004	(D)
260 to 499 acres ..... farms	163	321	830	2,494	147	18
acres irrigated	19,082	39,201	138,987	534,273	34,799	667
500 to 999 acres ..... farms	262	442	825	4,101	181	12
acres irrigated	84,080	130,640	220,739	1,620,873	77,204	279
1,000 to 1,999 acres ..... farms	342	631	773	3,838	141	1
acres irrigated	251,225	399,074	269,135	2,535,227	95,859	(D)
2,000 acres or more ..... farms	498	460	2,284	3,389	256	-
acres irrigated	991,656	593,872	1,191,295	3,612,814	435,354	-
2002 irrigated acres by size of farm:						
1 to 9 acres ..... farms	201	273	651	210	167	114
acres irrigated	409	423	2,376	514	603	(D)
10 to 49 acres ..... farms	353	473	2,291	462	519	149
acres irrigated	2,741	2,677	36,017	7,277	9,221	434
50 to 69 acres ..... farms	109	157	420	157	87	34
acres irrigated	1,370	1,818	14,389	6,029	3,296	143
70 to 99 acres ..... farms	112	175	500	422	105	32
acres irrigated	1,389	2,923	24,197	24,436	5,646	117
100 to 139 acres ..... farms	104	146	467	333	82	29
acres irrigated	2,426	4,270	29,308	25,059	6,582	170
140 to 179 acres ..... farms	96	149	429	848	87	25
acres irrigated	4,301	7,919	36,159	91,828	8,456	174
180 to 219 acres ..... farms	71	89	284	442	59	18
acres irrigated	2,877	6,913	28,031	52,269	8,334	116
220 to 259 acres ..... farms	42	71	265	507	58	5
acres irrigated	2,400	6,331	34,549	71,330	7,591	(D)
260 to 499 acres ..... farms	168	372	906	2,986	172	25
acres irrigated	25,501	51,050	159,671	618,677	36,351	457
500 to 999 acres ..... farms	199	478	872	4,652	185	19
acres irrigated	67,109	155,359	242,324	1,726,452	70,211	508
1,000 to 1,999 acres ..... farms	318	574	865	4,049	156	1
acres irrigated	225,093	331,384	294,307	2,487,211	102,222	(D)
2,000 acres or more ..... farms	462	347	2,200	2,902	304	-
acres irrigated	839,914	461,906	1,074,783	2,514,088	488,140	-

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Table 10. **Irrigation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Farms ..... number, 2007	2,055	10,167	3,036	5,788	795	2,402
2002	2,124	8,282	3,307	6,721	659	2,623
Land in irrigated farms ..... acres, 2007	250,107	13,362,070	482,277	1,706,053	2,149,466	304,398
2002	270,728	15,650,956	502,692	2,086,433	1,600,406	333,736
Harvested cropland ..... farms, 2007	1,981	8,543	2,884	5,385	783	2,334
2002	2,075	6,576	3,209	6,409	657	2,584
acres, 2007	165,499	789,970	277,238	970,696	1,209,205	214,716
2002	164,319	723,037	290,712	1,033,638	827,939	228,569
Other cropland, excluding cropland pastured ..... farms, 2007	550	2,194	1,154	1,697	390	709
2002	600	1,915	1,239	2,258	365	773
acres, 2007	11,886	206,560	38,250	77,334	146,869	12,283
2002	15,762	309,978	48,060	138,969	140,229	18,380
Pastureland, excluding woodland pastured ..... farms, 2007	485	4,910	997	2,395	472	872
2002	458	4,295	929	2,855	382	765
acres, 2007	(D)	10,127,169	26,007	126,433	727,967	19,186
2002	7,050	12,357,633	30,706	155,734	576,458	17,642
Irrigated land ..... acres, 2007	95,277	830,048	68,010	232,075	236,138	37,959
2002	96,893	844,799	74,663	264,057	202,817	40,685
Harvested cropland ..... farms, 2007	1,960	8,492	2,853	5,248	769	2,297
2002	2,041	6,481	3,162	6,258	654	2,561
acres, 2007	94,121	648,272	65,891	208,213	233,171	37,050
2002	95,793	654,172	68,914	238,345	201,019	39,881
Pastureland and other land ..... farms, 2007	136	2,918	229	792	47	124
2002	131	3,018	199	721	14	67
acres, 2007	1,156	181,776	2,119	23,862	2,967	909
2002	1,100	190,627	5,749	25,712	1,798	804
2007 irrigated acres by size of farm:						
1 to 9 acres ..... farms	600	3,318	696	755	35	702
acres irrigated	1,416	10,982	1,224	1,402	(D)	1,084
10 to 49 acres ..... farms	742	3,077	928	1,779	43	862
acres irrigated	5,100	41,331	4,702	10,575	224	2,859
50 to 69 acres ..... farms	115	403	265	500	15	150
acres irrigated	2,310	13,070	2,319	7,058	402	1,195
70 to 99 acres ..... farms	106	432	253	432	2	164
acres irrigated	3,404	17,315	3,400	7,276	(D)	1,317
100 to 139 acres ..... farms	102	351	252	390	6	142
acres irrigated	4,416	18,433	4,174	9,645	263	1,927
140 to 179 acres ..... farms	65	284	146	252	10	78
acres irrigated	3,233	16,249	2,919	7,892	223	1,066
180 to 219 acres ..... farms	38	179	95	222	9	43
acres irrigated	3,673	13,190	2,974	8,761	794	854
220 to 259 acres ..... farms	37	145	56	144	8	28
acres irrigated	5,099	13,044	2,214	6,295	1,122	862
260 to 499 acres ..... farms	119	477	187	466	37	86
acres irrigated	17,179	63,307	12,512	26,281	6,753	2,975
500 to 999 acres ..... farms	78	486	89	390	81	86
acres irrigated	20,915	102,784	7,070	40,716	18,066	8,197
1,000 to 1,999 acres ..... farms	43	366	33	280	155	41
acres irrigated	18,322	122,310	7,133	40,116	43,623	4,597
2,000 acres or more ..... farms	10	649	36	178	394	20
acres irrigated	10,210	398,033	17,369	66,058	164,485	11,026
2002 irrigated acres by size of farm:						
1 to 9 acres ..... farms	552	2,794	880	816	26	782
acres irrigated	1,216	9,339	1,413	1,499	40	1,279
10 to 49 acres ..... farms	751	2,225	940	1,692	31	885
acres irrigated	4,934	29,962	4,566	10,991	250	3,182
50 to 69 acres ..... farms	149	305	264	612	4	151
acres irrigated	2,743	10,047	1,851	7,221	92	954
70 to 99 acres ..... farms	109	367	220	532	1	215
acres irrigated	3,292	14,447	2,937	9,733	(D)	1,771
100 to 139 acres ..... farms	127	281	244	512	3	130
acres irrigated	5,297	16,852	4,056	11,704	(D)	1,292
140 to 179 acres ..... farms	76	255	159	351	13	90
acres irrigated	4,963	19,818	2,676	9,708	741	1,100
180 to 219 acres ..... farms	46	156	122	271	6	61
acres irrigated	3,651	11,114	3,202	10,391	633	1,899
220 to 259 acres ..... farms	38	112	58	185	11	43
acres irrigated	5,066	9,527	2,279	7,798	880	773
260 to 499 acres ..... farms	134	432	230	674	28	107
acres irrigated	17,292	64,055	12,842	37,470	5,797	4,821
500 to 999 acres ..... farms	85	396	118	527	75	92
acres irrigated	22,387	106,014	10,765	41,838	21,799	9,414
1,000 to 1,999 acres ..... farms	51	341	39	351	140	48
acres irrigated	23,019	156,973	7,911	44,355	39,680	9,000
2,000 acres or more ..... farms	6	618	33	198	321	19
acres irrigated	3,033	396,651	20,165	71,349	132,703	5,200

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Table 10. **Irrigation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Farms ..... number, 2007	3,026	16,792	3,958	313	2,030
2002	2,942	17,776	4,108	264	1,918
Land in irrigated farms .....acres, 2007	3,228,907	10,025,047	405,670	16,633	777,695
2002	3,043,519	10,773,708	453,958	17,674	634,367
Harvested cropland .....farms, 2007	2,767	12,494	3,878	307	1,765
2002	2,776	13,102	4,052	262	1,726
acres, 2007	1,187,973	1,935,560	242,821	7,130	428,260
2002	997,608	2,012,031	269,887	7,203	284,423
Other cropland, excluding cropland pastured .....farms, 2007	870	2,712	1,015	66	633
2002	951	3,425	1,158	68	666
acres, 2007	265,075	399,920	22,592	1,211	42,880
2002	342,010	434,081	26,492	1,314	59,055
Pastureland, excluding woodland pastured .....farms, 2007	2,091	10,590	1,735	71	932
2002	1,972	10,955	1,537	61	825
acres, 2007	1,604,126	6,578,069	28,679	708	63,589
2002	1,553,909	6,769,873	34,353	1,003	60,955
Irrigated land .....acres, 2007	534,768	1,845,194	37,786	4,306	132,439
2002	517,553	1,907,627	42,516	3,963	95,642
Harvested cropland .....farms, 2007	2,645	12,095	3,830	305	1,693
2002	2,712	12,620	4,016	261	1,652
acres, 2007	481,169	1,333,741	36,759	4,266	123,413
2002	470,943	1,415,826	40,880	3,948	91,795
Pastureland and other land .....farms, 2007	580	7,614	159	14	418
2002	372	8,312	138	6	332
acres, 2007	53,599	511,453	1,027	40	9,026
2002	46,610	491,801	1,636	15	3,847
2007 irrigated acres by size of farm:					
1 to 9 acres .....farms	297	3,842	961	128	319
acres irrigated	627	11,403	1,489	187	693
10 to 49 acres .....farms	535	5,631	1,295	109	679
acres irrigated	3,550	72,091	4,988	383	3,678
50 to 69 acres .....farms	102	873	376	18	107
acres irrigated	2,245	25,557	2,463	96	857
70 to 99 acres .....farms	208	968	416	17	125
acres irrigated	4,665	40,573	2,538	322	1,863
100 to 139 acres .....farms	101	780	292	13	123
acres irrigated	2,776	44,822	2,762	278	2,914
140 to 179 acres .....farms	165	660	169	5	85
acres irrigated	7,894	49,846	1,885	127	1,399
180 to 219 acres .....farms	51	406	83	6	53
acres irrigated	2,549	34,633	1,410	458	2,328
220 to 259 acres .....farms	67	296	59	3	35
acres irrigated	5,767	34,858	(D)	(D)	1,848
260 to 499 acres .....farms	288	1,039	150	11	161
acres irrigated	28,258	173,015	5,395	1,464	9,961
500 to 999 acres .....farms	356	817	97	2	115
acres irrigated	57,238	234,333	5,231	(D)	15,568
1,000 to 1,999 acres .....farms	346	578	43	-	126
acres irrigated	104,628	289,620	4,628	-	34,092
2,000 acres or more .....farms	510	902	17	1	102
acres irrigated	314,571	834,443	(D)	(D)	57,238
2002 irrigated acres by size of farm:					
1 to 9 acres .....farms	291	3,941	1,092	92	294
acres irrigated	467	11,925	1,636	(D)	595
10 to 49 acres .....farms	392	6,319	1,196	88	634
acres irrigated	2,619	79,764	5,311	231	3,863
50 to 69 acres .....farms	72	858	344	25	143
acres irrigated	1,188	24,008	2,408	231	1,459
70 to 99 acres .....farms	174	949	353	11	137
acres irrigated	4,015	37,947	2,721	297	1,612
100 to 139 acres .....farms	83	850	336	14	96
acres irrigated	2,216	47,978	3,649	368	1,420
140 to 179 acres .....farms	209	648	195	10	68
acres irrigated	10,722	50,371	2,197	155	1,213
180 to 219 acres .....farms	84	427	116	7	66
acres irrigated	5,062	38,590	2,193	313	1,681
220 to 259 acres .....farms	83	275	91	2	35
acres irrigated	6,134	33,773	1,574	(D)	1,453
260 to 499 acres .....farms	347	1,154	204	10	155
acres irrigated	31,680	198,102	7,091	1,098	9,326
500 to 999 acres .....farms	403	886	122	3	116
acres irrigated	66,785	268,987	6,399	980	13,408
1,000 to 1,999 acres .....farms	356	564	44	1	105
acres irrigated	105,409	295,741	4,574	(D)	20,172
2,000 acres or more .....farms	448	905	15	1	69
acres irrigated	281,256	820,441	2,763	(D)	39,440

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Table 10. **Irrigation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Farms ..... number, 2007	1,627	2,453	19,713	12,492	523
2002	1,755	2,592	21,164	11,587	508
Land in irrigated farms ..... acres, 2007	3,443,596	694,544	23,281,801	5,456,056	48,642
2002	3,436,096	512,051	22,150,941	10,124,016	51,937
Harvested cropland ..... farms, 2007	1,579	2,356	16,651	9,729	510
2002	1,699	2,529	18,153	8,973	497
acres, 2007	1,495,327	455,071	8,426,380	882,269	9,434
2002	1,358,662	309,080	7,254,751	877,153	12,832
Other cropland, excluding cropland pastured ..... farms, 2007	463	716	5,362	2,145	218
2002	578	648	7,165	2,609	172
acres, 2007	94,020	34,542	1,679,745	234,050	2,326
2002	193,981	24,069	2,474,586	250,674	2,398
Pastureland, excluding woodland pastured ..... farms, 2007	1,121	1,307	11,520	8,540	186
2002	1,223	1,192	11,469	7,965	216
acres, 2007	1,749,235	109,339	12,142,771	3,896,463	4,182
2002	1,766,448	99,369	11,570,059	8,462,922	4,223
Irrigated land ..... acres, 2007	373,842	81,405	5,010,416	1,134,144	2,295
2002	401,083	61,217	5,074,638	1,091,011	2,335
Harvested cropland ..... farms, 2007	1,561	2,318	16,151	9,649	508
2002	1,678	2,510	17,635	8,828	488
acres, 2007	358,807	79,150	4,621,445	787,205	2,203
2002	384,170	58,356	4,571,339	780,235	2,165
Pastureland and other land ..... farms, 2007	172	148	4,688	6,002	22
2002	177	105	4,992	5,845	25
acres, 2007	15,035	2,255	388,971	346,939	92
2002	16,913	2,861	503,299	310,776	170
2007 irrigated acres by size of farm:					
1 to 9 acres ..... farms	72	456	2,665	2,656	141
acres irrigated	137	735	7,941	10,563	198
10 to 49 acres ..... farms	114	766	4,485	4,083	183
acres irrigated	1,113	3,233	47,989	66,976	426
50 to 69 acres ..... farms	33	200	767	640	39
acres irrigated	576	1,224	16,329	23,500	158
70 to 99 acres ..... farms	33	206	739	771	39
acres irrigated	1,375	1,372	22,004	38,257	204
100 to 139 acres ..... farms	36	154	757	692	38
acres irrigated	1,588	1,929	30,654	45,049	81
140 to 179 acres ..... farms	62	94	674	534	24
acres irrigated	5,236	1,762	42,959	45,581	162
180 to 219 acres ..... farms	30	65	460	310	16
acres irrigated	2,299	1,755	28,710	32,085	91
220 to 259 acres ..... farms	26	58	339	269	10
acres irrigated	2,701	1,936	28,594	36,053	(D)
260 to 499 acres ..... farms	168	190	1,579	840	17
acres irrigated	21,817	7,657	219,954	146,640	492
500 to 999 acres ..... farms	270	107	2,126	698	11
acres irrigated	54,437	9,023	638,472	191,262	(D)
1,000 to 1,999 acres ..... farms	306	79	2,403	446	2
acres irrigated	92,257	12,344	1,295,405	165,276	(D)
2,000 acres or more ..... farms	477	78	2,719	553	3
acres irrigated	190,306	38,435	2,631,405	332,902	(D)
2002 irrigated acres by size of farm:					
1 to 9 acres ..... farms	48	661	2,435	2,427	117
acres irrigated	68	982	7,513	9,516	193
10 to 49 acres ..... farms	85	837	4,658	3,641	187
acres irrigated	773	3,335	52,065	56,842	528
50 to 69 acres ..... farms	20	164	873	598	34
acres irrigated	387	944	19,377	22,448	223
70 to 99 acres ..... farms	54	189	839	645	44
acres irrigated	2,698	1,567	26,629	32,855	315
100 to 139 acres ..... farms	29	153	837	636	27
acres irrigated	1,528	1,092	37,416	41,970	90
140 to 179 acres ..... farms	62	102	837	418	26
acres irrigated	5,210	1,718	60,355	34,190	354
180 to 219 acres ..... farms	26	61	485	347	17
acres irrigated	1,893	832	38,446	38,622	126
220 to 259 acres ..... farms	37	58	452	276	8
acres irrigated	3,179	1,177	42,085	34,860	34
260 to 499 acres ..... farms	220	156	1,957	903	30
acres irrigated	31,655	5,154	293,746	172,921	316
500 to 999 acres ..... farms	324	113	2,692	715	14
acres irrigated	69,750	10,039	829,710	204,275	151
1,000 to 1,999 acres ..... farms	396	53	2,755	443	2
acres irrigated	112,604	12,129	1,523,724	173,979	(D)
2,000 acres or more ..... farms	454	45	2,344	538	2
acres irrigated	171,338	22,248	2,143,572	268,533	(D)

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Table 10. **Irrigation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
Farms ..... number, 2007	2,347	15,492	457	2,907	5,793
2002	3,331	15,534	408	2,457	5,191
Land in irrigated farms .....acres, 2007	728,750	6,656,406	51,556	1,231,680	15,845,482
2002	987,120	7,135,008	46,432	1,182,794	16,697,040
Harvested cropland .....farms, 2007	2,186	11,961	439	2,853	4,533
2002	3,232	12,740	393	2,412	4,189
acres, 2007	364,431	2,087,567	13,084	857,951	1,215,277
2002	384,698	2,200,711	8,911	782,690	1,064,305
Other cropland, excluding cropland pastured .....farms, 2007	628	2,675	129	951	982
2002	1,119	3,108	106	805	1,131
acres, 2007	26,973	525,385	1,762	43,818	219,193
2002	63,254	544,637	1,886	49,630	252,103
Pastureland, excluding woodland pastured .....farms, 2007	1,218	7,626	234	803	4,892
2002	1,809	6,770	169	661	4,441
acres, 2007	111,250	2,771,751	13,001	27,497	14,068,794
2002	179,926	3,039,722	10,242	27,006	14,865,549
Irrigated land .....acres, 2007	82,187	1,735,917	2,189	377,291	1,550,723
2002	98,913	1,823,155	1,981	385,902	1,541,688
Harvested cropland .....farms, 2007	2,134	11,835	427	2,826	4,511
2002	3,147	12,441	393	2,372	4,142
acres, 2007	78,675	1,589,538	(D)	373,680	1,025,182
2002	95,293	1,669,928	(D)	380,385	960,430
Pastureland and other land .....farms, 2007	257	5,476	36	152	2,835
2002	256	5,177	17	158	2,570
acres, 2007	3,512	146,379	(D)	3,611	525,541
2002	3,620	153,227	(D)	5,517	581,258
2007 irrigated acres by size of farm:					
1 to 9 acres .....farms	339	4,146	102	535	255
acres irrigated	623	13,573	149	821	1,042
10 to 49 acres .....farms	636	5,617	144	699	1,099
acres irrigated	3,154	77,078	424	2,652	20,754
50 to 69 acres .....farms	157	795	52	120	214
acres irrigated	1,106	26,085	191	934	7,841
70 to 99 acres .....farms	151	841	26	219	390
acres irrigated	2,403	41,339	93	2,283	19,522
100 to 139 acres .....farms	174	624	45	169	311
acres irrigated	2,488	40,721	214	3,236	19,935
140 to 179 acres .....farms	113	494	19	111	315
acres irrigated	1,890	45,718	143	3,465	27,804
180 to 219 acres .....farms	106	305	14	91	185
acres irrigated	3,040	36,369	(D)	4,373	19,297
220 to 259 acres .....farms	72	248	15	65	189
acres irrigated	2,126	36,556	(D)	4,377	24,384
260 to 499 acres .....farms	212	808	20	282	607
acres irrigated	10,307	172,134	253	24,005	109,072
500 to 999 acres .....farms	189	728	12	265	593
acres irrigated	12,019	301,647	274	58,631	185,651
1,000 to 1,999 acres .....farms	125	404	6	197	454
acres irrigated	19,886	312,740	(D)	84,202	213,633
2,000 acres or more .....farms	73	482	2	154	1,181
acres irrigated	23,145	631,957	(D)	188,312	901,788
2002 irrigated acres by size of farm:					
1 to 9 acres .....farms	394	3,579	103	456	155
acres irrigated	711	12,018	161	661	632
10 to 49 acres .....farms	761	5,453	126	447	915
acres irrigated	4,204	81,661	369	2,079	17,065
50 to 69 acres .....farms	215	964	31	96	210
acres irrigated	1,718	34,905	111	917	6,958
70 to 99 acres .....farms	290	917	28	167	349
acres irrigated	3,437	48,035	(D)	1,870	18,055
100 to 139 acres .....farms	256	697	38	134	216
acres irrigated	3,943	51,376	(D)	3,255	15,610
140 to 179 acres .....farms	191	559	27	99	256
acres irrigated	2,975	53,559	51	3,419	23,901
180 to 219 acres .....farms	142	389	8	99	180
acres irrigated	3,520	47,070	(D)	4,107	18,626
220 to 259 acres .....farms	129	309	11	60	141
acres irrigated	3,316	41,853	(D)	4,078	17,556
260 to 499 acres .....farms	398	959	19	288	613
acres irrigated	13,456	219,426	403	29,448	115,936
500 to 999 acres .....farms	316	776	9	265	556
acres irrigated	20,209	324,225	134	55,915	172,497
1,000 to 1,999 acres .....farms	165	431	6	208	454
acres irrigated	18,799	289,199	(D)	83,587	207,786
2,000 acres or more .....farms	74	501	2	138	1,146
acres irrigated	22,625	619,828	(D)	196,566	927,066

Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
INVENTORY						
Cattle and calves ..... farms, 2007	963,669	23,970	130	7,716	28,292	16,638
2002	1,018,359	27,094	113	2,838	29,925	17,379
number, 2007	96,347,858	1,187,171	14,823	1,000,038	1,802,653	5,498,025
2002	95,497,994	1,437,795	12,609	841,277	1,842,273	5,234,177
Farms by inventory:						
1 to 9 ..... farms, 2007	233,078	5,978	67	4,416	5,396	6,106
2002	211,030	5,031	43	915	4,278	5,348
number, 2007	1,155,984	31,680	260	16,265	28,275	27,344
2002	1,104,588	28,642	172	4,100	24,631	25,038
10 to 19 ..... farms, 2007	174,518	5,486	20	1,368	5,518	2,681
2002	189,193	6,244	15	455	5,845	3,014
number, 2007	2,392,813	75,792	(D)	18,218	76,266	35,601
2002	2,607,827	87,623	217	5,905	81,634	40,285
20 to 49 ..... farms, 2007	240,975	6,847	20	1,004	8,593	2,719
2002	271,202	8,541	23	535	9,702	3,209
number, 2007	7,518,194	210,409	541	29,473	269,610	81,339
2002	8,480,012	265,152	748	16,920	304,473	96,961
50 to 99 ..... farms, 2007	135,117	3,091	6	337	4,669	1,187
2002	153,618	4,036	10	278	5,412	1,426
number, 2007	9,344,247	209,929	450	22,546	319,154	81,470
2002	10,648,669	274,879	703	18,556	370,887	97,596
100 to 199 ..... farms, 2007	91,193	1,540	10	204	2,548	942
2002	103,513	2,040	12	253	3,023	1,092
number, 2007	12,434,470	208,739	1,431	28,016	343,102	129,392
2002	14,078,261	270,680	1,679	34,796	400,159	149,773
200 to 499 ..... farms, 2007	59,234	791	1	183	1,152	1,049
2002	62,774	915	5	190	1,367	1,215
number, 2007	17,697,011	232,532	(D)	55,191	335,958	338,760
2002	18,563,597	262,901	1,177	57,884	389,844	386,061
500 or more ..... farms, 2007	29,554	237	6	204	416	1,954
2002	27,029	287	5	212	298	2,075
number, 2007	45,805,139	218,090	11,654	830,329	430,288	4,804,119
2002	40,015,040	247,918	7,913	703,116	270,645	4,438,463
Cows and heifers that had calved ..... farms, 2007	818,992	21,496	110	5,375	25,517	13,544
2002	864,823	23,732	103	2,244	26,837	14,586
number, 2007	42,101,375	691,911	7,045	380,804	964,483	2,503,153
2002	42,502,230	784,840	6,661	325,629	982,217	2,379,737
Beef cows ..... farms, 2007	764,984	21,415	98	5,246	25,361	11,827
2002	796,436	23,558	86	2,090	26,526	12,497
number, 2007	32,834,801	678,949	6,468	197,060	947,765	662,423
2002	33,398,271	765,901	5,408	170,865	951,803	735,045
2007 farms by inventory:						
1 to 9 ..... farms	246,863	7,181	56	3,109	6,344	5,613
number	1,160,439	36,134	210	10,918	31,920	22,706
10 to 19 ..... farms	160,005	5,032	18	864	5,555	1,934
number	2,162,448	67,732	(D)	11,187	75,646	25,251
20 to 49 ..... farms	200,840	5,689	13	647	8,087	1,902
number	6,090,407	170,954	436	18,678	245,505	56,680
50 to 99 ..... farms	84,253	2,148	4	262	3,398	896
number	5,656,207	141,578	307	17,515	223,886	59,875
100 to 199 ..... farms	43,575	910	1	157	1,404	674
number	5,753,342	118,668	(D)	21,106	180,919	89,397
200 to 499 ..... farms	23,635	403	2	138	493	555
number	6,722,106	110,340	(D)	40,085	134,537	161,965
500 or more ..... farms	5,813	52	4	69	80	253
number	5,289,852	33,543	4,525	77,571	55,352	246,549
Milk cows ..... farms, 2007	69,890	157	28	182	339	2,165
2002	91,989	223	31	274	486	2,793
number, 2007	9,266,574	12,962	577	183,744	16,718	1,840,730
2002	9,103,959	18,939	1,253	154,764	30,414	1,644,692
2007 farms by inventory:						
1 to 9 ..... farms	14,426	85	21	103	160	433
number	38,147	(D)	50	(D)	502	1,015
10 to 19 ..... farms	3,568	1	2	-	24	22
number	48,821	(D)	(D)	-	(D)	244
20 to 49 ..... farms	16,344	7	-	1	36	36
number	576,070	(D)	-	(D)	1,411	933
50 to 99 ..... farms	18,986	22	3	1	61	43
number	1,280,983	1,326	(D)	(D)	4,303	2,874
100 to 199 ..... farms	8,975	18	2	4	41	101
number	1,180,985	2,422	(D)	630	5,152	14,630
200 to 499 ..... farms	4,307	21	-	6	16	427
number	1,278,721	6,157	-	2,340	4,428	143,051
500 or more ..... farms	3,284	3	-	67	1	1,103
number	4,862,847	2,719	-	180,517	(D)	1,677,983
Other cattle (see text) ..... farms, 2007	788,633	19,164	91	5,472	23,489	13,149
2002	875,850	23,712	90	2,335	26,569	13,975
number, 2007	54,246,483	495,260	7,778	619,234	838,170	2,994,872
2002	52,995,764	652,955	5,948	515,648	860,056	2,854,440
2007 farms by inventory:						
1 to 9 ..... farms	329,593	9,472	54	3,719	10,039	6,226
number	1,386,215	40,728	173	11,912	43,170	24,106
10 to 19 ..... farms	147,914	4,273	13	771	5,240	1,862
number	1,973,684	56,935	176	9,994	69,559	24,146
20 to 49 ..... farms	155,011	3,471	9	530	5,055	1,672
number	4,684,915	100,890	282	15,262	148,804	49,331
50 to 99 ..... farms	72,829	1,108	9	176	1,816	771
number	4,904,323	73,485	607	11,714	119,952	51,993
100 to 199 ..... farms	40,703	486	-	101	769	671
number	5,433,374	63,765	-	13,271	102,080	91,252
200 to 499 ..... farms	27,467	272	5	81	363	877
number	8,131,785	75,464	(D)	23,752	105,544	270,356
500 or more ..... farms	15,116	82	1	94	207	1,070
number	27,732,187	83,993	(D)	533,329	249,061	2,483,688

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
INVENTORY						
Cattle and calves ....farms, 2007	14,685	1,210	399	21,011	20,647	1,142
2002	13,311	1,131	371	19,182	24,554	748
number, 2007	2,745,253	50,213	20,994	1,711,011	1,117,087	151,479
2002	2,656,351	54,247	22,027	1,738,874	1,272,291	154,308
Farms by inventory:						
1 to 9 .... farms, 2007	4,413	700	170	7,165	5,571	477
2002	3,252	564	134	5,753	5,068	235
number, 2007	19,816	2,966	798	36,958	29,015	2,067
2002	15,353	2,605	611	31,568	29,048	1,068
10 to 19 .... farms, 2007	2,203	203	46	4,916	4,469	197
2002	1,926	214	52	4,545	5,926	110
number, 2007	29,702	2,708	(D)	65,716	60,638	2,710
2002	26,249	2,898	697	61,455	81,816	1,412
20 to 49 .... farms, 2007	3,088	134	90	4,484	5,519	181
2002	2,997	160	79	4,169	7,454	138
number, 2007	96,588	4,086	2,925	135,719	169,850	5,317
2002	94,112	4,885	2,336	124,658	229,419	4,434
50 to 99 .... farms, 2007	1,716	73	42	1,898	2,603	96
2002	1,741	65	49	1,952	3,210	84
number, 2007	118,314	5,088	2,731	127,118	178,356	6,322
2002	121,413	4,726	3,520	132,036	218,737	5,885
100 to 199 .... farms, 2007	1,346	43	22	1,134	1,391	79
2002	1,479	58	32	1,154	1,797	73
number, 2007	184,085	6,124	3,007	151,031	189,109	10,628
2002	203,188	8,133	4,668	155,806	238,462	9,813
200 to 499 .... farms, 2007	1,088	42	26	789	831	61
2002	1,120	54	20	1,014	859	54
number, 2007	339,410	12,832	(D)	235,267	240,132	17,796
2002	338,206	16,103	6,472	314,986	253,173	16,028
500 or more .... farms, 2007	831	15	3	625	263	51
2002	796	16	5	595	240	54
number, 2007	1,957,338	16,409	3,327	959,202	249,987	106,639
2002	1,857,830	14,897	3,723	918,365	221,636	115,668
Cows and heifers that had calved ....farms, 2007	11,858	943	319	16,882	18,058	864
2002	11,052	968	305	16,112	21,994	597
number, 2007	861,958	26,667	10,194	1,062,275	631,292	88,296
2002	818,987	29,383	12,485	1,127,247	714,202	89,742
Beef cows .... farms, 2007	11,627	754	253	16,694	17,721	853
2002	10,801	737	230	15,717	21,576	578
number, 2007	735,014	5,982	3,668	942,419	554,099	86,000
2002	720,400	6,180	3,537	982,404	629,127	83,277
2007 farms by inventory:						
1 to 9 .... farms	3,959	585	152	7,484	6,201	315
number	16,421	2,158	552	33,278	30,451	1,454
10 to 19 .... farms	1,795	102	34	3,241	4,162	158
number	24,242	1,324	(D)	42,713	56,083	2,025
20 to 49 .... farms	2,662	53	54	3,148	4,545	165
number	82,645	1,569	1,496	93,192	135,821	4,857
50 to 99 .... farms	1,325	11	9	1,264	1,733	89
number	91,051	625	560	84,203	114,991	6,154
100 to 199 .... farms	956	3	3	697	716	57
number	127,946	306	(D)	92,529	93,447	7,766
200 to 499 .... farms	713	-	1	549	311	33
number	215,125	-	(D)	160,647	84,461	10,053
500 or more .... farms	217	-	-	311	53	36
number	177,584	-	-	435,857	38,845	53,691
Milk cows .... farms, 2007	449	269	83	422	639	15
2002	616	310	96	923	841	27
number, 2007	126,944	20,685	6,526	119,856	77,193	2,296
2002	98,587	23,203	8,948	144,843	85,075	6,465
2007 farms by inventory:						
1 to 9 .... farms	258	109	18	282	314	10
number	546	354	32	643	1,060	15
10 to 19 .... farms	31	17	-	8	44	-
number	416	194	-	90	541	-
20 to 49 .... farms	30	43	26	3	38	1
number	1,015	1,510	(D)	78	1,187	(D)
50 to 99 .... farms	15	37	18	11	33	-
number	1,027	2,604	1,405	806	2,362	-
100 to 199 .... farms	20	36	11	9	117	-
number	2,910	4,842	1,470	1,332	17,162	-
200 to 499 .... farms	35	21	9	35	65	2
number	12,462	5,844	2,294	11,552	19,771	(D)
500 or more .... farms	60	6	1	74	28	2
number	108,568	5,337	(D)	105,355	35,110	(D)
Other cattle (see text) .... farms, 2007	11,739	855	311	17,184	16,172	855
2002	11,127	858	264	15,762	20,449	609
number, 2007	1,883,295	23,546	10,800	648,736	485,795	63,183
2002	1,837,364	24,864	9,542	611,627	558,089	64,566
2007 farms by inventory:						
1 to 9 .... farms	5,467	535	143	9,038	7,899	480
number	21,849	1,973	549	38,185	32,868	1,874
10 to 19 .... farms	1,868	122	42	3,278	3,264	114
number	24,875	(D)	510	43,347	43,067	1,434
20 to 49 .... farms	1,889	94	68	2,769	2,911	111
number	57,206	2,838	1,827	80,491	85,797	3,296
50 to 99 .... farms	879	54	37	1,024	1,084	54
number	59,540	3,758	2,333	67,846	72,697	3,572
100 to 199 .... farms	680	29	12	536	578	35
number	92,364	3,897	1,647	69,609	75,134	4,330
200 to 499 .... farms	522	15	8	340	346	35
number	157,639	4,125	(D)	102,730	100,808	10,367
500 or more .... farms	434	6	1	199	90	26
number	1,469,822	(D)	(D)	246,528	75,424	38,310

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
INVENTORY						
Cattle and calves ..... farms, 2007	10,621	18,397	18,483	29,690	30,017	43,681
2002	10,902	19,928	20,662	32,169	32,525	47,447
number, 2007	2,236,147	1,231,105	875,350	3,982,344	6,669,163	2,395,455
2002	1,989,548	1,359,010	862,074	3,535,945	6,321,138	2,395,476
Farms by inventory:						
1 to 9 ..... farms, 2007	3,900	3,948	6,338	4,162	4,026	8,907
2002	3,126	3,748	6,531	3,586	3,826	8,526
number, 2007	17,217	19,436	30,349	20,311	20,697	46,109
2002	14,756	19,284	32,425	18,630	19,545	47,567
10 to 19 ..... farms, 2007	1,564	3,316	3,731	3,482	3,930	8,704
2002	1,741	3,413	4,423	3,650	3,978	10,246
number, 2007	20,588	45,590	51,480	49,278	54,746	121,192
2002	23,779	47,376	60,383	51,274	55,939	142,822
20 to 49 ..... farms, 2007	1,755	5,222	4,512	7,515	7,686	13,413
2002	2,103	5,760	5,409	8,484	8,305	15,837
number, 2007	54,601	164,046	138,734	242,817	246,378	421,006
2002	65,474	182,778	166,096	275,669	266,273	494,782
50 to 99 ..... farms, 2007	1,004	2,823	2,053	5,694	5,351	7,032
2002	1,273	3,346	2,412	6,899	6,231	7,272
number, 2007	69,314	192,361	140,942	398,486	372,215	481,903
2002	88,669	232,188	164,426	485,342	435,675	493,314
100 to 199 ..... farms, 2007	893	1,782	1,093	4,269	4,242	3,446
2002	1,044	2,236	1,200	5,373	4,939	3,659
number, 2007	122,421	241,668	147,270	585,742	580,245	462,468
2002	143,374	304,753	160,192	737,648	677,295	489,413
200 to 499 ..... farms, 2007	740	987	592	2,906	2,953	1,750
2002	921	1,140	565	3,115	3,556	1,582
number, 2007	224,606	283,712	167,548	863,592	887,108	512,163
2002	282,376	328,560	156,802	903,974	1,052,907	449,530
500 or more ..... farms, 2007	765	319	164	1,662	1,829	429
2002	694	285	122	1,062	1,690	325
number, 2007	1,727,400	284,292	199,027	1,822,118	4,507,774	350,614
2002	1,371,120	244,071	121,750	1,063,408	3,813,504	278,048
Cows and heifers that had calved ..... farms, 2007	7,983	15,695	14,376	22,736	26,158	39,501
2002	8,603	16,100	15,050	25,676	28,114	41,965
number, 2007	1,012,755	528,788	401,448	1,119,491	1,632,008	1,256,847
2002	892,624	536,795	375,213	1,194,635	1,653,024	1,245,931
Beef cows ..... farms, 2007	7,365	14,753	12,668	20,809	25,776	38,298
2002	7,902	14,766	12,612	23,313	27,616	40,234
number, 2007	476,292	429,111	235,299	904,100	1,516,374	1,166,385
2002	502,024	422,694	230,421	987,670	1,539,636	1,125,183
2007 farms by inventory:						
1 to 9 ..... farms	3,172	4,266	5,793	4,036	4,737	10,607
number	12,421	20,897	27,041	19,619	23,625	53,096
10 to 19 ..... farms	1,035	3,457	3,161	3,871	4,500	9,256
number	13,830	46,875	42,633	53,500	61,835	126,402
20 to 49 ..... farms	1,259	4,637	2,779	7,416	7,947	12,237
number	38,748	138,594	80,514	233,333	248,024	371,213
50 to 99 ..... farms	772	1,632	679	3,424	4,538	4,244
number	52,221	107,670	44,197	230,389	308,137	279,007
100 to 199 ..... farms	511	612	185	1,572	2,573	1,457
number	68,381	76,492	23,437	202,734	336,089	187,723
200 to 499 ..... farms	445	142	71	439	1,236	458
number	130,971	34,088	17,477	120,770	350,643	120,692
500 or more ..... farms	171	7	-	51	245	39
number	159,720	4,495	-	43,755	188,021	28,252
Milk cows ..... farms, 2007	811	1,217	2,023	2,390	776	2,277
2002	982	1,658	2,799	3,034	1,042	2,939
number, 2007	536,463	99,677	166,149	215,391	115,634	90,462
2002	390,600	114,101	144,792	206,965	113,388	120,748
2007 farms by inventory:						
1 to 9 ..... farms	198	238	635	290	290	987
number	483	711	1,588	791	789	2,492
10 to 19 ..... farms	15	52	144	224	44	167
number	196	750	2,117	3,093	587	2,201
20 to 49 ..... farms	67	250	527	654	143	496
number	2,311	8,382	17,302	22,134	4,702	16,962
50 to 99 ..... farms	103	363	396	712	161	359
number	7,181	24,963	26,456	47,433	11,286	24,558
100 to 199 ..... farms	94	218	206	346	86	220
number	12,163	28,554	27,081	44,379	10,988	28,528
200 to 499 ..... farms	108	83	78	114	30	41
number	34,231	23,871	20,554	33,030	8,160	10,371
500 or more ..... farms	226	13	37	50	22	7
number	479,898	12,446	71,051	64,531	79,122	5,350
Other cattle (see text) ..... farms, 2007	8,815	14,869	15,131	25,608	25,483	34,908
2002	9,319	17,723	17,932	29,013	29,148	40,164
number, 2007	1,223,392	702,317	473,902	2,862,853	5,037,155	1,138,608
2002	1,096,924	822,215	486,861	2,341,310	4,668,114	1,149,545
2007 farms by inventory:						
1 to 9 ..... farms	4,217	5,780	7,621	7,164	7,812	14,567
number	16,719	24,311	31,866	29,735	33,224	62,763
10 to 19 ..... farms	1,332	2,905	2,849	3,698	4,351	7,784
number	17,635	38,765	37,906	50,798	59,394	104,734
20 to 49 ..... farms	1,264	3,253	2,684	5,631	5,553	7,691
number	38,268	97,881	79,601	177,363	171,105	229,987
50 to 99 ..... farms	713	1,468	1,030	3,684	3,099	2,751
number	48,539	99,224	68,949	252,075	211,073	181,595
100 to 199 ..... farms	499	786	549	2,318	1,901	1,128
number	66,834	104,815	72,355	313,674	255,512	150,142
200 to 499 ..... farms	394	464	288	1,734	1,542	799
number	119,499	136,187	81,225	521,420	461,567	238,129
500 or more ..... farms	396	213	110	1,379	1,225	188
number	915,898	201,134	102,000	1,517,788	3,845,280	171,258

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
INVENTORY						
Cattle and calves ....farms, 2007	14,075	2,112	3,695	1,832	14,454	24,685
2002	15,022	1,749	3,990	1,269	14,495	28,034
number, 2007	878,664	88,191	190,504	46,852	1,048,206	2,395,217
2002	855,717	89,831	240,918	50,791	998,204	2,265,997
Farms by inventory:						
1 to 9 .... farms, 2007	3,013	1,074	1,185	1,064	5,444	4,187
2002	2,964	706	1,194	588	4,512	4,957
number, 2007	16,324	4,491	5,646	4,300	24,225	21,286
2002	16,755	3,156	5,839	2,567	21,515	25,140
10 to 19 .... farms, 2007	2,901	350	720	360	2,630	3,737
2002	3,514	311	720	233	2,717	4,472
number, 2007	40,019	4,742	9,782	4,627	36,133	51,471
2002	48,086	4,151	9,985	3,067	37,290	61,403
20 to 49 .... farms, 2007	3,947	320	835	195	2,889	6,132
2002	4,492	302	833	185	3,278	6,969
number, 2007	123,278	9,537	25,483	5,780	88,411	194,869
2002	137,134	9,440	26,089	5,501	100,409	219,979
50 to 99 .... farms, 2007	2,085	136	435	96	1,399	4,101
2002	1,940	193	524	115	1,656	4,755
number, 2007	140,982	9,775	30,048	7,010	95,635	287,570
2002	132,036	13,863	36,143	8,252	114,350	334,732
100 to 199 .... farms, 2007	1,255	148	309	73	908	3,629
2002	1,226	142	459	97	1,186	4,136
number, 2007	172,190	19,664	42,181	9,861	126,034	497,594
2002	165,188	19,413	64,687	13,754	162,007	565,032
200 to 499 .... farms, 2007	657	59	182	38	828	2,118
2002	711	75	227	46	856	2,274
number, 2007	191,721	17,506	51,176	10,930	249,083	618,927
2002	209,315	22,812	63,057	13,522	251,543	639,570
500 or more .... farms, 2007	217	25	29	6	356	781
2002	175	20	33	5	290	471
number, 2007	194,150	22,476	26,188	4,344	428,685	723,500
2002	147,203	16,996	35,118	4,128	311,090	420,141
Cows and heifers that had calved ....farms, 2007	12,569	1,677	3,114	1,377	10,139	18,801
2002	13,107	1,501	3,356	1,057	10,730	21,094
number, 2007	539,175	44,641	101,187	23,696	453,733	859,520
2002	522,947	47,875	128,518	27,967	415,993	881,842
Beef cows .... farms, 2007	12,355	1,326	2,526	1,173	7,848	14,410
2002	12,775	1,107	2,684	775	8,144	15,565
number, 2007	510,837	12,114	44,015	8,646	109,500	399,768
2002	478,428	12,242	55,754	6,882	117,564	403,594
2007 farms by inventory:						
1 to 9 .... farms	3,565	987	1,182	936	4,611	4,657
number	17,914	3,836	5,486	3,621	19,060	23,018
10 to 19 .... farms	2,667	195	617	149	1,656	3,478
number	36,165	2,480	8,196	1,960	21,864	47,093
20 to 49 .... farms	3,536	112	561	72	1,205	4,260
number	107,154	3,021	16,050	1,981	34,946	127,158
50 to 99 .... farms	1,469	24	121	13	266	1,357
number	97,974	1,732	7,556	780	17,249	88,881
100 to 199 .... farms	713	7	41	3	89	487
number	93,139	(D)	5,136	304	10,950	62,030
200 to 499 .... farms	338	1	3	-	20	158
number	98,634	(D)	(D)	-	(D)	42,450
500 or more .... farms	67	-	1	-	1	13
number	59,857	-	(D)	-	(D)	9,138
Milk cows .... farms, 2007	298	479	663	310	2,647	5,148
2002	422	556	825	380	3,013	6,474
number, 2007	28,338	32,527	57,172	15,050	344,233	459,752
2002	44,519	35,633	72,764	21,085	298,429	478,248
2007 farms by inventory:						
1 to 9 .... farms	54	158	101	142	555	279
number	(D)	419	235	324	1,856	946
10 to 19 .... farms	1	26	14	17	231	226
number	(D)	339	215	(D)	3,064	3,262
20 to 49 .... farms	36	94	149	48	550	1,531
number	1,185	3,292	5,283	1,634	18,070	53,101
50 to 99 .... farms	91	121	208	46	454	1,965
number	6,521	8,133	14,471	3,250	31,792	132,332
100 to 199 .... farms	91	46	135	43	479	775
number	12,152	6,232	17,812	5,496	64,818	99,298
200 to 499 .... farms	22	26	48	12	262	284
number	6,180	8,155	12,120	(D)	75,661	79,600
500 or more .... farms	3	8	8	2	116	88
number	2,153	5,957	7,036	(D)	148,972	91,213
Other cattle (see text) .... farms, 2007	11,182	1,598	2,889	1,304	11,972	21,830
2002	12,719	1,424	3,110	932	12,711	25,087
number, 2007	339,489	43,550	89,317	23,156	594,473	1,535,697
2002	332,770	41,956	112,400	22,824	582,211	1,384,155
2007 farms by inventory:						
1 to 9 .... farms	5,003	884	1,326	851	5,423	6,331
number	20,971	3,440	5,587	3,267	22,806	28,269
10 to 19 .... farms	2,350	255	516	186	2,121	3,525
number	31,156	3,330	6,849	(D)	28,318	47,150
20 to 49 .... farms	2,211	221	535	146	2,082	4,981
number	65,720	6,550	16,331	4,363	62,555	154,933
50 to 99 .... farms	948	141	298	66	986	3,371
number	63,944	9,247	20,275	4,580	67,505	229,437
100 to 199 .... farms	385	59	158	45	724	1,886
number	50,501	7,673	20,764	5,403	97,064	251,347
200 to 499 .... farms	249	33	50	9	477	1,200
number	74,884	9,134	13,596	2,382	139,819	341,000
500 or more .... farms	36	5	6	1	159	536
number	32,313	4,176	5,915	(D)	176,406	483,561

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
INVENTORY						
Cattle and calves ..... farms, 2007	17,752	58,645	12,341	21,424	1,513	1,027
2002	21,096	64,862	12,951	25,083	1,583	852
number, 2007	987,342	4,292,702	2,589,679	6,576,950	441,629	36,880
2002	1,072,806	4,460,495	2,396,764	6,202,947	460,263	39,912
Farms by inventory:						
1 to 9 ..... farms, 2007	3,335	9,314	1,912	2,157	388	591
2002	3,438	8,851	2,047	2,110	384	398
number, 2007	18,793	47,093	8,827	10,287	1,685	(D)
2002	19,839	48,720	9,637	10,868	1,708	(D)
10 to 19 ..... farms, 2007	3,931	9,568	1,169	1,846	183	176
2002	5,131	10,948	1,237	2,254	220	147
number, 2007	54,936	133,247	16,127	25,832	2,491	2,396
2002	71,375	153,782	17,199	31,446	3,026	1,932
20 to 49 ..... farms, 2007	5,667	17,408	2,242	4,388	229	106
2002	7,255	20,568	2,413	5,588	254	117
number, 2007	175,626	556,922	72,056	142,940	6,935	3,060
2002	224,831	661,547	77,150	182,616	8,136	3,467
50 to 99 ..... farms, 2007	2,693	11,094	1,791	3,695	164	57
2002	3,059	12,701	1,966	5,025	170	65
number, 2007	183,766	770,147	126,544	259,692	11,116	3,943
2002	206,537	880,145	138,886	355,209	11,919	4,589
100 to 199 ..... farms, 2007	1,300	6,867	1,818	3,462	148	58
2002	1,367	7,421	2,070	4,305	104	82
number, 2007	175,659	931,993	254,960	482,973	20,221	8,120
2002	181,651	1,002,918	290,800	592,795	14,275	11,374
200 to 499 ..... farms, 2007	680	3,467	2,128	3,278	186	30
2002	663	3,520	2,152	3,626	198	35
number, 2007	198,290	1,015,498	671,003	1,011,226	58,372	(D)
2002	186,116	1,018,619	662,167	1,099,975	63,179	(D)
500 or more ..... farms, 2007	146	927	1,281	2,598	215	9
2002	183	853	1,066	2,175	253	8
number, 2007	180,272	837,802	1,440,162	4,644,000	340,809	8,011
2002	182,457	694,764	1,200,925	3,930,038	358,020	6,587
Cows and heifers that had calved ..... farms, 2007	16,036	52,640	11,288	18,477	1,300	809
2002	18,831	58,167	11,998	21,419	1,266	721
number, 2007	544,077	2,199,539	1,539,645	1,944,252	266,322	19,592
2002	603,722	2,270,921	1,515,867	1,982,033	274,383	21,940
Beef cows ..... farms, 2007	15,910	51,289	11,162	18,233	1,275	642
2002	18,511	56,057	11,821	20,991	1,218	527
number, 2007	521,517	2,089,181	1,522,187	1,889,842	238,662	4,981
2002	568,608	2,108,452	1,497,915	1,915,107	245,025	4,473
2007 farms by inventory:						
1 to 9 ..... farms	4,125	11,250	1,844	2,178	342	490
number	21,732	55,980	8,184	10,277	1,359	1,798
10 to 19 ..... farms	3,892	10,652	1,105	2,243	141	96
number	52,652	146,842	15,402	31,240	1,825	(D)
20 to 49 ..... farms	5,141	17,055	2,202	4,907	224	51
number	154,410	527,393	70,572	156,721	6,904	1,516
50 to 99 ..... farms	1,812	7,858	1,765	3,442	127	4
number	118,838	526,467	123,906	236,735	8,506	(D)
100 to 199 ..... farms	676	3,204	1,804	2,799	154	1
number	85,644	416,692	250,000	376,888	21,024	(D)
200 to 499 ..... farms	226	1,131	1,869	2,150	156	-
number	61,883	303,976	561,708	633,230	47,815	-
500 or more ..... farms	38	139	573	514	131	-
number	26,358	111,831	492,415	444,751	151,229	-
Milk cows ..... farms, 2007	177	2,621	385	493	56	225
2002	627	3,975	624	866	128	255
number, 2007	22,560	110,358	17,458	54,410	27,660	14,611
2002	35,114	162,469	17,952	66,926	29,358	17,467
2007 farms by inventory:						
1 to 9 ..... farms	4	1,153	282	170	30	93
number	8	2,998	548	478	(D)	(D)
10 to 19 ..... farms	-	234	8	18	1	9
number	-	3,072	114	273	(D)	(D)
20 to 49 ..... farms	23	489	12	83	-	29
number	905	15,821	392	2,759	-	1,072
50 to 99 ..... farms	65	459	20	111	-	52
number	4,566	31,479	1,523	7,387	-	3,678
100 to 199 ..... farms	59	238	37	67	3	23
number	7,976	30,367	4,992	9,322	(D)	(D)
200 to 499 ..... farms	22	40	22	26	11	17
number	5,522	11,089	7,245	7,496	4,135	4,688
500 or more ..... farms	4	8	4	18	11	2
number	3,583	15,532	2,644	26,695	23,020	(D)
Other cattle (see text) ..... farms, 2007	13,985	50,029	10,526	18,495	1,241	766
2002	17,540	57,872	11,169	22,544	1,384	641
number, 2007	443,265	2,093,163	1,050,034	4,632,698	175,307	17,288
2002	469,084	2,189,574	880,897	4,220,914	185,880	17,972
2007 farms by inventory:						
1 to 9 ..... farms	6,377	17,310	3,772	4,754	446	495
number	27,754	74,416	14,800	19,023	1,774	1,835
10 to 19 ..... farms	3,103	10,387	1,530	2,401	192	95
number	41,268	140,371	20,544	32,585	2,522	(D)
20 to 49 ..... farms	2,913	12,509	1,850	3,577	208	91
number	85,922	379,540	56,930	112,874	6,256	2,870
50 to 99 ..... farms	891	5,535	1,267	2,415	108	45
number	58,802	371,234	88,171	166,192	7,142	3,204
100 to 199 ..... farms	391	2,506	1,013	2,034	109	28
number	51,486	331,897	140,458	277,926	14,756	(D)
200 to 499 ..... farms	254	1,341	696	1,785	98	11
number	76,532	391,090	208,857	548,055	30,452	3,143
500 or more ..... farms	56	441	398	1,529	80	1
number	101,501	404,615	520,274	3,476,043	112,405	(D)

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
INVENTORY						
Cattle and calves ....farms, 2007	1,435	9,508	13,589	19,229	10,508	26,105
2002	1,513	6,845	15,971	23,784	11,705	28,672
number, 2007	38,198	1,525,976	1,443,297	820,182	1,811,523	1,272,402
2002	41,747	1,590,769	1,453,365	848,061	1,873,191	1,240,612
Farms by inventory:						
1 to 9 .... farms, 2007	806	3,066	2,970	5,483	688	8,569
2002	863	1,575	3,550	7,085	596	9,810
number, 2007	3,092	14,978	14,018	28,354	3,664	41,416
2002	3,441	7,743	16,858	38,718	3,134	47,365
10 to 19 .... farms, 2007	231	2,022	2,064	4,470	746	5,586
2002	238	1,102	2,326	6,402	799	5,712
number, 2007	3,048	27,220	28,363	61,184	10,421	76,180
2002	3,067	14,566	31,472	86,909	11,141	78,267
20 to 49 .... farms, 2007	214	1,810	2,826	5,401	1,990	6,324
2002	210	1,306	2,927	6,351	2,171	6,973
number, 2007	6,410	54,122	87,802	163,277	65,688	193,063
2002	6,238	40,433	92,065	191,388	71,398	214,881
50 to 99 .... farms, 2007	82	894	2,272	2,212	1,996	2,757
2002	96	810	2,902	2,303	2,434	3,225
number, 2007	5,403	60,976	162,320	148,591	142,220	188,266
2002	6,782	56,207	208,554	155,426	173,357	220,909
100 to 199 .... farms, 2007	68	620	1,918	970	2,320	1,649
2002	67	678	2,782	1,036	2,686	1,877
number, 2007	9,491	82,824	261,098	127,237	325,486	228,554
2002	9,424	94,989	380,319	136,294	379,961	253,006
200 to 499 .... farms, 2007	31	572	1,017	526	2,054	879
2002	33	710	1,071	494	2,350	854
number, 2007	8,586	176,791	297,011	149,597	624,053	251,326
2002	8,980	219,809	304,930	143,457	707,648	240,837
500 or more .... farms, 2007	3	524	522	167	714	341
2002	6	664	413	113	669	221
number, 2007	2,168	1,109,065	592,685	141,942	639,991	293,597
2002	3,815	1,157,022	419,167	95,869	526,552	185,347
Cows and heifers that had calved ....farms, 2007	1,050	8,380	11,568	15,222	9,806	20,551
2002	653	5,776	12,913	21,066	10,917	20,125
number, 2007	19,088	856,573	730,075	420,613	956,502	565,695
2002	20,534	831,234	750,834	481,742	1,016,775	522,461
Beef cows .... farms, 2007	932	8,208	6,803	14,895	9,667	17,398
2002	535	5,571	6,598	20,461	10,691	16,104
number, 2007	9,298	530,173	103,620	373,024	930,023	293,757
2002	8,037	516,104	80,831	418,315	982,270	260,702
2007 farms by inventory:						
1 to 9 .... farms	641	3,105	3,598	5,539	775	8,499
number	2,413	14,341	15,386	26,014	3,909	39,262
10 to 19 .... farms	173	1,700	1,624	3,666	924	4,501
number	2,177	22,447	21,111	49,759	12,633	60,082
20 to 49 .... farms	90	1,549	1,232	3,973	2,300	3,420
number	2,489	46,798	34,892	116,801	74,241	98,614
50 to 99 .... farms	23	767	268	1,169	2,366	704
number	1,626	52,040	17,843	75,840	164,777	45,198
100 to 199 .... farms	5	474	72	394	2,039	195
number	593	65,714	9,294	50,918	273,533	24,770
200 to 499 .... farms	-	405	7	131	1,126	68
number	-	121,966	(D)	35,915	309,673	18,420
500 or more .... farms	-	208	2	23	137	11
number	-	206,867	(D)	17,777	91,257	7,411
Milk cows .... farms, 2007	152	272	5,683	463	402	3,650
2002	136	377	7,388	1,250	633	4,754
number, 2007	9,790	326,400	626,455	47,589	26,479	271,938
2002	12,497	315,130	670,003	63,427	34,505	261,759
2007 farms by inventory:						
1 to 9 .... farms	41	116	683	185	89	574
number	(D)	261	1,978	434	250	1,853
10 to 19 .... farms	3	7	264	6	18	295
number	37	(D)	3,753	73	250	4,050
20 to 49 .... farms	26	3	1,419	35	128	1,176
number	842	(D)	51,117	1,124	4,302	40,208
50 to 99 .... farms	49	1	1,854	83	105	989
number	3,475	(D)	125,720	6,153	7,005	72,719
100 to 199 .... farms	28	3	872	91	43	420
number	3,611	(D)	115,904	12,526	5,222	54,732
200 to 499 .... farms	4	6	375	50	13	145
number	1,129	2,400	115,229	13,514	4,161	43,220
500 or more .... farms	1	136	216	13	6	51
number	(D)	323,102	212,754	13,765	5,289	55,156
Other cattle (see text) .... farms, 2007	976	6,933	11,507	15,489	9,302	21,287
2002	1,463	5,859	13,618	18,375	10,633	24,817
number, 2007	19,110	669,403	713,222	399,569	855,021	706,707
2002	21,213	759,535	702,531	366,319	856,416	718,151
2007 farms by inventory:						
1 to 9 .... farms	554	3,721	3,363	7,509	2,286	10,446
number	2,061	13,853	15,176	33,336	9,870	44,462
10 to 19 .... farms	177	1,111	2,031	3,523	1,310	4,239
number	2,357	14,292	27,387	46,506	17,665	56,829
20 to 49 .... farms	132	936	2,920	2,820	1,925	3,562
number	3,891	27,553	91,185	82,207	60,622	105,611
50 to 99 .... farms	82	397	1,658	903	1,537	1,602
number	5,319	26,123	111,206	60,737	105,769	108,289
100 to 199 .... farms	19	273	795	436	1,154	824
number	2,461	37,473	104,508	56,275	156,366	109,745
200 to 499 .... farms	12	268	496	213	830	426
number	3,021	82,523	148,515	59,388	240,416	125,616
500 or more .... farms	-	227	244	85	260	188
number	-	467,586	215,245	61,120	264,313	156,155

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
INVENTORY					
Cattle and calves ..... farms, 2007	55,105	16,062	25,975	276	8,835
2002	59,155	16,481	28,163	225	10,000
number, 2007	5,391,337	1,389,189	1,609,147	5,085	400,996
2002	5,324,240	1,360,025	1,632,649	5,308	432,265
Farms by inventory:					
1 to 9 ..... farms, 2007	10,299	7,421	7,579	155	1,940
2002	9,764	7,908	6,672	107	2,648
number, 2007	54,663	33,246	34,858	(D)	10,063
2002	53,458	36,401	32,852	(D)	14,372
10 to 19 ..... farms, 2007	9,854	2,788	4,172	57	1,821
2002	10,962	2,877	4,701	47	2,409
number, 2007	134,927	37,438	56,657	761	25,050
2002	151,174	38,424	64,789	633	32,817
20 to 49 ..... farms, 2007	15,014	2,584	4,970	40	2,730
2002	17,479	2,453	6,544	45	2,825
number, 2007	472,140	78,118	153,974	1,121	86,257
2002	550,588	73,533	206,405	1,380	86,187
50 to 99 ..... farms, 2007	8,382	1,247	4,620	13	1,643
2002	9,550	1,074	5,851	13	1,159
number, 2007	576,449	85,710	332,728	827	114,109
2002	659,844	73,831	415,361	907	79,582
100 to 199 ..... farms, 2007	5,733	772	3,027	10	471
2002	6,171	854	3,020	12	623
number, 2007	779,574	105,398	405,619	1,382	63,933
2002	836,711	118,391	401,949	1,566	83,642
200 to 499 ..... farms, 2007	3,979	675	1,336	1	181
2002	3,699	743	1,169	1	260
number, 2007	1,187,110	208,077	383,738	(D)	55,232
2002	1,100,693	223,488	331,685	(D)	75,246
500 or more ..... farms, 2007	1,844	575	271	-	49
2002	1,530	572	206	-	76
number, 2007	2,186,474	841,202	241,573	-	46,352
2002	1,971,772	795,957	179,608	-	60,419
Cows and heifers that had calved ..... farms, 2007	47,412	13,225	19,769	253	8,236
2002	51,047	13,590	23,118	190	8,857
number, 2007	2,129,636	720,857	711,751	3,125	248,249
2002	2,137,136	702,156	803,765	3,309	238,832
Beef cows ..... farms, 2007	47,059	12,876	12,253	227	8,177
2002	50,465	13,063	14,743	163	8,730
number, 2007	2,063,613	604,069	158,430	1,800	230,419
2002	2,050,866	585,733	212,234	1,481	218,650
2007 farms by inventory:					
1 to 9 ..... farms	12,172	6,867	7,229	167	2,374
number	60,929	27,322	30,405	611	11,887
10 to 19 ..... farms	10,034	1,956	2,719	35	1,852
number	135,741	25,870	35,780	(D)	24,938
20 to 49 ..... farms	13,997	1,967	1,834	23	2,763
number	427,065	59,150	52,353	555	84,623
50 to 99 ..... farms	6,065	885	370	1	906
number	408,431	59,665	23,389	(D)	57,333
100 to 199 ..... farms	3,093	497	78	1	213
number	405,238	66,987	9,769	(D)	27,054
200 to 499 ..... farms	1,415	471	21	-	63
number	390,779	141,986	(D)	-	17,533
500 or more ..... farms	283	233	2	-	6
number	235,430	223,089	(D)	-	7,051
Milk cows ..... farms, 2007	981	596	8,333	39	106
2002	1,828	1,133	9,629	43	326
number, 2007	66,023	116,788	553,321	1,325	17,830
2002	86,270	116,423	591,531	1,828	20,182
2007 farms by inventory:					
1 to 9 ..... farms	518	305	1,049	22	25
number	1,474	679	2,619	(D)	(D)
10 to 19 ..... farms	80	10	306	1	2
number	976	117	4,099	(D)	(D)
20 to 49 ..... farms	102	29	2,680	7	7
number	3,145	985	101,174	227	248
50 to 99 ..... farms	127	40	2,996	6	11
number	8,689	2,924	195,178	423	850
100 to 199 ..... farms	110	84	980	2	31
number	14,452	12,352	124,815	(D)	4,531
200 to 499 ..... farms	32	82	255	1	23
number	8,324	25,936	70,832	(D)	7,129
500 or more ..... farms	12	46	67	-	7
number	28,963	73,795	54,604	-	4,990
Other cattle (see text) ..... farms, 2007	46,508	12,218	22,163	175	6,535
2002	52,075	12,690	23,435	158	8,023
number, 2007	3,261,701	668,332	897,396	1,960	152,747
2002	3,187,104	657,869	828,884	1,999	193,433
2007 farms by inventory:					
1 to 9 ..... farms	17,401	7,404	8,003	124	2,770
number	74,923	28,459	34,580	493	11,907
10 to 19 ..... farms	9,141	1,769	3,641	21	1,512
number	122,170	23,301	48,995	(D)	20,332
20 to 49 ..... farms	9,649	1,451	5,703	22	1,673
number	291,894	43,309	179,209	627	49,822
50 to 99 ..... farms	4,315	631	2,838	7	381
number	292,063	41,860	189,486	417	24,478
100 to 199 ..... farms	2,743	402	1,255	1	121
number	370,693	53,332	163,725	(D)	16,794
200 to 499 ..... farms	2,159	325	589	-	63
number	644,571	96,523	174,951	-	18,165
500 or more ..... farms	1,100	236	134	-	15
number	1,465,387	381,548	106,450	-	11,249

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
INVENTORY					
Cattle and calves ....farms, 2007	15,667	46,719	152,102	7,581	2,459
2002	17,983	50,471	150,577	6,688	2,680
number, 2007	3,687,728	2,122,018	13,709,543	843,474	264,823
2002	3,695,877	2,233,988	13,978,987	876,951	283,619
Farms by inventory:					
1 to 9 .... farms, 2007	1,136	8,913	41,632	2,208	751
2002	1,173	10,348	31,664	1,741	562
number, 2007	5,682	49,609	216,793	9,670	3,373
2002	6,069	59,183	178,135	7,698	2,702
10 to 19 .... farms, 2007	985	10,797	32,299	1,081	304
2002	1,202	12,523	32,734	912	351
number, 2007	13,584	149,135	440,603	14,691	4,057
2002	16,816	173,608	450,451	12,475	4,626
20 to 49 .... farms, 2007	2,356	15,435	39,444	1,521	347
2002	3,041	16,094	43,170	1,289	418
number, 2007	76,703	482,220	1,212,906	45,858	10,925
2002	99,605	496,367	1,333,319	40,592	12,977
50 to 99 .... farms, 2007	2,603	6,617	17,803	977	400
2002	3,245	6,795	20,241	875	481
number, 2007	183,255	450,180	1,217,646	67,863	29,267
2002	232,812	461,487	1,385,423	61,637	35,016
100 to 199 .... farms, 2007	3,013	3,528	10,727	819	358
2002	3,898	3,037	11,757	737	530
number, 2007	424,847	473,679	1,461,553	113,464	49,023
2002	545,869	404,642	1,601,354	104,431	72,432
200 to 499 .... farms, 2007	3,739	1,228	6,921	595	197
2002	3,771	1,366	7,341	726	246
number, 2007	1,155,271	347,246	2,061,311	177,884	60,320
2002	1,151,231	401,324	2,187,400	220,169	71,001
500 or more .... farms, 2007	1,835	201	3,276	380	102
2002	1,653	308	3,670	408	92
number, 2007	1,828,386	169,949	7,098,731	414,044	107,858
2002	1,643,475	237,377	6,842,905	429,949	84,865
Cows and heifers that had calved ....farms, 2007	14,108	42,872	132,448	5,872	2,093
2002	16,010	44,927	132,315	5,456	2,375
number, 2007	1,735,735	1,240,233	5,664,242	450,006	149,721
2002	1,778,171	1,177,076	5,854,882	440,213	161,902
Beef cows .... farms, 2007	13,802	42,344	131,769	5,589	1,048
2002	15,515	44,249	131,506	5,055	1,101
number, 2007	1,649,492	1,179,102	5,259,843	364,744	10,002
2002	1,694,091	1,093,059	5,545,824	349,309	11,276
2007 farms by inventory:					
1 to 9 .... farms	1,168	12,003	44,828	1,821	756
number	5,730	63,194	217,498	7,326	2,895
10 to 19 .... farms	1,222	10,983	29,164	863	161
number	16,774	150,094	392,632	11,605	2,041
20 to 49 .... farms	2,930	13,281	33,387	1,172	107
number	95,434	396,953	1,009,078	35,867	2,870
50 to 99 .... farms	3,009	4,283	13,107	768	19
number	210,969	284,873	886,045	52,524	(D)
100 to 199 .... farms	2,861	1,449	6,887	503	3
number	391,166	183,038	913,178	68,033	(D)
200 to 499 .... farms	2,229	316	3,513	359	2
number	626,250	81,459	991,138	102,880	(D)
500 or more .... farms	383	29	883	103	-
number	303,169	19,491	850,274	86,509	-
Milk cows .... farms, 2007	656	1,230	1,293	450	1,219
2002	1,114	1,427	2,080	680	1,508
number, 2007	86,243	61,131	404,399	85,262	139,719
2002	84,080	84,017	309,058	90,904	150,626
2007 farms by inventory:					
1 to 9 .... farms	147	631	685	174	166
number	430	1,568	1,516	404	460
10 to 19 .... farms	31	57	27	8	40
number	413	729	339	105	590
20 to 49 .... farms	151	131	27	22	276
number	5,102	4,425	991	727	10,056
50 to 99 .... farms	161	192	69	53	382
number	11,036	13,600	5,001	3,843	26,561
100 to 199 .... farms	86	162	147	92	191
number	10,658	21,744	21,015	12,804	26,156
200 to 499 .... farms	45	49	146	59	111
number	13,326	13,622	45,128	18,231	31,296
500 or more .... farms	35	8	192	42	53
number	45,278	5,443	330,409	49,148	44,600
Other cattle (see text) .... farms, 2007	13,694	36,495	120,999	6,240	2,060
2002	16,184	41,952	129,005	5,550	2,347
number, 2007	1,951,993	881,785	8,045,301	393,468	115,102
2002	1,917,706	1,056,912	8,124,105	436,738	121,717
2007 farms by inventory:					
1 to 9 .... farms	2,762	15,927	61,070	2,588	698
number	11,409	71,814	254,062	10,572	2,735
10 to 19 .... farms	1,489	8,707	23,998	1,013	296
number	20,103	116,434	316,566	13,290	3,914
20 to 49 .... farms	2,557	7,909	20,181	1,096	516
number	81,283	232,087	592,713	33,618	16,399
50 to 99 .... farms	2,176	2,586	7,532	743	285
number	151,064	169,537	505,011	51,014	19,191
100 to 199 .... farms	2,032	939	3,944	413	155
number	280,457	122,417	519,665	54,635	21,369
200 to 499 .... farms	1,868	343	2,603	241	75
number	551,149	97,215	768,423	73,451	22,889
500 or more .... farms	810	84	1,671	146	35
number	856,528	72,281	5,088,861	156,888	28,605

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
INVENTORY					
Cattle and calves ..... farms, 2007	25,957	12,731	12,792	35,125	5,625
2002	27,733	12,215	12,831	38,120	5,282
number, 2007	1,566,217	1,088,846	411,028	3,373,923	1,311,799
2002	1,622,767	1,100,181	404,163	3,338,122	1,297,042
Farms by inventory:					
1 to 9 ..... farms, 2007	5,869	6,031	4,513	6,546	1,099
2002	5,187	5,442	4,996	6,411	815
number, 2007	29,898	27,369	23,092	31,573	4,968
2002	28,700	25,670	23,345	31,889	3,841
10 to 19 ..... farms, 2007	5,071	2,375	3,160	4,665	565
2002	5,718	2,289	2,766	4,929	493
number, 2007	69,821	31,838	43,165	64,335	7,462
2002	79,732	30,622	37,916	67,202	6,614
20 to 49 ..... farms, 2007	7,434	2,117	3,133	7,253	892
2002	8,829	1,980	3,110	7,988	840
number, 2007	232,454	63,782	94,816	230,098	28,124
2002	273,651	60,321	94,164	256,017	27,034
50 to 99 ..... farms, 2007	3,714	783	1,229	6,695	757
2002	4,091	866	1,148	7,882	712
number, 2007	257,050	53,069	83,487	479,105	52,799
2002	280,505	58,675	78,069	568,103	50,969
100 to 199 ..... farms, 2007	2,254	542	487	6,198	750
2002	2,347	678	525	7,362	777
number, 2007	303,776	75,256	64,678	835,619	106,051
2002	320,837	93,033	69,935	987,084	108,666
200 to 499 ..... farms, 2007	1,245	485	222	2,865	894
2002	1,217	595	238	2,849	966
number, 2007	368,006	144,031	65,000	836,649	282,326
2002	358,346	181,808	66,543	807,077	304,508
500 or more ..... farms, 2007	370	398	48	903	668
2002	344	365	48	699	679
number, 2007	305,212	693,501	36,790	896,544	830,069
2002	280,996	650,052	34,191	620,750	795,410
Cows and heifers that had calved ..... farms, 2007	22,595	10,595	10,837	27,560	4,898
2002	23,885	9,927	11,049	28,688	4,654
number, 2007	793,978	517,133	215,455	1,519,129	738,785
2002	795,334	495,417	215,373	1,474,964	736,760
Beef cows ..... farms, 2007	21,907	10,065	10,653	14,775	4,870
2002	23,030	9,128	10,824	13,300	4,590
number, 2007	695,061	274,001	203,711	269,820	732,141
2002	680,610	248,664	200,401	231,649	732,546
2007 farms by inventory:					
1 to 9 ..... farms	6,662	5,895	5,185	6,826	976
number	33,356	23,544	24,339	30,669	4,243
10 to 19 ..... farms	5,328	1,616	2,508	3,450	460
number	72,408	21,199	33,416	46,038	6,213
20 to 49 ..... farms	6,276	1,486	2,147	3,439	901
number	188,883	43,481	63,668	98,413	28,094
50 to 99 ..... farms	2,328	484	563	807	675
number	153,668	32,878	37,738	52,275	46,541
100 to 199 ..... farms	922	317	176	195	735
number	120,870	42,521	22,565	24,389	102,919
200 to 499 ..... farms	357	201	69	50	791
number	100,130	58,124	18,355	12,773	238,391
500 or more ..... farms	34	66	5	8	332
number	25,746	52,254	3,630	5,263	305,740
Milk cows ..... farms, 2007	1,154	817	370	14,158	122
2002	1,580	1,208	525	16,886	265
number, 2007	98,917	243,132	11,744	1,249,309	6,644
2002	114,724	246,753	14,972	1,243,315	4,214
2007 farms by inventory:					
1 to 9 ..... farms	328	324	221	598	93
number	815	822	329	2,272	(D)
10 to 19 ..... farms	57	30	8	736	2
number	720	367	(D)	10,500	(D)
20 to 49 ..... farms	133	25	56	4,502	7
number	4,479	801	1,876	161,417	248
50 to 99 ..... farms	242	67	54	5,567	8
number	17,762	4,989	3,680	366,821	502
100 to 199 ..... farms	291	105	20	1,685	7
number	38,408	14,602	2,660	218,618	968
200 to 499 ..... farms	90	127	10	798	3
number	25,453	40,071	2,585	232,323	(D)
500 or more ..... farms	13	139	1	272	2
number	11,280	181,480	(D)	257,358	(D)
Other cattle (see text) ..... farms, 2007	20,703	9,505	10,201	31,773	4,758
2002	23,247	9,593	10,430	35,506	4,708
number, 2007	772,239	571,713	195,573	1,854,794	573,014
2002	827,433	604,764	188,790	1,863,158	560,282
2007 farms by inventory:					
1 to 9 ..... farms	8,171	5,744	6,055	8,185	1,607
number	35,078	22,485	25,108	37,483	6,402
10 to 19 ..... farms	4,401	1,552	1,898	4,932	726
number	58,828	19,811	25,162	67,041	9,826
20 to 49 ..... farms	4,453	1,084	1,367	8,197	879
number	134,317	31,767	41,261	263,227	27,240
50 to 99 ..... farms	2,006	401	565	5,801	555
number	134,939	27,294	37,379	386,270	38,192
100 to 199 ..... farms	1,003	299	206	2,876	397
number	132,618	38,759	27,846	375,594	54,923
200 to 499 ..... farms	508	237	98	1,430	395
number	150,821	69,110	(D)	403,914	120,371
500 or more ..... farms	161	188	12	352	199
number	125,638	362,487	(D)	321,265	316,060

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
INVENTORY - Con.						
Cattle and calves - Con.						
Cattle on feed (see text) ..... farms, 2007	50,009	12	7	7	75	264
2002	80,743	105	13	16	848	552
number, 2007	16,098,910	5,513	139	367,647	1,965	571,541
2002	14,905,545	2,796	122	288,295	18,651	535,734
2007 farms by inventory:						
1 to 9 ..... farms	15,818	-	4	-	54	140
number	65,809	-	14	-	166	476
10 to 19 ..... farms	7,072	-	1	-	6	23
number	93,242	-	(D)	-	(D)	274
20 to 49 ..... farms	9,136	-	-	-	4	22
number	280,083	-	-	-	127	617
50 to 99 ..... farms	6,313	3	2	-	4	24
number	426,159	(D)	(D)	-	245	1,608
100 to 199 ..... farms	4,375	2	-	-	6	13
number	586,624	(D)	-	-	802	1,628
200 to 499 ..... farms	3,744	3	-	2	-	12
number	1,118,788	850	-	(D)	-	3,864
500 or more ..... farms	3,551	4	-	5	1	30
number	13,528,205	4,200	-	(D)	(D)	563,074
SALES						
Dairy products sold ..... farms, 2007	69,763	165	7	190	369	1,953
2002	78,963	266	18	127	396	2,422
$1,000, 2007	31,848,029	38,270	1,487	634,509	44,770	6,569,172
2002	20,281,166	46,129	3,246	352,784	54,049	3,739,213
Cattle and calves sold ..... farms, 2007	798,290	21,356	75	4,078	23,731	12,681
2002	851,971	23,088	83	2,030	25,955	12,897
number, 2007	74,071,936	711,735	1,026	672,947	992,422	3,553,530
2002	73,509,165	782,393	1,356	673,305	932,963	3,157,013
$1,000, 2007	61,209,970	408,276	768	585,479	625,996	2,536,571
2002	45,115,184	348,253	759	403,959	421,266	1,582,334
2007 farms by number sold:						
1 to 9 ..... farms	285,131	8,074	48	2,495	8,275	5,050
number	1,243,461	38,106	(D)	8,780	37,767	19,154
10 to 19 ..... farms	151,782	5,019	18	519	5,283	1,601
number	2,059,477	68,025	244	6,765	71,942	21,282
20 to 49 ..... farms	177,736	5,050	3	402	6,138	1,799
number	5,447,558	150,630	111	12,222	185,738	54,099
50 to 99 ..... farms	86,706	1,940	5	240	2,436	1,097
number	5,907,243	129,697	381	16,217	162,826	75,928
100 to 199 ..... farms	47,855	803	1	158	961	1,002
number	6,458,387	107,678	(D)	21,358	125,570	138,712
200 to 499 ..... farms	31,095	369	-	132	423	1,092
number	9,218,477	107,421	-	41,220	122,707	343,024
500 or more ..... farms	17,985	101	-	132	215	1,040
number	43,737,333	110,178	-	566,385	285,872	2,901,331
Calves weighing less than 500 pounds, sold ..... farms, 2007	414,324	14,931	27	1,988	15,461	6,174
2002	500,652	18,519	28	1,451	20,004	6,427
number, 2007	13,695,252	286,857	258	157,825	277,679	1,353,352
2002	14,134,147	323,518	472	159,841	367,712	1,111,050
2007 farms by number sold:						
1 to 9 ..... farms	188,636	7,067	22	1,095	7,106	2,611
number	804,207	32,171	86	3,704	31,016	9,946
10 to 19 ..... farms	92,239	3,658	2	253	3,915	744
number	1,200,194	47,496	(D)	3,290	50,639	9,629
20 to 49 ..... farms	86,922	3,096	2	283	3,438	840
number	2,504,176	87,317	(D)	8,488	97,055	25,343
50 to 99 ..... farms	26,191	762	1	119	739	558
number	1,695,544	48,233	(D)	7,976	46,525	36,988
100 to 199 ..... farms	11,029	239	-	91	190	433
number	1,438,458	30,349	-	12,129	23,412	57,510
200 to 499 ..... farms	6,405	93	-	85	60	563
number	1,865,081	24,154	-	24,403	17,281	170,715
500 or more ..... farms	2,902	16	-	62	13	425
number	4,187,592	17,137	-	97,835	11,751	1,043,221
Cattle, including calves weighing 500 pounds or more, sold ..... farms, 2007	681,126	17,202	67	3,186	19,437	11,122
2002	709,973	17,612	79	1,661	19,697	11,441
number, 2007	60,376,684	424,878	768	515,122	714,743	2,200,178
2002	59,375,018	458,875	884	513,464	565,251	2,045,963
2007 farms by number sold:						
1 to 9 ..... farms	297,526	9,130	46	2,061	9,164	4,750
number	1,192,607	37,870	159	6,969	37,760	16,564
10 to 19 ..... farms	122,477	3,628	14	375	4,093	1,394
number	1,620,881	47,054	(D)	4,804	53,721	18,263
20 to 49 ..... farms	127,694	2,848	2	361	3,792	1,577
number	3,852,708	82,872	(D)	10,713	111,422	47,955
50 to 99 ..... farms	60,513	873	5	137	1,309	1,018
number	4,089,677	57,661	365	9,186	86,606	68,895
100 to 199 ..... farms	34,637	434	-	84	573	886
number	4,641,988	58,225	-	11,010	75,215	119,463
200 to 499 ..... farms	24,114	225	-	91	328	883
number	7,080,491	65,393	-	27,420	97,227	270,989
500 or more ..... farms	14,165	64	-	77	178	614
number	37,898,332	75,803	-	445,020	252,792	1,658,049

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
INVENTORY - Con.						
Cattle and calves - Con.						
Cattle on feed (see text) ..... farms, 2007	679	56	30	190	117	15
2002	981	62	38	-	26	28
number, 2007	1,130,652	1,152	2,200	2,394	1,066	225
2002	1,102,760	1,484	660	-	1,257	2,336
2007 farms by inventory:						
1 to 9 ..... farms	293	45	20	145	75	9
number	998	147	82	559	322	22
10 to 19 ..... farms	56	7	2	26	30	3
number	767	91	(D)	346	378	54
20 to 49 ..... farms	41	2	4	8	10	1
number	1,177	(D)	125	(D)	(D)	(D)
50 to 99 ..... farms	46	-	1	9	2	2
number	2,991	-	(D)	557	(D)	(D)
100 to 199 ..... farms	53	1	2	1	-	-
number	7,132	(D)	(D)	(D)	-	-
200 to 499 ..... farms	47	-	-	-	-	-
number	14,795	-	-	-	-	-
500 or more ..... farms	143	1	1	1	-	-
number	1,102,792	(D)	(D)	(D)	-	-
SALES						
Dairy products sold ..... farms, 2007	447	261	83	227	651	5
2002	260	218	89	452	517	10
$1,000, 2007	456,076	72,338	21,715	412,211	264,423	7,018
2002	247,095	56,523	20,651	371,691	212,720	21,745
Cattle and calves sold ..... farms, 2007	11,963	805	307	14,146	16,261	713
2002	11,877	715	276	14,149	18,770	550
number, 2007	3,148,677	17,348	11,219	843,641	595,273	70,567
2002	3,625,015	17,823	8,212	847,869	565,767	60,739
$1,000, 2007	3,156,348	9,405	7,567	436,193	342,392	44,011
2002	2,632,740	7,025	3,254	328,820	240,070	30,719
2007 farms by number sold:						
1 to 9 ..... farms	4,213	555	175	7,125	6,631	378
number	16,703	1,932	(D)	29,618	29,876	1,467
10 to 19 ..... farms	1,668	90	49	2,424	3,405	91
number	22,713	1,273	633	32,033	46,241	1,152
20 to 49 ..... farms	2,180	82	43	2,101	3,587	93
number	68,003	2,547	1,220	63,151	108,980	2,907
50 to 99 ..... farms	1,363	37	17	1,101	1,435	59
number	94,512	2,706	1,183	74,995	97,245	3,970
100 to 199 ..... farms	1,081	28	12	642	751	31
number	148,231	3,805	(D)	87,050	99,548	4,035
200 to 499 ..... farms	868	10	10	428	353	29
number	267,006	3,288	2,638	129,328	101,350	8,621
500 or more ..... farms	590	3	1	325	99	32
number	2,531,509	1,797	(D)	427,466	112,033	48,415
Calves weighing less than 500 pounds, sold ..... farms, 2007	4,401	367	143	10,145	11,007	475
2002	6,285	382	145	11,821	14,743	303
number, 2007	247,367	8,099	3,646	478,075	239,342	43,102
2002	350,684	8,841	3,944	509,867	260,081	20,342
2007 farms by number sold:						
1 to 9 ..... farms	1,759	225	67	5,209	5,140	225
number	6,677	752	241	21,093	22,910	908
10 to 19 ..... farms	782	49	28	1,741	2,426	59
number	10,185	625	346	22,540	31,812	743
20 to 49 ..... farms	832	45	27	1,633	2,427	79
number	24,758	1,413	840	49,326	69,939	2,439
50 to 99 ..... farms	482	29	12	715	665	41
number	32,265	1,959	779	47,327	42,982	2,564
100 to 199 ..... farms	286	14	6	417	250	27
number	37,112	1,808	773	55,470	31,665	3,381
200 to 499 ..... farms	193	5	3	283	81	23
number	57,676	1,542	667	81,762	22,705	7,330
500 or more ..... farms	67	-	-	147	18	21
number	78,694	-	-	200,557	17,329	25,737
Cattle, including calves weighing 500 pounds or more, sold ..... farms, 2007	10,778	686	255	10,045	12,801	457
2002	10,458	621	256	9,511	13,849	385
number, 2007	2,901,310	9,249	7,573	365,566	355,931	27,465
2002	3,274,331	8,982	4,268	338,002	305,686	40,397
2007 farms by number sold:						
1 to 9 ..... farms	4,166	502	160	6,451	6,939	288
number	15,910	1,617	574	22,466	27,028	955
10 to 19 ..... farms	1,448	67	45	1,330	2,450	51
number	19,610	861	(D)	17,106	31,869	(D)
20 to 49 ..... farms	1,893	78	25	1,124	2,041	43
number	59,002	2,263	(D)	32,311	59,211	1,308
50 to 99 ..... farms	1,226	25	18	495	706	36
number	84,675	1,702	1,100	33,221	46,677	2,275
100 to 199 ..... farms	858	8	3	290	376	15
number	117,115	(D)	410	37,666	48,513	1,903
200 to 499 ..... farms	707	5	3	208	218	14
number	212,886	1,396	774	61,976	62,751	3,978
500 or more ..... farms	480	1	1	147	71	10
number	2,392,112	(D)	(D)	160,820	79,882	(D)

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
INVENTORY - Con.						
Cattle and calves - Con.						
Cattle on feed (see text) ..... farms, 2007	383	3,313	2,580	7,209	1,322	648
2002	684	5,276	4,598	8,725	1,672	1,883
number, 2007	250,741	311,976	105,264	1,738,545	2,673,400	15,911
2002	317,068	383,993	144,959	1,249,270	2,364,959	29,147
2007 farms by inventory:						
1 to 9 ..... farms	196	973	1,125	1,108	265	323
number	729	4,453	4,966	5,147	1,057	(D)
10 to 19 ..... farms	38	510	459	717	87	139
number	502	6,895	6,077	9,706	1,183	1,875
20 to 49 ..... farms	31	774	497	1,304	128	86
number	935	22,986	15,190	41,969	4,246	2,611
50 to 99 ..... farms	36	453	282	1,165	167	71
number	2,295	30,185	18,851	80,072	11,502	4,691
100 to 199 ..... farms	21	235	120	909	183	18
number	2,603	32,072	15,863	124,675	24,064	2,196
200 to 499 ..... farms	19	222	71	987	203	10
number	5,824	65,700	20,450	298,018	64,614	2,933
500 or more ..... farms	42	146	26	1,019	289	1
number	237,853	149,685	23,867	1,178,958	2,566,734	(D)
SALES						
Dairy products sold ..... farms, 2007	809	1,255	2,071	2,465	795	2,273
2002	790	1,442	2,345	2,913	842	2,208
$1,000, 2007	1,843,788	340,336	583,212	689,680	376,511	250,305
2002	869,526	226,761	333,339	442,431	248,542	214,365
Cattle and calves sold ..... farms, 2007	9,662	16,046	15,088	27,535	27,565	38,212
2002	9,035	17,699	16,879	29,515	29,589	40,429
number, 2007	1,829,456	894,593	637,951	3,635,880	8,738,281	1,503,458
2002	1,856,342	917,251	602,637	2,929,704	8,044,209	1,291,026
$1,000, 2007	1,383,742	808,487	456,657	3,606,633	8,542,872	935,611
2002	1,149,407	624,976	324,054	2,119,935	5,715,204	622,855
2007 farms by number sold:						
1 to 9 ..... farms	3,899	5,436	6,883	5,795	5,929	12,491
number	15,342	24,988	29,388	27,557	27,226	59,341
10 to 19 ..... farms	1,343	3,558	3,338	4,454	4,614	9,005
number	17,976	48,536	44,865	61,510	63,520	122,897
20 to 49 ..... farms	1,644	3,860	2,896	7,450	7,041	10,244
number	50,966	117,601	85,817	233,096	219,246	310,125
50 to 99 ..... farms	981	1,702	1,008	4,158	4,320	3,838
number	68,071	114,319	67,829	285,755	298,256	255,657
100 to 199 ..... farms	702	793	460	2,546	2,535	1,568
number	95,893	103,823	61,066	342,849	342,059	207,719
200 to 499 ..... farms	606	450	312	1,624	1,704	775
number	184,870	132,489	88,515	481,115	504,290	228,491
500 or more ..... farms	487	247	191	1,508	1,422	291
number	1,396,338	352,837	260,471	2,203,998	7,283,684	319,228
Calves weighing less than 500 pounds, sold ..... farms, 2007	3,362	6,802	6,750	8,155	10,669	22,426
2002	3,173	7,653	7,485	9,504	13,095	25,744
number, 2007	495,977	138,398	317,832	316,177	384,700	400,809
2002	286,514	136,854	261,964	259,122	475,590	362,980
2007 farms by number sold:						
1 to 9 ..... farms	1,508	3,088	3,484	2,753	4,007	10,589
number	5,640	13,621	14,719	12,074	17,183	47,604
10 to 19 ..... farms	467	1,651	1,517	1,781	2,416	5,852
number	5,921	21,698	19,695	23,373	31,425	75,846
20 to 49 ..... farms	614	1,497	1,074	2,323	2,575	4,631
number	18,052	43,302	30,763	68,546	75,270	130,008
50 to 99 ..... farms	249	393	284	815	1,068	979
number	16,194	24,420	18,399	52,605	69,494	61,942
100 to 199 ..... farms	181	120	136	249	362	245
number	23,747	15,528	18,385	32,601	46,365	30,881
200 to 499 ..... farms	190	51	125	163	177	108
number	57,914	(D)	36,391	52,953	47,646	30,527
500 or more ..... farms	153	2	130	71	64	22
number	368,509	(D)	179,480	74,025	97,317	24,001
Cattle, including calves weighing 500 pounds or more, sold ..... farms, 2007	8,782	13,764	12,568	24,994	24,684	32,494
2002	8,221	15,088	14,140	26,277	25,295	33,134
number, 2007	1,333,479	756,195	320,119	3,319,703	8,353,581	1,102,649
2002	1,569,828	780,397	340,673	2,670,582	7,568,619	928,046
2007 farms by number sold:						
1 to 9 ..... farms	3,758	5,598	6,867	6,070	6,366	14,253
number	14,185	23,571	27,144	27,421	27,604	61,305
10 to 19 ..... farms	1,210	2,743	2,543	4,116	4,066	7,244
number	16,044	36,413	33,419	56,139	55,344	96,194
20 to 49 ..... farms	1,478	2,964	1,962	6,274	5,861	6,775
number	44,736	89,987	57,500	195,789	182,315	201,406
50 to 99 ..... farms	890	1,271	681	3,575	3,611	2,323
number	60,799	84,030	45,421	241,975	246,995	153,215
100 to 199 ..... farms	608	584	288	2,084	1,963	1,032
number	83,035	75,797	37,826	279,433	264,847	135,425
200 to 499 ..... farms	513	369	162	1,452	1,491	620
number	153,424	108,396	46,239	423,534	437,986	183,457
500 or more ..... farms	325	235	65	1,423	1,326	247
number	961,256	338,001	72,570	2,095,412	7,138,490	271,647

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
INVENTORY - Con.						
Cattle and calves - Con.						
Cattle on feed (see text) ..... farms, 2007	-	113	298	34	2,865	5,641
2002	3	92	605	60	3,799	6,991
number, 2007	-	1,675	8,206	944	179,158	610,752
2002	(D)	3,625	17,990	913	183,317	518,036
2007 farms by inventory:						
1 to 9 ..... farms	-	80	161	19	1,266	1,163
number	-	256	689	(D)	5,282	5,351
10 to 19 ..... farms	-	20	49	-	505	853
number	-	263	656	-	6,509	11,312
20 to 49 ..... farms	-	6	53	10	503	1,456
number	-	168	1,621	(D)	15,434	45,172
50 to 99 ..... farms	-	3	22	4	240	858
number	-	260	1,566	300	16,065	57,625
100 to 199 ..... farms	-	1	10	-	165	583
number	-	(D)	1,174	-	21,844	78,514
200 to 499 ..... farms	-	3	1	1	131	423
number	-	(D)	(D)	(D)	39,112	122,867
500 or more ..... farms	-	-	2	-	55	305
number	-	-	(D)	-	74,912	289,911
SALES						
Dairy products sold ..... farms, 2007	321	461	676	310	2,453	5,258
2002	445	436	730	264	2,738	6,226
$1,000, 2007	72,020	126,392	192,426	50,485	1,285,571	1,475,929
2002	82,866	87,544	169,458	(D)	697,920	931,754
Cattle and calves sold ..... farms, 2007	10,977	1,447	2,947	1,066	11,631	22,122
2002	11,925	1,223	3,004	795	11,293	22,961
number, 2007	403,495	27,501	90,130	20,405	603,609	1,586,705
2002	408,531	32,147	104,109	19,125	516,107	1,356,142
$1,000, 2007	223,922	15,660	58,293	12,444	449,371	1,385,740
2002	170,569	15,994	50,570	9,612	298,517	873,074
2007 farms by number sold:						
1 to 9 ..... farms	4,325	905	1,370	756	5,651	6,082
number	18,881	2,977	(D)	2,605	22,313	28,007
10 to 19 ..... farms	2,305	199	580	111	2,010	4,285
number	31,128	(D)	7,784	1,469	26,752	58,512
20 to 49 ..... farms	2,386	222	555	98	1,986	6,025
number	72,146	6,766	17,173	3,068	59,898	186,490
50 to 99 ..... farms	1,180	62	284	65	942	2,801
number	80,129	4,045	19,169	4,253	63,959	187,005
100 to 199 ..... farms	471	42	118	24	531	1,465
number	62,823	5,615	15,792	2,970	70,567	196,307
200 to 499 ..... farms	243	15	25	7	302	905
number	70,814	3,940	7,042	1,946	84,108	264,262
500 or more ..... farms	67	2	15	5	209	559
number	67,574	(D)	(D)	4,094	276,012	666,122
Calves weighing less than 500 pounds, sold ..... farms, 2007	7,943	669	1,474	474	4,307	8,042
2002	9,714	657	1,614	395	4,348	8,293
number, 2007	183,630	12,107	37,598	8,416	207,343	319,695
2002	195,775	13,132	42,983	8,646	149,974	251,081
2007 farms by number sold:						
1 to 9 ..... farms	3,502	398	683	309	2,087	2,840
number	15,005	1,225	2,773	912	7,894	12,669
10 to 19 ..... farms	1,854	92	297	52	824	1,955
number	24,328	1,180	3,891	692	10,544	25,343
20 to 49 ..... farms	1,768	127	339	72	743	2,117
number	51,482	3,559	10,442	2,318	21,557	60,827
50 to 99 ..... farms	566	25	106	27	312	644
number	36,443	1,726	7,046	1,705	20,353	42,899
100 to 199 ..... farms	167	21	30	8	172	267
number	22,000	2,645	3,834	935	22,668	33,973
200 to 499 ..... farms	70	6	9	6	80	157
number	19,222	1,772	2,954	1,854	23,590	45,083
500 or more ..... farms	16	-	10	-	89	62
number	15,150	-	6,658	-	100,737	98,901
Cattle, including calves weighing 500 pounds or more, sold ..... farms, 2007	8,260	1,237	2,583	916	10,483	19,980
2002	8,674	1,086	2,600	722	10,182	20,508
number, 2007	219,865	15,394	52,532	11,989	396,266	1,267,010
2002	212,756	19,015	61,126	10,479	366,133	1,105,061
2007 farms by number sold:						
1 to 9 ..... farms	4,485	867	1,445	673	5,662	6,562
number	16,945	2,855	5,625	2,096	21,377	29,235
10 to 19 ..... farms	1,492	167	491	108	1,788	4,059
number	19,356	2,138	6,415	1,404	23,395	54,796
20 to 49 ..... farms	1,363	143	444	92	1,663	4,947
number	40,212	4,072	12,660	2,667	49,900	149,678
50 to 99 ..... farms	519	30	136	33	703	2,124
number	34,802	2,025	9,052	2,302	46,946	140,817
100 to 199 ..... farms	212	27	49	2	352	1,079
number	27,502	3,237	6,644	(D)	46,130	143,665
200 to 499 ..... farms	158	2	14	4	194	739
number	45,926	(D)	3,826	(D)	55,132	214,180
500 or more ..... farms	31	1	4	4	121	470
number	35,122	(D)	8,310	(D)	153,386	534,639

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
INVENTORY - Con.						
Cattle and calves - Con.						
Cattle on feed (see text) ..... farms, 2007	-	1,473	225	2,612	38	6
2002	3	3,778	382	3,592	104	43
number, 2007	-	83,007	42,872	2,736,201	6,217	112
2002	(D)	164,978	68,153	2,452,608	22,979	347
2007 farms by inventory:						
1 to 9 ..... farms	-	581	115	285	26	4
number	-	2,500	449	1,180	124	(D)
10 to 19 ..... farms	-	220	25	162	-	-
number	-	2,831	321	2,146	-	-
20 to 49 ..... farms	-	325	22	301	2	1
number	-	9,913	647	9,912	(D)	(D)
50 to 99 ..... farms	-	156	14	370	1	1
number	-	10,336	920	25,934	(D)	(D)
100 to 199 ..... farms	-	111	16	345	3	-
number	-	14,398	2,038	47,291	(D)	-
200 to 499 ..... farms	-	55	12	436	4	-
number	-	15,671	3,811	137,079	1,025	-
500 or more ..... farms	-	25	21	713	2	-
number	-	27,358	34,686	2,512,659	(D)	-
SALES						
Dairy products sold ..... farms, 2007	219	2,777	380	494	57	225
2002	431	3,233	235	642	47	194
$1,000, 2007	62,875	302,684	54,761	172,066	98,526	59,132
2002	67,954	300,460	41,842	148,941	62,074	(D)
Cattle and calves sold ..... farms, 2007	14,535	52,060	11,526	20,218	1,260	599
2002	16,494	57,957	11,793	23,416	1,283	526
number, 2007	530,495	2,462,198	1,842,159	7,620,019	280,998	12,350
2002	514,514	2,491,094	1,770,727	7,351,398	407,085	13,927
$1,000, 2007	323,621	1,676,632	1,368,699	7,358,555	181,758	6,743
2002	228,346	1,285,288	1,015,169	5,401,018	215,054	5,140
2007 farms by number sold:						
1 to 9 ..... farms	5,547	14,197	2,025	2,713	368	401
number	25,903	67,579	8,842	12,361	1,541	1,286
10 to 19 ..... farms	3,188	11,030	1,211	2,441	149	69
number	43,169	152,374	16,841	33,670	2,059	(D)
20 to 49 ..... farms	3,618	14,871	2,057	4,513	172	59
number	108,420	460,179	66,216	143,706	5,171	1,868
50 to 99 ..... farms	1,326	7,072	1,870	3,440	128	44
number	88,023	479,451	134,110	242,612	8,908	2,931
100 to 199 ..... farms	514	3,087	1,903	2,924	149	18
number	67,701	406,922	265,869	400,866	21,110	(D)
200 to 499 ..... farms	246	1,313	1,806	2,345	161	7
number	71,779	376,361	544,512	702,218	48,967	2,160
500 or more ..... farms	96	490	654	1,842	133	1
number	125,500	519,332	805,769	6,084,586	193,242	(D)
Calves weighing less than 500 pounds, sold ..... farms, 2007	10,702	26,933	3,990	6,690	722	298
2002	13,415	34,725	4,010	8,507	700	293
number, 2007	205,171	588,273	272,531	367,504	98,544	6,194
2002	229,481	655,863	251,449	419,785	85,725	7,117
2007 farms by number sold:						
1 to 9 ..... farms	5,206	10,901	1,218	1,895	192	186
number	23,577	49,734	4,828	7,857	805	548
10 to 19 ..... farms	2,711	6,944	639	1,216	100	29
number	35,269	91,360	8,541	15,855	1,267	(D)
20 to 49 ..... farms	2,150	6,603	986	1,781	129	47
number	60,629	190,558	30,062	53,523	3,877	1,490
50 to 99 ..... farms	476	1,821	555	891	70	24
number	30,072	114,902	37,733	59,840	5,041	(D)
100 to 199 ..... farms	102	480	327	531	110	8
number	12,532	61,388	43,659	70,808	14,622	(D)
200 to 499 ..... farms	37	143	200	289	80	3
number	10,896	40,423	57,554	81,299	23,949	860
500 or more ..... farms	20	41	65	87	41	1
number	32,196	39,908	90,154	78,322	48,983	(D)
Cattle, including calves weighing 500 pounds or more, sold ..... farms, 2007	10,986	44,635	10,859	18,535	1,069	517
2002	11,603	48,207	10,947	20,982	1,083	469
number, 2007	325,324	1,873,925	1,569,628	7,252,515	182,454	6,156
2002	285,033	1,835,231	1,519,278	6,931,613	321,360	6,810
2007 farms by number sold:						
1 to 9 ..... farms	5,772	16,080	2,067	2,849	358	364
number	23,174	69,843	8,760	12,357	1,332	1,103
10 to 19 ..... farms	2,088	8,886	1,134	2,246	124	73
number	27,238	120,059	15,514	30,745	1,618	933
20 to 49 ..... farms	1,928	11,132	2,002	4,006	165	51
number	56,113	339,438	63,768	126,962	4,999	1,411
50 to 99 ..... farms	662	5,005	1,836	3,212	116	19
number	44,210	334,878	130,093	223,144	7,856	1,245
100 to 199 ..... farms	281	2,098	1,737	2,507	108	9
number	37,504	274,259	240,486	342,960	14,930	(D)
200 to 499 ..... farms	186	1,011	1,552	2,023	110	1
number	55,847	287,426	463,383	601,110	31,809	(D)
500 or more ..... farms	69	423	531	1,692	88	-
number	81,238	448,022	647,624	5,915,237	119,910	-

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
INVENTORY - Con.						
Cattle and calves - Con.						
Cattle on feed (see text) ..... farms, 2007	55	34	845	8	342	3,989
2002	200	112	1,511	13	522	6,606
number, 2007	1,043	154,556	31,204	1,794	84,331	190,638
2002	1,298	130,844	50,917	1,341	59,932	221,400
2007 farms by inventory:						
1 to 9 ..... farms	27	-	467	-	64	1,777
number	(D)	-	1,869	-	258	7,374
10 to 19 ..... farms	9	-	146	1	35	730
number	118	-	1,911	(D)	420	9,587
20 to 49 ..... farms	13	-	117	1	51	721
number	347	-	3,259	(D)	1,695	21,341
50 to 99 ..... farms	5	5	47	1	66	340
number	330	356	3,249	(D)	4,290	22,478
100 to 199 ..... farms	1	3	24	3	51	227
number	(D)	484	3,225	395	6,743	30,092
200 to 499 ..... farms	-	10	30	1	42	130
number	-	3,089	8,071	(D)	12,805	37,603
500 or more ..... farms	-	16	14	1	33	64
number	-	150,627	9,620	(D)	58,120	62,163
SALES						
Dairy products sold ..... farms, 2007	158	253	5,799	472	410	3,681
2002	138	182	6,681	706	551	4,255
$1,000, 2007	34,091	1,009,671	2,280,218	161,373	78,959	861,632
2002	29,154	730,083	1,560,895	150,406	65,450	551,877
Cattle and calves sold ..... farms, 2007	1,136	7,021	10,898	15,953	10,025	21,438
2002	1,227	5,622	11,972	18,584	10,944	22,938
number, 2007	13,955	952,841	583,468	463,680	1,109,460	793,955
2002	15,540	1,064,524	579,216	415,561	1,100,004	728,224
$1,000, 2007	9,559	576,025	318,080	288,801	856,489	565,746
2002	7,094	533,952	251,121	185,222	625,070	408,242
2007 farms by number sold:						
1 to 9 ..... farms	825	2,895	3,839	6,879	1,056	10,779
number	2,691	11,828	16,106	31,690	5,232	45,834
10 to 19 ..... farms	123	1,087	1,940	3,747	980	4,423
number	1,595	14,521	26,309	50,305	13,610	59,371
20 to 49 ..... farms	113	1,078	2,723	3,366	2,365	3,738
number	3,518	33,735	85,817	98,735	77,057	111,087
50 to 99 ..... farms	60	633	1,277	1,156	2,325	1,300
number	3,807	44,104	85,458	77,381	163,988	86,195
100 to 199 ..... farms	12	484	546	503	1,973	614
number	1,563	66,995	74,217	68,564	269,799	84,016
200 to 499 ..... farms	3	465	397	228	1,059	313
number	781	142,919	120,469	65,389	303,984	95,918
500 or more ..... farms	-	379	176	74	267	271
number	-	638,739	175,092	71,616	275,790	311,534
Calves weighing less than 500 pounds, sold ..... farms, 2007	417	4,135	6,466	9,688	3,235	9,743
2002	409	3,836	6,956	13,142	3,663	10,242
number, 2007	5,517	323,560	297,504	149,464	120,840	294,175
2002	6,115	388,263	287,536	165,929	136,318	227,992
2007 farms by number sold:						
1 to 9 ..... farms	276	1,908	2,075	5,163	929	5,373
number	877	7,490	8,556	22,912	3,894	22,056
10 to 19 ..... farms	52	660	1,280	2,371	627	2,094
number	(D)	8,636	17,104	30,348	8,064	27,002
20 to 49 ..... farms	58	703	1,947	1,636	920	1,557
number	(D)	21,134	56,982	45,205	27,453	44,157
50 to 99 ..... farms	25	347	609	369	469	348
number	(D)	23,169	39,086	23,295	31,132	21,809
100 to 199 ..... farms	5	210	262	107	226	142
number	(D)	27,015	35,075	13,671	29,824	19,263
200 to 499 ..... farms	1	163	207	34	59	99
number	(D)	48,594	64,115	8,794	16,773	30,201
500 or more ..... farms	-	144	86	8	5	130
number	-	187,522	76,586	5,239	3,700	129,687
Cattle, including calves weighing 500 pounds or more, sold ..... farms, 2007	993	5,470	9,878	12,988	9,489	18,672
2002	1,110	4,424	10,921	14,532	10,235	20,136
number, 2007	8,438	629,281	285,964	314,216	988,620	499,780
2002	9,425	676,261	291,680	249,632	963,686	500,232
2007 farms by number sold:						
1 to 9 ..... farms	769	2,514	4,670	7,319	1,168	11,318
number	2,447	9,219	19,182	29,367	5,604	44,247
10 to 19 ..... farms	97	759	2,296	2,487	1,015	3,249
number	1,225	9,843	30,156	32,320	13,861	42,570
20 to 49 ..... farms	103	795	1,795	1,920	2,274	2,518
number	2,972	24,376	52,112	55,282	73,926	73,380
50 to 99 ..... farms	19	432	567	711	2,198	781
number	1,215	29,511	37,837	47,035	154,534	51,955
100 to 199 ..... farms	5	360	309	325	1,681	423
number	579	48,694	41,493	44,264	226,817	57,136
200 to 499 ..... farms	-	364	187	168	910	254
number	-	110,597	54,992	48,465	257,473	78,968
500 or more ..... farms	-	246	54	58	243	129
number	-	397,041	50,192	57,483	256,405	151,524

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
INVENTORY - Con.					
Cattle and calves - Con.					
Cattle on feed (see text) ..... farms, 2007	617	476	3,038	7	116
2002	1,692	1,132	4,836	8	288
number, 2007	357,906	116,095	144,174	23	1,378
2002	363,792	95,383	155,063	69	5,693
2007 farms by inventory:					
1 to 9 ..... farms	258	313	1,242	7	80
number	945	1,022	5,405	23	342
10 to 19 ..... farms	73	35	575	-	19
number	968	441	7,485	-	(D)
20 to 49 ..... farms	97	22	544	-	12
number	2,884	624	16,287	-	382
50 to 99 ..... farms	81	33	362	-	4
number	5,541	2,246	24,864	-	267
100 to 199 ..... farms	54	21	150	-	1
number	7,231	2,673	20,334	-	(D)
200 to 499 ..... farms	29	29	120	-	-
number	8,406	8,466	34,524	-	-
500 or more ..... farms	25	23	45	-	-
number	331,931	100,623	35,275	-	-
SALES					
Dairy products sold ..... farms, 2007	1,022	592	8,407	39	115
2002	989	515	9,146	28	215
$1,000, 2007	191,775	401,786	1,890,190	4,599	52,550
2002	163,006	293,927	1,393,992	3,859	46,240
Cattle and calves sold ..... farms, 2007	45,512	13,077	19,784	148	6,782
2002	51,414	13,654	20,571	118	7,139
number, 2007	3,895,053	1,020,380	810,533	1,629	187,787
2002	4,218,687	975,593	808,556	1,479	179,594
$1,000, 2007	3,062,020	800,336	556,192	846	105,282
2002	2,448,916	543,231	441,671	735	76,146
2007 farms by number sold:					
1 to 9 ..... farms	14,288	7,404	7,660	115	2,745
number	65,683	26,844	30,971	389	12,796
10 to 19 ..... farms	9,125	1,738	3,346	16	1,613
number	123,506	23,302	45,149	(D)	21,804
20 to 49 ..... farms	10,770	1,599	5,316	11	1,518
number	328,321	49,507	166,129	369	46,257
50 to 99 ..... farms	5,329	911	2,047	4	618
number	363,378	61,882	135,954	332	40,745
100 to 199 ..... farms	2,920	575	755	2	200
number	395,064	77,749	99,534	(D)	25,555
200 to 499 ..... farms	1,976	500	460	-	69
number	579,614	151,230	141,795	-	18,979
500 or more ..... farms	1,104	350	200	-	19
number	2,039,487	629,866	191,001	-	21,651
Calves weighing less than 500 pounds, sold ..... farms, 2007	23,639	4,542	10,095	63	4,833
2002	31,678	5,032	11,215	59	5,450
number, 2007	563,368	163,896	344,871	843	77,040
2002	656,604	145,064	340,746	687	80,535
2007 farms by number sold:					
1 to 9 ..... farms	10,754	2,605	3,241	45	2,320
number	46,472	9,258	13,247	160	10,541
10 to 19 ..... farms	5,521	642	2,231	6	1,243
number	71,513	8,215	29,808	(D)	15,815
20 to 49 ..... farms	5,084	646	3,444	8	1,011
number	146,293	19,232	96,273	229	28,234
50 to 99 ..... farms	1,430	282	672	2	201
number	93,526	18,283	42,122	(D)	12,816
100 to 199 ..... farms	543	176	242	2	46
number	70,262	23,213	31,756	(D)	(D)
200 to 499 ..... farms	247	138	180	-	11
number	67,925	40,584	57,505	-	(D)
500 or more ..... farms	60	53	85	-	1
number	67,377	45,111	74,160	-	(D)
Cattle, including calves weighing 500 pounds or more, sold ..... farms, 2007	38,313	11,806	17,650	126	5,408
2002	42,479	12,419	18,337	94	5,470
number, 2007	3,331,685	856,484	465,662	786	110,747
2002	3,562,083	830,529	467,810	792	99,059
2007 farms by number sold:					
1 to 9 ..... farms	14,763	7,123	8,783	107	3,067
number	61,819	24,261	36,012	339	12,319
10 to 19 ..... farms	7,295	1,457	4,057	11	1,054
number	96,756	19,357	53,415	159	13,526
20 to 49 ..... farms	7,658	1,353	3,146	8	833
number	230,516	41,434	92,798	288	24,111
50 to 99 ..... farms	3,874	747	900	-	303
number	262,190	51,002	58,965	-	19,266
100 to 199 ..... farms	2,100	473	403	-	100
number	281,340	63,667	52,907	-	12,918
200 to 499 ..... farms	1,620	397	262	-	35
number	478,035	120,673	76,994	-	10,086
500 or more ..... farms	1,003	256	99	-	16
number	1,921,029	536,090	94,571	-	18,521

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
INVENTORY - Con.					
Cattle and calves - Con.					
Cattle on feed (see text) ..... farms, 2007	1,793	57	1,466	378	80
2002	2,485	41	4,977	676	114
number, 2007	517,783	3,124	3,056,260	33,992	2,135
2002	489,410	1,371	2,768,023	66,215	2,786
2007 farms by inventory:					
1 to 9 ..... farms	146	42	636	207	59
number	628	(D)	2,182	820	191
10 to 19 ..... farms	111	6	194	49	10
number	1,524	79	2,546	602	129
20 to 49 ..... farms	272	3	143	39	5
number	8,845	82	4,196	1,279	(D)
50 to 99 ..... farms	329	-	143	39	2
number	22,498	-	9,781	2,889	(D)
100 to 199 ..... farms	366	-	100	25	2
number	49,619	-	13,174	3,311	(D)
200 to 499 ..... farms	317	4	104	9	1
number	92,515	1,007	31,166	2,439	(D)
500 or more ..... farms	252	2	146	10	1
number	342,154	(D)	2,993,215	22,652	(D)
SALES					
Dairy products sold ..... farms, 2007	672	1,115	1,268	422	1,222
2002	982	1,048	1,162	451	1,393
$1,000, 2007	279,765	180,503	1,245,441	292,141	493,926
2002	156,498	173,410	676,703	196,812	342,440
Cattle and calves sold ..... farms, 2007	15,171	38,961	116,626	6,257	1,937
2002	17,060	42,017	125,518	5,617	2,104
number, 2007	2,745,227	1,095,372	11,841,250	519,155	107,049
2002	2,707,872	1,126,131	12,603,171	636,098	136,244
$1,000, 2007	2,307,618	633,303	10,503,774	347,299	57,581
2002	1,693,838	499,143	8,083,024	371,418	45,106
2007 farms by number sold:					
1 to 9 ..... farms	1,456	14,812	51,318	2,256	713
number	6,746	68,135	220,305	9,191	2,602
10 to 19 ..... farms	1,327	9,652	22,997	846	293
number	18,603	130,909	309,846	11,166	3,955
20 to 49 ..... farms	2,911	9,249	21,935	1,204	426
number	95,070	278,551	665,080	37,129	13,381
50 to 99 ..... farms	3,062	3,647	10,109	889	262
number	219,256	244,975	690,032	60,895	17,920
100 to 199 ..... farms	3,018	1,116	5,149	517	131
number	417,400	147,732	693,684	70,144	17,597
200 to 499 ..... farms	2,419	354	3,215	385	80
number	707,730	97,511	953,959	116,919	24,566
500 or more ..... farms	978	131	1,903	160	32
number	1,280,422	127,559	8,308,344	213,711	27,028
Calves weighing less than 500 pounds, sold ..... farms, 2007	4,700	24,511	70,541	2,663	1,193
2002	5,789	29,047	93,673	2,671	1,389
number, 2007	327,781	368,845	1,716,206	126,293	58,993
2002	386,898	382,075	2,072,660	159,453	83,183
2007 farms by number sold:					
1 to 9 ..... farms	1,110	12,438	36,901	1,072	310
number	4,623	55,732	153,826	4,403	1,168
10 to 19 ..... farms	772	6,345	14,966	460	214
number	10,327	82,499	194,492	5,804	(D)
20 to 49 ..... farms	1,198	4,559	12,470	624	371
number	36,022	128,256	361,558	18,101	11,416
50 to 99 ..... farms	722	909	3,722	239	157
number	48,771	57,663	241,305	14,883	10,196
100 to 199 ..... farms	517	201	1,487	136	79
number	70,067	24,859	190,642	17,848	10,550
200 to 499 ..... farms	300	48	748	99	53
number	83,826	12,380	218,173	26,973	16,260
500 or more ..... farms	81	11	247	33	9
number	74,145	7,456	356,210	38,281	(D)
Cattle, including calves weighing 500 pounds or more, sold ..... farms, 2007	14,153	32,823	94,783	5,506	1,756
2002	15,638	33,985	98,946	4,989	1,934
number, 2007	2,417,446	726,527	10,125,044	392,862	48,056
2002	2,320,974	744,056	10,530,511	476,645	53,061
2007 farms by number sold:					
1 to 9 ..... farms	1,562	16,832	50,564	2,155	863
number	6,881	70,032	193,132	8,179	3,272
10 to 19 ..... farms	1,298	7,218	16,177	798	370
number	18,039	94,944	211,824	10,369	4,839
20 to 49 ..... farms	2,794	5,834	14,763	1,062	321
number	90,980	173,210	441,253	32,179	9,698
50 to 99 ..... farms	2,976	1,961	6,155	695	112
number	211,926	128,529	410,368	47,426	7,427
100 to 199 ..... farms	2,648	626	3,289	396	54
number	362,438	82,295	439,422	52,862	7,309
200 to 499 ..... farms	2,035	243	2,297	286	27
number	588,525	69,674	670,685	84,975	7,626
500 or more ..... farms	840	109	1,538	114	9
number	1,138,657	107,843	7,758,360	156,872	7,885

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
INVENTORY - Con.					
Cattle and calves - Con.					
Cattle on feed (see text) ..... farms, 2007	579	313	35	5,503	66
2002	1,790	925	55	7,527	274
number, 2007	28,283	163,683	3,707	277,759	79,567
2002	65,650	212,638	6,787	245,964	84,025
2007 farms by inventory:					
1 to 9 ..... farms	246	232	-	1,540	-
number	957	731	-	6,828	-
10 to 19 ..... farms	102	22	2	1,015	-
number	(D)	284	(D)	13,248	-
20 to 49 ..... farms	108	21	8	1,368	-
number	(D)	595	(D)	40,811	-
50 to 99 ..... farms	50	9	16	840	5
number	(D)	677	1,133	54,675	450
100 to 199 ..... farms	37	8	4	479	21
number	4,995	1,031	460	61,684	2,988
200 to 499 ..... farms	34	8	5	213	16
number	9,949	2,150	1,818	60,088	5,395
500 or more ..... farms	2	13	-	48	24
number	(D)	158,215	-	40,425	70,734
SALES					
Dairy products sold ..... farms, 2007	1,173	823	161	14,270	32
2002	1,253	884	395	16,972	81
$1,000, 2007	330,344	873,365	31,386	4,573,294	22,331
2002	275,402	634,908	32,202	2,651,018	7,473
Cattle and calves sold ..... farms, 2007	21,884	9,521	10,474	30,193	4,880
2002	23,970	8,979	9,513	31,807	4,997
number, 2007	880,607	912,299	249,845	1,513,662	1,036,661
2002	931,879	1,081,584	239,760	1,533,092	1,127,826
$1,000, 2007	574,506	716,720	164,962	1,014,553	801,833
2002	471,703	709,585	117,967	834,895	643,123
2007 farms by number sold:					
1 to 9 ..... farms	7,896	5,541	5,156	8,685	1,021
number	35,560	20,232	22,377	38,053	4,087
10 to 19 ..... farms	4,666	1,331	2,209	5,819	447
number	63,441	17,635	29,573	79,681	6,041
20 to 49 ..... farms	5,261	1,119	2,021	9,034	804
number	160,272	32,556	60,648	280,654	26,125
50 to 99 ..... farms	2,329	555	723	3,846	673
number	157,336	38,289	47,256	256,403	47,515
100 to 199 ..... farms	1,089	397	217	1,586	731
number	142,182	52,628	29,292	210,408	104,115
200 to 499 ..... farms	497	352	118	869	776
number	142,886	103,963	34,204	255,696	235,483
500 or more ..... farms	146	226	30	354	428
number	178,930	646,996	26,495	392,767	613,295
Calves weighing less than 500 pounds, sold ..... farms, 2007	12,168	3,434	5,506	15,109	2,116
2002	14,645	3,212	5,619	17,174	2,318
number, 2007	226,911	185,142	59,433	626,487	201,582
2002	240,339	174,497	66,518	677,600	244,748
2007 farms by number sold:					
1 to 9 ..... farms	6,133	2,039	3,593	4,440	539
number	26,900	7,215	14,565	20,025	2,115
10 to 19 ..... farms	2,964	435	1,154	3,906	242
number	38,587	5,582	14,650	50,999	3,210
20 to 49 ..... farms	2,254	391	600	4,722	441
number	64,268	11,383	16,811	132,588	13,617
50 to 99 ..... farms	571	211	119	1,060	299
number	36,248	14,111	7,401	67,378	20,778
100 to 199 ..... farms	183	166	34	488	308
number	22,869	22,464	4,481	63,593	43,170
200 to 499 ..... farms	51	126	6	331	221
number	13,897	34,915	1,525	95,851	65,993
500 or more ..... farms	12	66	-	162	66
number	24,142	89,472	-	196,053	52,699
Cattle, including calves weighing 500 pounds or more, sold ..... farms, 2007	18,863	8,490	8,801	27,352	4,424
2002	20,380	8,168	7,740	28,758	4,490
number, 2007	653,696	727,157	190,412	887,175	835,079
2002	691,540	907,087	173,242	855,492	883,078
2007 farms by number sold:					
1 to 9 ..... farms	8,499	5,242	5,039	10,399	1,017
number	35,218	18,110	19,688	45,426	4,049
10 to 19 ..... farms	3,725	1,101	1,592	6,486	462
number	48,712	14,416	20,828	85,643	6,224
20 to 49 ..... farms	3,819	940	1,385	6,503	836
number	114,479	27,626	42,054	191,853	26,792
50 to 99 ..... farms	1,551	514	494	2,282	647
number	104,234	35,439	32,306	150,773	45,571
100 to 199 ..... farms	772	331	165	1,034	596
number	100,124	43,811	21,895	134,583	81,971
200 to 499 ..... farms	370	217	100	504	555
number	106,957	60,475	29,589	141,390	165,852
500 or more ..... farms	127	145	26	144	311
number	143,972	527,280	24,052	137,507	504,620

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
SALES - Con.						
Cattle and calves sold - Con.						
Cattle, including calves weighing 500 pounds or more, sold - Con.						
Cattle on feed sold (see text) ..... farms, 2007	76,396	24	15	134	141	711
2002	105,978	253	15	100	1,051	854
number, 2007	27,595,928	6,265	208	355,926	3,646	744,262
2002	28,163,195	5,817	207	342,781	22,488	718,437
2007 farms by number sold:						
1 to 9 ..... farms	34,543	9	9	91	103	465
number	129,460	(D)	28	258	284	1,422
10 to 19 ..... farms	10,574	-	4	12	16	61
number	138,957	-	(D)	141	(D)	743
20 to 49 ..... farms	11,736	2	1	11	9	65
number	357,197	(D)	(D)	318	271	1,985
50 to 99 ..... farms	6,579	3	1	2	3	38
number	449,362	288	(D)	(D)	223	2,452
100 to 199 ..... farms	4,710	1	-	2	5	25
number	634,210	(D)	-	(D)	703	3,372
200 to 499 ..... farms	3,975	4	-	8	4	24
number	1,183,536	1,462	-	2,763	1,417	7,728
500 or more ..... farms	4,279	5	-	8	1	33
number	24,703,206	4,288	-	352,021	(D)	726,560

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
SALES - Con.						
Cattle and calves sold - Con.						
Cattle, including calves weighing 500 pounds or more, sold - Con.						
Cattle on feed sold (see text) ..... farms, 2007	1,183	93	43	481	501	57
2002	1,667	169	62	-	484	41
number, 2007	2,023,275	1,153	4,331	4,397	4,198	292
2002	2,452,462	1,752	989	-	5,052	8,006
2007 farms by number sold:						
1 to 9 ..... farms	702	83	35	394	362	50
number	2,369	329	(D)	1,267	1,230	181
10 to 19 ..... farms	95	6	1	49	75	5
number	1,282	75	(D)	593	986	(D)
20 to 49 ..... farms	89	1	3	22	55	2
number	2,606	(D)	(D)	562	1,471	(D)
50 to 99 ..... farms	58	1	1	7	9	-
number	3,748	(D)	(D)	(D)	511	-
100 to 199 ..... farms	29	1	-	8	-	-
number	3,822	(D)	-	1,288	-	-
200 to 499 ..... farms	65	1	2	1	-	-
number	21,594	(D)	(D)	(D)	-	-
500 or more ..... farms	145	-	1	-	-	-
number	1,987,854	-	(D)	-	-	-

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
SALES - Con.						
Cattle and calves sold - Con.						
Cattle, including calves weighing 500 pounds or more, sold - Con.						
Cattle on feed sold (see text) ..... farms, 2007	968	4,246	3,570	8,866	2,027	1,931
2002	1,165	6,215	5,784	10,386	2,522	2,727
number, 2007	534,839	419,333	118,886	2,319,313	5,551,725	34,398
2002	771,622	506,085	173,549	1,806,291	5,227,683	42,102
2007 farms by number sold:						
1 to 9 ..... farms	573	1,588	1,901	1,760	590	1,150
number	1,991	6,440	7,464	7,531	2,194	4,447
10 to 19 ..... farms	104	762	637	998	166	355
number	1,380	10,146	8,365	13,375	2,177	4,684
20 to 49 ..... farms	134	801	552	1,703	246	269
number	3,785	24,525	16,322	53,072	7,596	7,756
50 to 99 ..... farms	54	438	259	1,230	215	100
number	3,541	29,954	17,289	84,890	15,373	6,672
100 to 199 ..... farms	26	249	128	1,056	182	40
number	3,387	33,957	16,887	144,823	25,209	4,996
200 to 499 ..... farms	29	220	69	978	254	13
number	8,397	65,345	20,428	291,004	75,078	3,215
500 or more ..... farms	48	188	24	1,141	374	4
number	512,358	248,966	32,131	1,724,618	5,424,098	2,628

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
SALES - Con.						
Cattle and calves sold - Con.						
Cattle, including calves weighing 500 pounds or more, sold - Con.						
Cattle on feed sold (see text) .....farms, 2007	-	253	481	121	3,825	7,159
2002	15	256	743	163	4,590	8,175
number, 2007	-	2,463	11,559	948	176,731	703,091
2002	2,207	3,523	20,786	950	207,660	620,325
2007 farms by number sold:						
1 to 9 ..... farms	-	204	306	104	2,198	2,247
number	-	663	1,104	(D)	8,262	9,391
10 to 19 ..... farms	-	20	76	3	581	1,202
number	-	273	(D)	40	7,449	15,962
20 to 49 ..... farms	-	22	58	10	499	1,528
number	-	560	1,813	(D)	14,563	47,719
50 to 99 ..... farms	-	4	28	3	253	872
number	-	(D)	1,832	165	16,650	59,482
100 to 199 ..... farms	-	1	9	1	133	558
number	-	(D)	1,236	(D)	17,561	73,647
200 to 499 ..... farms	-	2	3	-	99	430
number	-	(D)	(D)	-	28,383	126,876
500 or more ..... farms	-	-	1	-	62	322
number	-	-	(D)	-	83,863	370,014

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
SALES - Con.						
Cattle and calves sold - Con.						
Cattle, including calves weighing 500 pounds or more, sold - Con.						
Cattle on feed sold (see text) .....farms, 2007	-	2,918	533	3,406	69	17
2002	164	4,903	691	4,623	147	98
number, 2007	-	146,637	76,307	5,117,391	13,600	117
2002	1,315	217,172	100,794	4,995,386	37,662	633
2007 farms by number sold:						
1 to 9 ..... farms	-	1,474	302	552	39	15
number	-	5,749	1,159	1,997	139	(D)
10 to 19 ..... farms	-	439	83	255	5	-
number	-	5,746	1,049	3,333	60	-
20 to 49 ..... farms	-	514	62	412	3	2
number	-	15,495	1,882	13,120	84	(D)
50 to 99 ..... farms	-	214	32	407	3	-
number	-	14,565	2,372	28,505	170	-
100 to 199 ..... farms	-	145	17	398	9	-
number	-	18,893	2,387	55,507	(D)	-
200 to 499 ..... farms	-	87	9	480	9	-
number	-	26,513	2,947	147,468	(D)	-
500 or more ..... farms	-	45	28	902	1	-
number	-	59,676	64,511	4,867,461	(D)	-

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
SALES - Con.						
Cattle and calves sold - Con.						
Cattle, including calves weighing 500 pounds or more, sold - Con.						
Cattle on feed sold (see text) .....farms, 2007	167	178	1,601	10	735	5,341
2002	316	218	2,281	21	841	8,240
number, 2007	1,067	165,912	45,123	1,816	125,568	221,332
2002	1,594	191,756	63,292	1,736	98,699	277,685
2007 farms by number sold:						
1 to 9 ..... farms	140	95	1,098	-	201	3,147
number	460	299	3,964	-	834	11,738
10 to 19 ..... farms	12	18	239	1	110	733
number	152	228	3,085	(D)	1,430	9,676
20 to 49 ..... farms	15	13	141	3	153	754
number	455	437	3,969	111	4,736	22,890
50 to 99 ..... farms	-	18	51	3	102	281
number	-	1,080	3,517	197	6,995	18,745
100 to 199 ..... farms	-	3	27	1	80	217
number	-	353	3,654	(D)	10,948	29,793
200 to 499 ..... farms	-	13	28	1	46	130
number	-	4,401	9,067	(D)	14,397	38,300
500 or more ..... farms	-	18	17	1	43	79
number	-	159,114	17,867	(D)	86,228	90,190

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Table 11. **Cattle and Calves - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
SALES - Con.					
Cattle and calves sold - Con.					
Cattle, including calves weighing 500 pounds or more, sold - Con.					
Cattle on feed sold (see text) ..... farms, 2007	1,472	1,344	4,267	12	297
2002	2,409	2,217	6,181	17	378
number, 2007	766,139	227,805	167,806	76	4,939
2002	934,350	182,893	203,382	73	3,993
2007 farms by number sold:					
1 to 9 ..... farms	765	1,029	2,429	9	191
number	2,648	3,253	9,564	40	691
10 to 19 ..... farms	227	115	710	3	49
number	2,994	1,478	9,324	36	634
20 to 49 ..... farms	177	49	547	-	32
number	5,215	1,375	16,386	-	1,002
50 to 99 ..... farms	130	57	254	-	18
number	9,003	3,957	17,260	-	1,108
100 to 199 ..... farms	76	38	160	-	3
number	9,990	4,751	21,208	-	372
200 to 499 ..... farms	56	33	99	-	4
number	16,997	9,752	30,951	-	1,132
500 or more ..... farms	41	23	68	-	-
number	719,292	203,239	63,113	-	-

Item	South Dakota	Tennessee	Texas	Utah	Vermont
SALES - Con.					
Cattle and calves sold - Con.					
Cattle, including calves weighing 500 pounds or more, sold - Con.					
Cattle on feed sold (see text) ..... farms, 2007	2,417	84	3,392	778	177
2002	3,210	60	6,552	1,045	206
number, 2007	806,581	3,798	5,742,530	69,662	3,767
2002	710,851	2,176	6,102,873	100,909	3,224
2007 farms by number sold:					
1 to 9 ..... farms	300	48	2,061	456	151
number	1,269	162	6,519	1,719	(D)
10 to 19 ..... farms	212	21	380	96	13
number	2,876	277	4,994	1,193	175
20 to 49 ..... farms	430	7	335	105	6
number	13,705	(D)	9,970	3,030	183
50 to 99 ..... farms	375	2	156	55	2
number	26,690	(D)	10,700	3,843	(D)
100 to 199 ..... farms	422	-	138	28	-
number	57,128	-	18,775	3,777	-
200 to 499 ..... farms	349	3	141	18	4
number	99,101	600	41,157	5,188	1,100
500 or more ..... farms	329	3	181	20	1
number	605,812	2,400	5,650,415	50,912	(D)

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
SALES - Con.					
Cattle and calves sold - Con.					
Cattle, including calves weighing 500 pounds or more, sold - Con.					
Cattle on feed sold (see text) ..... farms, 2007	1,301	871	476	7,466	237
2002	2,336	1,496	481	8,931	479
number, 2007	44,946	388,785	9,871	280,471	142,643
2002	81,921	459,879	11,287	276,754	160,132
2007 farms by number sold:					
1 to 9 ..... farms	730	683	353	3,265	86
number	2,703	2,250	1,354	12,760	298
10 to 19 ..... farms	189	80	46	1,293	17
number	2,460	998	613	16,915	217
20 to 49 ..... farms	184	50	41	1,585	34
number	5,521	1,517	1,227	47,979	1,184
50 to 99 ..... farms	93	15	17	695	20
number	6,461	1,072	1,216	46,045	1,358
100 to 199 ..... farms	62	11	9	384	28
number	8,198	1,435	1,097	49,063	3,842
200 to 499 ..... farms	35	11	5	188	20
number	9,891	3,493	1,328	54,263	5,830
500 or more ..... farms	8	21	5	56	32
number	9,712	378,020	3,036	53,446	129,914

Table 12. **Hogs and Pigs - Inventory and Sales: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
INVENTORY						
Total hogs and pigs ....farms, 2007	75,442	753	43	378	1,142	1,389
2002	78,895	576	48	208	846	1,521
number, 2007	67,786,318	178,275	757	(D)	289,342	153,983
2002	60,405,103	168,013	1,201	(D)	305,659	163,465
Farms by inventory:						
1 to 24 ....farms, 2007	45,047	618	36	351	901	1,203
2002	38,303	417	37	177	553	1,251
number, 2007	260,154	3,877	219	1,409	4,728	5,600
2002	262,098	3,087	272	911	3,761	7,642
25 to 49 ....farms, 2007	4,292	50	3	6	58	84
2002	5,650	48	7	14	81	108
number, 2007	146,672	(D)	(D)	228	1,965	2,845
2002	193,931	1,585	252	485	2,784	3,703
50 to 99 ....farms, 2007	3,182	25	3	12	36	45
2002	4,682	26	2	11	49	67
number, 2007	215,206	1,822	232	842	2,324	3,190
2002	319,128	1,762	(D)	(D)	3,201	4,541
100 to 199 ....farms, 2007	2,590	15	-	4	10	26
2002	4,611	19	-	3	18	46
number, 2007	354,203	1,836	-	(D)	1,230	3,858
2002	626,869	2,490	-	(D)	2,315	5,733
200 to 499 ....farms, 2007	4,524	8	1	3	7	14
2002	7,755	22	2	2	21	32
number, 2007	1,467,383	2,540	(D)	830	2,509	3,790
2002	2,463,794	6,311	(D)	(D)	6,174	10,089
500 to 999 ....farms, 2007	3,588	2	-	1	42	6
2002	6,010	11	-	-	54	7
number, 2007	2,488,234	(D)	-	(D)	31,829	3,570
2002	4,175,405	7,146	-	-	39,473	5,163
1,000 or more ....farms, 2007	12,219	35	-	1	88	11
2002	11,884	33	-	1	70	10
number, 2007	62,854,466	165,265	-	(D)	244,757	131,130
2002	52,363,878	145,632	-	(D)	247,951	126,594
Hogs and pigs used or to be used for breeding ....farms, 2007	32,867	438	26	157	638	654
2002	39,367	370	32	114	499	766
number, 2007	6,290,610	18,291	(D)	(D)	84,044	21,364
2002	6,174,439	12,507	305	(D)	79,079	24,505
2007 farms by inventory:						
1 to 24	24,006	400	25	147	517	578
25 to 49	2,427	14	-	5	9	34
50 to 99	1,815	11	-	2	8	24
100 or more	4,619	13	1	3	104	18
Other hogs and pigs ....farms, 2007	66,441	605	33	304	925	1,119
2002	71,923	462	38	168	713	1,266
number, 2007	61,495,708	159,984	(D)	(D)	205,298	132,619
2002	54,230,664	155,506	896	(D)	226,580	138,960
SALES						
Hogs and pigs sold ....farms, 2007	74,789	547	50	284	954	1,267
2002	82,028	561	47	168	867	1,513
number, 2007	206,807,181	733,285	2,053	(D)	1,866,416	296,378
2002	184,997,686	713,668	2,002	(D)	2,408,257	308,769
$1,000, 2007	18,056,981	54,618	242	(D)	84,202	34,188
2002	12,400,977	39,441	205	(D)	123,803	27,488
2007 farms by number sold:						
1 to 24 .... farms	39,101	406	39	243	652	989
number	249,834	2,822	238	1,040	4,098	5,096
25 to 49 .... farms	4,819	47	3	8	85	89
number	163,975	(D)	115	(D)	2,781	2,995
50 to 99 .... farms	3,660	26	5	22	37	82
number	246,540	1,954	350	(D)	2,360	5,464
100 to 199 .... farms	3,052	10	1	4	31	34
number	411,738	(D)	(D)	(D)	3,865	4,169
200 to 499 .... farms	4,253	12	1	3	7	42
number	1,305,183	2,890	(D)	844	2,142	12,002
500 to 999 .... farms	3,357	7	1	1	4	9
number	2,370,219	4,710	(D)	(D)	2,716	5,369
1,000 or more .... farms	16,547	39	-	3	138	22
number	202,059,692	717,945	-	(D)	1,848,454	261,283

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Table 12. **Hogs and Pigs - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
INVENTORY						
Total hogs and pigs ..... farms, 2007	1,171	244	77	1,906	1,111	225
2002	989	157	84	1,471	1,148	204
number, 2007	882,695	3,645	8,955	19,937	263,471	14,933
2002	783,467	3,232	11,775	33,479	347,816	23,364
Farms by inventory:						
1 to 24 ..... farms, 2007	1,010	209	58	1,771	905	145
2002	656	139	54	1,159	645	113
number, 2007	6,218	1,181	291	8,538	4,551	1,032
2002	4,055	902	(D)	8,070	5,143	886
25 to 49 ..... farms, 2007	70	23	13	68	64	35
2002	75	6	12	148	136	19
number, 2007	2,194	797	(D)	2,142	2,197	(D)
2002	2,457	198	402	4,859	4,654	625
50 to 99 ..... farms, 2007	26	6	-	42	39	16
2002	60	5	3	109	119	22
number, 2007	1,772	490	-	2,609	2,653	1,083
2002	3,927	382	(D)	7,119	8,088	1,516
100 to 199 ..... farms, 2007	22	3	-	12	19	10
2002	59	3	4	34	67	17
number, 2007	2,565	360	-	1,418	2,438	1,403
2002	7,877	372	530	4,073	9,291	2,475
200 to 499 ..... farms, 2007	10	3	2	10	23	9
2002	82	4	4	14	82	19
number, 2007	3,149	817	(D)	3,080	7,137	2,715
2002	24,015	1,378	1,150	(D)	23,327	5,472
500 to 999 ..... farms, 2007	5	-	-	2	12	8
2002	32	-	2	5	40	11
number, 2007	3,860	-	-	(D)	8,515	4,836
2002	20,857	-	(D)	3,000	25,706	7,078
1,000 or more ..... farms, 2007	28	-	4	1	49	2
2002	25	-	5	2	59	3
number, 2007	862,937	-	7,774	(D)	235,980	(D)
2002	720,279	-	7,388	(D)	271,607	5,312
Hogs and pigs used or to be used for breeding ..... farms, 2007	511	116	21	952	593	156
2002	477	75	46	887	781	160
number, 2007	167,012	944	2,565	5,406	44,111	3,875
2002	166,410	753	2,592	7,799	52,089	5,843
2007 farms by inventory:						
1 to 24	464	108	14	920	515	126
25 to 49	19	7	3	22	21	7
50 to 99	7	-	-	3	18	11
100 or more	21	1	4	7	39	12
Other hogs and pigs ..... farms, 2007	1,032	191	71	1,455	893	190
2002	886	136	71	1,218	970	180
number, 2007	715,683	2,701	6,390	14,531	219,360	11,058
2002	617,057	2,479	9,183	25,680	295,727	17,521
SALES						
Hogs and pigs sold ..... farms, 2007	1,230	251	84	1,326	830	148
2002	1,158	176	86	1,090	995	158
number, 2007	2,376,709	6,818	49,898	25,398	942,400	20,569
2002	2,933,721	7,079	68,934	50,533	1,179,137	33,231
$1,000, 2007	159,808	616	2,754	2,220	68,369	(D)
2002	179,415	(D)	2,853	3,154	65,384	4,612
2007 farms by number sold:						
1 to 24 ..... farms	972	192	58	1,147	551	87
number	6,054	1,176	404	7,029	3,391	781
25 to 49 ..... farms	91	18	4	101	66	10
number	3,040	546	163	3,356	2,208	331
50 to 99 ..... farms	73	25	2	39	61	23
number	4,687	1,509	(D)	(D)	3,750	1,561
100 to 199 ..... farms	25	9	4	22	37	10
number	3,125	(D)	(D)	2,687	4,547	1,395
200 to 499 ..... farms	25	6	10	12	36	3
number	7,019	1,720	2,426	3,386	9,761	800
500 to 999 ..... farms	12	1	1	2	21	8
number	7,967	(D)	(D)	(D)	15,514	5,206
1,000 or more ..... farms	32	-	5	3	58	7
number	2,344,817	-	45,835	5,160	903,229	10,495

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Table 12. **Hogs and Pigs - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
INVENTORY						
Total hogs and pigs ....farms, 2007	657	2,864	3,420	8,330	1,454	1,498
2002	841	3,929	4,087	10,205	1,648	1,254
number, 2007	32,794	4,298,716	3,669,057	19,295,092	1,885,252	348,023
2002	23,352	4,094,706	3,478,570	15,486,531	1,520,996	385,811
Farms by inventory:						
1 to 24 ....farms, 2007	573	846	1,425	780	746	1,187
2002	709	751	1,164	821	817	848
number, 2007	3,101	6,953	10,493	6,803	5,742	6,215
2002	4,097	7,138	10,011	7,154	5,171	5,838
25 to 49 ....farms, 2007	48	173	206	245	116	96
2002	72	252	324	297	140	98
number, 2007	1,630	5,936	7,032	8,643	3,956	(D)
2002	2,676	8,813	11,070	10,439	4,888	3,354
50 to 99 ....farms, 2007	16	184	208	340	126	35
2002	29	285	270	432	120	57
number, 2007	1,194	12,330	14,378	23,489	8,526	(D)
2002	1,789	19,821	19,389	30,340	8,340	3,799
100 to 199 ....farms, 2007	7	168	157	529	112	38
2002	12	336	350	733	130	45
number, 2007	875	24,103	20,734	73,412	15,155	5,219
2002	(D)	46,886	48,196	101,516	17,569	5,985
200 to 499 ....farms, 2007	5	357	358	1,318	105	29
2002	15	727	696	1,999	156	67
number, 2007	1,675	116,940	123,551	439,822	35,029	8,229
2002	3,916	239,203	225,464	651,802	48,967	19,231
500 to 999 ....farms, 2007	7	269	317	1,171	75	45
2002	1	608	495	2,047	88	58
number, 2007	(D)	189,194	211,646	804,492	53,631	31,265
2002	(D)	420,446	343,481	1,421,544	61,359	43,250
1,000 or more ....farms, 2007	1	867	749	3,947	174	68
2002	3	970	788	3,876	197	81
number, 2007	(D)	3,943,260	3,281,223	17,938,431	1,763,213	291,257
2002	8,591	3,352,399	2,820,959	13,263,736	1,374,702	304,354
Hogs and pigs used or to be used for breeding ....farms, 2007	247	1,453	1,825	2,657	764	800
2002	331	2,313	2,443	4,386	904	718
number, 2007	6,092	510,123	313,632	1,086,195	185,054	42,354
2002	3,452	446,095	336,240	1,145,323	156,062	44,884
2007 farms by inventory:						
1 to 24	230	688	1,032	844	512	678
25 to 49	4	172	210	366	92	34
50 to 99	9	153	144	409	56	32
100 or more	4	440	439	1,038	104	56
Other hogs and pigs ....farms, 2007	581	2,625	3,017	8,045	1,327	1,219
2002	762	3,696	3,742	9,863	1,503	1,099
number, 2007	26,702	3,788,593	3,355,425	18,208,897	1,700,198	305,669
2002	19,900	3,648,611	3,142,330	14,341,208	1,364,934	340,927
SALES						
Hogs and pigs sold ....farms, 2007	728	3,063	3,790	8,758	1,542	1,210
2002	980	4,313	4,603	11,275	1,939	1,220
number, 2007	65,618	13,196,581	9,523,891	47,279,443	4,712,308	802,782
2002	39,482	11,178,721	8,221,628	41,232,492	3,512,384	986,704
$1,000, 2007	6,757	1,105,271	974,290	4,827,224	506,448	90,198
2002	3,260	844,360	633,112	3,078,455	297,505	69,722
2007 farms by number sold:						
1 to 24 .... farms	599	721	1,355	710	638	849
number	3,478	5,962	10,017	6,382	5,048	5,483
25 to 49 .... farms	50	154	259	232	146	94
number	1,696	5,297	8,890	8,252	5,176	3,213
50 to 99 .... farms	29	191	261	289	98	49
number	2,010	13,205	17,142	19,516	6,852	3,369
100 to 199 .... farms	18	188	190	321	143	38
number	2,298	25,415	27,337	44,256	19,241	4,906
200 to 499 .... farms	23	299	314	931	181	29
number	7,713	94,936	99,484	296,478	52,642	8,297
500 to 999 .... farms	3	255	248	1,066	84	44
number	1,810	177,889	180,270	760,668	59,648	30,926
1,000 or more .... farms	6	1,255	1,163	5,209	252	107
number	46,613	12,873,877	9,180,751	46,143,891	4,563,701	746,588

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Table 12. **Hogs and Pigs - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
INVENTORY						
Total hogs and pigs ..... farms, 2007	718	437	412	453	2,691	4,382
2002	680	328	355	273	2,180	5,628
number, 2007	10,615	4,401	(D)	11,553	1,032,054	7,652,284
2002	18,262	4,637	(D)	11,434	927,400	6,440,067
Farms by inventory:						
1 to 24 ..... farms, 2007	621	418	338	368	1,782	1,089
2002	549	297	248	215	1,291	1,320
number, 2007	3,764	1,797	1,680	2,043	11,546	8,399
2002	3,452	1,414	1,848	1,152	9,356	9,620
25 to 49 ..... farms, 2007	53	8	23	34	219	210
2002	85	15	28	27	184	294
number, 2007	1,836	258	751	1,277	7,382	7,500
2002	2,888	494	946	922	6,341	9,991
50 to 99 ..... farms, 2007	27	3	17	31	137	191
2002	17	6	20	7	151	320
number, 2007	1,607	(D)	1,034	1,955	9,271	12,987
2002	(D)	427	1,362	(D)	10,214	21,376
100 to 199 ..... farms, 2007	14	5	11	11	103	184
2002	18	7	28	8	120	420
number, 2007	1,843	708	1,523	1,500	13,145	25,822
2002	2,440	987	3,647	1,100	15,940	56,550
200 to 499 ..... farms, 2007	2	1	7	6	137	494
2002	5	2	12	10	129	900
number, 2007	(D)	(D)	1,840	(D)	44,025	160,952
2002	1,975	(D)	3,501	2,645	40,340	287,157
500 to 999 ..... farms, 2007	1	2	5	1	104	459
2002	2	1	8	4	85	750
number, 2007	(D)	(D)	3,305	(D)	75,366	321,766
2002	(D)	(D)	5,999	(D)	64,942	521,358
1,000 or more ..... farms, 2007	-	-	11	2	209	1,755
2002	4	-	11	2	220	1,624
number, 2007	-	-	(D)	(D)	871,319	7,114,858
2002	5,286	-	(D)	(D)	780,267	5,534,015
Hogs and pigs used or to be used for breeding ..... farms, 2007	359	160	220	212	1,085	1,558
2002	375	133	192	137	1,006	2,466
number, 2007	2,336	941	4,324	2,163	105,209	597,029
2002	4,062	1,295	5,288	1,916	103,430	601,689
2007 farms by inventory:						
1 to 24	336	155	198	190	827	647
25 to 49	18	3	8	15	96	158
50 to 99	4	-	6	5	61	181
100 or more	1	2	8	2	101	572
Other hogs and pigs ..... farms, 2007	601	361	305	402	2,445	4,163
2002	556	270	310	225	2,007	5,362
number, 2007	8,279	3,460	(D)	9,390	926,845	7,055,255
2002	14,200	3,342	(D)	9,518	823,970	5,838,378
SALES						
Hogs and pigs sold ..... farms, 2007	525	460	454	350	2,930	4,748
2002	540	310	379	250	2,336	6,390
number, 2007	15,513	7,954	123,734	17,955	3,316,183	22,815,512
2002	(D)	9,033	137,357	18,594	2,789,197	18,618,300
$1,000, 2007	1,235	813	(D)	2,108	357,495	2,139,877
2002	(D)	(D)	8,268	(D)	200,027	1,398,234
2007 farms by number sold:						
1 to 24 ..... farms	401	418	336	238	1,898	1,065
number	2,390	2,192	2,182	1,464	12,564	8,102
25 to 49 ..... farms	62	16	47	38	208	200
number	2,012	516	1,582	1,200	6,851	6,938
50 to 99 ..... farms	33	19	19	39	140	200
number	2,165	1,414	1,112	2,621	9,274	13,459
100 to 199 ..... farms	23	2	13	22	123	221
number	3,096	(D)	1,864	2,798	16,383	31,393
200 to 499 ..... farms	2	3	15	9	163	344
number	(D)	(D)	4,521	2,100	47,133	109,778
500 to 999 ..... farms	1	-	7	1	76	371
number	(D)	-	4,518	(D)	53,279	266,945
1,000 or more ..... farms	3	2	17	3	322	2,347
number	4,850	(D)	107,955	(D)	3,170,699	22,378,897

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Table 12. **Hogs and Pigs - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
INVENTORY						
Total hogs and pigs ....farms, 2007	683	2,999	483	2,213	91	266
2002	692	3,449	454	3,075	110	208
number, 2007	337,244	3,101,469	181,602	3,268,544	2,949	2,792
2002	302,190	2,909,609	172,951	2,933,620	(D)	2,718
Farms by inventory:						
1 to 24 ....farms, 2007	562	1,581	359	428	78	253
2002	561	1,396	261	473	94	195
number, 2007	2,964	10,736	1,873	3,666	389	1,160
2002	3,868	11,241	1,727	4,702	(D)	1,070
25 to 49 ....farms, 2007	45	230	41	129	8	4
2002	57	291	49	205	3	7
number, 2007	1,483	7,937	(D)	4,499	(D)	148
2002	2,039	10,341	1,765	7,345	100	224
50 to 99 ....farms, 2007	15	223	27	139	3	3
2002	10	310	46	283	10	1
number, 2007	977	15,282	1,758	9,600	(D)	(D)
2002	634	21,906	3,178	19,390	(D)	(D)
100 to 199 ....farms, 2007	9	193	10	200	-	2
2002	11	326	29	412	2	2
number, 2007	1,226	27,239	1,147	28,113	-	(D)
2002	1,548	43,771	3,797	56,759	(D)	(D)
200 to 499 ....farms, 2007	-	244	5	435	1	4
2002	3	453	20	701	-	2
number, 2007	-	76,922	1,500	141,150	(D)	983
2002	1,035	139,228	6,783	219,913	-	(D)
500 to 999 ....farms, 2007	6	146	1	318	-	-
2002	11	269	9	427	-	1
number, 2007	3,921	103,142	(D)	220,288	-	-
2002	7,208	189,431	6,030	296,189	-	(D)
1,000 or more ....farms, 2007	46	382	40	564	1	-
2002	39	404	40	574	1	-
number, 2007	326,673	2,860,211	173,253	2,861,228	(D)	-
2002	285,858	2,493,691	149,671	2,329,322	(D)	-
Hogs and pigs used or to be used for breeding ....farms, 2007	336	1,749	221	905	35	98
2002	369	2,246	280	1,586	45	75
number, 2007	(D)	358,137	(D)	389,280	758	591
2002	33,371	356,702	20,096	374,163	(D)	522
2007 farms by inventory:						
1 to 24	318	1,203	171	345	31	93
25 to 49	11	192	8	169	2	2
50 to 99	2	123	4	106	1	3
100 or more	5	231	38	285	1	-
Other hogs and pigs ....farms, 2007	530	2,666	434	2,150	75	224
2002	628	3,191	411	2,944	96	186
number, 2007	(D)	2,743,332	(D)	2,879,264	2,191	2,201
2002	268,819	2,552,907	152,855	2,559,457	4,757	2,196
SALES						
Hogs and pigs sold ....farms, 2007	439	2,971	565	2,482	70	298
2002	504	3,752	542	3,594	102	212
number, 2007	1,294,545	9,073,468	334,101	10,880,337	(D)	4,901
2002	1,171,039	9,288,986	336,032	8,993,521	11,829	4,227
$1,000, 2007	129,424	725,738	36,331	923,209	(D)	518
2002	82,298	570,551	26,531	590,581	930	(D)
2007 farms by number sold:						
1 to 24 .... farms	328	1,258	416	437	55	258
number	2,451	9,906	2,402	3,762	276	1,297
25 to 49 .... farms	30	285	41	106	5	22
number	981	9,685	1,401	(D)	143	763
50 to 99 .... farms	13	198	39	134	7	8
number	(D)	13,846	2,703	(D)	(D)	571
100 to 199 .... farms	8	195	16	150	1	7
number	1,088	26,657	1,930	20,473	(D)	1,062
200 to 499 .... farms	6	318	10	331	1	2
number	1,575	93,872	3,449	103,790	(D)	(D)
500 to 999 .... farms	7	148	4	318	-	1
number	(D)	101,702	2,650	222,757	-	(D)
1,000 or more .... farms	47	569	39	1,006	1	-
number	1,281,554	8,817,800	319,566	10,516,403	(D)	-

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Table 12. **Hogs and Pigs - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
INVENTORY						
Total hogs and pigs ..... farms, 2007	271	395	1,871	2,836	350	3,718
2002	357	346	1,527	2,542	433	4,286
number, 2007	8,551	1,972	85,741	10,134,004	181,679	1,831,084
2002	14,162	3,489	81,886	9,887,421	138,838	1,422,966
Farms by inventory:						
1 to 24 ..... farms, 2007	234	385	1,612	927	182	2,261
2002	306	319	1,287	743	172	2,189
number, 2007	1,208	1,453	9,265	5,129	1,608	13,370
2002	1,687	1,595	7,652	5,371	1,511	16,327
25 to 49 ..... farms, 2007	10	7	146	104	39	240
2002	16	15	108	125	45	384
number, 2007	(D)	205	4,772	(D)	1,404	8,379
2002	558	474	3,598	4,043	1,596	13,320
50 to 99 ..... farms, 2007	10	2	52	64	30	185
2002	10	3	63	91	66	348
number, 2007	710	(D)	3,431	(D)	2,122	12,363
2002	(D)	(D)	4,362	5,823	4,456	24,345
100 to 199 ..... farms, 2007	6	1	21	42	26	137
2002	10	8	24	70	55	294
number, 2007	829	(D)	2,605	5,396	3,433	18,774
2002	1,406	960	3,308	9,227	7,315	40,406
200 to 499 ..... farms, 2007	6	-	13	47	35	215
2002	10	1	19	45	47	408
number, 2007	1,736	-	3,902	14,192	11,101	68,563
2002	2,691	(D)	5,896	12,355	14,534	130,231
500 to 999 ..... farms, 2007	4	-	4	48	10	148
2002	2	-	9	64	26	250
number, 2007	2,500	-	2,360	34,900	7,543	101,477
2002	(D)	-	5,876	47,232	16,896	173,641
1,000 or more ..... farms, 2007	1	-	23	1,604	28	532
2002	3	-	17	1,404	22	413
number, 2007	(D)	-	59,406	10,066,667	154,468	1,608,158
2002	5,952	-	51,194	9,803,370	92,530	1,024,696
Hogs and pigs used or to be used for breeding ..... farms, 2007	81	157	801	959	183	1,469
2002	106	124	663	902	266	2,200
number, 2007	1,001	585	13,363	1,010,883	38,186	159,764
2002	1,885	808	10,676	964,169	20,540	158,066
2007 farms by inventory:						
1 to 24	69	153	766	597	137	1,078
25 to 49	9	4	19	34	12	125
50 to 99	2	-	2	24	9	107
100 or more	1	-	14	304	25	159
Other hogs and pigs ..... farms, 2007	241	291	1,608	2,598	319	3,313
2002	315	304	1,345	2,448	404	3,865
number, 2007	7,550	1,387	72,378	9,123,121	143,493	1,671,320
2002	12,277	2,681	71,210	8,923,252	118,298	1,264,900
SALES						
Hogs and pigs sold ..... farms, 2007	381	351	1,817	2,459	351	4,505
2002	378	306	1,490	2,332	474	4,976
number, 2007	23,420	3,792	322,396	43,241,680	675,808	5,881,107
2002	30,820	5,114	255,445	42,018,621	393,422	4,609,153
$1,000, 2007	2,349	375	28,302	3,104,731	34,910	571,685
2002	2,313	381	14,005	2,183,646	25,888	322,687
2007 farms by number sold:						
1 to 24 ..... farms	333	322	1,468	551	132	2,536
number	1,788	1,799	9,915	3,891	1,148	16,239
25 to 49 ..... farms	11	15	155	77	57	323
number	315	517	5,136	2,681	1,983	(D)
50 to 99 ..... farms	12	11	74	40	45	279
number	784	826	4,892	2,498	2,989	(D)
100 to 199 ..... farms	5	1	60	40	31	195
number	642	(D)	7,215	5,668	4,223	25,311
200 to 499 ..... farms	8	2	20	48	21	255
number	2,543	(D)	5,456	13,204	6,894	78,659
500 to 999 ..... farms	9	-	10	47	23	171
number	5,848	-	6,532	33,105	16,052	118,935
1,000 or more ..... farms	3	-	30	1,656	42	746
number	11,500	-	283,250	43,180,633	642,519	5,611,931

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Table 12. **Hogs and Pigs - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
INVENTORY					
Total hogs and pigs ....farms, 2007	2,702	1,283	3,637	103	812
2002	2,491	1,283	3,825	64	900
number, 2007	2,398,372	21,125	1,167,449	2,316	293,793
2002	2,246,926	20,941	1,226,845	2,381	291,743
Farms by inventory:					
1 to 24 ....farms, 2007	2,338	1,184	2,565	82	646
2002	2,011	1,156	2,454	47	566
number, 2007	13,314	5,869	15,799	500	3,130
2002	12,663	5,910	17,003	350	4,757
25 to 49 ....farms, 2007	141	50	207	10	59
2002	184	56	300	5	128
number, 2007	4,673	(D)	6,862	368	2,018
2002	6,067	1,873	10,348	144	4,224
50 to 99 ....farms, 2007	72	17	135	6	24
2002	102	34	184	3	71
number, 2007	4,733	1,173	8,826	(D)	1,606
2002	6,580	(D)	12,225	202	4,886
100 to 199 ....farms, 2007	25	11	98	3	12
2002	27	19	163	5	31
number, 2007	3,167	1,454	13,819	320	1,597
2002	3,521	2,485	21,892	638	4,113
200 to 499 ....farms, 2007	15	14	150	2	16
2002	23	13	232	4	29
number, 2007	4,825	4,800	44,783	(D)	5,611
2002	6,183	4,250	74,114	1,047	9,295
500 to 999 ....farms, 2007	16	6	117	-	5
2002	42	3	177	-	20
number, 2007	11,557	4,892	79,605	-	3,587
2002	28,730	2,221	119,729	-	13,310
1,000 or more ....farms, 2007	95	1	365	-	50
2002	102	2	315	-	55
number, 2007	2,356,103	(D)	997,755	-	276,244
2002	2,183,182	(D)	971,534	-	251,158
Hogs and pigs used or to be used for breeding ....farms, 2007	1,374	457	1,380	61	370
2002	1,326	405	1,506	38	510
number, 2007	393,066	3,936	119,946	533	27,765
2002	331,742	4,149	140,346	581	30,913
2007 farms by inventory:					
1 to 24	1,241	424	1,098	52	336
25 to 49	45	20	77	8	11
50 to 99	9	8	46	1	8
100 or more	79	5	159	-	15
Other hogs and pigs ....farms, 2007	2,269	1,125	3,292	80	664
2002	2,136	1,146	3,500	58	788
number, 2007	2,005,306	17,189	1,047,503	1,783	266,028
2002	1,915,184	16,792	1,086,499	1,800	260,830
SALES					
Hogs and pigs sold ....farms, 2007	2,274	1,466	3,440	81	700
2002	2,256	1,558	3,785	51	736
number, 2007	9,010,682	(D)	4,198,235	4,526	1,091,982
2002	7,264,319	43,008	4,269,350	3,041	1,065,420
$1,000, 2007	555,521	5,662	336,437	354	77,211
2002	462,849	3,540	269,318	227	61,589
2007 farms by number sold:					
1 to 24 ....farms	1,729	1,292	2,208	54	514
number	11,095	6,760	14,176	486	3,080
25 to 49 ....farms	179	68	228	11	66
number	(D)	2,286	8,033	382	2,075
50 to 99 ....farms	120	43	153	6	23
number	8,016	2,713	10,003	354	1,485
100 to 199 ....farms	70	26	122	1	20
number	8,877	3,533	16,802	(D)	2,989
200 to 499 ....farms	48	22	147	8	8
number	13,021	5,482	43,633	(D)	2,379
500 to 999 ....farms	12	4	72	1	9
number	(D)	3,400	50,277	(D)	6,276
1,000 or more ....farms	116	11	510	-	60
number	8,955,884	(D)	4,055,311	-	1,073,698

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Table 12. **Hogs and Pigs - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
INVENTORY					
Total hogs and pigs ..... farms, 2007	959	1,566	4,471	611	249
2002	1,506	1,491	4,671	518	206
number, 2007	1,490,034	138,207	1,155,790	760,035	2,701
2002	1,375,506	230,532	953,290	670,047	2,019
Farms by inventory:					
1 to 24 ..... farms, 2007	231	1,291	4,044	526	232
2002	279	1,068	3,831	436	190
number, 2007	1,896	7,216	17,384	2,851	1,002
2002	2,643	7,036	23,594	2,703	1,051
25 to 49 ..... farms, 2007	72	116	210	32	8
2002	118	150	383	36	9
number, 2007	2,407	4,114	6,821	1,118	305
2002	4,106	5,066	13,064	1,164	306
50 to 99 ..... farms, 2007	74	62	115	18	4
2002	184	84	243	13	5
number, 2007	5,052	4,165	7,554	1,135	(D)
2002	12,432	5,568	15,919	888	(D)
100 to 199 ..... farms, 2007	73	20	44	6	1
2002	193	45	108	8	1
number, 2007	9,736	2,840	5,944	811	(D)
2002	26,275	6,046	13,803	1,038	(D)
200 to 499 ..... farms, 2007	145	34	38	10	4
2002	313	60	73	5	1
number, 2007	41,774	11,515	11,168	3,244	1,020
2002	98,040	18,108	21,274	1,252	(D)
500 to 999 ..... farms, 2007	101	13	9	-	-
2002	162	40	13	6	-
number, 2007	69,624	11,204	6,459	-	-
2002	108,709	28,242	9,012	3,833	-
1,000 or more ..... farms, 2007	263	30	11	19	-
2002	257	44	20	14	-
number, 2007	1,359,545	97,153	1,100,460	750,876	-
2002	1,123,301	160,466	856,624	659,169	-
Hogs and pigs used or to be used for breeding ..... farms, 2007	430	809	1,919	232	90
2002	864	797	2,400	231	87
number, 2007	165,487	12,967	94,918	(D)	515
2002	153,172	29,376	110,294	(D)	429
2007 farms by inventory:					
1 to 24	182	749	1,760	209	87
25 to 49	58	27	91	9	2
50 to 99	40	15	49	10	-
100 or more	150	18	19	4	1
Other hogs and pigs ..... farms, 2007	900	1,292	3,553	526	209
2002	1,421	1,332	4,002	467	178
number, 2007	1,324,547	125,240	1,060,872	(D)	2,186
2002	1,222,334	201,156	842,996	(D)	1,590
SALES					
Hogs and pigs sold ..... farms, 2007	1,042	1,160	4,053	630	239
2002	1,738	1,130	3,962	480	206
number, 2007	4,487,708	470,213	2,794,334	2,050,082	4,968
2002	3,773,503	635,014	1,659,834	1,886,880	4,933
$1,000, 2007	381,360	33,797	237,504	196,595	697
2002	(D)	42,632	128,231	153,112	374
2007 farms by number sold:					
1 to 24 ..... farms	189	837	3,364	492	207
number	1,670	5,635	15,886	2,715	1,088
25 to 49 ..... farms	82	112	293	48	11
number	2,760	3,853	10,026	1,633	429
50 to 99 ..... farms	79	54	153	28	7
number	5,258	3,572	10,497	1,748	447
100 to 199 ..... farms	88	50	126	19	8
number	11,617	6,261	16,436	2,174	1,139
200 to 499 ..... farms	130	27	64	17	6
number	39,773	9,235	19,469	4,506	1,865
500 to 999 ..... farms	111	23	25	4	-
number	78,171	15,669	17,197	2,350	-
1,000 or more ..... farms	363	57	28	22	-
number	4,348,459	425,988	2,704,823	2,034,956	-

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Table 12. **Hogs and Pigs - Inventory and Sales: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
INVENTORY					
Total hogs and pigs ....farms, 2007	1,240	1,463	955	3,188	272
2002	855	961	808	2,993	184
number, 2007	371,176	28,545	8,948	436,814	107,180
2002	409,284	30,289	12,773	535,393	114,047
Farms by inventory:					
1 to 24 ....farms, 2007	987	1,339	910	2,212	218
2002	636	826	737	1,714	125
number, 2007	5,533	6,966	3,442	14,882	1,369
2002	4,196	4,263	4,036	12,359	851
25 to 49 ....farms, 2007	96	82	22	261	18
2002	94	65	36	293	18
number, 2007	3,282	2,754	763	9,060	605
2002	3,164	2,137	1,180	10,232	627
50 to 99 ....farms, 2007	60	18	13	225	21
2002	31	20	22	245	13
number, 2007	4,169	1,179	880	15,358	1,397
2002	2,122	1,339	1,418	16,520	974
100 to 199 ....farms, 2007	27	11	6	138	8
2002	30	27	7	218	9
number, 2007	3,411	1,511	803	(D)	1,189
2002	4,407	3,575	(D)	29,865	1,210
200 to 499 ....farms, 2007	17	3	2	156	4
2002	16	11	4	250	10
number, 2007	4,556	1,187	(D)	(D)	1,384
2002	4,551	2,734	(D)	77,264	2,690
500 to 999 ....farms, 2007	10	4	1	87	-
2002	6	4	-	154	6
number, 2007	6,437	3,005	(D)	60,971	-
2002	3,790	2,677	-	110,372	3,060
1,000 or more ....farms, 2007	43	6	1	109	3
2002	42	8	2	119	3
number, 2007	343,788	11,943	(D)	269,960	101,236
2002	387,054	13,564	(D)	278,781	104,635
Hogs and pigs used or to be used for breeding ....farms, 2007	606	601	345	1,447	150
2002	450	358	350	1,475	97
number, 2007	32,187	4,522	1,548	52,669	27,811
2002	31,528	5,337	2,106	65,217	19,918
2007 farms by inventory:					
1 to 24	563	569	339	1,148	137
25 to 49	19	22	5	119	10
50 to 99	7	3	1	91	-
100 or more	17	7	-	89	3
Other hogs and pigs ....farms, 2007	1,067	1,215	791	2,873	227
2002	766	852	711	2,752	174
number, 2007	338,989	24,023	7,400	384,145	79,369
2002	377,756	24,952	10,667	470,176	94,129
SALES					
Hogs and pigs sold ....farms, 2007	964	1,596	1,042	3,516	368
2002	834	1,067	717	3,245	247
number, 2007	965,117	58,917	19,588	1,085,793	330,377
2002	847,002	80,159	26,173	1,294,440	356,435
$1,000, 2007	56,960	5,921	2,089	100,309	41,923
2002	72,213	6,803	1,992	79,836	23,057
2007 farms by number sold:					
1 to 24 ....farms	723	1,344	936	2,252	302
number	5,178	8,120	4,733	14,963	1,982
25 to 49 ....farms	67	130	40	300	29
number	2,301	4,563	1,365	(D)	1,068
50 to 99 ....farms	54	37	38	231	12
number	3,690	2,655	2,510	(D)	927
100 to 199 ....farms	38	33	19	218	16
number	4,628	4,299	2,580	30,753	2,072
200 to 499 ....farms	13	33	7	227	4
number	3,998	9,003	(D)	68,781	(D)
500 to 999 ....farms	13	9	1	110	2
number	7,530	6,885	(D)	75,012	(D)
1,000 or more ....farms	56	10	1	178	3
number	937,792	23,392	(D)	870,505	322,072

Table 13. **Poultry - Inventory and Sales: 2007 and 2002**

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Item		United States	Alabama	Alaska	Arizona	Arkansas	California
INVENTORY							
Any poultry	farms, 2007	187,420	5,188	103	2,095	6,089	5,959
	2002	146,206	4,417	94	748	5,510	4,260
Layers (see text)	farms, 2007	145,615	2,417	86	1,885	3,047	5,098
	2002	98,315	1,662	82	582	1,905	3,244
	number, 2007	349,772,508	9,624,254	3,623	(D)	13,977,804	21,091,629
	2002	334,435,155	9,656,322	2,872	(D)	13,189,901	22,768,304
2007 farms by inventory:							
1 to 49		125,195	1,751	70	1,786	2,260	4,553
50 to 99		10,648	146	9	77	181	265
100 to 399		5,001	67	6	20	58	159
400 to 3,199		785	27	1	1	6	48
3,200 to 9,999		626	45	-	-	74	4
10,000 to 19,999		1,373	243	-	-	252	9
20,000 to 49,999		1,292	125	-	-	201	15
50,000 to 99,999		261	6	-	-	10	8
100,000 or more		434	7	-	1	5	37
Pullets for laying flock replacement	farms, 2007	22,514	571	20	179	674	724
	2002	25,624	559	21	172	593	809
	number, 2007	105,876,529	5,435,952	530	(D)	8,074,630	4,613,085
	2002	94,882,450	4,950,238	570	(D)	6,045,372	4,171,400
Broilers and other meat-type chickens	farms, 2007	32,668	2,263	22	101	2,408	374
	2002	37,937	2,253	23	151	3,058	550
	number, 2007	1,602,574,592	178,338,741	2,100	2,006	202,397,626	44,384,231
	2002	1,389,279,047	158,296,720	1,533	9,205	181,555,253	33,239,341
Turkeys (see text)	farms, 2007	17,226	279	24	226	530	469
	2002	16,586	262	15	86	457	432
	number, 2007	107,173,804	8,788	718	856	9,437,181	6,703,230
	2002	93,028,191	(D)	404	580	8,603,489	5,950,670
Ducks, geese, and other poultry species (see text)	farms, 2007	66,612	1,245	42	620	1,557	2,160
	2002	49,724	1,033	30	383	811	1,778
SALES							
Any poultry sold (see text)	farms, 2007	148,911	4,884	88	1,022	5,640	4,114
	2002	83,383	3,839	47	303	5,148	1,980
Layers and pullets sold	farms, 2007	27,606	983	23	227	1,197	702
	2002	23,993	705	18	96	917	652
	number, 2007	356,309,743	17,884,531	(D)	4,387	25,769,540	12,641,890
	2002	377,864,191	17,958,436	6,514	(D)	23,935,586	14,575,431
Layers sold (see text)	farms, 2007	24,971	778	22	220	934	667
	2002	18,621	500	17	80	643	570
	number, 2007	194,955,057	7,681,447	5,678	3,778	11,576,276	8,786,250
	2002	202,947,490	7,659,735	(D)	(D)	9,124,085	10,285,584
Pullets for laying flock replacement sold	farms, 2007	4,169	240	3	27	311	84
	2002	8,193	265	2	31	324	177
	number, 2007	161,354,686	10,203,084	(D)	609	14,193,264	3,855,640
	2002	174,916,701	10,298,701	(D)	(D)	14,811,501	4,289,847
Broilers and other meat-type chickens sold	farms, 2007	27,091	2,428	12	29	2,485	229
	2002	32,006	2,600	11	59	3,520	338
	number, 2007	8,914,828,122	1,016,230,625	(D)	456	1,171,556,369	280,512,754
	2002	8,500,313,357	1,050,885,771	4,262	(D)	1,181,907,700	260,447,483
2007 farms by number sold:							
1 to 1,999		9,743	55	10	29	64	153
2,000 to 59,999		618	26	2	-	49	5
60,000 to 99,999		623	55	-	-	74	7
100,000 to 199,999		2,270	509	-	-	301	15
200,000 to 499,999		7,333	1,008	-	-	1,154	14
500,000 or more		6,504	775	-	-	843	35
Turkeys sold (see text)	farms, 2007	8,284	76	16	39	318	218
	2002	8,436	49	13	24	292	237
	number, 2007	295,793,159	(D)	983	280	29,164,234	16,151,754
	2002	283,247,649	(D)	850	295	28,459,783	17,581,408
Ducks, geese, and other poultry species sold (see text)	farms, 2007	15,823	366	15	77	510	540
	2002	15,165	334	11	101	244	599

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Table 13. **Poultry - Inventory and Sales: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
INVENTORY						
Any poultry ....farms, 2007	3,348	959	918	4,099	5,490	549
2002	2,104	683	697	2,530	4,139	209
Layers (see text) ....farms, 2007	3,018	822	164	3,361	2,870	354
2002	1,712	590	58	1,707	1,274	125
number, 2007	3,902,950	(D)	(D)	11,787,758	19,273,181	368,233
2002	4,057,514	(D)	(D)	10,581,159	20,022,117	537,882
2007 farms by inventory:						
1 to 49	2,782	655	139	3,038	2,094	325
50 to 99	161	89	11	198	166	12
100 to 399	63	66	7	86	82	9
400 to 3,199	5	8	1	16	22	3
3,200 to 9,999	-	1	5	1	80	1
10,000 to 19,999	-	-	-	8	153	1
20,000 to 49,999	1	1	-	6	216	2
50,000 to 99,999	1	-	-	1	22	-
100,000 or more	5	2	1	7	35	1
Pullets for laying flock replacement ....farms, 2007	398	142	33	488	587	15
2002	426	116	10	448	416	26
number, 2007	762,814	(D)	(D)	2,582,653	7,675,221	(D)
2002	646,573	(D)	(D)	2,184,954	7,384,754	67,925
Broilers and other meat-type chickens ....farms, 2007	291	96	778	376	2,170	59
2002	315	74	634	551	2,419	39
number, 2007	11,053	100,549	51,092,495	14,123,694	235,400,227	2,128
2002	9,119	41,195	45,649,977	19,726,572	204,678,169	202,902
Turkeys (see text) ....farms, 2007	388	114	21	478	350	14
2002	261	89	7	426	169	7
number, 2007	(D)	3,564	701	13,780	1,986	95
2002	(D)	1,480	233	3,288	1,376	75
Ducks, geese, and other poultry species (see text) ....farms, 2007	1,238	388	52	1,850	1,430	263
2002	862	250	27	1,080	647	118
SALES						
Any poultry sold (see text) ....farms, 2007	2,515	801	978	2,984	5,041	282
2002	861	415	857	1,387	3,883	110
Layers and pullets sold ....farms, 2007	436	205	58	701	1,128	25
2002	290	156	25	525	805	25
number, 2007	2,714,726	1,917,729	997,135	7,051,263	30,149,475	176,585
2002	2,029,698	2,875,897	1,071,053	8,190,306	29,103,083	458,280
Layers sold (see text) ....farms, 2007	420	197	49	641	914	24
2002	243	142	20	443	594	20
number, 2007	(D)	(D)	(D)	4,836,424	16,615,602	(D)
2002	(D)	(D)	557,675	4,086,482	15,217,322	(D)
Pullets for laying flock replacement sold ....farms, 2007	32	16	9	102	271	3
2002	91	32	7	151	253	6
number, 2007	(D)	(D)	(D)	2,214,839	13,533,873	(D)
2002	(D)	(D)	513,378	4,103,824	13,885,761	(D)
Broilers and other meat-type chickens sold ....farms, 2007	146	72	845	248	2,265	7
2002	171	50	820	446	2,758	17
number, 2007	17,729	420,789	246,098,878	73,353,351	1,398,912,031	(D)
2002	20,400	264,866	255,873,656	109,236,689	1,288,543,081	881,112
2007 farms by number sold:						
1 to 1,999	145	57	132	123	92	6
2,000 to 59,999	1	13	13	3	26	-
60,000 to 99,999	-	2	34	6	129	1
100,000 to 199,999	-	-	121	21	160	-
200,000 to 499,999	-	-	413	62	678	-
500,000 or more	-	-	132	33	1,180	-
Turkeys sold (see text) ....farms, 2007	134	73	14	137	46	-
2002	150	82	3	127	35	1
number, 2007	(D)	11,752	(D)	12,018	395	-
2002	(D)	5,923	(D)	1,683	712	(D)
Ducks, geese, and other poultry species sold (see text) ....farms, 2007	228	105	27	513	391	46
2002	238	70	6	390	269	45

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Table 13. **Poultry - Inventory and Sales: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Item		Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
INVENTORY							
Any poultry	farms, 2007	1,895	3,322	4,545	3,616	3,040	5,126
	2002	1,646	2,150	2,961	2,658	2,468	3,302
Layers (see text)	farms, 2007	1,610	2,801	3,583	2,966	2,634	4,129
	2002	1,318	1,672	2,152	1,934	1,961	2,197
	number, 2007	(D)	5,285,583	24,238,513	53,793,712	(D)	4,584,535
	2002	907,873	3,290,313	21,952,110	38,650,210	(D)	4,343,328
2007 farms by inventory:							
1 to 49		1,539	2,406	3,053	2,403	2,355	3,545
50 to 99		40	245	271	286	193	344
100 to 399		27	115	150	143	72	131
400 to 3,199		1	18	18	30	10	19
3,200 to 9,999		1	1	4	40	1	3
10,000 to 19,999		-	4	19	9	-	36
20,000 to 49,999		1	4	21	6	1	47
50,000 to 99,999		-	2	11	8	1	1
100,000 or more		1	6	36	41	1	3
Pullets for laying flock replacement	farms, 2007	189	404	519	425	394	788
	2002	330	417	540	472	491	664
	number, 2007	(D)	694,102	6,928,062	11,404,869	(D)	1,796,532
	2002	383,833	480,897	5,764,843	7,403,989	813,389	1,582,946
Broilers and other meat-type chickens	farms, 2007	233	370	594	738	270	909
	2002	275	401	572	661	374	925
	number, 2007	7,918	108,932	5,536,933	1,803,429	19,535	49,776,656
	2002	7,685	26,537	3,823,936	1,730,091	18,536	44,713,685
Turkeys (see text)	farms, 2007	149	362	498	417	220	434
	2002	242	297	423	355	231	333
	number, 2007	1,242	845,971	5,971,548	4,002,111	561,484	30,785
	2002	1,774	959,732	3,848,054	3,681,862	881,121	5,274
Ducks, geese, and other poultry species (see text)	farms, 2007	629	1,442	1,517	1,315	1,295	1,867
	2002	598	881	920	934	966	1,208
SALES							
Any poultry sold (see text)	farms, 2007	1,075	2,708	3,798	3,174	2,388	4,088
	2002	631	1,063	1,614	1,572	1,102	1,649
Layers and pullets sold	farms, 2007	277	510	707	556	318	819
	2002	216	329	472	462	442	462
	number, 2007	(D)	4,436,920	24,237,390	38,513,622	(D)	7,189,256
	2002	(D)	3,297,908	21,835,768	30,174,804	3,670,042	3,934,211
Layers sold (see text)	farms, 2007	268	473	633	508	303	738
	2002	190	286	386	337	316	374
	number, 2007	(D)	3,219,016	11,731,996	23,477,649	12,804	3,454,855
	2002	(D)	2,306,950	10,313,104	18,389,060	1,081,920	1,786,031
Pullets for laying flock replacement sold	farms, 2007	17	63	121	86	33	170
	2002	54	89	147	174	180	132
	number, 2007	280	1,217,904	12,505,394	15,035,973	(D)	3,734,401
	2002	8,100	990,958	11,522,664	11,785,744	2,588,122	2,148,180
Broilers and other meat-type chickens sold	farms, 2007	125	260	399	598	158	647
	2002	131	239	385	629	183	669
	number, 2007	7,937	325,036	37,072,109	10,257,286	26,941	309,769,263
	2002	7,475	82,974	25,385,811	9,558,127	91,894	271,176,998
2007 farms by number sold:							
1 to 1,999		125	244	298	542	154	179
2,000 to 59,999		-	15	11	35	4	10
60,000 to 99,999		-	1	5	1	-	9
100,000 to 199,999		-	-	54	1	-	12
200,000 to 499,999		-	-	8	10	-	174
500,000 or more		-	-	23	9	-	263
Turkeys sold (see text)	farms, 2007	93	141	351	235	83	117
	2002	122	135	304	200	86	76
	number, 2007	1,369	2,189,971	13,487,899	8,682,434	1,184,840	(D)
	2002	1,728	2,462,199	10,540,463	9,145,415	1,599,882	4,143
Ducks, geese, and other poultry species sold (see text)	farms, 2007	169	340	456	358	281	400
	2002	161	308	361	286	298	333

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Table 13. **Poultry - Inventory and Sales: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
INVENTORY						
Any poultry ....farms, 2007	1,967	1,506	2,017	1,552	6,135	5,057
2002	1,862	1,211	1,639	1,030	4,374	4,377
Layers (see text) ....farms, 2007	1,450	1,346	1,229	1,354	5,247	3,760
2002	1,034	1,044	810	846	3,491	2,859
number, 2007	1,991,941	(D)	2,662,723	139,764	9,034,335	10,596,573
2002	2,098,325	(D)	3,172,376	319,358	7,308,261	11,876,411
2007 farms by inventory:						
1 to 49	1,236	1,176	1,033	1,173	4,366	3,156
50 to 99	126	105	87	111	562	342
100 to 399	55	53	83	55	286	181
400 to 3,199	2	7	14	11	19	24
3,200 to 9,999	1	1	1	2	1	6
10,000 to 19,999	7	1	2	1	2	15
20,000 to 49,999	18	-	2	-	-	1
50,000 to 99,999	3	-	2	1	1	8
100,000 or more	2	3	5	-	10	27
Pullets for laying flock replacement ....farms, 2007	241	239	191	182	857	523
2002	367	259	189	212	812	700
number, 2007	596,038	1,551,061	250,395	(D)	1,987,718	3,178,990
2002	528,211	1,588,361	824,922	57,953	1,799,012	3,181,863
Broilers and other meat-type chickens ....farms, 2007	410	214	783	114	1,088	1,195
2002	699	216	757	152	1,035	1,281
number, 2007	36,286,035	14,849	65,503,541	(D)	682,297	8,649,569
2002	44,826,256	22,323	51,135,826	(D)	663,588	4,885,619
Turkeys (see text) ....farms, 2007	127	181	142	198	731	601
2002	163	169	110	157	612	754
number, 2007	801	3,097	223,233	17,501	1,978,869	18,298,316
2002	946	3,429	108,550	18,623	1,204,019	15,512,346
Ducks, geese, and other poultry species (see text) ....farms, 2007	797	523	498	655	2,655	2,122
2002	666	314	357	389	1,693	1,769
SALES						
Any poultry sold (see text) ....farms, 2007	1,568	1,195	1,833	1,269	4,831	4,392
2002	1,081	734	1,316	565	2,206	2,667
Layers and pullets sold ....farms, 2007	233	242	255	232	900	662
2002	259	272	235	205	725	699
number, 2007	2,945,868	4,329,338	2,353,668	203,401	4,759,730	10,736,735
2002	2,361,964	4,882,262	4,148,365	344,424	6,995,451	11,206,542
Layers sold (see text) ....farms, 2007	211	221	241	224	863	613
2002	199	242	191	185	599	555
number, 2007	1,734,991	3,033,065	1,777,658	(D)	1,817,564	4,593,883
2002	1,238,308	(D)	2,161,810	(D)	4,905,609	6,944,601
Pullets for laying flock replacement sold ....farms, 2007	37	35	26	20	97	75
2002	98	83	71	48	216	236
number, 2007	1,210,877	1,296,273	576,010	(D)	2,942,166	6,142,852
2002	1,123,656	(D)	1,986,555	(D)	2,089,842	4,261,941
Broilers and other meat-type chickens sold ....farms, 2007	308	180	808	94	725	940
2002	567	165	862	81	659	1,036
number, 2007	187,733,125	19,840	296,373,113	17,330	4,041,902	47,948,383
2002	216,941,912	46,966	287,106,225	29,424	4,027,972	31,138,768
2007 farms by number sold:						
1 to 1,999	27	180	105	94	706	781
2,000 to 59,999	4	-	21	-	7	27
60,000 to 99,999	5	-	33	-	-	1
100,000 to 199,999	14	-	125	-	7	5
200,000 to 499,999	120	-	327	-	4	99
500,000 or more	138	-	197	-	1	27
Turkeys sold (see text) ....farms, 2007	21	155	86	125	456	375
2002	22	197	63	108	366	479
number, 2007	177	(D)	739,398	62,243	5,069,587	46,177,541
2002	268	11,973	527,497	64,393	3,306,299	45,866,989
Ducks, geese, and other poultry species sold (see text) ....farms, 2007	153	106	124	140	717	587
2002	199	105	127	110	517	613

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Table 13. **Poultry - Inventory and Sales: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Item		Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
INVENTORY							
Any poultry	farms, 2007	3,641	7,553	1,845	2,280	353	1,002
	2002	4,471	6,305	1,472	1,812	337	711
Layers (see text)	farms, 2007	1,925	6,099	1,650	1,960	312	912
	2002	2,097	4,625	1,215	1,396	281	608
	number, 2007	6,236,952	7,249,420	355,226	10,487,473	5,852	210,380
	2002	5,386,404	6,978,102	349,040	11,786,314	5,164	175,250
2007 farms by inventory:							
1 to 49		1,498	5,415	1,522	1,662	291	771
50 to 99		139	411	66	182	15	100
100 to 399		70	177	24	83	6	34
400 to 3,199		17	30	7	12	-	2
3,200 to 9,999		7	6	15	1	-	-
10,000 to 19,999		75	20	15	3	-	4
20,000 to 49,999		111	32	1	-	-	-
50,000 to 99,999		5	4	-	4	-	-
100,000 or more		3	4	-	13	-	1
Pullets for laying flock replacement	farms, 2007	425	927	214	283	46	129
	2002	521	1,247	235	326	65	149
	number, 2007	3,590,994	2,694,950	135,228	2,189,919	1,036	73,792
	2002	2,479,032	2,350,139	124,064	(D)	1,201	76,287
Broilers and other meat-type chickens	farms, 2007	1,478	978	150	321	31	120
	2002	2,054	1,239	236	385	23	79
	number, 2007	150,596,764	46,654,478	107,962	772,946	314	24,208
	2002	134,737,744	33,511,287	104,669	584,353	321	28,879
Turkeys (see text)	farms, 2007	203	868	149	209	38	145
	2002	307	850	156	197	50	76
	number, 2007	1,396	8,604,222	16,297	761,232	148	2,534
	2002	2,065	7,193,751	15,724	(D)	229	2,025
Ducks, geese, and other poultry species (see text)	farms, 2007	1,029	2,596	607	1,008	124	360
	2002	1,037	2,079	518	657	124	247
SALES							
Any poultry sold (see text)	farms, 2007	3,262	6,114	1,396	1,875	213	793
	2002	2,867	3,103	501	724	148	391
Layers and pullets sold	farms, 2007	530	949	192	262	37	168
	2002	489	972	152	234	63	129
	number, 2007	12,437,476	7,412,506	39,840	8,433,542	509	216,293
	2002	9,149,348	6,644,451	132,647	8,054,788	1,090	227,363
Layers sold (see text)	farms, 2007	447	818	189	245	37	160
	2002	351	631	143	191	40	121
	number, 2007	6,118,344	2,714,572	(D)	(D)	498	(D)
	2002	3,009,286	2,694,407	132,047	(D)	547	(D)
Pullets for laying flock replacement sold	farms, 2007	119	185	8	32	4	16
	2002	187	444	24	74	30	37
	number, 2007	6,319,132	4,697,934	(D)	(D)	11	(D)
	2002	6,140,062	3,950,044	600	(D)	543	(D)
Broilers and other meat-type chickens sold	farms, 2007	1,453	644	87	206	4	83
	2002	1,928	812	77	231	18	83
	number, 2007	823,427,574	279,937,641	119,677	4,893,959	(D)	(D)
	2002	752,632,925	273,135,329	100,660	3,361,353	3,383	(D)
2007 farms by number sold:							
1 to 1,999		47	267	67	196	4	82
2,000 to 59,999		13	12	20	4	-	-
60,000 to 99,999		19	2	-	-	-	-
100,000 to 199,999		55	13	-	-	-	1
200,000 to 499,999		545	111	-	5	-	-
500,000 or more		774	239	-	1	-	-
Turkeys sold (see text)	farms, 2007	28	481	64	66	13	96
	2002	73	437	56	76	23	79
	number, 2007	209	20,120,291	22,376	3,870,156	215	5,447
	2002	1,701	18,444,741	14,808	(D)	636	4,598
Ducks, geese, and other poultry species sold (see text)	farms, 2007	223	490	137	196	17	73
	2002	282	474	134	175	38	45

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Table 13. **Poultry - Inventory and Sales: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
INVENTORY						
Any poultry ....farms, 2007	1,609	1,762	4,597	6,598	625	6,390
2002	1,330	1,473	3,327	6,251	593	5,773
Layers (see text) ....farms, 2007	1,367	1,571	4,006	3,736	516	5,255
2002	1,042	1,229	2,617	2,571	424	4,419
number, 2007	1,560,177	(D)	3,952,975	12,748,275	109,344	27,070,109
2002	2,065,685	(D)	3,819,432	10,150,213	200,440	30,759,965
2007 farms by inventory:						
1 to 49	1,147	1,436	3,345	2,891	426	4,257
50 to 99	121	97	381	267	61	543
100 to 399	80	33	214	118	27	299
400 to 3,199	14	3	45	25	-	30
3,200 to 9,999	1	-	1	111	-	5
10,000 to 19,999	-	-	3	139	-	13
20,000 to 49,999	1	1	5	159	1	17
50,000 to 99,999	-	-	4	18	1	39
100,000 or more	3	1	8	8	-	52
Pullets for laying flock replacement ....farms, 2007	185	190	683	728	82	850
2002	258	258	744	961	142	1,196
number, 2007	6,498	(D)	1,337,636	7,129,798	(D)	6,778,418
2002	102,142	283,326	1,312,959	5,705,003	33,269	6,871,958
Broilers and other meat-type chickens ....farms, 2007	158	86	636	1,879	126	1,027
2002	166	174	590	2,466	143	1,226
number, 2007	17,914	11,220	468,943	149,921,809	15,805	10,021,948
2002	20,724	11,255	605,111	149,439,592	29,910	5,878,909
Turkeys (see text) ....farms, 2007	151	214	529	846	60	627
2002	170	246	406	899	81	639
number, 2007	18,405	6,156	99,333	17,865,896	444,274	2,074,750
2002	9,135	5,103	(D)	14,554,229	443,160	1,873,917
Ducks, geese, and other poultry species (see text) ....farms, 2007	731	624	1,810	1,805	278	2,068
2002	573	535	1,371	1,340	243	1,648
SALES						
Any poultry sold (see text) ....farms, 2007	1,360	1,150	3,810	6,003	578	5,539
2002	910	465	1,742	4,807	243	3,452
Layers and pullets sold ....farms, 2007	299	180	818	1,301	58	1,188
2002	332	194	654	1,167	53	1,264
number, 2007	139,864	(D)	2,636,388	22,387,551	(D)	27,604,638
2002	562,684	(D)	3,843,632	20,426,081	(D)	40,162,666
Layers sold (see text) ....farms, 2007	289	173	790	1,060	58	1,069
2002	301	160	525	851	42	959
number, 2007	138,670	(D)	1,827,329	11,044,091	(D)	14,275,248
2002	552,629	(D)	3,155,104	8,590,685	(D)	24,587,271
Pullets for laying flock replacement sold ....farms, 2007	34	9	86	287	4	198
2002	68	71	211	480	22	430
number, 2007	1,194	257	809,059	11,343,460	(D)	13,329,390
2002	10,055	(D)	688,528	11,835,396	712	15,575,395
Broilers and other meat-type chickens sold ....farms, 2007	128	24	452	1,948	75	791
2002	154	43	421	2,444	84	968
number, 2007	119,175	(D)	1,779,733	781,416,896	14,442	49,656,074
2002	79,060	(D)	2,817,234	739,566,977	185,702	28,764,494
2007 farms by number sold:						
1 to 1,999	125	23	423	101	74	591
2,000 to 59,999	2	1	25	36	1	21
60,000 to 99,999	-	-	1	81	-	49
100,000 to 199,999	1	-	1	353	-	81
200,000 to 499,999	-	-	1	853	-	29
500,000 or more	-	-	1	524	-	20
Turkeys sold (see text) ....farms, 2007	92	47	313	635	29	433
2002	110	56	260	667	33	446
number, 2007	38,017	4,041	(D)	60,030,181	1,941,708	5,931,966
2002	38,985	4,119	(D)	50,896,556	1,902,891	6,222,206
Ducks, geese, and other poultry species sold (see text) ....farms, 2007	247	104	517	433	76	524
2002	279	113	466	423	84	546

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Table 13. **Poultry - Inventory and Sales: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Item		Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
INVENTORY						
Any poultry	farms, 2007	6,480	4,856	9,423	200	2,571
	2002	5,759	4,588	7,043	173	1,959
Layers (see text)	farms, 2007	5,235	4,386	7,604	154	1,756
	2002	4,085	3,820	5,165	138	1,107
	number, 2007	3,323,802	2,736,464	21,982,408	45,825	4,714,337
	2002	4,200,104	2,877,868	23,196,416	38,223	5,583,892
2007 farms by inventory:						
1 to 49		4,563	4,073	6,244	131	1,492
50 to 99		348	234	643	12	119
100 to 399		153	65	379	7	83
400 to 3,199		20	9	71	1	4
3,200 to 9,999		23	-	78	2	1
10,000 to 19,999		74	-	57	-	8
20,000 to 49,999		48	-	41	1	31
50,000 to 99,999		5	1	50	-	9
100,000 or more		1	4	41	-	9
Pullets for laying flock replacement	farms, 2007	940	604	1,033	24	298
	2002	1,241	800	1,056	28	325
	number, 2007	1,344,077	583,090	6,072,455	3,219	1,710,054
	2002	1,447,196	645,276	5,334,483	(D)	1,332,774
Broilers and other meat-type chickens	farms, 2007	857	398	1,499	18	512
	2002	1,282	598	1,635	22	521
	number, 2007	44,314,617	4,005,909	27,508,731	(D)	45,792,333
	2002	38,158,921	3,863,293	21,588,819	(D)	32,372,047
Turkeys (see text)	farms, 2007	418	372	835	32	337
	2002	553	450	704	28	331
	number, 2007	(D)	3,019	3,537,517	1,912	5,484,201
	2002	323,492	6,412	3,622,802	1,413	4,636,236
Ducks, geese, and other poultry species (see text)	farms, 2007	2,492	1,506	3,046	66	956
	2002	2,223	1,637	2,194	63	675
SALES						
Any poultry sold (see text)	farms, 2007	5,014	3,070	7,885	162	2,090
	2002	2,726	2,478	4,028	76	1,113
Layers and pullets sold	farms, 2007	853	626	1,567	37	411
	2002	895	750	1,368	28	278
	number, 2007	5,550,777	2,173,181	25,939,024	22,220	7,199,224
	2002	6,343,954	2,344,211	28,935,133	27,088	12,073,057
Layers sold (see text)	farms, 2007	779	606	1,399	35	370
	2002	635	645	1,083	28	211
	number, 2007	2,968,687	1,399,724	13,138,745	(D)	3,038,675
	2002	3,027,523	1,382,330	14,548,063	(D)	4,469,553
Pullets for laying flock replacement sold	farms, 2007	132	54	225	2	74
	2002	373	212	391	2	103
	number, 2007	2,582,090	773,457	12,800,279	(D)	4,160,549
	2002	3,316,431	961,881	14,387,070	(D)	7,603,504
Broilers and other meat-type chickens sold	farms, 2007	636	270	1,139	12	453
	2002	871	403	1,231	8	426
	number, 2007	242,228,335	24,625,417	150,102,682	(D)	236,209,584
	2002	231,877,714	17,296,520	132,507,545	(D)	181,792,956
2007 farms by number sold:						
1 to 1,999		139	233	613	11	49
2,000 to 59,999		3	6	86	1	5
60,000 to 99,999		18	2	22	-	6
100,000 to 199,999		55	-	102	-	28
200,000 to 499,999		307	6	235	-	157
500,000 or more		114	23	81	-	208
Turkeys sold (see text)	farms, 2007	120	167	473	27	200
	2002	115	246	457	22	181
	number, 2007	739,814	1,964	10,927,070	(D)	19,478,631
	2002	933,382	7,101	9,297,203	6,042	18,085,815
Ducks, geese, and other poultry species sold (see text)	farms, 2007	487	333	903	22	265
	2002	575	542	776	12	165

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Table 13. **Poultry - Inventory and Sales: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
INVENTORY					
Any poultry ....farms, 2007	1,187	6,527	17,816	1,629	1,201
2002	1,002	5,066	14,112	1,504	983
Layers (see text) ....farms, 2007	915	5,176	14,562	1,310	1,068
2002	737	3,551	9,915	1,089	839
number, 2007	2,920,799	1,713,388	19,116,712	3,584,791	223,605
2002	2,226,368	1,160,590	18,444,496	3,426,388	211,968
2007 farms by inventory:					
1 to 49	766	4,573	12,965	1,228	896
50 to 99	78	342	1,043	58	97
100 to 399	43	165	328	14	59
400 to 3,199	17	10	44	5	13
3,200 to 9,999	-	12	6	-	-
10,000 to 19,999	-	43	37	-	1
20,000 to 49,999	4	31	99	-	-
50,000 to 99,999	-	-	22	-	2
100,000 or more	7	-	18	5	-
Pullets for laying flock replacement ....farms, 2007	121	962	2,234	174	133
2002	145	970	2,806	270	204
number, 2007	(D)	973,937	5,718,579	613,529	23,224
2002	(D)	778,371	6,212,594	567,792	30,956
Broilers and other meat-type chickens ....farms, 2007	141	959	1,872	106	149
2002	223	1,120	2,479	190	157
number, 2007	102,223	41,040,292	118,612,254	2,567	42,485
2002	97,096	25,608,347	79,458,376	3,762	20,753
Turkeys (see text) ....farms, 2007	148	526	1,210	186	106
2002	152	550	1,589	206	95
number, 2007	2,232,577	3,479	1,986,815	2,189,319	5,748
2002	1,975,394	4,102	1,280,705	(D)	1,909
Ducks, geese, and other poultry species (see text) ....farms, 2007	551	2,556	7,290	604	346
2002	408	1,946	6,354	665	268
SALES					
Any poultry sold (see text) ....farms, 2007	977	4,369	12,747	1,133	1,001
2002	451	2,554	6,319	645	571
Layers and pullets sold ....farms, 2007	102	993	2,112	239	185
2002	118	893	2,106	228	175
number, 2007	768,968	3,648,926	13,852,706	1,474,276	163,748
2002	1,479,735	2,533,497	19,040,689	2,859,330	170,573
Layers sold (see text) ....farms, 2007	101	917	1,976	228	178
2002	102	664	1,574	165	129
number, 2007	768,468	1,609,194	7,912,914	1,473,351	163,388
2002	1,478,400	923,682	10,418,566	(D)	167,867
Pullets for laying flock replacement sold ....farms, 2007	11	131	274	27	9
2002	26	333	835	100	57
number, 2007	500	2,039,732	5,939,792	925	360
2002	1,335	1,609,815	8,622,123	(D)	2,706
Broilers and other meat-type chickens sold ....farms, 2007	85	670	1,277	39	133
2002	124	792	1,581	67	146
number, 2007	272,986	206,132,684	616,299,999	1,165	(D)
2002	321,260	181,420,343	538,737,966	2,898	113,776
2007 farms by number sold:					
1 to 1,999	72	123	435	39	131
2,000 to 59,999	11	16	23	-	1
60,000 to 99,999	1	22	22	-	-
100,000 to 199,999	1	78	63	-	1
200,000 to 499,999	-	330	281	-	-
500,000 or more	-	101	453	-	-
Turkeys sold (see text) ....farms, 2007	60	111	306	97	104
2002	65	139	496	132	101
number, 2007	4,597,204	1,871	6,609,401	4,214,209	52,721
2002	4,621,776	2,955	6,237,761	(D)	53,956
Ducks, geese, and other poultry species sold (see text) ....farms, 2007	213	509	1,338	180	72
2002	176	574	1,723	196	58

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Table 13. **Poultry - Inventory and Sales: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Item		Virginia	Washington	West Virginia	Wisconsin	Wyoming
INVENTORY						
Any poultry	farms, 2007	4,590	5,404	3,047	8,789	870
	2002	3,341	3,085	2,278	5,702	687
Layers (see text)	farms, 2007	3,464	4,878	2,580	7,211	776
	2002	1,937	2,533	1,799	4,243	574
	number, 2007	3,208,912	5,785,648	1,220,280	4,873,675	16,238
	2002	3,222,127	5,008,881	1,383,009	4,415,462	14,567
2007 farms by inventory:						
1 to 49		2,977	4,528	2,308	6,184	712
50 to 99		227	247	139	595	56
100 to 399		122	77	50	309	8
400 to 3,199		21	10	3	61	-
3,200 to 9,999		41	1	19	23	-
10,000 to 19,999		53	-	44	22	-
20,000 to 49,999		16	1	17	7	-
50,000 to 99,999		3	3	-	5	-
100,000 or more		4	11	-	5	-
Pullets for laying flock replacement	farms, 2007	509	639	303	909	106
	2002	541	570	389	1,020	108
	number, 2007	1,187,798	1,212,493	653,630	1,246,357	1,448
	2002	1,277,548	1,310,644	813,131	1,188,503	2,592
Broilers and other meat-type chickens	farms, 2007	738	467	334	1,723	49
	2002	919	413	405	1,671	106
	number, 2007	43,744,639	4,647,226	12,813,593	7,060,316	1,523
	2002	45,429,958	4,712,035	12,181,309	5,545,047	2,158
Turkeys (see text)	farms, 2007	572	408	214	780	90
	2002	497	275	242	674	106
	number, 2007	6,330,958	3,792	1,641,120	3,685,648	441
	2002	7,272,456	(D)	1,429,776	2,595,460	737
Ducks, geese, and other poultry species (see text)	farms, 2007	1,495	1,932	818	3,411	343
	2002	929	1,089	618	2,287	282
SALES						
Any poultry sold (see text)	farms, 2007	3,790	3,810	2,434	7,058	610
	2002	2,140	1,540	995	3,110	254
Layers and pullets sold	farms, 2007	677	805	419	1,096	106
	2002	548	546	370	895	100
	number, 2007	4,586,382	3,349,028	2,755,101	3,210,646	3,412
	2002	5,228,363	3,096,657	3,493,074	4,712,091	4,054
Layers sold (see text)	farms, 2007	602	772	382	1,027	102
	2002	406	447	300	700	85
	number, 2007	2,323,378	(D)	1,325,661	2,342,719	3,110
	2002	2,332,276	(D)	1,374,288	2,177,503	2,959
Pullets for laying flock replacement sold	farms, 2007	109	72	52	117	20
	2002	205	172	98	311	30
	number, 2007	2,263,004	(D)	1,429,440	867,927	302
	2002	2,896,087	(D)	2,118,786	2,534,588	1,095
Broilers and other meat-type chickens sold	farms, 2007	672	307	216	1,238	41
	2002	855	327	246	1,226	44
	number, 2007	249,184,367	31,669,170	88,778,413	46,804,252	1,890
	2002	266,103,921	33,017,116	88,699,422	33,652,214	2,227
2007 farms by number sold:						
1 to 1,999		128	265	54	1,109	41
2,000 to 59,999		26	1	2	30	-
60,000 to 99,999		10	-	2	3	-
100,000 to 199,999		80	2	10	-	-
200,000 to 499,999		264	10	69	59	-
500,000 or more		164	29	79	37	-
Turkeys sold (see text)	farms, 2007	344	189	87	370	23
	2002	372	141	95	362	25
	number, 2007	18,434,065	3,324	3,690,527	7,388,209	192
	2002	19,745,278	23,085	4,953,624	6,017,181	371
Ducks, geese, and other poultry species sold (see text)	farms, 2007	304	420	119	919	53
	2002	243	382	118	759	82

Table 14. **Miscellaneous Poultry - Inventory and Number Sold: 2007 and 2002**

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
DUCKS				
United States Total				
United States 2007	31,391	3,984,982	5,946	27,321,288
2002	26,140	3,823,629	5,835	24,143,066
States, 2007				
Alabama	484	4,785	83	1,475
Alaska	25	280	10	1,172
Arizona	287	2,289	28	154
Arkansas	698	7,019	88	11,524
California	850	802,076	160	6,222,352
Colorado	676	7,307	89	7,822
Connecticut	217	3,861	53	1,547
Delaware	23	418	14	208
Florida	791	15,590	213	11,636
Georgia	563	10,397	85	5,497
Hawaii	116	1,185	21	268
Idaho	251	3,366	47	(D)
Illinois	720	14,599	143	31,297
Indiana	793	1,538,664	249	9,886,148
Iowa	745	10,647	175	4,866
Kansas	589	5,364	75	1,766
Kentucky	909	11,095	152	4,430
Louisiana	423	14,010	60	13,831
Maine	239	3,680	47	(D)
Maryland	203	31,800	62	(D)
Massachusetts	403	6,023	77	1,632
Michigan	1,450	30,885	311	23,001
Minnesota	1,092	20,266	278	32,815
Mississippi	495	5,976	79	2,341
Missouri	1,251	20,062	166	37,316
Montana	296	26,489	57	17,517
Nebraska	534	5,871	75	1,254
Nevada	68	506	4	23
New Hampshire	178	1,689	26	(D)
New Jersey	316	(D)	105	(D)
New Mexico	280	5,601	37	(D)
New York	890	204,552	238	2,431,877
North Carolina	792	22,310	149	46,247
North Dakota	132	2,057	26	271
Ohio	996	29,970	206	22,657
Oklahoma	947	9,879	156	4,582
Oregon	728	8,370	118	11,047
Pennsylvania	1,368	458,430	338	3,029,723
Rhode Island	31	286	7	77
South Carolina	444	13,354	74	129,699
South Dakota	273	12,740	71	10,654
Tennessee	1,269	16,543	198	6,094
Texas	3,031	44,526	476	32,093
Utah	298	(D)	51	1,765
Vermont	165	1,187	19	185
Virginia	593	6,025	90	5,995
Washington	1,068	14,096	206	10,779
West Virginia	411	3,076	45	559
Wisconsin	1,816	413,598	387	4,990,956
Wyoming	174	1,338	22	137
EMUS				
United States Total				
United States 2007	3,621	28,443	524	6,540
2002	5,224	48,221	1,143	15,682
States, 2007				
Alabama	102	1,993	17	(D)
Arizona	52	246	10	72
Arkansas	63	474	10	86
California	243	1,770	40	410
Colorado	56	237	4	70
Connecticut	33	96	4	11
Delaware	3	(D)	1	(D)
Florida	208	1,032	33	407
Georgia	83	672	11	61
Idaho	57	271	11	86
Illinois	71	407	8	29
Indiana	20	103	4	9
Iowa	38	315	9	225
Kansas	49	1,010	9	163
Kentucky	73	437	9	48
Louisiana	28	284	3	6
Maine	14	108	2	(D)
Maryland	51	381	8	74
Massachusetts	24	454	10	155
Michigan	118	536	20	101
Minnesota	62	1,121	10	140
Mississippi	45	734	3	(D)
Missouri	107	1,126	11	134
Montana	22	164	2	(D)
Nebraska	22	123	7	30
Nevada	19	203	-	-
New Hampshire	13	48	2	(D)

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Table 14. **Miscellaneous Poultry - Inventory and Number Sold: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
EMUS - Con.				
States, 2007 - Con.				
New Jersey	48	260	6	65
New Mexico	32	186	1	(D)
New York	65	240	3	20
North Carolina	108	987	13	130
North Dakota	25	537	-	-
Ohio	54	210	11	26
Oklahoma	146	889	11	432
Oregon	91	726	16	352
Pennsylvania	142	751	22	164
Rhode Island	4	7	-	-
South Carolina	71	320	15	176
South Dakota	20	83	2	(D)
Tennessee	85	649	18	340
Texas	635	5,215	78	1,077
Utah	38	110	3	9
Vermont	20	260	7	127
Virginia	77	440	20	168
Washington	98	966	10	113
West Virginia	29	117	3	(D)
Wisconsin	150	913	27	206
Wyoming	7	(D)	-	-
GEESE				
United States Total				
United States 2007	18,869	177,812	2,497	161,133
2002	17,110	173,000	2,920	200,564
States, 2007				
Alabama	337	3,231	59	554
Alaska	19	92	7	(D)
Arizona	232	858	13	60
Arkansas	450	3,095	48	551
California	672	8,084	76	1,844
Colorado	433	2,603	52	263
Connecticut	137	913	12	71
Delaware	10	122	2	(D)
Florida	642	4,538	136	1,572
Georgia	303	2,307	35	270
Hawaii	62	371	5	16
Idaho	186	922	23	81
Illinois	437	2,907	36	250
Indiana	333	2,234	37	321
Iowa	460	5,866	82	1,037
Kansas	414	2,318	36	189
Kentucky	521	3,549	63	531
Louisiana	207	1,938	22	191
Maine	184	814	14	64
Maryland	146	722	17	92
Massachusetts	199	1,348	15	76
Michigan	741	8,708	128	1,483
Minnesota	752	12,774	119	(D)
Mississippi	267	2,501	32	365
Missouri	699	5,866	80	514
Montana	179	5,955	23	(D)
Nebraska	358	2,835	26	213
Nevada	37	190	3	15
New Hampshire	130	1,003	21	168
New Jersey	206	3,770	35	334
New Mexico	241	3,653	31	1,301
New York	586	5,628	96	1,192
North Carolina	437	4,197	69	797
North Dakota	104	3,885	12	(D)
Ohio	504	4,215	82	893
Oklahoma	597	3,314	67	350
Oregon	419	2,451	63	3,041
Pennsylvania	732	7,311	99	(D)
Rhode Island	15	63	4	13
South Carolina	246	2,099	51	487
South Dakota	180	10,818	22	(D)
Tennessee	610	4,517	79	781
Texas	1,788	14,054	226	2,979
Utah	208	1,451	38	208
Vermont	111	556	9	46
Virginia	380	3,032	44	386
Washington	535	3,371	72	767
West Virginia	193	1,076	19	86
Wisconsin	1,109	8,737	147	2,801
Wyoming	121	950	10	78

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Table 14. **Miscellaneous Poultry - Inventory and Number Sold: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
OSTRICHES				
United States Total				
United States 2007	714	11,188	155	5,697
2002	1,643	20,560	472	16,038
States, 2007				
Alabama	13	28	-	-
Arizona	10	(D)	5	(D)
Arkansas	13	56	1	(D)
California	74	1,860	13	569
Colorado	16	72	2	(D)
Connecticut	6	9	-	-
Florida	34	534	4	(D)
Georgia	13	78	4	13
Hawaii	3	9	-	-
Idaho	13	166	3	15
Illinois	15	208	3	(D)
Indiana	2	(D)	3	(D)
Iowa	12	270	8	61
Kansas	23	805	13	919
Kentucky	12	43	2	(D)
Louisiana	7	42	-	-
Maine	2	(D)	-	-
Maryland	4	13	-	-
Massachusetts	2	(D)	-	-
Michigan	23	117	6	96
Minnesota	16	28	2	(D)
Mississippi	7	28	-	-
Missouri	17	67	1	(D)
Montana	5	24	-	-
Nebraska	11	336	5	218
Nevada	6	29	-	-
New Hampshire	-	-	1	(D)
New Jersey	11	(D)	1	(D)
New Mexico	19	220	7	15
New York	18	139	-	-
North Carolina	28	682	9	213
North Dakota	2	(D)	-	-
Ohio	14	69	6	28
Oklahoma	26	109	2	(D)
Oregon	13	32	2	(D)
Pennsylvania	22	129	8	128
South Carolina	5	34	3	17
South Dakota	1	(D)	-	-
Tennessee	20	65	3	11
Texas	101	2,768	20	1,846
Utah	9	49	1	(D)
Virginia	18	83	6	32
Washington	9	53	3	6
West Virginia	6	38	2	(D)
Wisconsin	26	604	6	309
Wyoming	7	27	-	-
PHEASANTS				
United States Total				
United States 2007	5,313	3,773,593	2,582	10,876,586
2002	4,977	2,267,136	2,519	7,206,460
States, 2007				
Alabama	72	23,993	31	40,538
Alaska	3	(D)	2	(D)
Arizona	40	411	3	(D)
Arkansas	64	4,711	19	8,907
California	183	217,584	74	532,765
Colorado	99	24,272	43	106,058
Connecticut	50	59,826	29	80,485
Delaware	5	18	1	(D)
Florida	102	8,472	24	10,881
Georgia	125	76,929	58	86,910
Hawaii	21	2,092	8	2,105
Idaho	69	66,221	35	100,940
Illinois	145	160,168	81	465,276
Indiana	113	13,934	47	28,758
Iowa	99	44,001	61	110,925
Kansas	131	190,963	81	875,712
Kentucky	118	26,626	41	38,492
Louisiana	29	1,608	8	1,033
Maine	27	6,400	7	7,776
Maryland	23	(D)	6	(D)
Massachusetts	67	(D)	23	(D)
Michigan	313	338,446	187	597,201
Minnesota	272	311,481	168	1,104,303
Mississippi	38	4,089	16	5,244
Missouri	99	32,889	57	39,964
Montana	39	15,833	41	107,500
Nebraska	109	55,550	56	208,829
Nevada	9	(D)	4	(D)
New Hampshire	16	255	10	710
New Jersey	66	196,852	42	227,413
New Mexico	26	(D)	11	(D)

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Table 14. **Miscellaneous Poultry - Inventory and Number Sold: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
PHEASANTS - Con.				
States, 2007 - Con.				
New York	216	61,555	135	364,941
North Carolina	111	51,093	41	94,091
North Dakota	29	9,583	22	64,755
Ohio	207	101,921	118	990,076
Oklahoma	112	10,178	49	11,511
Oregon	158	60,097	81	236,712
Pennsylvania	376	424,251	149	773,312
Rhode Island	9	(D)	4	(D)
South Carolina	76	1,484	19	1,064
South Dakota	120	450,713	110	1,596,063
Tennessee	109	8,681	32	5,498
Texas	317	52,175	86	76,757
Utah	97	74,337	62	218,552
Vermont	14	(D)	8	(D)
Virginia	93	24,114	32	23,857
Washington	175	28,031	52	45,913
West Virginia	38	1,113	13	709
Wisconsin	466	433,795	280	1,352,589
Wyoming	18	25,920	15	42,391
PIGEONS OR SQUAB				
United States Total				
United States 2007	5,369	531,489	1,441	1,294,163
2002	4,405	449,255	1,309	1,160,364
States, 2007				
Alabama	88	2,508	28	406
Alaska	2	(D)	1	(D)
Arizona	55	3,015	12	2,314
Arkansas	70	3,398	11	953
California	326	170,473	126	657,592
Colorado	86	2,427	18	1,269
Connecticut	39	3,148	15	1,976
Delaware	14	342	7	330
Florida	179	10,022	62	8,940
Georgia	99	3,018	26	917
Hawaii	2	(D)	2	(D)
Idaho	46	2,008	11	(D)
Illinois	149	6,250	36	2,319
Indiana	138	10,680	32	11,564
Iowa	103	7,315	34	6,264
Kansas	104	4,616	14	618
Kentucky	189	7,334	49	5,403
Louisiana	82	2,396	20	1,028
Maine	22	297	5	28
Maryland	34	601	3	74
Massachusetts	46	3,358	6	1,808
Michigan	231	8,755	50	2,608
Minnesota	188	24,217	61	16,682
Mississippi	86	(D)	14	792
Missouri	179	9,642	58	6,247
Montana	29	1,097	6	1,281
Nebraska	63	4,486	10	1,544
Nevada	5	150	-	-
New Hampshire	9	201	3	300
New Jersey	76	10,172	29	6,582
New Mexico	39	1,230	6	205
New York	167	21,394	40	23,188
North Carolina	115	5,559	29	1,520
North Dakota	17	578	2	(D)
Ohio	152	14,680	47	20,955
Oklahoma	184	6,903	38	7,162
Oregon	144	9,497	31	4,148
Pennsylvania	362	38,445	147	(D)
Rhode Island	3	6	3	(D)
South Carolina	117	(D)	36	(D)
South Dakota	24	986	12	266
Tennessee	149	5,210	37	1,329
Texas	478	19,421	80	3,773
Utah	81	8,545	28	6,537
Vermont	24	625	1	(D)
Virginia	81	4,121	18	2,545
Washington	160	26,180	54	142,282
West Virginia	45	436	7	62
Wisconsin	262	9,206	74	7,294
Wyoming	26	756	2	(D)
QUAIL				
United States Total				
United States 2007	3,983	10,611,067	2,072	39,968,045
2002	3,742	4,888,196	1,907	19,157,803
States, 2007				
Alabama	161	1,458,393	115	3,265,438
Alaska	-	-	1	(D)
Arizona	19	782	4	(D)

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Table 14. **Miscellaneous Poultry - Inventory and Number Sold: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
QUAIL - Con.				
States, 2007 - Con.				
Arkansas	78	26,107	47	33,915
California	152	261,032	44	531,423
Colorado	51	13,458	24	45,719
Connecticut	15	(D)	9	4,928
Delaware	9	(D)	3	(D)
Florida	156	283,073	62	245,742
Georgia	158	2,991,860	127	17,391,084
Hawaii	6	181	2	(D)
Idaho	28	2,346	9	1,235
Illinois	123	72,665	72	180,364
Indiana	75	46,986	49	84,755
Iowa	63	41,573	41	(D)
Kansas	107	158,440	74	454,833
Kentucky	124	59,413	56	90,906
Louisiana	66	67,008	21	59,497
Maine	20	1,037	8	(D)
Maryland	16	(D)	5	22,138
Massachusetts	42	(D)	13	4,949
Michigan	93	39,975	54	91,520
Minnesota	64	29,674	30	110,576
Mississippi	128	286,973	80	392,684
Missouri	125	79,692	74	108,000
Montana	24	2,029	13	6,268
Nebraska	39	8,415	28	10,362
Nevada	1	(D)	1	(D)
New Hampshire	17	1,034	3	126
New Jersey	41	76,622	25	71,570
New Mexico	31	6,906	14	16,366
New York	91	23,400	51	78,070
North Carolina	148	1,513,994	93	4,627,989
North Dakota	4	1,780	4	2,990
Ohio	122	32,796	61	49,855
Oklahoma	138	105,890	77	231,871
Oregon	74	12,014	34	19,986
Pennsylvania	267	195,479	111	357,576
Rhode Island	4	(D)	1	(D)
South Carolina	107	923,757	59	7,767,531
South Dakota	12	(D)	5	(D)
Tennessee	179	86,180	83	124,679
Texas	466	1,435,992	205	2,111,356
Utah	33	7,293	12	5,061
Vermont	12	(D)	8	(D)
Virginia	109	87,292	42	111,966
Washington	58	44,822	37	(D)
West Virginia	29	2,392	15	2,577
Wisconsin	90	21,156	61	51,728
Wyoming	8	3,009	5	13,970
OTHER POULTRY (SEE TEXT)				
United States Total				
United States 2007	34,401	2,993,318	6,640	4,354,448
2002	13,790	1,629,522	3,627	3,111,544
States, 2007				
Alabama	692	35,185	179	22,948
Alaska	12	416	6	2,982
Arizona	223	3,805	28	1,100
Arkansas	948	675,391	405	796,795
California	969	149,888	187	401,313
Colorado	469	87,991	106	129,924
Connecticut	199	12,007	40	7,019
Delaware	33	1,582	9	512
Florida	916	21,665	205	(D)
Georgia	846	132,795	196	154,672
Hawaii	109	6,064	18	1,730
Idaho	242	24,742	63	46,016
Illinois	676	71,071	109	53,665
Indiana	749	19,480	121	32,625
Iowa	584	14,274	101	48,913
Kansas	721	89,776	102	124,126
Kentucky	1,009	25,953	214	30,749
Louisiana	388	11,587	69	5,111
Maine	254	5,553	50	7,060
Maryland	270	(D)	49	41,043
Massachusetts	321	18,287	49	12,209
Michigan	1,316	65,238	269	80,804
Minnesota	1,008	67,358	186	99,789
Mississippi	573	43,190	89	(D)
Missouri	1,437	107,721	244	129,237
Montana	267	4,051	40	3,375
Nebraska	530	22,036	74	26,337
Nevada	61	4,172	12	(D)
New Hampshire	182	2,497	31	522
New Jersey	397	33,728	100	29,889
New Mexico	256	11,784	50	(D)
New York	907	86,316	188	99,852
North Carolina	1,115	65,960	212	123,366
North Dakota	134	2,395	33	5,755

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Table 14. **Miscellaneous Poultry - Inventory and Number Sold: 2007 and 2002** - Con.

[Data include poultry sold and moved off the farm. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
OTHER POULTRY (SEE TEXT) - Con.				
States, 2007 - Con.				
Ohio	1,115	32,849	242	35,413
Oklahoma	1,630	55,648	263	131,269
Oregon	614	22,467	118	35,111
Pennsylvania	1,477	458,169	350	1,027,290
Rhode Island	42	620	12	603
South Carolina	576	15,296	120	36,742
South Dakota	239	6,645	35	3,040
Tennessee	1,481	31,456	258	17,211
Texas	4,171	124,910	642	121,882
Utah	245	16,619	55	26,521
Vermont	142	3,584	35	1,959
Virginia	911	28,011	159	19,397
Washington	841	23,467	156	28,893
West Virginia	473	(D)	69	4,856
Wisconsin	1,470	56,978	266	155,897
Wyoming	161	7,267	26	17,957
POULTRY HATCHED (SEE TEXT)				
United States Total				
United States 2007	(X)	(X)	22,022	10,583,506,243
2002	(X)	(X)	31,824	10,186,919,783
States, 2007				
Alabama	(X)	(X)	558	1,385,765,265
Alaska	(X)	(X)	19	2,137
Arizona	(X)	(X)	188	7,161
Arkansas	(X)	(X)	473	1,229,676,952
California	(X)	(X)	853	357,300,976
Colorado	(X)	(X)	340	125,446
Connecticut	(X)	(X)	154	390,881
Delaware	(X)	(X)	25	(D)
Florida	(X)	(X)	704	76,418,367
Georgia	(X)	(X)	550	1,526,594,360
Hawaii	(X)	(X)	64	(D)
Idaho	(X)	(X)	199	(D)
Illinois	(X)	(X)	399	506,004
Indiana	(X)	(X)	399	138,480,726
Iowa	(X)	(X)	346	135,803,216
Kansas	(X)	(X)	342	(D)
Kentucky	(X)	(X)	727	338,963,412
Louisiana	(X)	(X)	318	173,039,164
Maine	(X)	(X)	195	(D)
Maryland	(X)	(X)	180	373,727,822
Massachusetts	(X)	(X)	227	110,589
Michigan	(X)	(X)	832	8,891,255
Minnesota	(X)	(X)	647	138,216,159
Mississippi	(X)	(X)	424	834,292,981
Missouri	(X)	(X)	726	395,565,597
Montana	(X)	(X)	171	(D)
Nebraska	(X)	(X)	267	1,044,326
Nevada	(X)	(X)	38	777
New Hampshire	(X)	(X)	120	(D)
New Jersey	(X)	(X)	246	185,324
New Mexico	(X)	(X)	211	(D)
New York	(X)	(X)	680	2,627,408
North Carolina	(X)	(X)	702	911,670,587
North Dakota	(X)	(X)	87	(D)
Ohio	(X)	(X)	656	100,494,259
Oklahoma	(X)	(X)	861	308,320,183
Oregon	(X)	(X)	583	54,539,234
Pennsylvania	(X)	(X)	781	238,711,482
Rhode Island	(X)	(X)	42	23,504
South Carolina	(X)	(X)	363	246,193,690
South Dakota	(X)	(X)	146	2,292,828
Tennessee	(X)	(X)	649	122,391,775
Texas	(X)	(X)	2,676	754,815,069
Utah	(X)	(X)	230	(D)
Vermont	(X)	(X)	116	(D)
Virginia	(X)	(X)	539	335,192,029
Washington	(X)	(X)	733	(D)
West Virginia	(X)	(X)	265	(D)
Wisconsin	(X)	(X)	882	60,892,481
Wyoming	(X)	(X)	89	(D)

Table 15. **Horses and Ponies - Inventory and Number Sold: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory				Sold			
	Total		Owned		Total		Owned	
	Farms	Number	Farms	Number	Farms	Number	Farms	Number
UNITED STATES TOTAL								
United States 2007	575,942	4,028,827	501,528	3,224,964	133,472	506,503	106,050	400,845
2002	542,223	3,644,278	(NA)	(NA)	124,586	470,423	(NA)	(NA)
STATES, 2007								
Alabama	12,424	87,111	11,061	73,085	3,394	12,465	2,654	9,818
Alaska	197	2,270	177	1,941	48	123	42	84
Arizona	8,982	68,745	8,611	60,759	1,633	6,435	1,406	5,532
Arkansas	12,994	78,968	11,272	66,821	2,870	11,257	2,287	9,250
California	20,270	180,723	18,008	133,872	4,888	18,023	3,787	13,644
Colorado	14,690	119,040	13,094	93,168	3,925	14,908	3,184	11,819
Connecticut	1,306	11,510	1,134	6,809	293	1,382	211	957
Delaware	490	3,964	451	2,874	118	445	91	336
Florida	13,816	120,614	12,627	93,591	4,194	16,111	3,329	12,429
Georgia	11,905	76,706	10,366	63,003	2,638	8,514	2,062	6,512
Hawaii	842	6,547	672	5,100	111	331	95	299
Idaho	10,376	74,029	8,756	59,911	2,380	8,544	1,803	6,447
Illinois	11,779	79,481	10,070	59,827	2,423	8,953	1,707	6,650
Indiana	12,254	81,155	10,849	68,051	3,194	10,823	2,631	8,475
Iowa	10,605	71,994	9,127	60,973	2,694	10,971	2,575	10,328
Kansas	14,043	89,898	11,932	67,583	2,503	9,174	1,744	6,033
Kentucky	22,242	175,503	19,430	144,341	5,939	30,413	5,027	26,557
Louisiana	8,796	60,520	7,946	51,916	2,582	8,386	2,393	7,534
Maine	1,978	12,157	1,737	9,129	428	1,105	307	808
Maryland	3,225	30,747	2,813	21,557	985	3,618	765	2,878
Massachusetts	2,369	20,580	2,100	12,938	477	3,009	327	1,233
Michigan	14,647	101,138	13,142	79,812	3,618	11,695	2,905	9,159
Minnesota	13,048	90,140	11,205	69,814	2,963	11,700	2,098	8,573
Mississippi	9,792	65,328	8,411	54,103	2,329	8,289	1,796	6,421
Missouri	24,495	149,165	20,996	122,797	5,294	21,073	4,105	16,265
Montana	12,849	105,243	10,843	84,737	2,584	11,519	2,019	9,491
Nebraska	10,193	65,624	8,721	54,420	2,030	9,536	1,581	7,475
Nevada	1,863	18,396	1,575	14,724	467	1,978	392	1,642
New Hampshire	1,321	9,900	1,174	6,625	236	729	176	497
New Jersey	2,960	30,144	2,680	18,657	948	2,999	805	2,212
New Mexico	9,257	53,616	7,981	44,566	1,671	6,004	1,313	4,517
New York	11,404	84,997	10,036	62,655	2,714	10,291	1,953	7,677
North Carolina	13,040	78,377	11,408	62,953	2,898	8,710	2,455	7,358
North Dakota	5,884	44,750	4,868	36,400	1,130	6,874	817	5,542
Ohio	18,275	119,198	15,826	92,594	4,511	14,331	3,184	10,105
Oklahoma	26,371	165,555	22,889	136,485	5,659	22,550	4,375	17,376
Oregon	13,027	89,420	11,147	70,169	3,113	9,759	2,421	7,573
Pennsylvania	17,836	116,332	15,419	90,162	3,560	12,524	3,219	10,920
Rhode Island	366	3,486	325	2,148	49	151	27	94
South Carolina	6,420	43,283	5,664	34,428	1,633	5,446	1,299	4,152
South Dakota	8,128	70,225	6,857	59,624	1,776	10,212	1,369	8,292
Tennessee	21,914	142,003	19,061	117,599	5,601	20,659	4,561	16,248
Texas	70,728	438,827	61,130	358,472	15,863	56,506	12,274	43,017
Utah	8,444	59,783	7,249	48,163	1,989	7,098	1,551	5,455
Vermont	1,839	13,285	1,590	9,529	370	1,248	252	964
Virginia	13,520	90,363	11,732	69,885	2,805	9,158	2,032	6,538
Washington	10,957	89,739	9,728	71,431	3,405	12,157	2,826	10,112
West Virginia	6,927	37,728	5,915	31,339	1,303	4,313	1,178	3,878
Wisconsin	18,711	120,044	16,171	93,976	3,209	10,170	2,706	8,556
Wyoming	6,143	80,476	5,552	69,448	2,027	13,834	1,934	13,113

Table 16. **Sheep and Lambs - Inventory, Wool Production, and Number Sold: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Sheep and lambs inventory ..... farms, 2007	83,134	522	49	4,978	728	4,063
2002	73,814	445	36	411	556	4,009
number, 2007	5,819,162	16,926	951	153,829	15,262	596,163
2002	6,341,799	11,374	530	114,888	13,797	731,558
2007 farms by inventory:						
1 to 24 ..... farms	54,889	361	44	3,539	559	2,893
number	520,091	2,903	(D)	37,997	4,430	26,692
25 to 99 ..... farms	21,070	126	4	1,365	142	844
number	952,129	6,117	250	55,427	6,485	38,224
100 to 299 ..... farms	4,762	29	-	67	24	195
number	746,733	4,405	-	(D)	3,301	29,644
300 to 999 ..... farms	1,599	6	1	2	3	53
number	801,425	3,501	(D)	(D)	1,046	26,839
1,000 or more ..... farms	814	-	-	5	-	78
number	2,798,784	-	-	50,967	-	474,764
Ewes 1 year old or older ..... farms, 2007	68,222	435	41	2,843	583	3,413
2002	66,769	386	34	370	474	3,643
number, 2007	3,516,409	10,060	486	75,285	9,390	286,544
2002	3,632,196	6,733	257	59,228	8,496	304,183
Wool production ..... farms, 2007	43,091	99	17	2,138	128	1,841
2002	47,208	186	19	201	280	2,295
pounds, 2007	34,017,725	34,844	2,434	764,101	34,615	2,992,710
2002	39,798,847	42,536	1,918	427,449	65,087	3,723,761
Sheep and lambs sold ..... farms, 2007	53,268	295	17	1,345	417	2,466
2002	47,464	196	16	216	301	2,384
number, 2007	4,579,608	7,612	189	44,537	7,664	380,852
2002	5,426,904	5,195	119	40,791	6,263	449,308

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Sheep and lambs inventory ..... farms, 2007	1,600	399	56	875	664	394
2002	1,613	335	54	617	529	103
number, 2007	413,450	5,767	903	13,030	11,313	22,376
2002	382,933	5,581	1,028	10,794	11,318	19,909
2007 farms by inventory:						
1 to 24 ..... farms	1,067	343	46	746	516	335
number	8,889	2,696	423	5,321	3,679	(D)
25 to 99 ..... farms	347	52	10	110	134	47
number	15,777	2,034	480	4,242	5,816	1,838
100 to 299 ..... farms	94	3	-	16	14	8
number	15,207	(D)	-	2,325	1,818	1,142
300 to 999 ..... farms	33	1	-	3	-	3
number	18,194	(D)	-	1,142	-	1,573
1,000 or more ..... farms	59	-	-	-	-	1
number	355,383	-	-	-	-	(D)
Ewes 1 year old or older ..... farms, 2007	1,265	316	48	631	509	300
2002	1,428	304	50	489	426	91
number, 2007	200,269	3,482	482	7,354	6,735	8,841
2002	155,038	3,333	476	5,612	6,377	6,800
Wool production ..... farms, 2007	868	262	23	82	168	22
2002	1,123	164	27	137	195	45
pounds, 2007	2,916,141	28,972	3,375	9,199	25,257	5,330
2002	2,377,030	25,157	4,217	14,427	31,829	144,320
Sheep and lambs sold ..... farms, 2007	1,112	195	29	381	292	126
2002	1,224	137	17	261	194	34
number, 2007	744,826	2,805	415	5,886	5,087	4,784
2002	931,578	2,754	204	4,690	5,105	4,639

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Sheep and lambs inventory ..... farms, 2007	1,210	1,886	1,968	3,522	1,166	1,436
2002	1,310	1,916	2,105	3,751	1,335	1,230
number, 2007	229,022	52,360	49,021	209,285	84,194	36,996
2002	255,858	66,078	61,620	249,908	81,145	27,443
2007 farms by inventory:						
1 to 24 ..... farms	799	1,263	1,402	1,795	694	1,018
number	7,459	(D)	14,056	21,456	6,815	9,128
25 to 99 ..... farms	295	535	484	1,299	318	357
number	14,344	23,826	20,546	60,127	14,877	15,241
100 to 299 ..... farms	60	83	71	345	101	47
number	9,350	11,830	10,072	53,647	16,328	6,693
300 to 999 ..... farms	13	4	11	65	38	14
number	6,334	1,588	4,347	29,199	19,523	5,934
1,000 or more ..... farms	43	1	-	18	15	-
number	191,535	(D)	-	44,856	26,651	-
Ewes 1 year old or older ..... farms, 2007	1,047	1,663	1,678	3,168	1,011	1,171
2002	1,150	1,782	1,919	3,531	1,227	1,056
number, 2007	161,935	34,832	32,656	128,518	52,614	22,225
2002	163,812	39,673	37,428	130,808	46,107	16,808
Wool production ..... farms, 2007	669	1,200	1,085	2,517	664	462
2002	787	1,418	1,427	3,079	815	601
pounds, 2007	1,752,184	318,484	236,518	1,251,857	424,803	104,290
2002	1,893,621	419,946	389,321	1,550,399	416,035	129,312
Sheep and lambs sold ..... farms, 2007	1,009	1,427	1,471	3,161	898	863
2002	944	1,268	1,380	2,903	959	606
number, 2007	220,481	44,901	33,332	279,457	87,334	23,484
2002	226,012	42,792	40,236	257,130	63,270	25,219

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Table 16. **Sheep and Lambs - Inventory, Wool Production, and Number Sold: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Sheep and lambs inventory ....farms, 2007	549	647	804	734	2,409	2,522
2002	420	524	655	514	2,236	2,854
number, 2007	8,723	10,918	22,143	11,787	81,728	144,557
2002	6,704	9,353	22,702	9,592	88,541	154,852
2007 farms by inventory:						
1 to 24 .... farms	451	531	593	607	1,711	1,379
number	4,277	4,898	(D)	5,068	13,861	14,547
25 to 99 .... farms	91	104	174	116	551	859
number	3,498	4,119	7,013	4,952	25,700	40,210
100 to 299 .... farms	7	11	29	10	110	203
number	948	(D)	4,399	(D)	16,356	32,054
300 to 999 .... farms	-	1	7	1	30	67
number	-	(D)	2,782	(D)	14,712	30,911
1,000 or more .... farms	-	-	1	-	7	14
number	-	-	(D)	-	11,099	26,835
Ewes 1 year old or older ....farms, 2007	419	551	700	615	1,969	2,225
2002	363	491	594	458	1,980	2,676
number, 2007	4,956	6,854	13,660	7,537	48,398	85,049
2002	4,064	5,773	12,564	6,267	46,649	92,801
Wool production ....farms, 2007	104	426	607	434	1,317	1,750
2002	101	317	416	274	1,423	2,182
pounds, 2007	21,997	66,838	109,095	63,971	436,904	908,434
2002	15,970	50,346	106,300	45,411	584,510	986,437
Sheep and lambs sold ....farms, 2007	246	349	531	348	1,586	2,021
2002	153	281	379	271	1,377	2,019
number, 2007	3,206	4,351	12,195	8,182	63,139	144,116
2002	2,033	4,400	12,227	6,307	67,556	145,336

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Sheep and lambs inventory ....farms, 2007	380	2,247	1,493	1,287	250	531
2002	334	2,059	1,898	1,435	327	395
number, 2007	8,414	77,082	272,012	76,397	68,581	7,671
2002	6,990	76,015	305,753	97,373	77,913	7,423
2007 farms by inventory:						
1 to 24 .... farms	277	1,442	623	655	185	448
number	2,228	14,491	6,167	7,440	(D)	3,900
25 to 99 .... farms	88	659	411	446	43	80
number	3,694	29,954	20,943	20,810	1,874	3,368
100 to 299 .... farms	14	118	251	151	6	3
number	(D)	18,359	43,364	22,169	(D)	403
300 to 999 .... farms	1	24	142	31	2	-
number	(D)	10,090	72,283	14,830	(D)	-
1,000 or more .... farms	-	4	66	4	14	-
number	-	4,188	129,255	11,148	62,741	-
Ewes 1 year old or older ....farms, 2007	309	1,911	1,375	1,133	223	454
2002	265	1,876	1,843	1,349	296	354
number, 2007	5,194	51,328	184,087	47,965	42,822	4,707
2002	3,643	45,355	219,004	57,142	57,455	4,561
Wool production ....farms, 2007	73	1,075	1,171	858	137	341
2002	96	1,382	1,513	1,074	190	235
pounds, 2007	17,176	347,579	2,096,155	470,435	502,828	42,351
2002	19,330	417,808	2,588,412	642,829	709,368	36,415
Sheep and lambs sold ....farms, 2007	192	1,546	1,267	1,089	171	253
2002	140	1,255	1,504	1,142	201	185
number, 2007	3,606	54,967	205,548	79,594	42,504	4,365
2002	2,814	47,066	279,556	89,941	66,151	4,878

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Sheep and lambs inventory ....farms, 2007	1,018	2,896	1,799	1,275	678	3,409
2002	894	993	2,207	1,010	836	4,038
number, 2007	14,835	126,928	63,182	27,714	88,686	123,161
2002	15,336	154,810	83,630	22,863	114,002	149,936
2007 farms by inventory:						
1 to 24 .... farms	880	1,996	1,271	958	185	2,134
number	7,872	21,039	11,248	8,690	2,120	20,870
25 to 99 .... farms	127	795	408	271	274	1,061
number	5,198	33,493	19,498	11,723	14,192	48,551
100 to 299 .... farms	10	60	87	44	155	173
number	(D)	9,973	14,017	(D)	26,561	26,294
300 to 999 .... farms	1	24	30	2	57	34
number	(D)	14,338	13,327	(D)	26,962	15,351
1,000 or more .... farms	-	21	3	-	7	7
number	-	48,085	5,092	-	18,851	12,095
Ewes 1 year old or older ....farms, 2007	783	2,152	1,523	1,071	626	2,929
2002	797	829	2,055	878	786	3,661
number, 2007	8,336	87,131	42,321	16,419	60,676	74,331
2002	8,857	97,229	54,256	14,022	64,139	91,332
Wool production ....farms, 2007	477	1,742	1,104	420	601	2,203
2002	474	555	1,416	549	702	2,858
pounds, 2007	68,191	829,785	319,144	53,808	638,070	660,947
2002	62,946	1,215,334	431,110	96,603	760,255	857,656
Sheep and lambs sold ....farms, 2007	709	1,120	1,107	755	599	2,580
2002	582	511	1,228	515	688	2,826
number, 2007	9,167	54,861	46,448	14,437	69,458	92,936
2002	9,976	106,183	52,911	12,525	85,366	100,498

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Table 16. **Sheep and Lambs - Inventory, Wool Production, and Number Sold: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Sheep and lambs inventory ..... farms, 2007	1,939	3,209	3,672	107	367
2002	2,186	3,385	3,504	77	267
number, 2007	76,243	217,401	96,883	1,459	7,852
2002	80,128	237,076	102,890	1,422	3,339
2007 farms by inventory:					
1 to 24 ..... farms	1,314	2,248	2,710	94	296
number	11,272	21,589	24,305	873	2,159
25 to 99 ..... farms	495	709	789	13	61
number	22,725	31,022	35,406	586	2,972
100 to 299 ..... farms	86	159	149	-	3
number	13,441	25,037	22,554	-	325
300 to 999 ..... farms	39	60	22	-	7
number	19,341	30,228	(D)	-	2,396
1,000 or more ..... farms	5	33	2	-	-
number	9,464	109,525	(D)	-	-
Ewes 1 year old or older ..... farms, 2007	1,470	2,802	3,067	89	261
2002	1,803	3,121	3,217	66	210
number, 2007	46,739	119,356	62,828	828	3,944
2002	47,151	131,588	61,191	853	1,787
Wool production ..... farms, 2007	560	1,832	2,036	48	85
2002	1,064	2,392	2,013	35	75
pounds, 2007	260,170	1,194,378	436,091	5,797	25,942
2002	423,571	1,759,247	488,454	6,449	11,426
Sheep and lambs sold ..... farms, 2007	1,242	2,226	2,327	56	153
2002	1,288	2,403	1,898	35	84
number, 2007	56,007	155,411	62,262	757	3,015
2002	62,981	207,034	65,960	791	941

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Sheep and lambs inventory ..... farms, 2007	1,669	1,261	8,750	1,615	626
2002	2,074	1,273	7,131	1,422	514
number, 2007	335,897	29,751	945,164	277,635	13,925
2002	376,468	23,295	1,029,813	310,934	14,743
2007 farms by inventory:					
1 to 24 ..... farms	438	913	5,293	1,037	488
number	5,352	7,140	49,626	10,433	4,706
25 to 99 ..... farms	572	296	2,157	354	126
number	29,122	13,256	98,093	15,865	5,613
100 to 299 ..... farms	397	45	748	109	7
number	64,638	6,754	122,603	16,563	1,322
300 to 999 ..... farms	203	7	366	48	5
number	102,965	2,601	195,713	26,528	2,284
1,000 or more ..... farms	59	-	186	67	-
number	133,820	-	479,129	208,246	-
Ewes 1 year old or older ..... farms, 2007	1,580	988	6,814	1,430	546
2002	1,924	1,091	6,290	1,247	489
number, 2007	210,005	17,671	580,861	210,388	9,162
2002	201,313	13,444	614,351	209,614	9,189
Wool production ..... farms, 2007	1,405	442	2,540	1,116	442
2002	1,724	576	3,949	945	312
pounds, 2007	2,184,778	100,029	4,604,047	2,248,895	81,167
2002	2,447,786	111,516	5,984,362	2,243,904	69,896
Sheep and lambs sold ..... farms, 2007	1,557	739	5,252	1,097	344
2002	1,788	591	4,561	983	265
number, 2007	309,269	17,846	530,646	198,692	9,837
2002	436,931	13,468	695,962	213,784	8,509

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
Sheep and lambs inventory ..... farms, 2007	2,132	2,366	1,259	2,816	902
2002	1,697	1,709	1,153	2,472	966
number, 2007	77,648	53,220	38,338	89,575	412,804
2002	71,819	58,470	38,681	83,489	459,682
2007 farms by inventory:					
1 to 24 ..... farms	1,323	1,913	812	1,886	378
number	(D)	16,717	8,586	16,552	3,645
25 to 99 ..... farms	665	397	376	748	285
number	31,221	17,054	16,901	34,197	13,655
100 to 299 ..... farms	116	47	61	145	91
number	17,838	6,424	8,881	22,529	14,251
300 to 999 ..... farms	26	5	10	36	61
number	11,617	1,945	3,970	(D)	34,559
1,000 or more ..... farms	2	4	-	1	87
number	(D)	11,080	-	(D)	346,694
Ewes 1 year old or older ..... farms, 2007	1,796	1,977	1,082	2,413	817
2002	1,574	1,564	1,078	2,293	891
number, 2007	48,219	35,138	23,523	56,172	258,096
2002	44,150	35,575	25,570	51,397	308,741
Wool production ..... farms, 2007	949	1,172	765	1,922	692
2002	1,129	1,118	837	1,686	797
pounds, 2007	232,352	287,844	145,334	511,175	3,140,904
2002	329,794	399,231	189,438	517,946	3,532,422
Sheep and lambs sold ..... farms, 2007	1,365	1,416	913	1,850	758
2002	1,075	1,121	723	1,521	831
number, 2007	47,052	36,613	24,591	64,820	256,064
2002	47,955	43,600	24,632	58,751	344,576

Table 17. **All Goats - Inventory and Number Sold: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
UNITED STATES TOTAL				
United States 2007	144,466	3,140,529	61,748	1,387,576
2002	91,462	2,530,466	43,495	1,314,310
STATES, 2007				
Alabama	4,120	80,436	2,154	33,952
Alaska	39	442	19	168
Arizona	3,387	42,141	571	7,585
Arkansas	2,825	50,579	1,182	19,512
California	4,985	130,823	1,898	42,270
Colorado	2,720	48,978	1,021	21,264
Connecticut	496	4,578	153	1,729
Delaware	232	3,530	98	1,528
Florida	4,040	57,696	1,646	22,018
Georgia	4,283	83,976	1,890	32,058
Hawaii	343	9,169	137	2,836
Idaho	1,317	17,794	462	7,757
Illinois	2,461	33,676	1,056	18,752
Indiana	3,385	47,090	1,450	19,718
Iowa	2,257	55,950	1,155	33,028
Kansas	2,003	49,502	968	31,248
Kentucky	5,298	98,166	2,599	55,812
Louisiana	1,650	21,574	618	6,906
Maine	656	5,902	187	1,922
Maryland	1,163	16,889	470	7,216
Massachusetts	808	8,226	197	3,411
Michigan	3,186	27,841	936	11,738
Minnesota	1,953	36,790	768	16,774
Mississippi	1,837	30,649	822	12,290
Missouri	4,476	96,449	2,045	47,415
Montana	732	12,251	167	4,394
Nebraska	1,101	34,607	522	17,389
Nevada	317	11,894	134	8,870
New Hampshire	419	3,888	126	1,639
New Jersey	1,067	10,623	461	4,711
New Mexico	2,331	35,665	659	10,071
New York	2,707	39,920	943	16,818
North Carolina	5,589	98,356	2,742	44,264
North Dakota	276	4,292	106	2,386
Ohio	4,910	69,505	2,112	28,037
Oklahoma	5,716	125,303	2,818	67,676
Oregon	3,127	38,111	1,126	19,642
Pennsylvania	4,844	59,214	1,797	27,520
Rhode Island	96	700	29	305
South Carolina	2,949	43,589	1,189	14,777
South Dakota	590	10,742	253	7,383
Tennessee	6,828	130,968	3,092	62,053
Texas	26,366	1,139,962	13,925	508,377
Utah	1,105	17,286	339	9,083
Vermont	421	6,593	129	2,728
Virginia	3,934	63,091	1,509	24,377
Washington	3,143	32,840	1,077	14,862
West Virginia	2,136	27,946	870	10,203
Wisconsin	3,202	55,941	901	17,375
Wyoming	640	8,396	220	3,729

Table 18. **Milk Goats - Inventory and Number Sold: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
UNITED STATES TOTAL				
United States 2007	27,481	334,754	9,095	102,775
2002	22,389	290,789	8,850	113,654
STATES, 2007				
Alabama	444	4,032	157	1,236
Alaska	27	(D)	12	46
Arizona	273	2,669	107	924
Arkansas	477	5,057	174	2,197
California	1,402	39,198	494	7,255
Colorado	783	7,713	237	2,010
Connecticut	210	1,501	60	577
Delaware	51	(D)	23	(D)
Florida	778	6,632	256	2,196
Georgia	453	4,513	135	1,243
Hawaii	64	834	15	(D)
Idaho	379	3,148	126	1,419
Illinois	616	5,313	206	1,643
Indiana	1,070	10,301	355	3,541
Iowa	652	22,269	241	5,575
Kansas	479	4,503	165	1,473
Kentucky	747	6,129	248	2,316
Louisiana	167	1,315	63	570
Maine	293	2,524	88	799
Maryland	277	3,034	103	985
Massachusetts	271	2,467	81	870
Michigan	1,144	9,883	334	2,716
Minnesota	620	11,494	211	4,001
Mississippi	247	2,904	81	726
Missouri	951	8,866	289	3,218
Montana	242	1,722	73	497
Nebraska	263	2,353	82	948
Nevada	72	3,787	18	647
New Hampshire	177	1,926	71	642
New Jersey	224	1,796	75	537
New Mexico	242	2,458	65	635
New York	1,030	11,968	324	3,296
North Carolina	786	9,379	268	2,596
North Dakota	92	788	34	(D)
Ohio	1,258	10,072	415	3,178
Oklahoma	848	7,235	274	3,163
Oregon	901	8,300	322	3,204
Pennsylvania	1,342	14,297	426	5,901
Rhode Island	38	340	16	157
South Carolina	316	2,523	87	981
South Dakota	181	2,074	86	1,173
Tennessee	587	5,751	264	2,364
Texas	2,124	20,092	667	6,264
Utah	227	1,446	68	832
Vermont	197	4,480	64	1,465
Virginia	617	5,344	180	1,647
Washington	1,076	8,168	342	3,444
West Virginia	443	3,083	151	921
Wisconsin	1,088	36,367	372	8,872
Wyoming	235	1,909	90	896

Table 19. **Angora Goats - Inventory, Number Sold, and Mohair Production: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Angora goats				Mohair production [1]	
	Inventory		Sold			
	Farms	Number	Farms	Number	Farms	Pounds
UNITED STATES TOTAL						
United States 2007	7,215	204,106	1,645	50,017	4,312	1,375,100
2002	5,075	300,753	1,662	91,037	2,434	2,416,376
STATES, 2007						
Alabama	57	262	13	45	15	929
Alaska	1	(D)	-	-	1	(D)
Arizona	1,551	25,996	254	2,791	1,284	128,236
Arkansas	38	318	14	60	4	338
California	262	3,400	78	641	119	19,567
Colorado	182	1,007	38	224	83	5,269
Connecticut	38	221	5	42	20	1,547
Delaware	6	(D)	2	(D)	3	(D)
Florida	54	236	19	144	20	1,537
Georgia	106	814	19	95	45	3,831
Hawaii	14	29	1	(D)	-	-
Idaho	60	695	18	45	28	5,226
Illinois	48	230	3	12	23	1,022
Indiana	66	367	19	145	34	2,208
Iowa	78	780	19	81	33	6,375
Kansas	48	271	7	52	18	839
Kentucky	129	810	31	284	41	4,008
Louisiana	33	241	8	73	11	1,656
Maine	81	267	4	23	64	1,783
Maryland	61	346	11	59	25	1,708
Massachusetts	76	411	10	34	44	2,624
Michigan	164	1,058	34	256	84	9,484
Minnesota	103	906	23	271	59	6,934
Mississippi	34	232	4	14	10	965
Missouri	102	1,334	22	355	49	14,695
Montana	87	784	14	174	37	6,786
Nebraska	45	557	13	194	22	7,432
Nevada	14	172	7	61	7	915
New Hampshire	34	203	5	58	16	896
New Jersey	78	431	22	136	29	2,053
New Mexico	741	14,460	186	1,991	650	73,920
New York	152	886	26	146	77	7,141
North Carolina	174	1,418	32	516	109	10,928
North Dakota	12	264	3	(D)	5	1,618
Ohio	160	1,361	45	470	117	16,851
Oklahoma	93	744	18	165	25	4,204
Oregon	245	1,750	43	362	106	9,789
Pennsylvania	227	1,298	58	378	104	9,515
Rhode Island	3	3	-	-	-	-
South Carolina	79	495	18	45	39	2,353
South Dakota	20	71	7	30	8	210
Tennessee	49	250	4	12	15	1,144
Texas	783	132,697	336	38,292	413	960,454
Utah	128	1,647	16	252	84	9,100
Vermont	37	300	12	97	27	1,958
Virginia	158	1,533	38	382	88	12,598
Washington	200	1,197	45	294	105	8,313
West Virginia	86	404	5	39	32	1,496
Wisconsin	179	790	25	123	69	4,107
Wyoming	39	127	11	18	11	447

[1] Data are for farms with production, not necessarily sold.

Table 20. **Meat Goats and Other Goats - Inventory and Number Sold: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
UNITED STATES TOTAL				
United States 2007	123,278	2,601,669	54,280	1,234,784
2002	74,980	1,938,924	36,403	1,109,619
STATES, 2007				
Alabama	3,810	76,142	2,021	32,671
Alaska	31	266	11	122
Arizona	1,713	13,476	249	3,870
Arkansas	2,557	45,204	1,061	17,255
California	4,016	88,225	1,531	34,374
Colorado	2,183	40,258	862	19,030
Connecticut	327	2,856	105	1,110
Delaware	187	2,876	77	1,303
Florida	3,588	50,828	1,457	19,678
Georgia	3,959	78,649	1,782	30,720
Hawaii	280	8,306	124	2,540
Idaho	1,066	13,951	360	6,293
Illinois	2,030	28,133	898	17,097
Indiana	2,711	36,422	1,182	16,032
Iowa	1,793	32,901	977	27,372
Kansas	1,716	44,728	862	29,723
Kentucky	4,808	91,227	2,421	53,212
Louisiana	1,528	20,018	573	6,263
Maine	431	3,111	116	1,100
Maryland	976	13,509	384	6,172
Massachusetts	579	5,348	126	2,507
Michigan	2,449	16,900	705	8,766
Minnesota	1,551	24,390	625	12,502
Mississippi	1,662	27,513	766	11,550
Missouri	3,859	86,249	1,834	43,842
Montana	512	9,745	112	3,723
Nebraska	932	31,697	457	16,247
Nevada	275	7,935	112	8,162
New Hampshire	283	1,759	70	939
New Jersey	866	8,396	383	4,038
New Mexico	1,472	18,747	435	7,445
New York	1,993	27,066	705	13,376
North Carolina	5,037	87,559	2,517	41,152
North Dakota	211	3,240	77	1,892
Ohio	4,094	58,072	1,810	24,389
Oklahoma	5,205	117,324	2,617	64,348
Oregon	2,453	28,061	879	16,076
Pennsylvania	3,864	43,619	1,422	21,241
Rhode Island	62	357	16	148
South Carolina	2,727	40,571	1,114	13,751
South Dakota	452	8,597	183	6,180
Tennessee	6,549	124,967	2,895	59,677
Texas	24,751	987,173	13,275	463,821
Utah	842	14,193	273	7,999
Vermont	247	1,813	71	1,166
Virginia	3,452	56,214	1,345	22,348
Washington	2,478	23,475	874	11,124
West Virginia	1,873	24,459	770	9,243
Wisconsin	2,354	18,784	599	8,380
Wyoming	484	6,360	160	2,815

Table 21. **Colonies of Bees and Honey Collected - Inventory, Number Sold, and Honey Collected: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Colonies of bees				Honey collected (see text) [1]	
	Inventory		Sold			
	Farms	Number	Farms	Number	Farms	Pounds
UNITED STATES TOTAL						
United States 2007	27,908	2,902,732	1,046	74,820	16,905	152,057,812
2002	17,357	2,350,005	937	82,291	12,029	134,551,490
STATES, 2007						
Alabama	587	13,464	29	1,065	337	686,272
Alaska	20	337	3	(D)	23	12,968
Arizona	106	42,239	3	(D)	73	1,802,329
Arkansas	611	31,865	17	311	314	2,381,301
California	1,155	655,817	36	3,758	573	15,059,214
Colorado	388	33,201	11	599	257	1,538,894
Connecticut	215	4,427	6	595	143	143,092
Delaware	48	546	-	-	35	5,414
Florida	735	158,905	37	5,632	571	10,657,946
Georgia	652	93,661	20	528	375	3,431,963
Hawaii	271	16,665	25	911	160	919,104
Idaho	179	119,379	6	1,495	126	3,750,561
Illinois	497	9,390	21	152	304	480,202
Indiana	521	11,305	13	665	327	420,252
Iowa	482	29,110	21	678	362	2,111,391
Kansas	306	11,977	9	149	181	409,242
Kentucky	1,325	10,796	26	276	719	280,430
Louisiana	269	37,422	7	1,776	159	2,736,818
Maine	311	5,780	8	26	164	279,174
Maryland	319	6,444	19	267	237	110,721
Massachusetts	367	8,255	15	244	246	436,623
Michigan	870	74,362	37	2,287	575	4,938,440
Minnesota	489	113,448	31	11,248	404	9,357,636
Mississippi	360	22,032	4	68	200	1,826,253
Missouri	884	21,372	44	1,666	489	776,184
Montana	170	110,389	5	(D)	138	9,313,462
Nebraska	193	36,666	12	303	148	2,118,433
Nevada	30	991	2	(D)	20	157,245
New Hampshire	184	1,901	3	(D)	112	52,899
New Jersey	266	10,926	4	131	190	474,013
New Mexico	149	11,511	9	(D)	81	510,403
New York	805	46,401	34	3,599	540	3,126,202
North Carolina	1,967	31,768	99	1,391	1,083	565,741
North Dakota	173	390,421	5	2,534	161	30,825,479
Ohio	1,782	22,030	52	1,575	1,120	1,026,496
Oklahoma	544	6,457	8	175	238	238,769
Oregon	727	52,688	27	4,457	360	2,264,599
Pennsylvania	1,346	35,979	53	1,438	901	1,360,580
Rhode Island	45	419	3	(D)	31	17,110
South Carolina	457	7,009	17	256	239	234,332
South Dakota	134	230,075	13	5,598	117	13,383,794
Tennessee	1,458	12,614	50	437	840	543,757
Texas	1,284	128,064	62	5,359	592	8,554,971
Utah	239	28,778	6	122	158	1,336,461
Vermont	276	7,632	4	560	185	361,715
Virginia	1,020	10,822	53	391	587	300,763
Washington	872	83,170	32	4,505	486	2,621,311
West Virginia	910	10,701	27	693	536	321,184
Wisconsin	828	47,488	18	2,928	611	4,167,522
Wyoming	82	45,633	-	-	77	3,628,147

[1] Data are for farms with production, not necessarily sold.

Table 22. **Mink and Their Pelts - Inventory and Number Sold: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area		Inventory		Sold	
		Farms	Number	Farms	Number
UNITED STATES TOTAL					
United States	2007	290	1,507,719	282	2,811,470
	2002	310	1,113,941	320	2,506,819
STATES, 2007					
Alaska		1	(D)	-	-
Colorado		1	(D)	-	-
Hawaii		1	(D)	-	-
Idaho		25	159,159	26	236,826
Illinois		7	29,375	7	59,524
Indiana		1	(D)	1	(D)
Iowa		17	54,977	17	156,748
Maryland		1	(D)	-	-
Massachusetts		1	(D)	1	(D)
Michigan		12	42,193	10	36,340
Minnesota		26	82,582	22	249,144
Missouri		2	(D)	2	(D)
Montana		7	12,448	7	24,550
New Hampshire		1	(D)	1	(D)
New York		5	1,099	3	(D)
North Carolina		2	(D)	2	(D)
Ohio		8	22,747	9	68,669
Oregon		19	167,235	19	269,219
Pennsylvania		14	38,130	11	66,648
South Dakota		3	(D)	3	(D)
Utah		55	299,772	60	546,740
Washington		8	47,163	8	77,249
Wisconsin		73	524,043	73	925,816

Table 23. **Aquaculture Sold: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms with aquaculture sold	Value ($1,000)	Farms reporting by -			
			Pounds sold		Number sold	
			Farms	1,000 Pounds	Farms	Thousands
CATFISH						
United States Total						
United States 2007	1,725	455,378	1,467	565,913	504	348,516
2002	2,229	(NA)	1,736	608,925	660	34,833
States, 2007						
Alabama	268	95,675	249	132,704	63	13,011
Arizona	1	(D)	1	(D)	-	-
Arkansas	166	78,133	156	95,071	24	44,497
California	58	12,529	52	4,956	15	206
Colorado	3	(D)	1	(D)	3	(D)
Delaware	1	(D)	1	(D)	-	-
Florida	54	979	40	1,117	16	649
Georgia	86	1,313	71	1,382	32	5,527
Hawaii	16	116	9	18	7	43
Idaho	4	(D)	4	(D)	-	-
Illinois	12	115	11	112	1	(D)
Indiana	8	145	1	(D)	7	263
Iowa	11	270	6	111	8	(D)
Kansas	20	458	12	332	11	850
Kentucky	41	579	41	715	7	(D)
Louisiana	36	12,662	29	14,939	7	(D)
Maryland	1	(D)	1	(D)	-	-
Michigan	9	113	7	66	2	(D)
Mississippi	451	229,400	423	286,798	120	269,338
Missouri	41	2,028	29	2,173	12	(D)
Montana	2	(D)	2	(D)	-	-
Nebraska	10	96	3	(D)	7	228
New Hampshire	2	(D)	2	(D)	-	-
New Jersey	7	3	3	(D)	4	(D)
New Mexico	1	(D)	-	-	1	(D)
New York	5	9	2	(D)	3	8
North Carolina	63	7,091	53	8,623	10	(D)
Ohio	19	189	15	166	8	(D)
Oklahoma	36	442	25	1,184	18	1,669
Oregon	2	(D)	-	-	2	(D)
Pennsylvania	14	51	7	(D)	10	16
South Carolina	36	226	30	73	9	390
Tennessee	49	235	39	245	17	26
Texas	159	12,123	122	14,731	63	3,609
Virginia	18	17	13	4	9	7
Washington	1	(D)	1	(D)	-	-
West Virginia	8	(D)	5	(D)	3	(D)
Wisconsin	6	1	1	(D)	5	1
TROUT						
United States Total						
United States 2007	1,124	210,568	687	74,202	650	145,882
2002	1,156	(NA)	541	40,384	652	120,465
States, 2007						
Alabama	2	(D)	2	(D)	-	-
Alaska	2	(D)	-	-	2	(D)
Arizona	9	1,349	3	337	6	218
Arkansas	5	3,367	4	1,480	3	(D)
California	43	17,913	33	5,656	20	6,825
Colorado	36	7,471	25	1,867	32	18,918
Connecticut	9	3,440	3	(D)	8	1,002
Florida	3	(D)	3	1	-	-
Georgia	15	1,629	10	893	6	(D)
Idaho	52	53,782	45	37,747	8	(D)
Illinois	3	(D)	3	(D)	-	-
Indiana	4	(D)	1	(D)	4	(D)
Iowa	4	633	4	240	3	1,156
Kansas	3	(D)	3	(D)	-	-
Kentucky	3	(D)	3	(D)	2	(D)
Maine	19	2,718	12	216	12	1,567
Maryland	6	93	5	(D)	2	(D)
Massachusetts	18	3,455	9	(D)	11	1,379
Michigan	38	2,122	13	215	26	(D)
Minnesota	11	692	10	264	1	(D)
Mississippi	7	1	5	(Z)	4	2
Missouri	12	3,910	8	777	4	2,103
Montana	20	1,015	8	299	12	2,397
Nebraska	16	2,231	13	800	3	(D)
Nevada	5	1,250	5	355	5	2,606
New Hampshire	12	2,617	9	519	9	1,111
New Jersey	4	(D)	2	(D)	2	(D)
New Mexico	12	1,349	10	525	6	(D)
New York	47	6,144	29	949	28	1,186
North Carolina	71	7,726	61	3,920	10	3,819
North Dakota	3	(D)	3	(D)	-	-
Ohio	12	1,723	6	199	8	1,034
Oklahoma	1	(D)	-	-	1	(D)
Oregon	57	5,758	37	1,990	20	549
Pennsylvania	229	28,408	24	1,125	212	41,949
Rhode Island	2	(D)	-	-	2	(D)
South Carolina	5	(D)	5	(D)	1	(D)
South Dakota	4	380	1	(D)	3	238

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Table 23. **Aquaculture Sold: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms with aquaculture sold	Value ($1,000)	Farms reporting by -			
			Pounds sold		Number sold	
			Farms	1,000 Pounds	Farms	Thousands
TROUT - Con.						
States, 2007 - Con.						
Tennessee	16	3,222	14	676	9	4,098
Texas	3	(D)	2	(D)	3	(D)
Utah	25	4,036	23	1,258	19	8,846
Vermont	19	(D)	10	230	13	(D)
Virginia	35	3,358	29	1,507	11	587
Washington	113	21,848	103	6,477	23	5,767
West Virginia	23	2,402	13	432	14	890
Wisconsin	67	4,580	67	1,157	67	8,024
Wyoming	19	6,297	9	332	15	4,863
OTHER FOOD FISH (SEE TEXT)						
United States Total						
United States 2007	643	187,711	442	93,264	268	507,113
2002	572	(NA)	325	64,232	252	79,888
States, 2007						
Alabama	24	244	18	109	10	(D)
Alaska	26	27,785	8	27,327	18	275,006
Arizona	3	(D)	2	(D)	1	(D)
Arkansas	16	2,844	15	1,122	2	(D)
California	32	20,200	21	5,383	15	11,419
Colorado	6	(D)	5	(D)	4	(D)
Connecticut	1	(D)	1	(D)	-	-
Delaware	2	(D)	-	-	2	(D)
Florida	37	3,412	29	1,035	12	21,377
Georgia	7	369	5	65	3	(D)
Hawaii	26	4,513	24	675	5	(D)
Idaho	15	1,895	13	860	3	(D)
Illinois	23	284	17	102	6	2
Indiana	5	573	3	(D)	2	(D)
Iowa	4	22	4	10	1	(D)
Kansas	4	57	4	51	1	(D)
Kentucky	11	32	9	8	4	(D)
Louisiana	7	829	5	(D)	2	(D)
Maine	11	19,771	10	(D)	4	(D)
Maryland	4	(D)	3	(D)	1	(D)
Massachusetts	7	3,802	1	(D)	6	6,822
Michigan	11	1,789	7	3,235	4	97
Minnesota	6	127	3	(D)	3	6
Mississippi	13	648	13	519	1	(D)
Missouri	7	(D)	7	(D)	-	-
Montana	6	(D)	6	(D)	-	-
Nebraska	5	50	-	-	5	602
Nevada	1	(D)	1	(D)	1	(D)
New Hampshire	5	(D)	4	17	2	(D)
New Jersey	2	(D)	2	(D)	-	-
New Mexico	3	(D)	3	(D)	1	(D)
New York	14	(D)	11	(D)	5	(D)
North Carolina	48	15,354	39	6,302	9	2,867
Ohio	32	753	24	218	11	(D)
Oregon	24	2,087	22	1,542	2	(D)
Pennsylvania	14	2,904	9	957	7	5
South Carolina	12	214	6	93	6	45
Tennessee	9	(D)	9	65	4	(D)
Texas	20	14,692	19	6,916	5	(D)
Vermont	2	(D)	1	(D)	1	(D)
Virginia	15	(D)	7	(D)	10	1,811
Washington	70	43,047	20	21,524	53	112,123
West Virginia	5	(D)	4	(D)	3	1
Wisconsin	48	884	28	139	33	3,110
BAITFISH						
United States Total						
United States 2007	358	40,343	296	10,479	91	78,297
2002	305	(NA)	212	8,438	93	109,241
States, 2007						
Alabama	1	(D)	1	(D)	-	-
Arkansas	51	21,545	49	5,167	7	(D)
California	10	1,096	7	87	8	30,417
Colorado	3	181	1	(D)	2	(D)
Delaware	1	(D)	1	(D)	-	-
Florida	5	71	2	(D)	3	36
Georgia	5	(D)	4	3	4	156
Illinois	3	(D)	3	(D)	-	-
Indiana	4	7	4	4	-	-
Iowa	5	55	4	23	1	(D)
Kansas	4	(D)	4	22	-	-
Kentucky	2	(D)	2	(D)	-	-
Louisiana	9	386	7	100	2	(D)
Maine	9	211	2	(D)	7	3,146
Maryland	2	(D)	2	(D)	-	-
Massachusetts	3	1	2	(D)	1	(D)
Michigan	9	1,046	6	210	3	11
Minnesota	44	3,807	40	1,525	6	28

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Table 23. **Aquaculture Sold: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms with aquaculture sold	Value ($1,000)	Farms reporting by -			
			Pounds sold		Number sold	
			Farms	1,000 Pounds	Farms	Thousands
BAITFISH - Con.						
States, 2007 - Con.						
Mississippi	7	502	5	150	2	(D)
Missouri	11	596	10	127	1	(D)
Nebraska	7	16	7	4	-	-
New Hampshire	4	1	2	(D)	2	(D)
New Jersey	6	(D)	6	(D)	-	-
New York	18	169	17	43	6	63
North Carolina	14	361	12	23	2	(D)
North Dakota	1	(D)	1	(D)	-	-
Ohio	24	924	22	243	4	177
Oklahoma	12	64	10	21	2	(D)
Oregon	2	(D)	2	(D)	-	-
Pennsylvania	22	687	13	51	10	(D)
South Carolina	1	(D)	-	-	1	(D)
South Dakota	3	(D)	3	(D)	-	-
Tennessee	5	(D)	4	(D)	2	(D)
Texas	25	398	19	81	10	1,465
Virginia	3	(D)	2	(D)	1	(D)
West Virginia	2	(D)	2	(D)	-	-
Wisconsin	20	4,658	18	1,534	3	(D)
Wyoming	1	(D)	-	-	1	(D)
CRUSTACEANS						
United States Total						
United States 2007	788	50,855	691	31,122	117	52,881
2002	565	(NA)	473	15,352	92	72,756
States, 2007						
Alabama	6	592	6	208	-	-
Arizona	1	(D)	1	(D)	1	(D)
Arkansas	14	308	12	140	2	(D)
California	4	(D)	4	(D)	-	-
Delaware	1	(D)	-	-	1	(D)
Florida	17	2,520	7	1,106	10	959
Georgia	4	44	4	2	1	(D)
Hawaii	10	4,057	5	78	6	(D)
Illinois	6	7	6	2	-	-
Indiana	6	(D)	3	(D)	3	(D)
Iowa	2	(D)	2	(D)	-	-
Kansas	4	13	4	5	-	-
Kentucky	21	96	19	8	2	(D)
Louisiana	497	16,714	487	22,186	11	538
Maryland	21	788	2	(D)	19	361
Massachusetts	4	9	2	(D)	2	(D)
Minnesota	1	(D)	1	(D)	-	-
Mississippi	7	87	7	24	-	-
Missouri	4	5	4	1	-	-
Montana	2	(D)	2	(D)	-	-
Nebraska	2	(D)	2	(D)	-	-
New Hampshire	4	(D)	2	(D)	2	(D)
New Jersey	2	(D)	-	-	2	(D)
New York	10	(D)	1	(D)	9	(D)
North Carolina	20	312	15	47	5	(D)
Ohio	8	128	7	4	3	(D)
Oklahoma	2	(D)	2	(D)	-	-
Pennsylvania	4	(D)	1	(D)	3	15
South Carolina	22	571	21	683	7	26
Tennessee	9	25	9	5	-	-
Texas	41	12,501	38	5,247	6	37,166
Vermont	2	(D)	2	(D)	2	(D)
Virginia	28	669	11	87	19	376
Washington	1	(D)	1	(D)	1	(D)
Wisconsin	1	(D)	1	(D)	-	-
MOLLUSKS						
United States Total						
United States 2007	1,097	243,007	390	208,991	750	2,581,347
2002	828	(NA)	227	58,251	634	602,442
States, 2007						
Alaska	25	745	5	30	24	7,031
Arkansas	1	(D)	1	(D)	1	(D)
California	23	11,724	10	1,086	19	(D)
Connecticut	35	11,570	16	10,149	20	20,406
Florida	130	15,251	27	3,794	111	145,379
Georgia	6	450	1	(D)	5	1,142
Hawaii	4	(D)	2	(D)	3	(D)
Indiana	1	(D)	-	-	1	(D)
Kansas	1	(D)	-	-	1	(D)
Louisiana	85	37,348	58	130,018	28	7,014
Maine	56	3,286	19	3,070	37	64,888
Maryland	13	615	2	(D)	11	(D)
Massachusetts	234	11,176	36	(D)	206	172,411
New Hampshire	1	(D)	-	-	1	(D)
New Jersey	73	4,504	20	4,356	53	19,256
New York	24	7,408	2	(D)	22	45,790

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Table 23. **Aquaculture Sold: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms with aquaculture sold	Value ($1,000)	Farms reporting by -			
			Pounds sold		Number sold	
			Farms	1,000 Pounds	Farms	Thousands
MOLLUSKS - Con.						
States, 2007 - Con.						
North Carolina	85	1,009	32	975	54	3,180
Ohio	1	(D)	-	-	1	(D)
Oregon	19	8,368	11	2,805	8	(D)
Pennsylvania	5	(D)	-	-	5	(D)
Rhode Island	24	(D)	2	(D)	22	(D)
South Carolina	17	2,692	4	326	13	(D)
Tennessee	1	(D)	-	-	1	(D)
Virginia	72	36,948	21	17,487	53	377,844
Washington	160	85,201	121	33,376	49	27,574
Wisconsin	1	(D)	-	-	1	(D)
ORNAMENTAL FISH						
United States Total						
United States 2007	684	61,049	117	2,747	595	177,749
2002	635	(NA)	67	626	571	211,344
States, 2007						
Alabama	9	299	2	(D)	7	30
Arizona	2	(D)	-	-	2	(D)
Arkansas	15	2,584	7	54	8	(D)
California	55	13,415	13	209	46	24,074
Colorado	6	(D)	-	-	6	(D)
Connecticut	2	(D)	-	-	2	(D)
Florida	203	32,192	19	2,415	190	51,882
Georgia	20	92	2	(D)	18	21
Hawaii	18	2,418	-	-	18	128
Idaho	3	(D)	1	(D)	2	(D)
Illinois	7	(D)	1	(D)	6	(D)
Indiana	7	(D)	1	(D)	6	(D)
Iowa	1	(D)	-	-	1	(D)
Kansas	1	(D)	-	-	1	(D)
Kentucky	8	(D)	-	-	8	(D)
Louisiana	3	(D)	-	-	3	(D)
Maryland	2	(D)	-	-	2	(D)
Massachusetts	11	(D)	4	(Z)	7	(D)
Michigan	20	249	-	-	20	26
Minnesota	11	106	-	-	11	6
Mississippi	5	73	4	2	4	(D)
Missouri	10	(D)	5	(D)	5	(D)
Montana	3	8	-	-	3	(Z)
Nebraska	9	14	2	(D)	7	3
New Hampshire	1	(D)	-	-	1	(D)
New Jersey	22	1,152	2	(D)	20	141
New Mexico	2	(D)	-	-	2	(D)
New York	27	2,013	4	3	23	476
North Carolina	16	177	10	6	6	73
Ohio	28	166	7	5	25	30
Oklahoma	18	742	8	(Z)	12	483
Oregon	11	20	3	(D)	8	1
Pennsylvania	31	990	7	2	27	(D)
Rhode Island	2	(D)	-	-	2	(D)
South Carolina	2	(D)	1	(D)	2	(D)
Tennessee	16	32	1	(D)	15	16
Texas	27	892	3	(D)	24	305
Utah	1	(D)	-	-	1	(D)
Virginia	9	(D)	3	(D)	8	(D)
Washington	18	116	2	(D)	16	16
West Virginia	6	(D)	1	(D)	5	(D)
Wisconsin	16	26	4	(D)	15	6
SPORT OR GAME FISH						
United States Total						
United States 2007	815	80,568	443	8,210	482	471,702
2002	680	(NA)	222	4,939	493	209,643
States, 2007						
Alabama	38	2,677	24	155	18	8,198
Arizona	5	5	-	-	5	15
Arkansas	22	8,933	17	429	12	32,958
California	27	3,871	21	659	14	830
Colorado	8	(D)	5	2	5	(D)
Delaware	1	(D)	-	-	1	(D)
Florida	31	622	14	142	19	1,046
Georgia	30	984	14	15	24	9,906
Idaho	4	(D)	3	(D)	1	(D)
Illinois	17	2,235	13	259	4	(D)
Indiana	13	581	-	-	13	3,092
Iowa	16	1,381	9	301	12	(D)
Kansas	6	1,476	2	(D)	6	38,786
Kentucky	9	1,145	6	(D)	5	(D)
Louisiana	14	868	5	43	10	(D)
Maryland	2	(D)	1	(D)	1	(D)
Massachusetts	3	(D)	2	(D)	1	(D)
Michigan	21	349	7	(D)	15	(D)
Minnesota	48	5,282	31	209	18	5,022

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Table 23. **Aquaculture Sold: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms with aquaculture sold	Value ($1,000)	Farms reporting by -			
			Pounds sold		Number sold	
			Farms	1,000 Pounds	Farms	Thousands
SPORT OR GAME FISH - Con.						
States, 2007 - Con.						
Mississippi	27	(D)	16	(D)	16	2,128
Missouri	13	457	4	(D)	9	1,065
Montana	3	(D)	1	(D)	2	(D)
Nebraska	15	1,413	1	(D)	14	28,162
New Hampshire	4	6	2	(D)	2	(D)
New Jersey	4	(D)	-	-	4	(D)
New Mexico	2	(D)	1	(D)	1	(D)
New York	28	687	10	(D)	24	5,950
North Carolina	22	74	14	24	8	12
North Dakota	3	(D)	3	(D)	-	-
Ohio	75	2,455	45	63	41	14,728
Oklahoma	24	1,616	12	(D)	17	22,203
Oregon	4	35	1	(D)	3	12
Pennsylvania	27	11,366	7	3	23	59,835
South Carolina	25	747	12	34	17	2,070
South Dakota	6	1,334	2	(D)	6	(D)
Tennessee	13	880	10	50	8	4,398
Texas	44	4,182	23	108	27	13,275
Utah	2	(D)	1	(D)	2	(D)
Vermont	2	(D)	1	(D)	1	(D)
Virginia	13	(D)	3	(Z)	11	(D)
Washington	74	8,910	69	2,648	7	3,297
West Virginia	7	(D)	2	(D)	6	(D)
Wisconsin	62	3,074	28	60	48	40,700
Wyoming	1	(D)	1	(D)	1	(D)
OTHER AQUACULTURE PRODUCTS (SEE TEXT)						
United States Total						
United States 2007	341	85,793	91	7,229	270	149,572
2002	705	(NA)	169	27,475	556	2,164,382
States, 2007						
Alabama	7	13	6	4	3	3
Arizona	1	(D)	-	-	1	(D)
Arkansas	8	1,030	3	43	6	1,058
California	20	13,835	8	377	12	3,999
Colorado	1	(D)	-	-	1	(D)
Connecticut	3	(D)	1	(D)	2	(D)
Delaware	1	(D)	1	(D)	-	-
Florida	43	6,292	16	(D)	28	2,061
Georgia	13	(D)	3	4	11	172
Idaho	3	96	-	-	3	10
Illinois	1	(D)	-	-	1	(D)
Iowa	10	1,145	5	13	8	179
Kansas	1	(D)	-	-	1	(D)
Kentucky	4	(D)	1	(D)	3	(D)
Louisiana	98	40,316	12	2,263	90	9,968
Maine	4	314	-	-	4	18,401
Maryland	3	394	-	-	3	(D)
Massachusetts	4	(D)	-	-	4	(D)
Michigan	3	(D)	1	(D)	2	(D)
Minnesota	5	(D)	3	(D)	3	(D)
Mississippi	11	900	5	15	11	742
Missouri	5	141	-	-	5	133
Montana	11	1,580	-	-	11	(D)
Nebraska	1	(D)	-	-	1	(D)
New Hampshire	4	621	2	(D)	2	(D)
New Jersey	1	(D)	-	-	1	(D)
New York	7	28	2	(D)	5	68
North Carolina	7	71	3	9	4	(D)
North Dakota	3	(D)	3	(D)	-	-
Ohio	7	243	3	(D)	4	(D)
Oklahoma	3	(D)	1	(D)	2	(D)
Oregon	1	(D)	-	-	1	(D)
Pennsylvania	4	(D)	-	-	4	(D)
South Carolina	4	(D)	1	(D)	3	(D)
Tennessee	6	(D)	1	(D)	5	(D)
Texas	16	(D)	5	3	12	(D)
Virginia	8	366	3	5	5	(D)
Washington	5	2,643	2	(D)	4	15,852
West Virginia	1	-	-	-	1	(D)
Wisconsin	3	(D)	-	-	3	(D)

Table 24. **Miscellaneous Livestock and Animal Specialties - Inventory and Number Sold: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
ALPACAS (SEE TEXT)				
United States Total				
United States 2007	8,708	121,904	2,461	13,164
2002	(NA)	(NA)	(NA)	(NA)
States, 2007				
Alabama	59	602	17	96
Alaska	20	196	8	21
Arizona	92	1,420	28	106
Arkansas	30	190	4	10
California	466	7,801	126	638
Colorado	485	7,980	162	921
Connecticut	112	1,052	19	60
Delaware	11	108	4	11
Florida	126	1,596	37	202
Georgia	114	1,332	22	159
Hawaii	5	57	4	33
Idaho	128	2,213	32	181
Illinois	214	2,349	50	166
Indiana	204	2,602	50	165
Iowa	71	869	21	136
Kansas	122	1,460	27	168
Kentucky	194	1,878	35	259
Louisiana	16	142	8	15
Maine	138	1,824	46	143
Maryland	145	2,391	44	275
Massachusetts	167	1,736	36	142
Michigan	318	4,409	119	592
Minnesota	156	1,558	33	179
Mississippi	17	196	3	(D)
Missouri	161	2,120	43	199
Montana	74	711	16	75
Nebraska	41	475	13	80
Nevada	29	473	6	16
New Hampshire	119	1,537	30	155
New Jersey	142	2,231	48	280
New Mexico	88	1,599	30	148
New York	506	7,100	159	953
North Carolina	135	1,663	37	110
North Dakota	12	59	2	(D)
Ohio	659	10,677	274	1,325
Oklahoma	71	727	19	64
Oregon	473	7,906	162	1,066
Pennsylvania	478	5,739	127	560
Rhode Island	24	321	6	10
South Carolina	58	508	8	33
South Dakota	23	113	5	17
Tennessee	170	1,839	35	130
Texas	296	3,064	62	504
Utah	90	1,212	23	109
Vermont	93	1,650	33	248
Virginia	296	4,883	82	423
Washington	788	13,140	203	1,298
West Virginia	99	1,356	17	97
Wisconsin	338	4,344	79	443
Wyoming	35	496	7	128
BISON				
United States Total				
United States 2007	4,499	198,234	1,821	62,890
2002	4,132	231,950	1,734	57,210
States, 2007				
Alabama	55	370	9	57
Alaska	12	1,228	10	108
Arizona	18	305	6	40
Arkansas	65	754	36	214
California	168	2,441	38	433
Colorado	184	15,474	95	5,456
Connecticut	10	112	1	(D)
Delaware	5	94	1	(D)
Florida	67	1,132	20	330
Georgia	63	470	13	81
Hawaii	3	180	1	(D)
Idaho	88	1,905	41	661
Illinois	82	1,265	32	552
Indiana	83	1,916	40	411
Iowa	110	2,889	55	695
Kansas	208	10,051	85	4,118
Kentucky	95	1,697	37	617
Louisiana	34	189	2	(D)
Maine	13	402	8	48
Maryland	25	783	16	325
Massachusetts	14	145	1	(D)
Michigan	150	3,629	51	912
Minnesota	184	6,282	111	2,009
Mississippi	37	166	5	24
Missouri	174	3,756	64	761

See footnote(s) at end of table.

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Table 24. **Miscellaneous Livestock and Animal Specialties - Inventory and Number Sold: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
BISON - Con.				
States, 2007 - Con.				
Montana	133	14,565	71	5,270
Nebraska	136	17,859	60	7,266
Nevada	18	144	5	8
New Hampshire	18	260	7	44
New Jersey	7	176	2	(D)
New Mexico	50	4,804	22	1,668
New York	67	1,854	29	405
North Carolina	43	645	11	94
North Dakota	145	15,881	111	6,042
Ohio	68	1,358	29	494
Oklahoma	205	10,344	48	2,200
Oregon	76	1,193	27	655
Pennsylvania	144	2,707	68	943
South Carolina	28	152	7	15
South Dakota	179	38,701	112	10,862
Tennessee	93	917	14	175
Texas	618	5,890	178	948
Utah	85	1,400	33	519
Vermont	4	170	2	(D)
Virginia	50	1,133	17	267
Washington	100	1,534	54	501
West Virginia	20	208	6	23
Wisconsin	190	6,130	88	1,766
Wyoming	75	12,574	42	4,668
DEER				
United States Total				
United States 2007	5,654	269,537	2,300	44,210
2002	4,901	286,863	1,895	43,526
States, 2007				
Alabama	77	2,004	24	276
Alaska	2	(D)	-	-
Arizona	18	1,000	1	(D)
Arkansas	89	458	8	32
California	27	1,339	15	324
Colorado	21	190	8	83
Connecticut	20	197	2	(D)
Delaware	2	(D)	1	(D)
Florida	170	7,006	35	1,051
Georgia	18	473	1	(D)
Hawaii	2	(D)	1	(D)
Idaho	12	384	10	73
Illinois	164	2,353	58	801
Indiana	143	4,358	72	1,098
Iowa	130	4,559	68	712
Kansas	31	2,091	13	582
Kentucky	26	984	9	70
Louisiana	78	2,775	10	119
Maine	36	3,537	20	462
Maryland	6	142	-	-
Massachusetts	12	(D)	9	42
Michigan	304	20,801	144	2,690
Minnesota	274	8,366	125	1,232
Mississippi	49	3,385	11	789
Missouri	204	6,857	86	1,084
Montana	3	104	-	-
Nebraska	14	531	7	62
Nevada	3	11	-	-
New Hampshire	19	1,012	8	183
New Jersey	25	669	7	112
New Mexico	2	(D)	-	-
New York	180	7,847	59	1,973
North Carolina	29	375	3	31
North Dakota	20	628	3	34
Ohio	303	9,527	131	1,681
Oklahoma	175	5,358	67	901
Oregon	19	587	9	171
Pennsylvania	810	23,451	372	4,270
Rhode Island	2	(D)	1	(D)
South Carolina	34	780	1	(D)
South Dakota	8	102	3	17
Tennessee	82	2,719	13	393
Texas	1,658	126,133	762	20,005
Utah	30	288	5	25
Vermont	14	1,056	3	(D)
Virginia	15	505	2	(D)
Washington	18	714	6	32
West Virginia	26	1,620	13	325
Wisconsin	250	11,596	94	2,232

See footnote(s) at end of table.

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Table 24. **Miscellaneous Livestock and Animal Specialties - Inventory and Number Sold: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
ELK				
United States Total				
United States 2007	1,917	68,251	888	13,049
2002	2,371	97,901	934	16,058
States, 2007				
Alabama	9	183	3	31
Alaska	11	425	9	35
Arkansas	13	93	2	(D)
Colorado	69	5,507	45	2,170
Connecticut	2	(D)	-	-
Florida	14	159	5	13
Georgia	2	(D)	-	-
Hawaii	1	(D)	1	(D)
Idaho	64	4,395	39	1,038
Illinois	45	1,170	25	193
Indiana	47	869	28	441
Iowa	71	2,460	35	471
Kansas	56	1,401	23	293
Kentucky	12	245	4	18
Louisiana	6	(D)	1	(D)
Maine	7	500	3	(D)
Massachusetts	4	12	-	-
Michigan	104	2,955	59	874
Minnesota	199	8,112	123	1,353
Mississippi	9	127	1	(D)
Missouri	69	2,082	34	397
Montana	39	1,830	19	310
Nebraska	20	848	10	233
New Hampshire	9	(D)	5	43
New Jersey	4	(D)	1	(D)
New Mexico	10	1,764	5	115
New York	42	1,351	26	155
North Carolina	13	129	2	(D)
North Dakota	82	5,182	40	545
Ohio	34	757	17	139
Oklahoma	50	1,719	18	213
Oregon	14	1,252	11	149
Pennsylvania	118	3,007	42	480
South Dakota	30	2,427	20	394
Tennessee	24	586	7	153
Texas	354	6,369	112	1,061
Utah	30	1,730	20	931
Vermont	3	(D)	2	(D)
Virginia	12	94	-	-
Washington	8	471	2	(D)
West Virginia	5	89	-	-
Wisconsin	202	6,825	89	602
LLAMAS				
United States Total				
United States 2007	26,060	122,680	3,411	12,704
2002	16,887	144,782	3,756	18,653
States, 2007				
Alabama	229	1,003	42	108
Alaska	16	78	1	(D)
Arizona	196	834	23	61
Arkansas	284	835	35	157
California	1,386	6,868	154	557
Colorado	1,102	7,499	154	761
Connecticut	138	615	22	117
Delaware	14	83	-	-
Florida	285	959	27	84
Georgia	310	1,514	55	189
Hawaii	5	26	1	(D)
Idaho	591	2,903	55	181
Illinois	514	2,168	64	223
Indiana	532	2,803	55	249
Iowa	516	2,394	95	316
Kansas	594	2,381	72	222
Kentucky	632	2,436	66	211
Louisiana	75	203	4	(D)
Maine	200	651	19	35
Maryland	154	818	16	46
Massachusetts	302	1,332	36	93
Michigan	698	3,698	108	433
Minnesota	589	2,500	71	181
Mississippi	119	497	10	25
Missouri	928	3,211	132	536
Montana	639	3,460	40	140
Nebraska	317	1,842	49	320
Nevada	88	857	14	181
New Hampshire	170	605	27	77
New Jersey	154	747	27	109
New Mexico	284	1,534	49	274
New York	465	2,393	56	177

See footnote(s) at end of table.

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Table 24. **Miscellaneous Livestock and Animal Specialties - Inventory and Number Sold: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
LLAMAS - Con.				
States, 2007 - Con.				
North Carolina	460	1,803	34	114
North Dakota	117	362	15	57
Ohio	891	4,664	144	509
Oklahoma	958	4,506	138	546
Oregon	1,743	9,380	228	887
Pennsylvania	622	3,063	78	238
Rhode Island	34	123	4	11
South Carolina	185	527	27	37
South Dakota	217	792	31	127
Tennessee	636	2,427	87	289
Texas	3,194	12,278	486	1,909
Utah	358	1,420	64	181
Vermont	171	720	24	103
Virginia	665	3,819	92	386
Washington	1,616	8,140	184	451
West Virginia	182	968	23	104
Wisconsin	1,200	6,539	148	584
Wyoming	285	1,402	25	91
MULES, BURROS, AND DONKEYS				
United States Total				
United States 2007	99,746	283,806	11,548	32,467
2002	29,936	105,358	4,941	17,385
States, 2007				
Alabama	3,336	10,841	492	1,785
Alaska	20	60	3	(D)
Arizona	765	2,025	90	196
Arkansas	2,781	7,663	310	846
California	2,528	7,151	239	764
Colorado	1,852	4,955	224	627
Connecticut	207	428	16	26
Delaware	42	106	1	(D)
Florida	2,258	6,244	334	758
Georgia	3,233	8,952	347	803
Hawaii	101	260	6	9
Idaho	1,316	3,771	120	286
Illinois	1,691	4,397	149	398
Indiana	1,474	4,391	177	476
Iowa	1,266	4,203	202	531
Kansas	1,710	4,458	157	373
Kentucky	4,244	11,813	546	1,998
Louisiana	1,513	4,772	235	646
Maine	199	407	16	35
Maryland	450	1,121	62	134
Massachusetts	389	992	35	92
Michigan	1,636	4,434	171	368
Minnesota	1,440	3,701	188	436
Mississippi	2,372	7,015	309	754
Missouri	4,126	11,985	531	1,572
Montana	1,422	4,392	133	377
Nebraska	919	2,762	105	456
Nevada	176	409	18	36
New Hampshire	247	703	24	84
New Jersey	407	1,188	52	150
New Mexico	780	1,889	70	186
New York	1,203	2,826	119	262
North Carolina	3,051	8,546	380	1,024
North Dakota	387	810	26	44
Ohio	2,412	6,614	282	833
Oklahoma	4,803	13,332	498	1,238
Oregon	1,779	4,771	211	424
Pennsylvania	2,603	9,762	245	875
Rhode Island	43	96	3	6
South Carolina	1,620	4,550	200	520
South Dakota	685	1,782	64	214
Tennessee	6,264	18,350	796	2,545
Texas	21,070	60,790	2,410	6,894
Utah	710	1,940	89	177
Vermont	215	948	17	135
Virginia	2,526	6,749	269	772
Washington	1,345	3,793	169	359
West Virginia	1,122	2,695	155	353
Wisconsin	2,306	5,719	179	443
Wyoming	702	2,245	74	140
RABBITS AND THEIR PELTS				
United States Total				
United States 2007	27,137	616,129	6,811	979,563
2002	10,073	405,241	4,326	886,841
States, 2007				
Alabama	413	8,051	105	27,364
Alaska	18	549	6	194

See footnote(s) at end of table.

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Table 24. **Miscellaneous Livestock and Animal Specialties - Inventory and Number Sold: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
RABBITS AND THEIR PELTS - Con.				
States, 2007 - Con.				
Arizona	229	2,370	63	1,302
Arkansas	484	32,676	136	97,740
California	730	117,957	227	79,200
Colorado	510	6,044	108	4,901
Connecticut	161	2,863	49	3,147
Delaware	56	211	2	(D)
Florida	733	25,003	223	70,329
Georgia	441	15,737	89	17,630
Hawaii	70	740	9	(D)
Idaho	294	2,294	62	2,531
Illinois	728	9,155	183	15,083
Indiana	1,029	20,154	300	53,071
Iowa	657	9,264	186	13,429
Kansas	375	4,516	72	4,046
Kentucky	937	16,795	244	42,480
Louisiana	255	4,116	71	4,796
Maine	246	1,972	49	1,715
Maryland	272	2,181	64	5,872
Massachusetts	336	2,486	47	5,511
Michigan	1,477	40,138	372	45,465
Minnesota	765	8,426	169	10,092
Mississippi	317	7,982	70	18,942
Missouri	883	19,056	221	47,775
Montana	195	1,352	32	519
Nebraska	227	2,202	44	1,785
Nevada	34	236	6	145
New Hampshire	184	1,575	47	1,419
New Jersey	254	3,544	103	3,380
New Mexico	205	2,199	50	1,000
New York	1,100	20,511	293	39,589
North Carolina	678	12,436	174	23,915
North Dakota	124	992	23	420
Ohio	1,392	15,779	438	25,818
Oklahoma	669	8,135	151	7,567
Oregon	695	24,054	167	63,943
Pennsylvania	1,572	47,967	533	92,396
Rhode Island	57	732	13	434
South Carolina	390	4,278	101	6,011
South Dakota	127	1,019	18	543
Tennessee	882	29,142	202	44,430
Texas	2,159	32,594	513	35,689
Utah	235	4,885	63	10,402
Vermont	140	2,689	29	7,371
Virginia	651	6,050	130	7,008
Washington	729	12,683	150	12,719
West Virginia	430	4,129	113	3,358
Wisconsin	1,496	15,396	261	16,609
Wyoming	96	814	30	332
OTHER LIVESTOCK (SEE TEXT) [1]				
United States Total				
United States 2007	12,781	(X)	5,047	(X)
2002	4,364	(X)	2,492	(X)
States, 2007				
Alabama	32	(X)	15	(X)
Alaska	25	(X)	13	(X)
Arizona	8	(X)	12	(X)
Arkansas	144	(X)	56	(X)
California	598	(X)	167	(X)
Colorado	145	(X)	88	(X)
Connecticut	23	(X)	11	(X)
Delaware	8	(X)	2	(X)
Florida	234	(X)	200	(X)
Georgia	439	(X)	153	(X)
Hawaii	85	(X)	36	(X)
Idaho	46	(X)	50	(X)
Illinois	65	(X)	76	(X)
Indiana	380	(X)	122	(X)
Iowa	115	(X)	54	(X)
Kansas	477	(X)	155	(X)
Kentucky	178	(X)	118	(X)
Louisiana	119	(X)	105	(X)
Maine	12	(X)	7	(X)
Maryland	14	(X)	20	(X)
Massachusetts	108	(X)	25	(X)
Michigan	80	(X)	32	(X)
Minnesota	42	(X)	41	(X)
Mississippi	588	(X)	190	(X)
Missouri	80	(X)	107	(X)
Montana	20	(X)	10	(X)
Nebraska	37	(X)	23	(X)
Nevada	8	(X)	4	(X)
New Hampshire	8	(X)	5	(X)
New Jersey	13	(X)	5	(X)
New Mexico	11	(X)	37	(X)

See footnote(s) at end of table.

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Table 24. **Miscellaneous Livestock and Animal Specialties - Inventory and Number Sold: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Inventory		Sold	
	Farms	Number	Farms	Number
OTHER LIVESTOCK (SEE TEXT) [1] - Con.				
States, 2007 - Con.				
New York	616	(X)	195	(X)
North Carolina	505	(X)	179	(X)
North Dakota	1	(X)	4	(X)
Ohio	896	(X)	287	(X)
Oklahoma	14	(X)	6	(X)
Oregon	285	(X)	168	(X)
Pennsylvania	82	(X)	94	(X)
Rhode Island	18	(X)	5	(X)
South Carolina	411	(X)	154	(X)
South Dakota	7	(X)	12	(X)
Tennessee	860	(X)	263	(X)
Texas	3,843	(X)	1,245	(X)
Utah	252	(X)	98	(X)
Vermont	21	(X)	14	(X)
Virginia	714	(X)	220	(X)
Washington	28	(X)	95	(X)
West Virginia	3	(X)	-	(X)
Wisconsin	74	(X)	66	(X)
Wyoming	9	(X)	3	(X)

[1] 2002 data include alpacas.

Table 25. **Selected Crops Harvested: 2007**

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Harvested cropland ..... farms	1,328,004	23,336	424	4,993	29,050	53,000
acres	309,607,601	1,994,743	30,772	832,406	7,367,068	7,633,173
Irrigated ..... farms	256,105	1,740	174	3,835	5,327	45,412
acres	51,537,104	106,925	(D)	823,468	4,455,478	7,274,248
Barley for grain ..... farms	19,848	-	22	113	-	161
acres	3,521,957	-	4,322	31,129	-	44,125
bushels	207,089,232	-	167,170	3,396,006	-	2,872,476
Irrigated ..... farms	4,241	-	1	113	-	111
acres	741,475	-	(D)	31,129	-	23,999
Farms by acres harvested:						
1 to 24 acres	5,742	-	5	10	-	22
25 to 99 acres	5,405	-	9	19	-	54
100 to 249 acres	4,469	-	3	45	-	47
250 to 499 acres	2,552	-	2	24	-	13
500 to 999 acres	1,209	-	2	10	-	13
1,000 acres or more	471	-	1	5	-	12
Corn for grain ..... farms	347,760	1,872	-	58	1,395	606
acres	86,248,542	276,661	-	22,654	584,629	189,965
bushels	12,738,519,330	21,008,771	-	4,083,974	99,778,632	34,602,626
Irrigated ..... farms	38,911	190	-	56	1,090	606
acres	13,156,769	24,866	-	21,939	461,094	189,965
Farms by acres harvested:						
1 to 24 acres	68,008	716	-	7	87	54
25 to 99 acres	101,672	531	-	10	235	152
100 to 249 acres	78,166	336	-	16	381	176
250 to 499 acres	50,807	154	-	13	306	114
500 to 999 acres	32,731	87	-	6	247	80
1,000 acres or more	16,376	48	-	6	139	30
Corn for silage or greenchop ..... farms	84,317	126	-	116	30	1,975
acres	5,979,661	11,016	-	33,941	1,887	460,614
tons	104,224,795	86,493	-	891,902	26,326	12,019,578
Irrigated ..... farms	9,664	13	-	116	8	1,975
acres	1,497,288	1,693	-	33,941	540	460,514
Farms by acres harvested:						
1 to 24 acres	34,207	39	-	15	7	227
25 to 99 acres	34,878	53	-	21	13	579
100 to 249 acres	10,855	26	-	41	10	576
250 to 499 acres	2,859	3	-	20	-	355
500 to 999 acres	1,132	5	-	12	-	180
1,000 acres or more	386	-	-	7	-	58
Cotton, all ..... farms	18,605	917	-	301	915	855
acres	10,493,238	382,566	-	171,300	854,410	471,378
bales	18,898,128	407,598	-	513,758	1,902,073	1,418,751
Irrigated ..... farms	8,776	108	-	301	805	855
acres	4,035,610	22,484	-	171,300	687,334	471,378
Farms by acres harvested:						
1 to 24 acres	961	69	-	9	16	29
25 to 99 acres	3,043	178	-	39	89	147
100 to 249 acres	3,886	222	-	67	95	232
250 to 499 acres	3,738	193	-	70	150	197
500 to 999 acres	3,758	159	-	65	227	170
1,000 acres or more	3,219	96	-	51	338	80
Dry edible beans, excluding limas ..... farms	6,236	-	-	46	-	239
acres	1,455,549	-	-	5,849	-	34,002
cwt	25,353,900	-	-	102,603	-	709,841
Irrigated ..... farms	2,456	-	-	27	-	237
acres	353,503	-	-	5,818	-	30,134
Farms by acres harvested:						
1 to 24 acres	818	-	-	28	-	53
25 to 99 acres	1,709	-	-	3	-	83
100 to 249 acres	1,856	-	-	9	-	60
250 to 499 acres	1,066	-	-	5	-	30
500 to 999 acres	597	-	-	-	-	12
1,000 acres or more	190	-	-	1	-	1
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text) ..... farms	869,534	18,735	243	1,176	22,939	7,411
acres	61,455,483	883,196	23,315	309,018	1,334,153	1,723,147
tons, dry equivalent	155,393,762	1,641,373	33,336	2,215,580	2,966,184	10,642,531
Irrigated ..... farms	86,007	356	13	1,122	514	5,954
acres	10,264,753	10,556	2,364	307,367	20,958	1,554,197
Farms by acres harvested:						
1 to 24 acres	367,533	8,474	65	535	8,476	2,194
25 to 99 acres	345,273	8,080	116	238	10,772	2,165
100 to 249 acres	111,368	1,786	36	147	3,001	1,398
250 to 499 acres	30,370	309	20	83	543	781
500 to 999 acres	10,911	81	6	80	123	512
1,000 acres or more	4,079	5	-	93	24	361
Oats for grain ..... farms	42,558	238	8	18	57	299
acres	1,509,149	16,111	1,017	1,090	6,431	25,993
bushels	89,508,669	905,087	49,230	87,980	601,737	2,595,144
Irrigated ..... farms	1,620	9	1	18	3	198
acres	78,214	320	(D)	1,090	192	18,141
Farms by acres harvested:						
1 to 24 acres	27,044	75	3	12	25	103
25 to 99 acres	12,167	114	3	3	16	117
100 to 249 acres	2,643	39	-	1	7	55
250 to 499 acres	552	9	2	2	6	17
500 to 999 acres	135	1	-	-	3	5
1,000 acres or more	17	-	-	-	-	2

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Harvested cropland	farms	17,899	3,517	1,615	20,486	23,179	6,044
	acres	5,888,926	136,833	409,468	2,112,129	3,390,437	103,120
Irrigated	farms	12,786	759	532	11,288	5,204	2,719
	acres	2,296,765	9,738	104,063	1,424,396	987,160	47,825
Barley for grain	farms	331	-	137	-	13	-
	acres	59,667	-	20,106	-	537	-
	bushels	7,179,416	-	1,588,749	-	30,326	-
Irrigated	farms	292	-	28	-	-	-
	acres	54,440	-	2,732	-	-	-
Farms by acres harvested:							
1 to 24 acres		44	-	26	-	6	-
25 to 99 acres		100	-	39	-	6	-
100 to 249 acres		116	-	44	-	1	-
250 to 499 acres		43	-	23	-	-	-
500 to 999 acres		24	-	5	-	-	-
1,000 acres or more		4	-	-	-	-	-
Corn for grain	farms	2,585	61	843	513	3,114	14
	acres	1,054,844	3,563	185,407	33,915	449,007	3,115
	bushels	140,523,805	424,350	18,346,034	2,991,208	54,137,330	124,878
Irrigated	farms	1,989	5	265	111	1,399	14
	acres	635,630	(D)	52,680	7,633	210,608	3,115
Farms by acres harvested:							
1 to 24 acres		235	38	142	271	757	2
25 to 99 acres		575	14	318	153	1,036	1
100 to 249 acres		680	5	165	66	798	8
250 to 499 acres		429	3	109	12	346	2
500 to 999 acres		399	1	72	5	140	1
1,000 acres or more		267	-	37	6	37	-
Corn for silage or greenchop	farms	857	253	73	119	284	-
	acres	111,116	24,174	6,353	27,005	38,657	-
	tons	2,327,377	480,472	67,825	484,308	676,293	-
Irrigated	farms	762	4	17	75	152	-
	acres	91,488	126	632	23,162	22,519	-
Farms by acres harvested:							
1 to 24 acres		118	94	22	31	70	-
25 to 99 acres		380	90	29	32	92	-
100 to 249 acres		250	45	15	27	84	-
250 to 499 acres		72	15	7	14	21	-
500 to 999 acres		32	7	-	8	14	-
1,000 acres or more		5	2	-	7	3	-
Cotton, all	farms	-	-	-	213	2,577	-
	acres	-	-	-	80,053	996,427	-
	bales	-	-	-	109,206	1,628,260	-
Irrigated	farms	-	-	-	12	1,114	-
	acres	-	-	-	9,145	309,442	-
Farms by acres harvested:							
1 to 24 acres		-	-	-	18	142	-
25 to 99 acres		-	-	-	49	545	-
100 to 249 acres		-	-	-	50	696	-
250 to 499 acres		-	-	-	45	558	-
500 to 999 acres		-	-	-	36	410	-
1,000 acres or more		-	-	-	15	226	-
Dry edible beans, excluding limas	farms	281	3	-	-	-	-
	acres	46,629	3	-	-	-	-
	cwt	785,848	90	-	-	-	-
Irrigated	farms	245	3	-	-	-	-
	acres	30,790	3	-	-	-	-
Farms by acres harvested:							
1 to 24 acres		38	3	-	-	-	-
25 to 99 acres		95	-	-	-	-	-
100 to 249 acres		97	-	-	-	-	-
250 to 499 acres		25	-	-	-	-	-
500 to 999 acres		21	-	-	-	-	-
1,000 acres or more		5	-	-	-	-	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms	13,998	2,060	430	5,755	14,556	30
	acres	1,621,178	81,269	14,211	354,860	663,750	1,000
	tons, dry equivalent	4,256,940	176,786	37,989	1,120,290	1,380,403	2,215
Irrigated	farms	10,418	-	35	516	927	22
	acres	1,156,305	-	875	42,984	42,119	149
Farms by acres harvested:							
1 to 24 acres		4,963	1,150	300	2,836	7,239	20
25 to 99 acres		4,835	731	104	2,067	5,672	8
100 to 249 acres		2,530	135	19	559	1,321	1
250 to 499 acres		1,058	40	4	200	257	1
500 to 999 acres		440	4	2	71	54	-
1,000 acres or more		172	-	1	22	13	-
Oats for grain	farms	165	2	9	49	476	-
	acres	9,921	(D)	142	3,222	28,770	-
	bushels	531,736	(D)	(D)	200,966	1,535,663	-
Irrigated	farms	105	-	-	8	69	-
	acres	5,072	-	-	1,034	4,106	-
Farms by acres harvested:							
1 to 24 acres		65	1	7	20	165	-
25 to 99 acres		72	-	2	17	214	-
100 to 249 acres		23	1	-	10	84	-
250 to 499 acres		4	-	-	1	13	-
500 to 999 acres		1	-	-	1	-	-
1,000 acres or more		-	-	-	-	-	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Harvested cropland	farms	13,975	54,185	41,743	63,672	43,553	57,528
	acres	4,225,786	22,611,443	12,108,940	23,799,380	19,886,655	5,057,883
Irrigated	farms	10,992	2,327	2,295	1,258	5,876	2,948
	acres	2,867,218	473,081	395,708	188,765	2,728,874	58,221
Barley for grain	farms	2,146	46	37	86	157	52
	acres	547,928	738	493	2,815	13,109	2,626
	bushels	42,464,856	43,029	21,911	139,145	692,044	98,830
Irrigated	farms	1,581	-	1	-	15	-
	acres	352,080	-	(D)	-	1,187	-
Farms by acres harvested:							
1 to 24 acres		332	36	31	56	53	19
25 to 99 acres		729	10	6	22	74	28
100 to 249 acres		532	-	-	8	22	3
250 to 499 acres		295	-	-	-	-	2
500 to 999 acres		147	-	-	-	8	-
1,000 acres or more		111	-	-	-	-	-
Corn for grain	farms	691	38,260	24,400	50,095	11,236	7,060
	acres	104,570	13,096,231	6,362,576	13,842,282	3,680,278	1,313,320
	bushels	17,752,526	2,248,664,947	959,947,232	2,292,163,101	500,560,815	166,687,678
Irrigated	farms	689	1,107	1,024	566	3,591	159
	acres	(D)	330,642	268,435	126,232	1,509,702	22,483
Farms by acres harvested:							
1 to 24 acres		162	4,806	5,386	5,004	990	2,925
25 to 99 acres		280	9,488	7,338	13,122	3,158	1,961
100 to 249 acres		144	8,685	4,754	13,962	3,067	924
250 to 499 acres		63	6,994	3,112	10,149	1,822	533
500 to 999 acres		26	5,385	2,403	5,779	1,369	414
1,000 acres or more		16	2,902	1,407	2,079	830	303
Corn for silage or greenchop	farms	1,115	2,296	2,120	4,967	1,665	2,255
	acres	211,748	75,247	105,937	220,646	166,018	86,542
	tons	5,695,090	1,351,823	1,956,429	4,138,151	2,988,294	1,189,499
Irrigated	farms	1,115	16	77	22	439	49
	acres	211,748	265	6,569	1,889	69,075	986
Farms by acres harvested:							
1 to 24 acres		162	1,364	1,236	2,738	376	1,159
25 to 99 acres		483	793	648	1,754	783	889
100 to 249 acres		270	118	166	356	388	190
250 to 499 acres		119	19	39	74	72	13
500 to 999 acres		48	2	24	41	32	3
1,000 acres or more		33	-	7	4	14	1
Cotton, all	farms	-	-	-	-	106	-
	acres	-	-	-	-	40,924	-
	bales	-	-	-	-	54,814	-
Irrigated	farms	-	-	-	-	34	-
	acres	-	-	-	-	10,419	-
Farms by acres harvested:							
1 to 24 acres		-	-	-	-	5	-
25 to 99 acres		-	-	-	-	15	-
100 to 249 acres		-	-	-	-	33	-
250 to 499 acres		-	-	-	-	27	-
500 to 999 acres		-	-	-	-	14	-
1,000 acres or more		-	-	-	-	12	-
Dry edible beans, excluding limas	farms	641	-	1	1	33	-
	acres	88,987	-	(D)	(D)	5,955	-
	cwt	1,646,970	-	(D)	(D)	134,719	-
Irrigated	farms	519	-	1	-	31	-
	acres	49,435	-	(D)	-	5,143	-
Farms by acres harvested:							
1 to 24 acres		106	-	-	-	2	-
25 to 99 acres		277	-	-	-	8	-
100 to 249 acres		170	-	1	1	17	-
250 to 499 acres		59	-	-	-	3	-
500 to 999 acres		24	-	-	-	3	-
1,000 acres or more		5	-	-	-	-	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms	11,159	19,865	18,917	26,901	29,266	49,825
	acres	1,316,296	593,186	546,764	1,125,565	2,800,129	2,456,564
	tons, dry equivalent	5,198,288	1,770,834	1,306,246	3,897,996	6,916,201	4,042,948
Irrigated	farms	8,788	68	215	89	1,662	274
	acres	1,021,414	1,373	5,770	1,644	272,537	3,447
Farms by acres harvested:							
1 to 24 acres		4,625	12,899	12,379	13,865	8,527	21,551
25 to 99 acres		3,509	5,820	5,554	10,273	12,831	21,860
100 to 249 acres		1,784	1,004	844	2,386	5,530	5,348
250 to 499 acres		721	112	117	312	1,655	895
500 to 999 acres		335	28	21	51	534	144
1,000 acres or more		185	2	2	14	189	27
Oats for grain	farms	298	1,006	568	3,056	874	118
	acres	19,629	24,265	7,948	66,651	29,761	1,002
	bushels	1,178,663	1,500,658	403,631	4,481,462	1,363,381	55,839
Irrigated	farms	167	2	12	4	31	-
	acres	6,876	(D)	36	(D)	2,478	-
Farms by acres harvested:							
1 to 24 acres		117	753	513	2,341	559	111
25 to 99 acres		113	213	55	640	257	7
100 to 249 acres		56	38	-	58	46	-
250 to 499 acres		11	2	-	16	9	-
500 to 999 acres		1	-	-	1	2	-
1,000 acres or more		-	-	-	-	1	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Harvested cropland ... farms	13,783	5,189	8,278	4,792	37,868	53,943
acres	3,342,048	393,738	1,246,603	153,993	6,859,081	19,267,018
Irrigated ... farms	2,682	873	1,284	1,543	4,728	2,787
acres	910,458	20,799	91,926	22,662	496,295	499,583
Barley for grain ... farms	-	94	683	-	376	1,126
acres	-	16,975	34,288	-	12,953	108,268
bushels	-	1,076,922	2,733,463	-	642,216	5,800,659
Irrigated ... farms	-	-	43	-	2	31
acres	-	-	1,779	-	(D)	1,784
Farms by acres harvested:						
1 to 24 acres	-	34	291	-	210	390
25 to 99 acres	-	22	293	-	139	421
100 to 249 acres	-	21	86	-	24	210
250 to 499 acres	-	11	12	-	3	73
500 to 999 acres	-	3	1	-	-	27
1,000 acres or more	-	3	-	-	-	5
Corn for grain ... farms	1,331	26	2,803	50	13,768	30,976
acres	722,387	3,272	460,137	2,432	2,350,668	7,801,001
bushels	114,674,506	419,517	45,548,271	372,853	288,066,336	1,138,660,229
Irrigated ... farms	673	-	273	2	978	1,265
acres	300,979	-	38,964	(D)	241,060	250,683
Farms by acres harvested:						
1 to 24 acres	125	7	824	34	3,720	3,815
25 to 99 acres	190	6	954	9	4,665	9,330
100 to 249 acres	233	8	497	4	2,824	8,384
250 to 499 acres	267	4	292	3	1,438	5,254
500 to 999 acres	292	1	161	-	748	2,935
1,000 acres or more	224	-	75	-	373	1,258
Corn for silage or greenchop ... farms	39	185	898	230	3,352	7,998
acres	4,087	23,516	63,979	13,895	297,381	433,506
tons	69,995	429,432	791,447	275,194	4,350,145	5,791,485
Irrigated ... farms	5	3	31	7	132	233
acres	403	39	1,652	(D)	13,381	13,028
Farms by acres harvested:						
1 to 24 acres	6	31	343	100	1,340	3,053
25 to 99 acres	19	82	364	83	1,207	3,879
100 to 249 acres	11	45	154	41	572	851
250 to 499 acres	2	22	26	5	140	177
500 to 999 acres	1	4	8	1	56	32
1,000 acres or more	-	1	3	-	37	6
Cotton, all ... farms	645	-	-	-	-	-
acres	333,804	-	-	-	-	-
bales	698,557	-	-	-	-	-
Irrigated ... farms	284	-	-	-	-	-
acres	87,442	-	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	36	-	-	-	-	-
25 to 99 acres	111	-	-	-	-	-
100 to 249 acres	111	-	-	-	-	-
250 to 499 acres	138	-	-	-	-	-
500 to 999 acres	159	-	-	-	-	-
1,000 acres or more	90	-	-	-	-	-
Dry edible beans, excluding limas ... farms	-	16	-	1	1,183	526
acres	-	481	-	(D)	195,419	145,422
cwt	-	4,359	-	(D)	3,207,689	2,638,507
Irrigated ... farms	-	-	-	-	61	93
acres	-	-	-	-	8,182	26,692
Farms by acres harvested:						
1 to 24 acres	-	12	-	1	172	20
25 to 99 acres	-	3	-	-	434	131
100 to 249 acres	-	-	-	-	327	190
250 to 499 acres	-	1	-	-	174	102
500 to 999 acres	-	-	-	-	66	65
1,000 acres or more	-	-	-	-	10	18
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text) ... farms	8,798	3,048	5,123	2,424	21,853	29,844
acres	463,695	197,757	223,390	93,811	1,160,467	1,716,693
tons, dry equivalent	1,176,324	428,423	552,667	198,593	2,966,956	4,392,567
Irrigated ... farms	249	-	128	12	429	574
acres	8,326	-	3,100	83	18,394	28,592
Farms by acres harvested:						
1 to 24 acres	3,925	1,346	2,544	1,378	11,008	12,777
25 to 99 acres	3,620	1,126	2,019	807	7,858	12,193
100 to 249 acres	1,014	401	482	204	2,189	3,960
250 to 499 acres	169	147	62	32	603	719
500 to 999 acres	58	23	14	3	171	162
1,000 acres or more	12	5	2	-	24	33
Oats for grain ... farms	30	159	184	2	2,181	5,499
acres	1,549	27,206	2,338	(D)	55,046	180,942
bushels	131,809	1,937,569	152,306	(D)	2,972,519	10,494,120
Irrigated ... farms	-	-	4	-	23	76
acres	-	-	4	-	93	2,249
Farms by acres harvested:						
1 to 24 acres	9	41	161	2	1,542	3,197
25 to 99 acres	16	42	22	-	541	2,032
100 to 249 acres	5	36	1	-	87	230
250 to 499 acres	-	28	-	-	10	26
500 to 999 acres	-	9	-	-	1	11
1,000 acres or more	-	3	-	-	-	3

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Harvested cropland	farms	18,773	69,585	16,441	34,715	1,572	2,494
	acres	4,223,708	12,980,113	9,163,867	18,169,876	504,311	99,520
Irrigated	farms	2,199	3,407	8,201	16,759	1,570	493
	acres	1,364,157	1,190,101	1,558,122	8,448,373	502,978	2,417
Barley for grain	farms	-	56	2,347	35	9	1
	acres	-	1,531	718,551	1,777	1,062	(D)
	bushels	-	59,238	29,670,161	81,963	93,177	(D)
Irrigated	farms	-	-	906	10	9	-
	acres	-	-	175,420	526	1,062	-
Farms by acres harvested:							
1 to 24 acres		-	30	172	12	3	1
25 to 99 acres		-	25	636	18	3	-
100 to 249 acres		-	1	735	5	2	-
250 to 499 acres		-	-	441	-	-	-
500 to 999 acres		-	-	222	-	1	-
1,000 acres or more		-	-	141	-	-	-
Corn for grain	farms	2,091	15,375	297	22,812	10	13
	acres	873,618	3,256,195	38,002	9,192,656	473	226
	bushels	127,841,765	439,417,160	5,147,840	1,426,459,812	73,176	27,547
Irrigated	farms	624	1,233	263	14,107	10	3
	acres	346,506	388,210	32,517	5,839,067	473	3
Farms by acres harvested:							
1 to 24 acres		607	2,594	44	1,061	4	11
25 to 99 acres		288	5,496	127	4,745	5	1
100 to 249 acres		310	3,408	89	6,036	-	1
250 to 499 acres		305	2,088	27	5,046	1	-
500 to 999 acres		306	1,265	8	3,813	-	-
1,000 acres or more		275	524	2	2,111	-	-
Corn for silage or greenchop	farms	126	1,704	383	2,671	36	135
	acres	11,900	69,353	45,172	185,584	5,451	12,640
	tons	152,082	1,041,591	974,410	3,171,470	134,522	262,867
Irrigated	farms	12	36	342	1,295	36	-
	acres	1,033	1,869	41,122	101,256	5,451	-
Farms by acres harvested:							
1 to 24 acres		33	868	49	849	3	38
25 to 99 acres		48	698	176	1,328	17	55
100 to 249 acres		36	117	118	393	9	34
250 to 499 acres		6	12	33	73	5	5
500 to 999 acres		2	6	5	22	1	1
1,000 acres or more		1	3	2	6	1	2
Cotton, all	farms	980	511	-	-	-	-
	acres	656,051	377,960	-	-	-	-
	bales	1,289,270	723,043	-	-	-	-
Irrigated	farms	394	382	-	-	-	-
	acres	295,396	198,446	-	-	-	-
Farms by acres harvested:							
1 to 24 acres		108	10	-	-	-	-
25 to 99 acres		129	64	-	-	-	-
100 to 249 acres		130	71	-	-	-	-
250 to 499 acres		199	100	-	-	-	-
500 to 999 acres		195	129	-	-	-	-
1,000 acres or more		219	137	-	-	-	-
Dry edible beans, excluding limas	farms	-	2	105	495	-	2
	acres	-	(D)	17,151	107,583	-	(D)
	cwt	-	(D)	290,498	2,453,158	-	(D)
Irrigated	farms	-	-	82	482	-	-
	acres	-	-	9,224	104,748	-	-
Farms by acres harvested:							
1 to 24 acres		-	2	8	26	-	2
25 to 99 acres		-	-	41	127	-	-
100 to 249 acres		-	-	35	196	-	-
250 to 499 acres		-	-	15	95	-	-
500 to 999 acres		-	-	5	41	-	-
1,000 acres or more		-	-	1	10	-	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms	13,271	57,184	12,796	20,576	1,436	1,581
	acres	680,402	3,895,401	2,822,442	2,563,515	464,598	76,877
	tons, dry equivalent	1,572,853	7,182,875	5,490,353	6,289,171	1,582,983	178,138
Irrigated	farms	190	282	6,996	5,024	1,435	7
	acres	6,171	9,452	1,059,816	494,391	463,464	45
Farms by acres harvested:							
1 to 24 acres		5,392	18,685	3,043	6,425	401	808
25 to 99 acres		6,068	26,738	3,522	8,099	362	549
100 to 249 acres		1,513	9,367	2,785	3,667	225	185
250 to 499 acres		253	1,902	1,833	1,410	196	37
500 to 999 acres		33	429	1,112	640	138	1
1,000 acres or more		12	63	501	335	114	1
Oats for grain	farms	44	459	488	885	2	-
	acres	1,345	7,894	34,633	35,108	(D)	-
	bushels	107,161	382,149	1,673,538	2,108,923	(D)	-
Irrigated	farms	3	-	151	67	2	-
	acres	(D)	-	8,227	3,052	(D)	-
Farms by acres harvested:							
1 to 24 acres		26	364	142	433	-	-
25 to 99 acres		14	91	247	376	-	-
100 to 249 acres		4	4	72	66	2	-
250 to 499 acres		-	-	23	10	-	-
500 to 999 acres		-	-	4	-	-	-
1,000 acres or more		-	-	-	-	-	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Harvested cropland	farms	7,180	9,311	26,814	32,803	20,408	54,790
	acres	415,542	1,009,683	3,651,278	4,188,658	22,035,717	9,991,007
Irrigated	farms	1,960	8,492	2,853	5,248	769	2,297
	acres	94,121	648,272	65,891	208,213	233,171	37,050
Barley for grain	farms	46	10	327	236	4,855	210
	acres	1,947	824	10,793	13,728	1,384,689	2,994
	bushels	136,415	80,299	530,407	667,667	75,444,593	159,965
Irrigated	farms	2	9	-	14	64	-
	acres	(D)	(D)	-	88	10,848	-
Farms by acres harvested:							
1 to 24 acres		24	4	215	125	149	174
25 to 99 acres		14	4	88	69	874	35
100 to 249 acres		8	1	21	34	1,801	1
250 to 499 acres		-	1	2	6	1,283	-
500 to 999 acres		-	-	1	2	599	-
1,000 acres or more		-	-	-	-	149	-
Corn for grain	farms	731	122	4,243	6,324	5,809	24,436
	acres	81,556	53,851	551,629	965,426	2,348,171	3,606,246
	bushels	10,137,862	9,626,854	71,454,280	98,245,673	275,329,681	526,601,789
Irrigated	farms	81	116	27	436	364	39
	acres	8,094	49,327	1,208	28,481	99,184	7,375
Farms by acres harvested:							
1 to 24 acres		269	44	1,393	2,266	285	7,004
25 to 99 acres		221	11	1,482	1,824	1,308	8,585
100 to 249 acres		143	20	777	1,107	1,609	4,701
250 to 499 acres		61	21	348	633	1,178	2,456
500 to 999 acres		31	17	167	355	821	1,261
1,000 acres or more		6	9	76	139	608	429
Corn for silage or greenchop	farms	234	285	5,278	733	1,707	3,928
	acres	11,528	79,141	507,568	56,886	180,634	182,935
	tons	164,400	1,937,769	8,640,006	631,752	1,965,111	3,191,893
Irrigated	farms	5	284	9	32	71	5
	acres	148	78,398	412	1,138	6,761	480
Farms by acres harvested:							
1 to 24 acres		112	42	1,612	354	168	2,036
25 to 99 acres		83	58	2,396	200	915	1,461
100 to 249 acres		34	91	810	126	504	342
250 to 499 acres		3	46	282	42	88	64
500 to 999 acres		2	35	140	8	23	20
1,000 acres or more		-	13	38	3	9	5
Cotton, all	farms	-	199	-	1,308	-	-
	acres	-	42,207	-	526,060	-	-
	bales	-	97,206	-	785,557	-	-
Irrigated	farms	-	199	-	101	-	-
	acres	-	42,207	-	10,756	-	-
Farms by acres harvested:							
1 to 24 acres		-	35	-	106	-	-
25 to 99 acres		-	56	-	249	-	-
100 to 249 acres		-	57	-	255	-	-
250 to 499 acres		-	30	-	322	-	-
500 to 999 acres		-	14	-	267	-	-
1,000 acres or more		-	7	-	109	-	-
Dry edible beans, excluding limas	farms	2	178	143	-	1,682	1
	acres	(D)	7,760	16,218	-	664,389	(D)
	cwt	(D)	173,070	247,762	-	10,745,281	(D)
Irrigated	farms	-	178	3	-	56	-
	acres	-	7,760	(D)	-	13,023	-
Farms by acres harvested:							
1 to 24 acres		2	164	38	-	19	1
25 to 99 acres		-	7	49	-	249	-
100 to 249 acres		-	6	39	-	512	-
250 to 499 acres		-	-	14	-	465	-
500 to 999 acres		-	-	2	-	314	-
1,000 acres or more		-	1	1	-	123	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms	3,130	5,583	20,194	19,432	11,561	31,440
	acres	115,669	365,843	1,962,620	687,650	2,525,213	1,156,523
	tons, dry equivalent	226,883	1,565,071	4,981,812	1,170,258	4,832,502	2,807,279
Irrigated	farms	58	5,163	119	1,324	264	27
	acres	1,376	314,068	2,816	56,147	25,565	632
Farms by acres harvested:							
1 to 24 acres		2,092	3,485	5,227	11,629	1,709	17,749
25 to 99 acres		775	1,309	8,843	6,372	3,283	11,237
100 to 249 acres		196	473	4,371	1,204	3,150	2,083
250 to 499 acres		53	192	1,310	163	2,056	304
500 to 999 acres		11	84	355	52	1,078	58
1,000 acres or more		3	40	88	12	285	9
Oats for grain	farms	50	45	1,809	556	2,513	2,800
	acres	1,234	(D)	60,999	14,337	257,021	46,348
	bushels	61,563	16,467	3,556,221	787,753	14,862,093	2,883,967
Irrigated	farms	-	26	1	27	16	-
	acres	-	143	(D)	185	990	-
Farms by acres harvested:							
1 to 24 acres		36	40	1,137	373	348	2,336
25 to 99 acres		12	5	534	154	1,232	419
100 to 249 acres		1	-	111	27	739	44
250 to 499 acres		1	-	22	2	155	1
500 to 999 acres		-	-	5	-	37	-
1,000 acres or more		-	-	-	-	2	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Harvested cropland	farms	46,224	22,131	44,269	823	12,962
	acres	7,650,080	3,037,261	3,942,079	19,325	1,551,670
Irrigated	farms	2,645	12,095	3,830	305	1,693
	acres	481,169	1,333,741	36,759	4,266	123,413
Barley for grain	farms	42	339	2,104	-	29
	acres	5,038	53,216	41,986	-	747
	bushels	207,751	2,798,280	3,053,989	-	44,457
Irrigated	farms	1	147	4	-	4
	acres	(D)	15,057	18	-	(D)
Farms by acres harvested:						
1 to 24 acres		12	92	1,620	-	20
25 to 99 acres		11	114	440	-	7
100 to 249 acres		18	75	39	-	2
250 to 499 acres		-	34	3	-	-
500 to 999 acres		-	17	2	-	-
1,000 acres or more		1	7	-	-	-
Corn for grain	farms	913	248	16,030	4	2,601
	acres	270,838	35,271	980,753	41	372,558
	bushels	38,603,555	7,008,419	118,964,770	3,207	35,122,617
Irrigated	farms	275	237	56	-	252
	acres	105,793	35,009	2,660	-	31,971
Farms by acres harvested:						
1 to 24 acres		69	59	8,507	4	1,029
25 to 99 acres		255	90	5,019	-	719
100 to 249 acres		276	59	1,674	-	439
250 to 499 acres		175	24	574	-	240
500 to 999 acres		92	11	203	-	121
1,000 acres or more		46	5	53	-	53
Corn for silage or greenchop	farms	185	247	10,230	39	121
	acres	30,163	25,386	429,139	1,653	13,392
	tons	567,496	633,222	7,057,789	32,886	184,659
Irrigated	farms	69	229	37	1	43
	acres	16,902	23,811	1,605	(D)	3,290
Farms by acres harvested:						
1 to 24 acres		28	62	5,214	21	52
25 to 99 acres		71	122	4,067	14	28
100 to 249 acres		65	47	788	3	26
250 to 499 acres		13	8	127	1	11
500 to 999 acres		3	5	31	-	3
1,000 acres or more		5	3	3	-	1
Cotton, all	farms	420	-	-	-	458
	acres	164,273	-	-	-	158,296
	bales	279,871	-	-	-	159,213
Irrigated	farms	167	-	-	-	90
	acres	67,687	-	-	-	14,259
Farms by acres harvested:						
1 to 24 acres		15	-	-	-	38
25 to 99 acres		89	-	-	-	80
100 to 249 acres		120	-	-	-	136
250 to 499 acres		82	-	-	-	92
500 to 999 acres		78	-	-	-	78
1,000 acres or more		36	-	-	-	34
Dry edible beans, excluding limas	farms	7	49	17	-	-
	acres	150	7,559	153	-	-
	cwt	2,792	149,465	3,045	-	-
Irrigated	farms	2	36	1	-	-
	acres	(D)	4,562	(D)	-	-
Farms by acres harvested:						
1 to 24 acres		4	7	16	-	-
25 to 99 acres		3	18	1	-	-
100 to 249 acres		-	14	-	-	-
250 to 499 acres		-	5	-	-	-
500 to 999 acres		-	5	-	-	-
1,000 acres or more		-	-	-	-	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms	39,449	12,590	34,923	351	7,830
	acres	3,231,691	1,038,735	1,747,589	9,304	340,951
	tons, dry equivalent	6,718,879	3,129,873	4,487,424	19,042	591,501
Irrigated	farms	1,029	6,688	226	3	275
	acres	86,344	739,289	2,177	18	6,797
Farms by acres harvested:						
1 to 24 acres		10,419	6,886	15,925	225	3,887
25 to 99 acres		19,517	3,562	14,511	113	3,079
100 to 249 acres		7,187	1,232	3,706	11	726
250 to 499 acres		1,736	528	641	2	119
500 to 999 acres		466	248	109	-	16
1,000 acres or more		124	134	31	-	3
Oats for grain	farms	172	259	5,089	2	344
	acres	14,816	17,958	79,943	(D)	13,279
	bushels	462,865	1,417,220	4,237,273	(D)	559,906
Irrigated	farms	9	72	-	-	18
	acres	1,327	5,023	-	-	238
Farms by acres harvested:						
1 to 24 acres		54	105	4,274	2	206
25 to 99 acres		69	106	735	-	101
100 to 249 acres		29	30	72	-	32
250 to 499 acres		20	12	6	-	4
500 to 999 acres		-	6	2	-	1
1,000 acres or more		-	-	-	-	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Harvested cropland ....farms	21,902	48,292	111,671	10,259	4,707
acres	15,278,709	4,226,440	19,174,301	964,702	433,074
Irrigated ....farms	1,561	2,318	16,151	9,649	508
acres	358,807	79,150	4,621,445	787,205	2,203
Barley for grain ....farms	205	18	28	487	4
acres	28,761	997	2,090	22,124	(D)
bushels	1,218,568	45,265	141,999	1,833,678	(D)
Irrigated ....farms	5	1	13	461	-
acres	144	(D)	936	19,122	-
Farms by acres harvested:					
1 to 24 acres	27	9	7	245	2
25 to 99 acres	81	5	14	178	2
100 to 249 acres	65	3	6	54	-
250 to 499 acres	25	1	1	10	-
500 to 999 acres	4	-	-	-	-
1,000 acres or more	3	-	-	-	-
Corn for grain ....farms	12,198	4,653	4,543	331	71
acres	4,455,368	780,608	1,963,640	21,367	5,368
bushels	518,552,101	83,636,352	286,386,341	3,249,594	773,897
Irrigated ....farms	788	115	1,892	331	-
acres	192,582	20,272	846,750	21,367	-
Farms by acres harvested:					
1 to 24 acres	608	1,697	526	162	21
25 to 99 acres	2,612	1,381	856	109	31
100 to 249 acres	3,628	694	1,030	44	16
250 to 499 acres	2,832	446	873	13	3
500 to 999 acres	1,663	284	739	3	-
1,000 acres or more	855	151	519	-	-
Corn for silage or greenchop ....farms	3,928	884	560	573	674
acres	383,599	52,565	151,091	45,375	87,403
tons	4,358,190	577,940	3,417,965	969,548	1,658,746
Irrigated ....farms	121	35	357	573	-
acres	9,708	1,772	102,392	45,375	-
Farms by acres harvested:					
1 to 24 acres	776	331	55	177	164
25 to 99 acres	2,065	386	136	267	261
100 to 249 acres	771	143	187	102	155
250 to 499 acres	204	19	103	13	57
500 to 999 acres	88	5	49	11	30
1,000 acres or more	24	-	30	3	7
Cotton, all ....farms	-	779	7,225	-	-
acres	-	504,057	4,674,229	-	-
bales	-	581,236	8,147,970	-	-
Irrigated ....farms	-	45	3,876	-	-
acres	-	11,386	1,626,181	-	-
Farms by acres harvested:					
1 to 24 acres	-	55	255	-	-
25 to 99 acres	-	165	991	-	-
100 to 249 acres	-	108	1,460	-	-
250 to 499 acres	-	134	1,355	-	-
500 to 999 acres	-	159	1,561	-	-
1,000 acres or more	-	158	1,603	-	-
Dry edible beans, excluding limas ....farms	34	-	58	16	6
acres	11,891	-	6,675	1,627	(D)
cwt	208,659	-	127,400	6,994	(D)
Irrigated ....farms	11	-	28	10	-
acres	2,826	-	2,946	159	-
Farms by acres harvested:					
1 to 24 acres	3	-	22	10	6
25 to 99 acres	6	-	15	2	-
100 to 249 acres	8	-	12	2	-
250 to 499 acres	9	-	6	1	-
500 to 999 acres	6	-	3	1	-
1,000 acres or more	2	-	-	-	-
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text) ....farms	16,121	42,280	90,860	8,930	3,624
acres	3,239,947	1,784,808	5,264,287	690,946	330,984
tons, dry equivalent	6,502,232	2,732,930	14,477,068	2,569,087	962,986
Irrigated ....farms	797	344	5,701	8,458	4
acres	87,670	4,394	424,623	628,996	230
Farms by acres harvested:					
1 to 24 acres	2,949	20,148	39,538	4,480	1,132
25 to 99 acres	5,139	17,834	38,189	2,780	1,451
100 to 249 acres	4,091	3,744	9,979	1,012	748
250 to 499 acres	2,291	516	2,217	441	216
500 to 999 acres	1,182	34	720	157	62
1,000 acres or more	469	4	217	60	15
Oats for grain ....farms	1,703	78	1,109	266	12
acres	124,743	1,679	92,653	4,833	211
bushels	8,758,284	83,840	3,663,002	367,230	11,525
Irrigated ....farms	30	-	80	252	-
acres	1,666	-	5,461	4,461	-
Farms by acres harvested:					
1 to 24 acres	409	66	360	212	7
25 to 99 acres	908	9	490	51	5
100 to 249 acres	310	2	180	3	-
250 to 499 acres	68	1	50	-	-
500 to 999 acres	7	-	26	-	-
1,000 acres or more	1	-	3	-	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		Virginia	Washington	West Virginia	Wisconsin	Wyoming
Harvested cropland	farms	30,563	20,091	17,494	54,105	5,573
	acres	2,544,997	4,387,169	692,003	8,884,628	1,536,240
Irrigated	farms	2,134	11,835	427	2,826	4,511
	acres	78,675	1,589,538	(D)	373,680	1,025,182
Barley for grain	farms	530	843	61	1,104	342
	acres	27,833	223,598	1,328	23,645	52,457
	bushels	2,008,416	13,928,713	92,942	1,351,838	4,485,775
Irrigated	farms	12	67	-	3	291
	acres	695	3,641	-	(D)	43,513
Farms by acres harvested:						
1 to 24 acres		258	98	41	795	42
25 to 99 acres		191	175	18	291	141
100 to 249 acres		65	254	2	17	98
250 to 499 acres		13	184	-	1	46
500 to 999 acres		3	106	-	-	12
1,000 acres or more		-	26	-	-	3
Corn for grain	farms	3,063	550	686	27,505	344
	acres	401,070	118,665	26,618	3,250,847	54,567
	bushels	34,811,582	24,553,928	2,916,834	437,174,706	6,858,369
Irrigated	farms	169	547	3	556	335
	acres	15,364	(D)	(D)	113,312	51,056
Farms by acres harvested:						
1 to 24 acres		1,197	72	492	7,826	50
25 to 99 acres		903	182	133	11,638	125
100 to 249 acres		505	150	33	5,196	104
250 to 499 acres		261	94	23	1,622	44
500 to 999 acres		141	39	5	815	20
1,000 acres or more		56	13	-	408	1
Corn for silage or greenchop	farms	2,013	537	550	15,338	265
	acres	126,295	83,353	19,408	732,636	32,146
	tons	1,717,974	2,129,010	272,039	11,645,140	646,760
Irrigated	farms	75	360	5	121	260
	acres	3,671	57,381	226	8,900	30,491
Farms by acres harvested:						
1 to 24 acres		850	92	326	7,317	47
25 to 99 acres		799	199	190	6,450	115
100 to 249 acres		282	144	28	1,192	72
250 to 499 acres		63	72	4	270	20
500 to 999 acres		18	24	2	80	8
1,000 acres or more		1	6	-	29	3
Cotton, all	farms	196	-	-	-	-
	acres	59,243	-	-	-	-
	bales	101,745	-	-	-	-
Irrigated	farms	9	-	-	-	-
	acres	348	-	-	-	-
Farms by acres harvested:						
1 to 24 acres		15	-	-	-	-
25 to 99 acres		47	-	-	-	-
100 to 249 acres		43	-	-	-	-
250 to 499 acres		46	-	-	-	-
500 to 999 acres		37	-	-	-	-
1,000 acres or more		8	-	-	-	-
Dry edible beans, excluding limas	farms	-	269	-	6	193
	acres	-	61,055	-	6,069	24,197
	cwt	-	1,049,750	-	93,244	566,459
Irrigated	farms	-	152	-	5	193
	acres	-	22,017	-	5,717	24,197
Farms by acres harvested:						
1 to 24 acres		-	35	-	-	18
25 to 99 acres		-	70	-	-	87
100 to 249 acres		-	92	-	2	66
250 to 499 acres		-	38	-	1	18
500 to 999 acres		-	25	-	1	3
1,000 acres or more		-	9	-	2	1
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms	25,986	10,243	16,449	42,082	5,276
	acres	1,305,624	846,140	614,794	2,797,497	1,192,019
	tons, dry equivalent	2,464,783	3,595,392	986,097	8,528,063	2,426,555
Irrigated	farms	377	4,262	22	269	4,298
	acres	9,767	493,255	238	20,124	824,334
Farms by acres harvested:						
1 to 24 acres		11,816	5,183	8,668	15,639	917
25 to 99 acres		10,823	3,040	6,511	17,589	1,720
100 to 249 acres		2,687	1,213	1,102	7,313	1,319
250 to 499 acres		527	506	146	1,217	718
500 to 999 acres		112	213	17	272	395
1,000 acres or more		21	88	5	52	207
Oats for grain	farms	230	138	121	7,934	154
	acres	4,893	8,956	1,494	166,794	8,040
	bushels	286,954	426,027	74,953	11,122,339	382,864
Irrigated	farms	4	19	-	19	94
	acres	6	471	-	1,779	3,099
Farms by acres harvested:						
1 to 24 acres		181	61	105	5,893	52
25 to 99 acres		38	52	16	1,927	80
100 to 249 acres		9	17	-	94	18
250 to 499 acres		1	7	-	10	3
500 to 999 acres		1	-	-	9	1
1,000 acres or more		-	1	-	1	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Peanuts for nuts ..... farms	6,182	704	-	1	1	11
acres	1,200,564	158,424	-	(D)	(D)	14
pounds	3,703,138,887	396,914,610	-	(D)	(D)	28,000
Irrigated ..... farms	2,381	71	-	1	1	11
acres	418,789	11,044	-	(D)	(D)	14
Farms by acres harvested:						
1 to 24 acres	915	84	-	1	-	11
25 to 99 acres	1,909	219	-	-	-	-
100 to 249 acres	1,886	192	-	-	1	-
250 to 499 acres	920	122	-	-	-	-
500 to 999 acres	423	64	-	-	-	-
1,000 acres or more	129	23	-	-	-	-
Pineapples harvested ..... farms	42	-	-	-	-	-
acres	(D)	-	-	-	-	-
tons	(D)	-	-	-	-	-
Irrigated ..... farms	20	-	-	-	-	-
acres	(D)	-	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	39	-	-	-	-	-
25 to 99 acres	-	-	-	-	-	-
100 to 249 acres	1	-	-	-	-	-
250 acres or more	2	-	-	-	-	-
Rice ..... farms	6,084	-	-	-	2,752	1,304
acres	2,758,792	-	-	-	1,326,377	531,075
cwt	198,538,690	-	-	-	96,033,069	43,018,947
Irrigated ..... farms	6,084	-	-	-	2,752	1,304
acres	2,758,792	-	-	-	1,326,377	531,075
Farms by acres harvested:						
1 to 24 acres	132	-	-	-	66	17
25 to 99 acres	915	-	-	-	425	162
100 to 249 acres	1,459	-	-	-	607	339
250 to 499 acres	1,616	-	-	-	696	433
500 to 999 acres	1,346	-	-	-	633	267
1,000 acres or more	616	-	-	-	325	86
Sorghum for grain ..... farms	26,242	78	-	79	697	58
acres	6,769,834	5,827	-	19,703	216,432	10,909
bushels	482,452,865	215,276	-	1,696,731	20,761,820	909,160
Irrigated ..... farms	4,483	2	-	79	295	53
acres	845,214	(D)	-	19,703	76,032	9,705
Farms by acres harvested:						
1 to 24 acres	2,609	21	-	2	39	10
25 to 99 acres	8,335	36	-	17	185	14
100 to 249 acres	7,302	15	-	33	216	25
250 to 499 acres	4,377	6	-	15	140	5
500 to 999 acres	2,443	-	-	10	76	2
1,000 acres or more	1,176	-	-	2	41	2
Soybeans for beans ..... farms	279,110	875	-	-	4,610	-
acres	63,915,821	179,673	-	-	2,819,478	-
bushels	2,582,423,697	3,660,854	-	-	98,903,025	-
Irrigated ..... farms	20,333	37	-	-	3,256	-
acres	5,237,075	2,124	-	-	1,843,833	-
Farms by acres harvested:						
1 to 24 acres	38,458	124	-	-	187	-
25 to 99 acres	90,935	277	-	-	810	-
100 to 249 acres	70,698	274	-	-	808	-
250 to 499 acres	44,381	104	-	-	887	-
500 to 999 acres	25,097	76	-	-	951	-
1,000 acres or more	9,541	20	-	-	967	-
Sugarbeets for sugar ..... farms	4,022	-	-	-	-	155
acres	1,253,817	-	-	-	-	42,984
tons	31,937,325	-	-	-	-	1,539,394
Irrigated ..... farms	1,595	-	-	-	-	155
acres	394,675	-	-	-	-	42,984
Farms by acres harvested:						
1 to 24 acres	131	-	-	-	-	4
25 to 99 acres	892	-	-	-	-	34
100 to 249 acres	1,274	-	-	-	-	63
250 to 499 acres	1,004	-	-	-	-	30
500 to 999 acres	540	-	-	-	-	18
1,000 acres or more	181	-	-	-	-	6
Sugarcane for sugar ..... farms	692	-	-	-	-	-
acres	846,666	-	-	-	-	-
tons	31,127,405	-	-	-	-	-
Irrigated ..... farms	219	-	-	-	-	-
acres	435,205	-	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	71	-	-	-	-	-
25 to 99 acres	78	-	-	-	-	-
100 to 249 acres	81	-	-	-	-	-
250 to 499 acres	96	-	-	-	-	-
500 to 999 acres	157	-	-	-	-	-
1,000 acres or more	209	-	-	-	-	-
Sunflower seed, all ..... farms	6,403	7	-	-	1	111
acres	2,000,153	19	-	-	(D)	27,913
pounds	2,820,962,445	13,720	-	-	(D)	29,776,645
Irrigated ..... farms	608	-	-	-	-	98
acres	102,219	-	-	-	-	23,937
Farms by acres harvested:						
1 to 24 acres	502	7	-	-	-	17
25 to 99 acres	1,153	-	-	-	1	31
100 to 249 acres	2,110	-	-	-	-	32
250 to 499 acres	1,494	-	-	-	-	17
500 to 999 acres	824	-	-	-	-	7
1,000 acres or more	320	-	-	-	-	7

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Peanuts for nuts ..... farms	-	-	-	423	2,762	-
acres	-	-	-	118,637	518,719	-
pounds	-	-	-	341,137,148	1,634,837,229	-
Irrigated ..... farms	-	-	-	92	1,193	-
acres	-	-	-	27,044	182,332	-
Farms by acres harvested:						
1 to 24 acres	-	-	-	69	350	-
25 to 99 acres	-	-	-	122	943	-
100 to 249 acres	-	-	-	107	817	-
250 to 499 acres	-	-	-	48	422	-
500 to 999 acres	-	-	-	48	189	-
1,000 acres or more	-	-	-	29	41	-
Pineapples harvested ..... farms	-	-	-	-	-	42
acres	-	-	-	-	-	(D)
tons	-	-	-	-	-	(D)
Irrigated ..... farms	-	-	-	-	-	20
acres	-	-	-	-	-	(D)
Farms by acres harvested:						
1 to 24 acres	-	-	-	-	-	39
25 to 99 acres	-	-	-	-	-	-
100 to 249 acres	-	-	-	-	-	1
250 acres or more	-	-	-	-	-	2
Rice ..... farms	-	-	-	7	-	-
acres	-	-	-	11,376	-	-
cwt	-	-	-	975,319	-	-
Irrigated ..... farms	-	-	-	7	-	-
acres	-	-	-	11,376	-	-
Farms by acres harvested:						
1 to 24 acres	-	-	-	-	-	-
25 to 99 acres	-	-	-	1	-	-
100 to 249 acres	-	-	-	-	-	-
250 to 499 acres	-	-	-	-	-	-
500 to 999 acres	-	-	-	3	-	-
1,000 acres or more	-	-	-	3	-	-
Sorghum for grain ..... farms	380	-	10	21	428	-
acres	153,196	-	327	1,331	44,694	-
bushels	5,750,890	-	17,927	68,866	1,935,793	-
Irrigated ..... farms	112	-	2	2	75	-
acres	10,818	-	(D)	(D)	5,556	-
Farms by acres harvested:						
1 to 24 acres	25	-	4	1	93	-
25 to 99 acres	97	-	5	17	183	-
100 to 249 acres	75	-	1	2	110	-
250 to 499 acres	94	-	-	1	30	-
500 to 999 acres	49	-	-	-	11	-
1,000 acres or more	40	-	-	-	1	-
Soybeans for beans ..... farms	34	6	817	101	1,617	-
acres	2,948	294	155,548	12,066	280,220	-
bushels	148,420	13,365	3,990,694	291,981	7,970,113	-
Irrigated ..... farms	24	1	172	4	340	-
acres	1,882	(D)	24,528	212	35,285	-
Farms by acres harvested:						
1 to 24 acres	4	5	144	16	187	-
25 to 99 acres	15	-	321	49	555	-
100 to 249 acres	14	1	177	22	536	-
250 to 499 acres	1	-	81	11	226	-
500 to 999 acres	-	-	67	2	89	-
1,000 acres or more	-	-	27	1	24	-
Sugarbeets for sugar ..... farms	226	-	-	-	-	-
acres	29,235	-	-	-	-	-
tons	764,791	-	-	-	-	-
Irrigated ..... farms	226	-	-	-	-	-
acres	29,235	-	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	20	-	-	-	-	-
25 to 99 acres	103	-	-	-	-	-
100 to 249 acres	71	-	-	-	-	-
250 to 499 acres	23	-	-	-	-	-
500 to 999 acres	8	-	-	-	-	-
1,000 acres or more	1	-	-	-	-	-
Sugarcane for sugar ..... farms	-	-	-	108	-	9
acres	-	-	-	378,587	-	(D)
tons	-	-	-	14,127,121	-	(D)
Irrigated ..... farms	-	-	-	108	-	6
acres	-	-	-	378,587	-	(D)
Farms by acres harvested:						
1 to 24 acres	-	-	-	18	-	7
25 to 99 acres	-	-	-	9	-	-
100 to 249 acres	-	-	-	13	-	-
250 to 499 acres	-	-	-	14	-	-
500 to 999 acres	-	-	-	10	-	-
1,000 acres or more	-	-	-	44	-	2
Sunflower seed, all ..... farms	282	-	3	-	35	-
acres	112,991	-	(D)	-	2,150	-
pounds	124,244,896	-	(D)	-	(D)	-
Irrigated ..... farms	101	-	-	-	6	-
acres	15,064	-	-	-	21	-
Farms by acres harvested:						
1 to 24 acres	11	-	2	-	31	-
25 to 99 acres	43	-	1	-	2	-
100 to 249 acres	100	-	-	-	1	-
250 to 499 acres	66	-	-	-	-	-
500 to 999 acres	40	-	-	-	-	-
1,000 acres or more	22	-	-	-	1	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Peanuts for nuts ... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
pounds	-	-	-	-	-	-
Irrigated ... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	-	-	-	-	-	-
25 to 99 acres	-	-	-	-	-	-
100 to 249 acres	-	-	-	-	-	-
250 to 499 acres	-	-	-	-	-	-
500 to 999 acres	-	-	-	-	-	-
1,000 acres or more	-	-	-	-	-	-
Pineapples harvested ... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
tons	-	-	-	-	-	-
Irrigated ... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	-	-	-	-	-	-
25 to 99 acres	-	-	-	-	-	-
100 to 249 acres	-	-	-	-	-	-
250 acres or more	-	-	-	-	-	-
Rice ... farms	-	3	-	-	-	-
acres	-	(D)	-	-	-	-
cwt	-	(D)	-	-	-	-
Irrigated ... farms	-	3	-	-	-	-
acres	-	(D)	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	-	-	-	-	-	-
25 to 99 acres	-	1	-	-	-	-
100 to 249 acres	-	-	-	-	-	-
250 to 499 acres	-	1	-	-	-	-
500 to 999 acres	-	1	-	-	-	-
1,000 acres or more	-	-	-	-	-	-
Sorghum for grain ... farms	-	731	78	40	11,379	92
acres	-	76,601	8,938	2,113	2,625,920	11,590
bushels	-	5,960,150	811,912	174,761	201,048,807	950,509
Irrigated ... farms	-	8	3	-	1,121	3
acres	-	156	(D)	-	141,668	74
Farms by acres harvested:						
1 to 24 acres	-	120	14	16	936	18
25 to 99 acres	-	340	35	20	3,766	34
100 to 249 acres	-	205	18	2	3,377	25
250 to 499 acres	-	59	9	2	1,953	14
500 to 999 acres	-	6	2	-	968	1
1,000 acres or more	-	1	-	-	379	-
Soybeans for beans ... farms	-	33,945	21,973	41,524	13,232	4,129
acres	-	8,293,711	4,783,821	8,612,810	2,591,428	1,087,037
bushels	-	353,741,105	211,074,079	430,739,578	82,719,224	29,582,097
Irrigated ... farms	-	525	628	319	1,610	52
acres	-	70,513	82,454	50,481	261,588	10,147
Farms by acres harvested:						
1 to 24 acres	-	4,167	4,177	3,956	1,551	634
25 to 99 acres	-	9,772	7,078	13,031	4,773	1,517
100 to 249 acres	-	8,778	4,746	12,670	3,694	823
250 to 499 acres	-	6,453	3,162	7,962	1,939	518
500 to 999 acres	-	3,705	2,040	3,260	988	375
1,000 acres or more	-	1,070	770	645	287	262
Sugarbeets for sugar ... farms	507	-	-	-	-	-
acres	163,598	-	-	-	-	-
tons	5,631,170	-	-	-	-	-
Irrigated ... farms	507	-	-	-	-	-
acres	163,598	-	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	20	-	-	-	-	-
25 to 99 acres	130	-	-	-	-	-
100 to 249 acres	164	-	-	-	-	-
250 to 499 acres	107	-	-	-	-	-
500 to 999 acres	50	-	-	-	-	-
1,000 acres or more	36	-	-	-	-	-
Sugarcane for sugar ... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
tons	-	-	-	-	-	-
Irrigated ... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	-	-	-	-	-	-
25 to 99 acres	-	-	-	-	-	-
100 to 249 acres	-	-	-	-	-	-
250 to 499 acres	-	-	-	-	-	-
500 to 999 acres	-	-	-	-	-	-
1,000 acres or more	-	-	-	-	-	-
Sunflower seed, all ... farms	1	46	2	5	681	14
acres	(D)	3,217	(D)	667	156,378	82
pounds	(D)	4,356,557	(D)	631,300	220,194,520	40,100
Irrigated ... farms	1	1	1	-	161	-
acres	(D)	(D)	(D)	-	27,853	-
Farms by acres harvested:						
1 to 24 acres	1	30	2	2	28	14
25 to 99 acres	-	8	-	1	231	-
100 to 249 acres	-	6	-	1	235	-
250 to 499 acres	-	-	-	1	108	-
500 to 999 acres	-	1	-	-	67	-
1,000 acres or more	-	1	-	-	12	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Peanuts for nuts	farms	8	-	-	-	-	-
	acres	(D)	-	-	-	-	-
	pounds	(D)	-	-	-	-	-
Irrigated	farms	3	-	-	-	-	-
	acres	(D)	-	-	-	-	-
Farms by acres harvested:							
1 to 24 acres		4	-	-	-	-	-
25 to 99 acres		1	-	-	-	-	-
100 to 249 acres		1	-	-	-	-	-
250 to 499 acres		2	-	-	-	-	-
500 to 999 acres		-	-	-	-	-	-
1,000 acres or more		-	-	-	-	-	-
Pineapples harvested	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	tons	-	-	-	-	-	-
Irrigated	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
Farms by acres harvested:							
1 to 24 acres		-	-	-	-	-	-
25 to 99 acres		-	-	-	-	-	-
100 to 249 acres		-	-	-	-	-	-
250 acres or more		-	-	-	-	-	-
Rice	farms	848	-	-	-	-	-
	acres	377,115	-	-	-	-	-
	cwt	23,122,031	-	-	-	-	-
Irrigated	farms	848	-	-	-	-	-
	acres	377,115	-	-	-	-	-
Farms by acres harvested:							
1 to 24 acres		31	-	-	-	-	-
25 to 99 acres		158	-	-	-	-	-
100 to 249 acres		171	-	-	-	-	-
250 to 499 acres		203	-	-	-	-	-
500 to 999 acres		202	-	-	-	-	-
1,000 acres or more		83	-	-	-	-	-
Sorghum for grain	farms	615	-	79	-	26	3
	acres	245,384	-	4,895	-	658	36
	bushels	22,397,992	-	217,697	-	41,825	360
Irrigated	farms	85	-	5	-	3	-
	acres	19,684	-	40	-	(D)	-
Farms by acres harvested:							
1 to 24 acres		40	-	26	-	19	3
25 to 99 acres		96	-	36	-	5	-
100 to 249 acres		144	-	15	-	2	-
250 to 499 acres		154	-	2	-	-	-
500 to 999 acres		124	-	-	-	-	-
1,000 acres or more		57	-	-	-	-	-
Soybeans for beans	farms	1,455	14	2,158	5	10,461	27,040
	acres	593,815	766	386,604	247	1,715,427	6,273,919
	bushels	24,717,263	22,570	10,381,954	10,530	67,515,728	259,891,979
Irrigated	farms	321	-	189	-	497	723
	acres	95,413	-	20,663	-	66,556	92,688
Farms by acres harvested:							
1 to 24 acres		117	3	437	1	1,938	2,332
25 to 99 acres		271	8	790	3	4,183	8,633
100 to 249 acres		371	3	479	1	2,426	7,917
250 to 499 acres		298	-	254	-	1,116	4,868
500 to 999 acres		259	-	145	-	606	2,551
1,000 acres or more		139	-	53	-	192	739
Sugarbeets for sugar	farms	-	-	-	-	737	1,247
	acres	-	-	-	-	150,054	485,650
	tons	-	-	-	-	3,532,941	11,432,253
Irrigated	farms	-	-	-	-	36	25
	acres	-	-	-	-	3,018	5,211
Farms by acres harvested:							
1 to 24 acres		-	-	-	-	38	16
25 to 99 acres		-	-	-	-	228	155
100 to 249 acres		-	-	-	-	281	342
250 to 499 acres		-	-	-	-	133	413
500 to 999 acres		-	-	-	-	43	254
1,000 acres or more		-	-	-	-	14	67
Sugarcane for sugar	farms	461	-	-	-	-	-
	acres	405,433	-	-	-	-	-
	tons	14,086,448	-	-	-	-	-
Irrigated	farms	1	-	-	-	-	-
	acres	(D)	-	-	-	-	-
Farms by acres harvested:							
1 to 24 acres		43	-	-	-	-	-
25 to 99 acres		49	-	-	-	-	-
100 to 249 acres		26	-	-	-	-	-
250 to 499 acres		61	-	-	-	-	-
500 to 999 acres		128	-	-	-	-	-
1,000 acres or more		154	-	-	-	-	-
Sunflower seed, all	farms	1	1	22	1	67	505
	acres	(D)	(D)	596	(D)	5,888	126,552
	pounds	(D)	(D)	614,150	(D)	7,206,293	190,298,028
Irrigated	farms	-	1	4	-	2	6
	acres	-	(D)	(D)	-	(D)	392
Farms by acres harvested:							
1 to 24 acres		1	1	19	-	24	29
25 to 99 acres		-	-	-	1	29	95
100 to 249 acres		-	-	3	-	7	197
250 to 499 acres		-	-	-	-	2	120
500 to 999 acres		-	-	-	-	5	57
1,000 acres or more		-	-	-	-	-	7

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Peanuts for nuts	farms	85	1	-	-	-	-
	acres	17,781	(D)	-	-	-	-
	pounds	58,481,805	(D)	-	-	-	-
Irrigated	farms	11	-	-	-	-	-
	acres	(D)	-	-	-	-	-
Farms by acres harvested:							
1 to 24 acres		35	1	-	-	-	-
25 to 99 acres		7	-	-	-	-	-
100 to 249 acres		12	-	-	-	-	-
250 to 499 acres		19	-	-	-	-	-
500 to 999 acres		9	-	-	-	-	-
1,000 acres or more		3	-	-	-	-	-
Pineapples harvested	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	tons	-	-	-	-	-	-
Irrigated	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
Farms by acres harvested:							
1 to 24 acres		-	-	-	-	-	-
25 to 99 acres		-	-	-	-	-	-
100 to 249 acres		-	-	-	-	-	-
250 acres or more		-	-	-	-	-	-
Rice	farms	341	435	-	-	-	-
	acres	185,076	179,300	-	-	-	-
	cwt	13,313,823	12,266,645	-	-	-	-
Irrigated	farms	341	435	-	-	-	-
	acres	185,076	179,300	-	-	-	-
Farms by acres harvested:							
1 to 24 acres		5	9	-	-	-	-
25 to 99 acres		40	76	-	-	-	-
100 to 249 acres		81	135	-	-	-	-
250 to 499 acres		73	89	-	-	-	-
500 to 999 acres		88	83	-	-	-	-
1,000 acres or more		54	43	-	-	-	-
Sorghum for grain	farms	302	1,085	-	1,901	1	-
	acres	116,901	105,483	-	236,607	(D)	-
	bushels	9,815,654	9,922,598	-	22,177,229	(D)	-
Irrigated	farms	81	54	-	299	1	-
	acres	23,194	3,293	-	19,445	(D)	-
Farms by acres harvested:							
1 to 24 acres		20	219	-	230	-	-
25 to 99 acres		49	510	-	908	1	-
100 to 249 acres		75	278	-	528	-	-
250 to 499 acres		75	59	-	180	-	-
500 to 999 acres		62	16	-	45	-	-
1,000 acres or more		21	3	-	10	-	-
Soybeans for beans	farms	2,589	18,388	8	16,620	-	-
	acres	1,431,085	4,672,738	409	3,834,855	-	-
	bushels	54,316,854	165,947,323	16,084	189,547,373	-	-
Irrigated	farms	811	1,249	7	8,088	-	-
	acres	483,004	365,094	(D)	1,570,110	-	-
Farms by acres harvested:							
1 to 24 acres		232	2,502	3	985	-	-
25 to 99 acres		541	6,391	3	4,845	-	-
100 to 249 acres		522	4,101	2	5,450	-	-
250 to 499 acres		395	2,644	-	3,483	-	-
500 to 999 acres		425	1,831	-	1,520	-	-
1,000 acres or more		474	919	-	337	-	-
Sugarbeets for sugar	farms	-	-	220	162	-	-
	acres	-	-	47,533	44,938	-	-
	tons	-	-	1,174,370	1,064,504	-	-
Irrigated	farms	-	-	220	162	-	-
	acres	-	-	47,533	44,938	-	-
Farms by acres harvested:							
1 to 24 acres		-	-	11	3	-	-
25 to 99 acres		-	-	58	43	-	-
100 to 249 acres		-	-	88	57	-	-
250 to 499 acres		-	-	48	37	-	-
500 to 999 acres		-	-	11	14	-	-
1,000 acres or more		-	-	4	8	-	-
Sugarcane for sugar	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	tons	-	-	-	-	-	-
Irrigated	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
Farms by acres harvested:							
1 to 24 acres		-	-	-	-	-	-
25 to 99 acres		-	-	-	-	-	-
100 to 249 acres		-	-	-	-	-	-
250 to 499 acres		-	-	-	-	-	-
500 to 999 acres		-	-	-	-	-	-
1,000 acres or more		-	-	-	-	-	-
Sunflower seed, all	farms	1	28	17	222	-	-
	acres	(D)	1,963	3,410	47,575	-	-
	pounds	(D)	2,456,340	3,787,068	61,133,340	-	-
Irrigated	farms	-	-	6	104	-	-
	acres	-	-	1,266	15,362	-	-
Farms by acres harvested:							
1 to 24 acres		1	11	-	7	-	-
25 to 99 acres		-	9	2	54	-	-
100 to 249 acres		-	8	12	92	-	-
250 to 499 acres		-	-	2	44	-	-
500 to 999 acres		-	-	1	24	-	-
1,000 acres or more		-	-	-	1	-	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Peanuts for nuts ..... farms	-	29	-	699	-	-
acres	-	10,305	-	89,029	-	-
pounds	-	31,988,642	-	250,970,518	-	-
Irrigated ..... farms	-	29	-	94	-	-
acres	-	10,305	-	8,587	-	-
Farms by acres harvested:						
1 to 24 acres	-	-	-	177	-	-
25 to 99 acres	-	5	-	215	-	-
100 to 249 acres	-	14	-	210	-	-
250 to 499 acres	-	4	-	73	-	-
500 to 999 acres	-	2	-	18	-	-
1,000 acres or more	-	4	-	6	-	-
Pineapples harvested ..... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
tons	-	-	-	-	-	-
Irrigated ..... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	-	-	-	-	-	-
25 to 99 acres	-	-	-	-	-	-
100 to 249 acres	-	-	-	-	-	-
250 acres or more	-	-	-	-	-	-
Rice ..... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
cwt	-	-	-	-	-	-
Irrigated ..... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	-	-	-	-	-	-
25 to 99 acres	-	-	-	-	-	-
100 to 249 acres	-	-	-	-	-	-
250 to 499 acres	-	-	-	-	-	-
500 to 999 acres	-	-	-	-	-	-
1,000 acres or more	-	-	-	-	-	-
Sorghum for grain ..... farms	12	217	26	210	-	16
acres	614	73,048	717	8,635	-	1,203
bushels	33,018	2,806,719	35,804	394,040	-	50,854
Irrigated ..... farms	-	92	-	20	-	-
acres	-	12,329	-	434	-	-
Farms by acres harvested:						
1 to 24 acres	5	24	12	100	-	5
25 to 99 acres	4	39	13	92	-	5
100 to 249 acres	3	60	1	15	-	5
250 to 499 acres	-	49	-	2	-	1
500 to 999 acres	-	29	-	1	-	-
1,000 acres or more	-	16	-	-	-	-
Soybeans for beans ..... farms	524	1	1,347	6,896	5,779	23,892
acres	79,218	(D)	199,775	1,380,792	3,073,981	4,236,337
bushels	2,443,231	(D)	7,456,657	29,142,115	106,556,290	191,559,567
Irrigated ..... farms	55	-	2	325	85	12
acres	4,730	-	(D)	13,830	12,513	1,056
Farms by acres harvested:						
1 to 24 acres	114	-	282	1,567	129	4,529
25 to 99 acres	184	1	531	2,295	762	8,945
100 to 249 acres	123	-	319	1,409	1,383	5,323
250 to 499 acres	69	-	121	854	1,363	2,971
500 to 999 acres	26	-	71	557	1,322	1,656
1,000 acres or more	8	-	23	214	820	468
Sugarbeets for sugar ..... farms	-	-	-	-	553	-
acres	-	-	-	-	245,735	-
tons	-	-	-	-	5,695,862	-
Irrigated ..... farms	-	-	-	-	49	-
acres	-	-	-	-	14,068	-
Farms by acres harvested:						
1 to 24 acres	-	-	-	-	8	-
25 to 99 acres	-	-	-	-	71	-
100 to 249 acres	-	-	-	-	127	-
250 to 499 acres	-	-	-	-	180	-
500 to 999 acres	-	-	-	-	125	-
1,000 acres or more	-	-	-	-	42	-
Sugarcane for sugar ..... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
tons	-	-	-	-	-	-
Irrigated ..... farms	-	-	-	-	-	-
acres	-	-	-	-	-	-
Farms by acres harvested:						
1 to 24 acres	-	-	-	-	-	-
25 to 99 acres	-	-	-	-	-	-
100 to 249 acres	-	-	-	-	-	-
250 to 499 acres	-	-	-	-	-	-
500 to 999 acres	-	-	-	-	-	-
1,000 acres or more	-	-	-	-	-	-
Sunflower seed, all ..... farms	2	2	28	29	3,000	4
acres	(D)	(D)	357	402	1,054,584	102
pounds	(D)	(D)	367,672	383,562	1,496,184,686	143,800
Irrigated ..... farms	1	2	-	-	7	-
acres	(D)	(D)	-	-	1,065	-
Farms by acres harvested:						
1 to 24 acres	2	2	22	25	39	2
25 to 99 acres	-	-	6	2	396	2
100 to 249 acres	-	-	-	2	1,042	-
250 to 499 acres	-	-	-	-	900	-
500 to 999 acres	-	-	-	-	450	-
1,000 acres or more	-	-	-	-	173	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Peanuts for nuts ....farms	148	-	-	-	327
acres	16,319	-	-	-	56,332
pounds	55,039,635	-	-	-	178,352,360
Irrigated ....farms	113	-	-	-	78
acres	11,821	-	-	-	8,265
Farms by acres harvested:					
1 to 24 acres	20	-	-	-	70
25 to 99 acres	65	-	-	-	73
100 to 249 acres	49	-	-	-	106
250 to 499 acres	11	-	-	-	59
500 to 999 acres	3	-	-	-	17
1,000 acres or more	-	-	-	-	2
Pineapples harvested ....farms	-	-	-	-	-
acres	-	-	-	-	-
tons	-	-	-	-	-
Irrigated ....farms	-	-	-	-	-
acres	-	-	-	-	-
Farms by acres harvested:					
1 to 24 acres	-	-	-	-	-
25 to 99 acres	-	-	-	-	-
100 to 249 acres	-	-	-	-	-
250 acres or more	-	-	-	-	-
Rice ....farms	3	-	-	-	-
acres	(D)	-	-	-	-
cwt	(D)	-	-	-	-
Irrigated ....farms	3	-	-	-	-
acres	(D)	-	-	-	-
Farms by acres harvested:					
1 to 24 acres	-	-	-	-	-
25 to 99 acres	3	-	-	-	-
100 to 249 acres	-	-	-	-	-
250 to 499 acres	-	-	-	-	-
500 to 999 acres	-	-	-	-	-
1,000 acres or more	-	-	-	-	-
Sorghum for grain ....farms	966	3	117	-	91
acres	219,883	87	3,155	-	5,996
bushels	11,682,402	8,189	177,639	-	210,854
Irrigated ....farms	137	3	-	-	3
acres	21,043	87	-	-	(D)
Farms by acres harvested:					
1 to 24 acres	82	1	80	-	48
25 to 99 acres	298	2	33	-	24
100 to 249 acres	302	-	3	-	12
250 to 499 acres	182	-	1	-	7
500 to 999 acres	74	-	-	-	-
1,000 acres or more	28	-	-	-	-
Soybeans for beans ....farms	813	2	6,374	-	1,920
acres	180,878	(D)	431,053	-	442,461
bushels	4,559,245	(D)	17,386,829	-	7,833,696
Irrigated ....farms	89	2	11	-	106
acres	12,497	(D)	(D)	-	8,943
Farms by acres harvested:					
1 to 24 acres	77	1	2,674	-	344
25 to 99 acres	298	1	2,583	-	597
100 to 249 acres	221	-	786	-	458
250 to 499 acres	112	-	234	-	258
500 to 999 acres	79	-	82	-	178
1,000 acres or more	26	-	15	-	85
Sugarbeets for sugar ....farms	-	73	-	-	-
acres	-	11,232	-	-	-
tons	-	346,233	-	-	-
Irrigated ....farms	-	73	-	-	-
acres	-	11,232	-	-	-
Farms by acres harvested:					
1 to 24 acres	-	4	-	-	-
25 to 99 acres	-	34	-	-	-
100 to 249 acres	-	26	-	-	-
250 to 499 acres	-	7	-	-	-
500 to 999 acres	-	-	-	-	-
1,000 acres or more	-	2	-	-	-
Sugarcane for sugar ....farms	-	-	-	-	-
acres	-	-	-	-	-
tons	-	-	-	-	-
Irrigated ....farms	-	-	-	-	-
acres	-	-	-	-	-
Farms by acres harvested:					
1 to 24 acres	-	-	-	-	-
25 to 99 acres	-	-	-	-	-
100 to 249 acres	-	-	-	-	-
250 to 499 acres	-	-	-	-	-
500 to 999 acres	-	-	-	-	-
1,000 acres or more	-	-	-	-	-
Sunflower seed, all ....farms	20	13	32	-	39
acres	3,626	611	660	-	764
pounds	6,574,767	427,968	405,407	-	249,094
Irrigated ....farms	4	11	1	-	-
acres	1,956	483	(D)	-	-
Farms by acres harvested:					
1 to 24 acres	3	8	26	-	30
25 to 99 acres	8	2	5	-	7
100 to 249 acres	5	2	-	-	2
250 to 499 acres	3	1	1	-	-
500 to 999 acres	-	-	-	-	-
1,000 acres or more	1	-	-	-	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Peanuts for nuts ..... farms	-	19	784	-	-
acres	-	23	192,291	-	-
pounds	-	14,610	699,723,146	-	-
Irrigated ..... farms	-	1	666	-	-
acres	-	(D)	156,066	-	-
Farms by acres harvested:					
1 to 24 acres	-	19	49	-	-
25 to 99 acres	-	-	198	-	-
100 to 249 acres	-	-	305	-	-
250 to 499 acres	-	-	140	-	-
500 to 999 acres	-	-	71	-	-
1,000 acres or more	-	-	21	-	-
Pineapples harvested ..... farms	-	-	-	-	-
acres	-	-	-	-	-
tons	-	-	-	-	-
Irrigated ..... farms	-	-	-	-	-
acres	-	-	-	-	-
Farms by acres harvested:					
1 to 24 acres	-	-	-	-	-
25 to 99 acres	-	-	-	-	-
100 to 249 acres	-	-	-	-	-
250 acres or more	-	-	-	-	-
Rice ..... farms	-	6	385	-	-
acres	-	2,317	145,006	-	-
cwt	-	240,029	9,472,871	-	-
Irrigated ..... farms	-	6	385	-	-
acres	-	2,317	145,006	-	-
Farms by acres harvested:					
1 to 24 acres	-	-	4	-	-
25 to 99 acres	-	-	49	-	-
100 to 249 acres	-	2	124	-	-
250 to 499 acres	-	3	118	-	-
500 to 999 acres	-	1	68	-	-
1,000 acres or more	-	-	22	-	-
Sorghum for grain ..... farms	394	72	5,975	2	1
acres	129,413	10,107	2,427,580	(D)	(D)
bushels	7,732,205	831,540	153,531,033	(D)	(D)
Irrigated ..... farms	2	2	1,938	2	-
acres	(D)	(D)	480,510	(D)	-
Farms by acres harvested:					
1 to 24 acres	29	14	313	2	-
25 to 99 acres	100	25	1,327	-	1
100 to 249 acres	122	19	1,614	-	-
250 to 499 acres	85	12	1,239	-	-
500 to 999 acres	30	2	935	-	-
1,000 acres or more	28	-	547	-	-
Soybeans for beans ..... farms	9,862	2,967	371	-	21
acres	3,222,872	976,011	93,453	-	2,011
bushels	130,377,538	18,552,793	3,439,765	-	75,318
Irrigated ..... farms	348	37	86	-	-
acres	52,661	4,077	16,269	-	-
Farms by acres harvested:					
1 to 24 acres	363	403	31	-	7
25 to 99 acres	2,188	827	96	-	10
100 to 249 acres	3,131	614	123	-	3
250 to 499 acres	2,377	481	78	-	-
500 to 999 acres	1,284	400	27	-	-
1,000 acres or more	519	242	16	-	1
Sugarbeets for sugar ..... farms	-	-	-	-	-
acres	-	-	-	-	-
tons	-	-	-	-	-
Irrigated ..... farms	-	-	-	-	-
acres	-	-	-	-	-
Farms by acres harvested:					
1 to 24 acres	-	-	-	-	-
25 to 99 acres	-	-	-	-	-
100 to 249 acres	-	-	-	-	-
250 to 499 acres	-	-	-	-	-
500 to 999 acres	-	-	-	-	-
1,000 acres or more	-	-	-	-	-
Sugarcane for sugar ..... farms	-	-	114	-	-
acres	-	-	(D)	-	-
tons	-	-	(D)	-	-
Irrigated ..... farms	-	-	104	-	-
acres	-	-	(D)	-	-
Farms by acres harvested:					
1 to 24 acres	-	-	3	-	-
25 to 99 acres	-	-	20	-	-
100 to 249 acres	-	-	42	-	-
250 to 499 acres	-	-	21	-	-
500 to 999 acres	-	-	19	-	-
1,000 acres or more	-	-	9	-	-
Sunflower seed, all ..... farms	910	8	118	12	2
acres	400,181	23	35,309	5,332	(D)
pounds	613,668,505	20,500	45,693,688	2,460,696	(D)
Irrigated ..... farms	10	-	63	4	-
acres	831	-	12,806	75	-
Farms by acres harvested:					
1 to 24 acres	18	8	10	2	2
25 to 99 acres	155	-	16	2	-
100 to 249 acres	301	-	46	2	-
250 to 499 acres	202	-	21	3	-
500 to 999 acres	145	-	20	2	-
1,000 acres or more	89	-	5	1	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
Peanuts for nuts ....farms	180	-	-	-	-
acres	21,631	-	-	-	-
pounds	52,797,144	-	-	-	-
Irrigated ....farms	17	-	-	-	-
acres	1,193	-	-	-	-
Farms by acres harvested:					
1 to 24 acres	25	-	-	-	-
25 to 99 acres	61	-	-	-	-
100 to 249 acres	72	-	-	-	-
250 to 499 acres	20	-	-	-	-
500 to 999 acres	2	-	-	-	-
1,000 acres or more	-	-	-	-	-
Pineapples harvested ....farms	-	-	-	-	-
acres	-	-	-	-	-
tons	-	-	-	-	-
Irrigated ....farms	-	-	-	-	-
acres	-	-	-	-	-
Farms by acres harvested:					
1 to 24 acres	-	-	-	-	-
25 to 99 acres	-	-	-	-	-
100 to 249 acres	-	-	-	-	-
250 acres or more	-	-	-	-	-
Rice ....farms	-	-	-	-	-
acres	-	-	-	-	-
cwt	-	-	-	-	-
Irrigated ....farms	-	-	-	-	-
acres	-	-	-	-	-
Farms by acres harvested:					
1 to 24 acres	-	-	-	-	-
25 to 99 acres	-	-	-	-	-
100 to 249 acres	-	-	-	-	-
250 to 499 acres	-	-	-	-	-
500 to 999 acres	-	-	-	-	-
1,000 acres or more	-	-	-	-	-
Sorghum for grain ....farms	43	-	3	11	-
acres	1,497	-	(D)	242	-
bushels	63,521	-	(D)	12,774	-
Irrigated ....farms	1	-	-	-	-
acres	(D)	-	-	-	-
Farms by acres harvested:					
1 to 24 acres	27	-	2	9	-
25 to 99 acres	15	-	1	2	-
100 to 249 acres	-	-	-	-	-
250 to 499 acres	1	-	-	-	-
500 to 999 acres	-	-	-	-	-
1,000 acres or more	-	-	-	-	-
Soybeans for beans ....farms	2,104	8	115	14,513	-
acres	490,396	725	13,717	1,363,124	-
bushels	12,624,547	27,781	480,186	54,701,222	-
Irrigated ....farms	90	5	-	227	-
acres	8,007	385	-	24,855	-
Farms by acres harvested:					
1 to 24 acres	409	1	26	3,799	-
25 to 99 acres	667	4	41	7,039	-
100 to 249 acres	444	3	35	2,508	-
250 to 499 acres	279	-	6	776	-
500 to 999 acres	211	-	7	307	-
1,000 acres or more	94	-	-	84	-
Sugarbeets for sugar ....farms	-	3	-	-	139
acres	-	2,076	-	-	30,782
tons	-	80,206	-	-	675,601
Irrigated ....farms	-	3	-	-	139
acres	-	2,076	-	-	30,782
Farms by acres harvested:					
1 to 24 acres	-	-	-	-	7
25 to 99 acres	-	-	-	-	36
100 to 249 acres	-	-	-	-	55
250 to 499 acres	-	-	-	-	26
500 to 999 acres	-	3	-	-	14
1,000 acres or more	-	-	-	-	1
Sugarcane for sugar ....farms	-	-	-	-	-
acres	-	-	-	-	-
tons	-	-	-	-	-
Irrigated ....farms	-	-	-	-	-
acres	-	-	-	-	-
Farms by acres harvested:					
1 to 24 acres	-	-	-	-	-
25 to 99 acres	-	-	-	-	-
100 to 249 acres	-	-	-	-	-
250 to 499 acres	-	-	-	-	-
500 to 999 acres	-	-	-	-	-
1,000 acres or more	-	-	-	-	-
Sunflower seed, all ....farms	24	4	4	78	21
acres	137	(D)	8	3,722	4,668
pounds	79,944	61,858	1,500	4,449,621	3,292,514
Irrigated ....farms	2	2	-	-	9
acres	(D)	(D)	-	-	843
Farms by acres harvested:					
1 to 24 acres	23	3	4	33	2
25 to 99 acres	1	1	-	35	7
100 to 249 acres	-	-	-	9	5
250 to 499 acres	-	-	-	-	3
500 to 999 acres	-	-	-	1	4
1,000 acres or more	-	-	-	-	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Tobacco ..... farms	16,234	-	-	-	-	-
acres	359,846	-	-	-	-	-
pounds	778,301,825	-	-	-	-	-
Irrigated ..... farms	2,572	-	-	-	-	-
acres	71,578	-	-	-	-	-
Farms by acres harvested:						
0.1 to 0.9 acres	235	-	-	-	-	-
1.0 to 1.9 acres	1,493	-	-	-	-	-
2.0 to 2.9 acres	1,827	-	-	-	-	-
3.0 to 4.9 acres	2,772	-	-	-	-	-
5.0 to 9.9 acres	3,459	-	-	-	-	-
10.0 to 24.9 acres	3,129	-	-	-	-	-
25.0 to 49.9 acres	1,343	-	-	-	-	-
50.0 acres or more	1,976	-	-	-	-	-
50.0 to 74.9 acres	699	-	-	-	-	-
75.0 to 99.9 acres	406	-	-	-	-	-
100.0 acres or more	871	-	-	-	-	-
Wheat for grain, all ..... farms	160,810	520	-	201	2,112	1,191
acres	50,932,969	76,202	-	85,567	696,681	354,165
bushels	1,993,648,378	3,123,596	-	8,715,906	27,859,060	30,224,394
Irrigated ..... farms	15,213	13	-	201	199	1,000
acres	3,364,079	1,116	-	85,567	65,896	300,284
Farms by acres harvested:						
1 to 24 acres	26,703	109	-	5	108	79
25 to 99 acres	49,409	202	-	26	496	327
100 to 249 acres	34,703	112	-	65	554	383
250 to 499 acres	21,167	65	-	50	520	231
500 to 999 acres	15,789	26	-	32	315	108
1,000 acres or more	13,039	6	-	23	119	63
Vegetables harvested for sale (see text) ..... farms	69,172	1,603	96	2,565	804	3,868
acres	4,682,588	18,868	1,184	137,574	14,146	1,169,786
Farms by acres harvested:						
0.1 to 4.9 acres	41,178	1,106	67	2,028	564	1,629
5.0 to 24.9 acres	14,059	383	18	426	172	702
25.0 to 99.9 acres	6,666	80	8	25	40	349
100.0 to 249.9 acres	3,451	27	3	19	17	341
250.0 to 499.9 acres	1,791	5	-	23	5	288
500.0 acres or more	2,027	2	-	44	6	559
500.0 to 749.9 acres	720	-	-	6	4	153
750.0 to 999.9 acres	360	-	-	7	1	100
1,000.0 acres or more	947	2	-	31	1	306
Land in orchards ..... farms	115,935	1,897	10	1,527	666	39,484
acres	5,039,476	22,122	18	37,200	13,932	2,826,291
Irrigated ..... farms	61,189	238	2	1,259	147	32,908
acres	3,981,316	1,926	(D)	37,022	1,432	2,728,176
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres	52,775	945	9	1,151	346	12,951
5.0 to 24.9 acres	37,043	729	1	234	225	13,464
25.0 to 99.9 acres	17,119	197	-	85	62	7,881
100.0 to 249.9 acres	5,434	22	-	31	26	2,923
250.0 to 499.9 acres	2,026	4	-	9	4	1,303
500.0 acres or more	1,538	-	-	17	3	962
500.0 to 749.9 acres	665	-	-	3	2	415
750.0 to 999.9 acres	265	-	-	5	-	178
1,000.0 acres or more	608	-	-	9	1	369

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Tobacco	farms	-	76	-	23	224	-
	acres	-	3,128	-	1,040	17,989	-
	pounds	-	5,293,517	-	3,061,788	39,810,076	-
Irrigated	farms	-	26	-	15	141	-
	acres	-	1,600	-	714	9,006	-
Farms by acres harvested:							
0.1 to 0.9 acres		-	-	-	-	3	-
1.0 to 1.9 acres		-	1	-	1	2	-
2.0 to 2.9 acres		-	6	-	-	2	-
3.0 to 4.9 acres		-	16	-	-	2	-
5.0 to 9.9 acres		-	7	-	1	7	-
10.0 to 24.9 acres		-	16	-	4	34	-
25.0 to 49.9 acres		-	16	-	13	50	-
50.0 acres or more		-	14	-	4	124	-
50.0 to 74.9 acres		-	2	-	-	45	-
75.0 to 99.9 acres		-	5	-	1	25	-
100.0 acres or more		-	7	-	3	54	-
Wheat for grain, all	farms	3,695	3	340	79	1,332	-
	acres	2,369,096	55	54,546	9,157	228,959	-
	bushels	88,427,841	2,300	3,635,755	497,844	9,206,001	-
Irrigated	farms	1,063	1	88	3	268	-
	acres	164,702	(D)	10,541	(D)	32,440	-
Farms by acres harvested:							
1 to 24 acres		200	3	60	10	175	-
25 to 99 acres		739	-	121	34	461	-
100 to 249 acres		754	-	89	26	437	-
250 to 499 acres		595	-	48	7	163	-
500 to 999 acres		642	-	17	2	73	-
1,000 acres or more		765	-	5	-	23	-
Vegetables harvested for sale (see text)	farms	708	735	233	1,493	1,445	901
	acres	97,251	10,514	40,088	265,835	128,720	6,845
Farms by acres harvested:							
0.1 to 4.9 acres		354	477	76	743	619	731
5.0 to 24.9 acres		75	184	35	324	367	130
25.0 to 99.9 acres		85	54	47	134	208	34
100.0 to 249.9 acres		86	12	35	92	122	4
250.0 to 499.9 acres		53	4	21	77	71	-
500.0 acres or more		55	4	19	123	58	2
500.0 to 749.9 acres		23	4	9	45	21	-
750.0 to 999.9 acres		11	-	2	16	10	-
1,000.0 acres or more		21	-	8	62	27	2
Land in orchards	farms	877	338	32	8,993	3,745	4,443
	acres	6,986	3,672	524	677,403	129,921	36,652
Irrigated	farms	877	55	13	5,789	897	1,134
	acres	6,986	391	(D)	597,775	57,565	9,830
Farms by bearing and nonbearing acres:							
0.1 to 4.9 acres		568	194	26	3,156	1,470	3,316
5.0 to 24.9 acres		256	107	3	3,520	1,623	997
25.0 to 99.9 acres		45	32	1	1,482	468	101
100.0 to 249.9 acres		6	4	1	464	93	16
250.0 to 499.9 acres		2	1	1	166	39	4
500.0 acres or more		-	-	-	205	52	9
500.0 to 749.9 acres		-	-	-	64	22	5
750.0 to 999.9 acres		-	-	-	25	10	1
1,000.0 acres or more		-	-	-	116	20	3

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Tobacco	farms	-	13	267	-	-	8,113
	acres	-	827	2,174	-	-	87,641
	pounds	-	1,656,819	4,525,089	-	-	196,259,377
Irrigated	farms	-	1	9	-	-	999
	acres	-	(D)	219	-	-	13,999
Farms by acres harvested:							
0.1 to 0.9 acres		-	-	2	-	-	124
1.0 to 1.9 acres		-	-	36	-	-	833
2.0 to 2.9 acres		-	-	48	-	-	1,060
3.0 to 4.9 acres		-	-	70	-	-	1,628
5.0 to 9.9 acres		-	2	50	-	-	1,991
10.0 to 24.9 acres		-	4	39	-	-	1,687
25.0 to 49.9 acres		-	1	18	-	-	497
50.0 acres or more		-	6	4	-	-	293
50.0 to 74.9 acres		-	4	2	-	-	157
75.0 to 99.9 acres		-	-	2	-	-	64
100.0 acres or more		-	2	-	-	-	72
Wheat for grain, all	farms	2,850	9,416	5,058	577	22,630	1,414
	acres	1,191,086	891,567	362,571	29,512	8,527,780	239,267
	bushels	84,614,401	47,291,213	19,693,426	1,383,753	270,115,386	11,108,925
Irrigated	farms	1,908	94	89	9	2,123	2
	acres	529,424	8,119	6,960	(D)	517,995	(D)
Farms by acres harvested:							
1 to 24 acres		323	2,452	1,688	246	1,571	374
25 to 99 acres		824	4,120	2,341	251	5,779	424
100 to 249 acres		629	2,043	784	73	5,594	322
250 to 499 acres		396	620	171	6	4,193	171
500 to 999 acres		347	158	63	1	3,326	94
1,000 acres or more		331	23	11	-	2,167	29
Vegetables harvested for sale (see text)	farms	1,137	1,377	1,363	881	473	2,123
	acres	377,062	71,371	35,503	9,544	8,976	7,776
Farms by acres harvested:							
0.1 to 4.9 acres		237	725	908	641	350	1,674
5.0 to 24.9 acres		93	207	258	168	80	415
25.0 to 99.9 acres		222	261	97	50	20	32
100.0 to 249.9 acres		219	116	68	18	12	2
250.0 to 499.9 acres		155	53	22	3	7	-
500.0 acres or more		211	15	10	1	4	-
500.0 to 749.9 acres		82	8	4	1	1	-
750.0 to 999.9 acres		36	2	4	-	3	-
1,000.0 acres or more		93	5	2	-	-	-
Land in orchards	farms	485	871	546	743	432	1,040
	acres	7,682	6,032	3,843	2,724	7,162	3,861
Irrigated	farms	404	55	45	62	63	117
	acres	7,556	436	342	153	322	364
Farms by bearing and nonbearing acres:							
0.1 to 4.9 acres		350	632	383	616	250	848
5.0 to 24.9 acres		100	198	131	113	119	161
25.0 to 99.9 acres		27	33	26	13	52	30
100.0 to 249.9 acres		3	5	6	1	8	1
250.0 to 499.9 acres		4	3	-	-	2	-
500.0 acres or more		1	-	-	-	1	-
500.0 to 749.9 acres		-	-	-	-	-	-
750.0 to 999.9 acres		-	-	-	-	-	-
1,000.0 acres or more		1	-	-	-	1	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Tobacco ... farms	-	-	70	60	-	-
acres	-	-	423	1,324	-	-
pounds	-	-	842,793	2,328,982	-	-
Irrigated ... farms	-	-	44	18	-	-
acres	-	-	246	310	-	-
Farms by acres harvested:						
0.1 to 0.9 acres	-	-	5	1	-	-
1.0 to 1.9 acres	-	-	2	3	-	-
2.0 to 2.9 acres	-	-	7	1	-	-
3.0 to 4.9 acres	-	-	13	7	-	-
5.0 to 9.9 acres	-	-	32	13	-	-
10.0 to 24.9 acres	-	-	10	16	-	-
25.0 to 49.9 acres	-	-	1	11	-	-
50.0 acres or more	-	-	-	8	-	-
50.0 to 74.9 acres	-	-	-	6	-	-
75.0 to 99.9 acres	-	-	-	1	-	-
100.0 acres or more	-	-	-	1	-	-
Wheat for grain, all ... farms	815	13	1,497	7	6,263	6,727
acres	215,177	512	166,713	(D)	523,153	1,718,565
bushels	11,502,018	22,474	10,717,293	(D)	33,583,908	82,488,109
Irrigated ... farms	44	1	64	2	122	93
acres	7,652	(D)	4,631	(D)	6,420	8,731
Farms by acres harvested:						
1 to 24 acres	40	5	418	6	1,734	1,082
25 to 99 acres	192	7	580	1	2,949	2,393
100 to 249 acres	258	1	325	-	1,179	1,356
250 to 499 acres	218	-	125	-	313	825
500 to 999 acres	77	-	40	-	70	686
1,000 acres or more	30	-	9	-	18	385
Vegetables harvested for sale (see text) ... farms	759	968	931	1,001	2,878	2,720
acres	18,912	66,783	33,447	15,764	174,685	247,099
Farms by acres harvested:						
0.1 to 4.9 acres	514	579	504	629	1,464	806
5.0 to 24.9 acres	153	155	240	225	698	368
25.0 to 99.9 acres	54	63	101	112	377	918
100.0 to 249.9 acres	18	85	58	28	172	448
250.0 to 499.9 acres	17	61	17	5	90	109
500.0 acres or more	3	25	11	2	77	71
500.0 to 749.9 acres	-	12	5	1	41	32
750.0 to 999.9 acres	2	3	2	1	10	18
1,000.0 acres or more	1	10	4	-	26	21
Land in orchards ... farms	1,050	374	472	458	2,712	814
acres	18,201	3,015	4,542	5,416	115,284	4,979
Irrigated ... farms	149	37	90	86	530	128
acres	1,816	101	899	766	10,897	612
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres	445	260	334	279	1,030	590
5.0 to 24.9 acres	438	94	110	121	848	187
25.0 to 99.9 acres	131	16	17	49	533	33
100.0 to 249.9 acres	27	3	8	9	206	4
250.0 to 499.9 acres	7	1	3	-	66	-
500.0 acres or more	2	-	-	-	29	-
500.0 to 749.9 acres	1	-	-	-	21	-
750.0 to 999.9 acres	1	-	-	-	3	-
1,000.0 acres or more	-	-	-	-	5	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Tobacco ..... farms	-	111	-	-	-	-
acres	-	1,577	-	-	-	-
pounds	-	3,557,585	-	-	-	-
Irrigated ..... farms	-	4	-	-	-	-
acres	-	(D)	-	-	-	-
Farms by acres harvested:						
0.1 to 0.9 acres	-	-	-	-	-	-
1.0 to 1.9 acres	-	23	-	-	-	-
2.0 to 2.9 acres	-	21	-	-	-	-
3.0 to 4.9 acres	-	9	-	-	-	-
5.0 to 9.9 acres	-	13	-	-	-	-
10.0 to 24.9 acres	-	32	-	-	-	-
25.0 to 49.9 acres	-	6	-	-	-	-
50.0 acres or more	-	7	-	-	-	-
50.0 to 74.9 acres	-	3	-	-	-	-
75.0 to 99.9 acres	-	3	-	-	-	-
100.0 acres or more	-	1	-	-	-	-
Wheat for grain, all ..... farms	1,006	7,640	5,460	8,037	42	1
acres	331,767	881,227	5,059,916	1,964,302	12,826	(D)
bushels	18,175,120	36,293,751	147,533,888	81,748,076	1,279,268	(D)
Irrigated ..... farms	64	194	897	1,711	42	-
acres	10,698	40,715	161,697	256,119	12,826	-
Farms by acres harvested:						
1 to 24 acres	75	1,666	136	802	1	1
25 to 99 acres	217	3,337	627	2,733	26	-
100 to 249 acres	294	1,714	946	2,194	11	-
250 to 499 acres	203	661	818	1,213	1	-
500 to 999 acres	149	203	1,159	734	1	-
1,000 acres or more	68	59	1,774	361	2	-
Vegetables harvested for sale (see text) ..... farms	1,156	1,335	313	340	50	427
acres	31,088	32,837	11,899	23,646	11,217	3,408
Farms by acres harvested:						
0.1 to 4.9 acres	752	987	209	237	29	311
5.0 to 24.9 acres	274	232	53	48	9	86
25.0 to 99.9 acres	67	63	7	24	3	25
100.0 to 249.9 acres	32	34	27	6	-	5
250.0 to 499.9 acres	14	9	14	12	4	-
500.0 acres or more	17	10	3	13	5	-
500.0 to 749.9 acres	7	2	2	4	3	-
750.0 to 999.9 acres	3	2	-	-	-	-
1,000.0 acres or more	7	6	1	9	2	-
Land in orchards ..... farms	937	1,345	389	339	79	263
acres	15,948	22,447	1,491	1,500	460	2,285
Irrigated ..... farms	138	214	288	140	79	34
acres	2,362	2,428	1,173	456	460	185
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres	480	790	304	251	55	187
5.0 to 24.9 acres	329	394	81	77	19	59
25.0 to 99.9 acres	94	118	4	11	5	14
100.0 to 249.9 acres	22	29	-	-	-	2
250.0 to 499.9 acres	10	5	-	-	-	1
500.0 acres or more	2	9	-	-	-	-
500.0 to 749.9 acres	1	8	-	-	-	-
750.0 to 999.9 acres	-	-	-	-	-	-
1,000.0 acres or more	1	1	-	-	-	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Tobacco ... farms	-	-	-	2,622	-	475
acres	-	-	-	170,083	-	3,499
pounds	-	-	-	365,958,031	-	6,811,760
Irrigated ... farms	-	-	-	742	-	2
acres	-	-	-	31,212	-	(D)
Farms by acres harvested:						
0.1 to 0.9 acres	-	-	-	21	-	7
1.0 to 1.9 acres	-	-	-	71	-	72
2.0 to 2.9 acres	-	-	-	77	-	86
3.0 to 4.9 acres	-	-	-	135	-	101
5.0 to 9.9 acres	-	-	-	235	-	99
10.0 to 24.9 acres	-	-	-	503	-	74
25.0 to 49.9 acres	-	-	-	443	-	35
50.0 acres or more	-	-	-	1,137	-	1
50.0 to 74.9 acres	-	-	-	331	-	1
75.0 to 99.9 acres	-	-	-	223	-	-
100.0 acres or more	-	-	-	583	-	-
Wheat for grain, all ... farms	318	535	1,058	3,184	12,303	11,485
acres	27,991	302,958	84,955	511,713	8,428,462	732,106
bushels	1,426,039	8,236,505	4,544,032	19,917,842	293,464,779	42,997,358
Irrigated ... farms	21	204	-	171	99	-
acres	1,174	61,986	-	6,560	15,978	-
Farms by acres harvested:						
1 to 24 acres	82	48	338	723	209	4,130
25 to 99 acres	148	83	454	1,142	1,260	5,238
100 to 249 acres	61	119	199	694	2,541	1,693
250 to 499 acres	22	108	51	411	2,761	358
500 to 999 acres	5	98	14	169	2,855	55
1,000 acres or more	-	79	2	45	2,677	11
Vegetables harvested for sale (see text) ... farms	1,456	1,743	3,192	3,740	224	2,873
acres	54,062	36,933	160,596	118,780	94,543	47,014
Farms by acres harvested:						
0.1 to 4.9 acres	804	1,264	1,643	2,358	71	1,904
5.0 to 24.9 acres	344	341	862	909	22	692
25.0 to 99.9 acres	166	71	389	262	12	189
100.0 to 249.9 acres	90	32	177	97	22	52
250.0 to 499.9 acres	33	23	65	50	39	23
500.0 acres or more	19	12	56	64	58	13
500.0 to 749.9 acres	7	3	17	27	16	9
750.0 to 999.9 acres	8	3	8	14	15	-
1,000.0 acres or more	4	6	31	23	27	4
Land in orchards ... farms	718	2,783	2,686	1,551	41	1,462
acres	10,537	43,859	100,035	13,724	118	10,367
Irrigated ... farms	177	2,450	393	294	7	115
acres	6,407	40,082	11,038	2,196	(D)	639
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres	497	1,937	902	1,050	36	1,047
5.0 to 24.9 acres	155	630	891	374	4	314
25.0 to 99.9 acres	44	155	650	100	1	87
100.0 to 249.9 acres	13	26	174	26	-	13
250.0 to 499.9 acres	4	17	56	1	-	1
500.0 acres or more	5	18	13	-	-	-
500.0 to 749.9 acres	5	11	7	-	-	-
750.0 to 999.9 acres	-	3	4	-	-	-
1,000.0 acres or more	-	4	2	-	-	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Tobacco	farms	-	-	1,152	-	260
	acres	-	-	7,886	-	20,084
	pounds	-	-	18,811,546	-	44,660,005
Irrigated	farms	-	-	27	-	17
	acres	-	-	132	-	688
Farms by acres harvested:						
0.1 to 0.9 acres		-	-	4	-	-
1.0 to 1.9 acres		-	-	29	-	4
2.0 to 2.9 acres		-	-	107	-	7
3.0 to 4.9 acres		-	-	259	-	2
5.0 to 9.9 acres		-	-	540	-	13
10.0 to 24.9 acres		-	-	200	-	51
25.0 to 49.9 acres		-	-	13	-	45
50.0 acres or more		-	-	-	-	138
50.0 to 74.9 acres		-	-	-	-	36
75.0 to 99.9 acres		-	-	-	-	29
100.0 acres or more		-	-	-	-	73
Wheat for grain, all	farms	8,744	1,406	4,577	-	726
	acres	3,421,098	855,052	152,528	-	136,766
	bushels	89,968,524	43,969,219	8,949,116	-	3,986,026
Irrigated	farms	522	524	-	-	47
	acres	134,620	89,923	-	-	3,342
Farms by acres harvested:						
1 to 24 acres		481	175	2,957	-	133
25 to 99 acres		2,120	380	1,282	-	232
100 to 249 acres		2,465	245	284	-	185
250 to 499 acres		1,586	177	45	-	113
500 to 999 acres		1,171	143	7	-	47
1,000 acres or more		921	286	2	-	16
Vegetables harvested for sale (see text)	farms	834	1,519	4,338	203	1,520
	acres	18,013	149,665	55,655	2,418	28,275
Farms by acres harvested:						
0.1 to 4.9 acres		624	833	2,693	138	1,019
5.0 to 24.9 acres		148	213	1,218	43	362
25.0 to 99.9 acres		38	191	322	18	95
100.0 to 249.9 acres		6	133	76	2	28
250.0 to 499.9 acres		10	77	21	2	8
500.0 acres or more		8	72	8	-	8
500.0 to 749.9 acres		3	32	6	-	1
750.0 to 999.9 acres		1	10	-	-	2
1,000.0 acres or more		4	30	2	-	5
Land in orchards	farms	4,036	4,004	2,686	100	1,125
	acres	143,892	99,614	46,560	580	22,185
Irrigated	farms	352	1,660	286	34	176
	acres	3,803	49,575	3,897	178	10,240
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres		884	2,060	1,707	69	676
5.0 to 24.9 acres		1,651	1,100	660	25	357
25.0 to 99.9 acres		1,160	617	205	6	70
100.0 to 249.9 acres		275	162	88	-	9
250.0 to 499.9 acres		50	53	17	-	3
500.0 acres or more		16	12	9	-	10
500.0 to 749.9 acres		12	6	5	-	3
750.0 to 999.9 acres		1	-	2	-	1
1,000.0 acres or more		3	6	2	-	6

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Tobacco ....farms	-	1,610	-	-	-
acres	-	20,109	-	-	-
pounds	-	38,652,986	-	-	-
Irrigated ....farms	-	233	-	-	-
acres	-	3,217	-	-	-
Farms by acres harvested:					
0.1 to 0.9 acres	-	28	-	-	-
1.0 to 1.9 acres	-	225	-	-	-
2.0 to 2.9 acres	-	241	-	-	-
3.0 to 4.9 acres	-	353	-	-	-
5.0 to 9.9 acres	-	285	-	-	-
10.0 to 24.9 acres	-	273	-	-	-
25.0 to 49.9 acres	-	107	-	-	-
50.0 acres or more	-	98	-	-	-
50.0 to 74.9 acres	-	60	-	-	-
75.0 to 99.9 acres	-	11	-	-	-
100.0 acres or more	-	27	-	-	-
Wheat for grain, all ....farms	7,163	1,358	8,565	602	9
acres	3,341,778	254,944	3,844,241	137,404	379
bushels	141,003,068	10,445,442	134,643,897	5,771,071	13,722
Irrigated ....farms	75	12	2,021	442	-
acres	8,394	875	595,275	41,319	-
Farms by acres harvested:					
1 to 24 acres	314	204	586	172	4
25 to 99 acres	1,822	449	1,896	206	3
100 to 249 acres	2,071	360	2,151	104	2
250 to 499 acres	1,316	222	1,597	63	-
500 to 999 acres	825	97	1,284	23	-
1,000 acres or more	815	26	1,051	34	-
Vegetables harvested for sale (see text) ....farms	141	1,543	2,353	583	494
acres	1,766	34,013	128,108	5,920	2,927
Farms by acres harvested:					
0.1 to 4.9 acres	91	1,113	1,278	437	388
5.0 to 24.9 acres	34	335	550	90	81
25.0 to 99.9 acres	15	64	252	41	22
100.0 to 249.9 acres	-	18	133	12	3
250.0 to 499.9 acres	-	6	84	3	-
500.0 acres or more	1	7	56	-	-
500.0 to 749.9 acres	1	2	24	-	-
750.0 to 999.9 acres	-	-	11	-	-
1,000.0 acres or more	-	5	21	-	-
Land in orchards ....farms	113	786	8,848	805	310
acres	550	2,866	215,794	8,058	3,547
Irrigated ....farms	36	102	2,788	607	36
acres	210	341	69,461	7,791	344
Farms by bearing and nonbearing acres:					
0.1 to 4.9 acres	97	633	3,968	621	187
5.0 to 24.9 acres	13	145	3,362	143	89
25.0 to 99.9 acres	2	6	1,118	26	29
100.0 to 249.9 acres	1	2	272	9	5
250.0 to 499.9 acres	-	-	76	4	-
500.0 acres or more	-	-	52	2	-
500.0 to 749.9 acres	-	-	24	1	-
750.0 to 999.9 acres	-	-	7	1	-
1,000.0 acres or more	-	-	21	-	-

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Table 25. **Selected Crops Harvested: 2007** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item		Virginia	Washington	West Virginia	Wisconsin	Wyoming
Tobacco	farms	895	-	68	195	-
	acres	20,881	-	248	934	-
	pounds	43,338,678	-	478,054	2,254,739	-
Irrigated	farms	291	-	3	-	-
	acres	10,006	-	(D)	-	-
Farms by acres harvested:						
0.1 to 0.9 acres		23	-	4	13	-
1.0 to 1.9 acres		129	-	20	42	-
2.0 to 2.9 acres		111	-	20	33	-
3.0 to 4.9 acres		119	-	6	52	-
5.0 to 9.9 acres		123	-	13	35	-
10.0 to 24.9 acres		166	-	5	15	-
25.0 to 49.9 acres		82	-	-	5	-
50.0 acres or more		142	-	-	-	-
50.0 to 74.9 acres		52	-	-	-	-
75.0 to 99.9 acres		42	-	-	-	-
100.0 acres or more		48	-	-	-	-
Wheat for grain, all	farms	1,348	2,612	122	5,422	347
	acres	200,342	2,096,350	5,960	280,464	127,051
	bushels	12,345,217	120,617,390	336,553	18,789,893	2,978,072
Irrigated	farms	44	614	-	22	100
	acres	1,500	155,021	-	1,501	10,538
Farms by acres harvested:						
1 to 24 acres		343	121	62	2,211	41
25 to 99 acres		488	360	45	2,514	80
100 to 249 acres		268	452	9	570	87
250 to 499 acres		153	406	6	101	58
500 to 999 acres		75	527	-	23	48
1,000 acres or more		21	746	-	3	33
Vegetables harvested for sale (see text)	farms	1,616	2,026	726	3,319	46
	acres	27,887	343,787	2,210	297,238	952
Farms by acres harvested:						
0.1 to 4.9 acres		1,143	1,205	632	1,554	36
5.0 to 24.9 acres		309	218	80	625	5
25.0 to 99.9 acres		102	173	12	670	2
100.0 to 249.9 acres		38	160	2	263	1
250.0 to 499.9 acres		16	102	-	88	2
500.0 acres or more		8	168	-	119	-
500.0 to 749.9 acres		3	62	-	37	-
750.0 to 999.9 acres		2	32	-	21	-
1,000.0 acres or more		3	74	-	61	-
Land in orchards	farms	1,277	5,470	613	1,135	25
	acres	19,713	299,174	6,909	9,730	73
Irrigated	farms	218	5,281	40	138	21
	acres	2,634	298,380	96	1,055	67
Farms by bearing and nonbearing acres:						
0.1 to 4.9 acres		833	2,085	481	766	23
5.0 to 24.9 acres		325	1,680	99	287	1
25.0 to 99.9 acres		88	1,103	20	71	1
100.0 to 249.9 acres		16	406	7	10	-
250.0 to 499.9 acres		9	96	4	-	-
500.0 acres or more		6	100	2	1	-
500.0 to 749.9 acres		3	45	1	-	-
750.0 to 999.9 acres		-	22	1	-	-
1,000.0 acres or more		3	33	-	1	-

Table 26. **Field Crops: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
AUSTRIAN WINTER PEAS (CWT)										
United States Total										
United States	73	10,725	133,421	14	807	133	14,676	207,915	16	734
States										
Idaho	18	4,806	61,837	1	(D)	60	7,885	137,349	2	(D)
Minnesota	2	(D)	(D)	-	-	-	-	-	-	-
Montana	27	3,631	33,101	3	141	29	3,392	24,605	3	360
Nebraska	1	(D)	(D)	-	-	-	-	-	-	-
North Dakota	2	(D)	(D)	-	-	2	(D)	(D)	-	-
Oregon	15	1,031	17,887	6	212	32	(D)	22,409	8	272
Texas	5	532	8,600	3	(D)	-	-	-	-	-
Utah	1	(D)	(D)	1	(D)	-	-	-	-	-
Washington	2	(D)	(D)	-	-	10	1,607	(D)	3	(D)
BARLEY FOR GRAIN (BUSHELS)										
United States Total										
United States	19,848	3,521,957	207,089,232	4,241	741,475	24,747	4,015,654	214,800,035	4,979	890,241
States										
Alabama	-	-	-	-	-	12	665	(D)	-	-
Alaska	22	4,322	167,170	1	(D)	23	3,672	143,679	1	(D)
Arizona	113	31,129	3,396,006	113	31,129	164	39,199	4,269,681	164	39,199
Arkansas	-	-	-	-	-	1	(D)	(D)	-	-
California	161	44,125	2,872,476	111	23,999	343	74,721	5,266,774	227	46,381
Colorado	331	59,667	7,179,416	292	54,440	416	82,147	8,704,401	385	78,013
Delaware	137	20,106	1,588,749	28	2,732	162	22,169	1,760,481	22	1,766
Georgia	13	537	30,326	-	-	13	(D)	19,437	-	-
Idaho	2,146	547,928	42,464,856	1,581	352,080	2,447	634,476	47,865,297	1,816	388,930
Illinois	46	738	43,029	-	-	59	1,852	111,960	-	-
Indiana	37	493	21,911	1	(D)	75	1,255	59,370	-	-
Iowa	86	2,815	139,145	-	-	152	4,166	241,818	-	-
Kansas	157	13,109	692,044	15	1,187	81	4,193	154,233	1	(D)
Kentucky	52	2,626	98,830	-	-	87	6,807	436,696	-	-
Maine	94	16,975	1,076,922	-	-	112	25,856	1,825,297	1	(D)
Maryland	683	34,288	2,733,463	43	1,779	718	36,241	2,907,723	8	1,189
Massachusetts	-	-	-	-	-	1	(D)	(D)	-	-
Michigan	376	12,953	642,216	2	(D)	400	11,620	576,461	7	63
Minnesota	1,126	108,268	5,800,659	31	1,784	1,462	139,739	5,661,303	19	1,745
Missouri	56	1,531	59,238	-	-	170	3,847	174,512	-	-
Montana	2,347	718,551	29,670,161	906	175,420	2,745	902,163	36,076,190	1,011	214,377
Nebraska	35	1,777	81,963	10	526	64	2,588	84,194	12	447
Nevada	9	1,062	93,177	9	1,062	20	2,375	207,188	20	2,375
New Hampshire	1	(D)	(D)	-	-	-	-	-	-	-
New Jersey	46	1,947	136,415	2	(D)	81	2,358	167,426	1	(D)
New Mexico	10	824	80,299	9	(D)	9	357	40,639	8	(D)
New York	327	10,793	530,407	-	-	425	12,569	589,695	-	-
North Carolina	236	13,728	667,667	14	88	324	15,664	934,962	6	82
North Dakota	4,855	1,384,689	75,444,593	64	10,848	5,218	1,303,723	56,810,477	22	3,529
Ohio	210	2,994	159,965	-	-	489	5,745	312,127	-	-
Oklahoma	42	5,038	207,751	1	(D)	58	2,343	98,417	4	64
Oregon	339	53,216	2,798,280	147	15,057	397	63,116	3,408,683	171	21,311
Pennsylvania	2,104	41,986	3,053,989	4	18	3,033	54,292	3,774,180	11	43
South Carolina	29	747	44,457	4	(D)	36	1,790	87,645	1	(D)
South Dakota	205	28,761	1,218,568	5	144	227	35,639	1,123,574	2	(D)
Tennessee	18	997	45,265	1	(D)	12	1,221	69,530	1	(D)
Texas	28	2,090	141,999	13	936	27	2,002	116,013	6	376
Utah	487	22,124	1,833,678	461	19,122	706	33,330	2,172,458	608	25,630
Vermont	4	(D)	(D)	-	-	11	(D)	(D)	-	-
Virginia	530	27,833	2,008,416	12	695	781	43,955	3,178,359	12	701
Washington	843	223,598	13,928,713	67	3,641	1,254	337,483	18,934,918	95	5,442
West Virginia	61	1,328	92,942	-	-	79	1,430	92,232	-	-
Wisconsin	1,104	23,645	1,351,838	3	(D)	1,489	35,226	1,735,478	2	(D)
Wyoming	342	52,457	4,485,775	291	43,513	364	62,834	4,568,059	335	57,734
BUCKWHEAT (BUSHELS)										
United States Total										
United States	337	24,760	711,173	34	5,181	720	42,641	960,589	48	6,271
States										
Connecticut	-	-	-	-	-	2	(D)	(D)	-	-
Georgia	1	(D)	(D)	-	-	-	-	-	-	-
Idaho	1	(D)	(D)	-	-	-	-	-	-	-
Illinois	4	(D)	(D)	-	-	4	68	980	-	-
Indiana	-	-	-	-	-	3	76	1,193	-	-
Iowa	-	-	-	-	-	5	313	4,513	-	-
Maine	1	(D)	(D)	1	(D)	3	(D)	(D)	-	-
Maryland	4	12	130	-	-	5	73	2,620	-	-
Massachusetts	-	-	-	-	-	2	(D)	(D)	-	-
Michigan	31	637	12,956	2	(D)	31	421	5,573	2	(D)
Minnesota	15	2,262	40,702	-	-	62	4,749	92,990	2	(D)
Missouri	1	(D)	(D)	-	-	-	-	-	-	-
Montana	1	(D)	(D)	1	(D)	1	(D)	(D)	-	-
New Hampshire	-	-	-	-	-	3	8	(D)	-	-
New Jersey	-	-	-	-	-	1	(D)	(D)	-	-

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
BUCKWHEAT (BUSHELS) - Con.										
States - Con.										
New Mexico	-	-	-	-	-	1	(D)	(D)	1	(D)
New York	83	2,142	47,811	-	-	164	2,950	53,381	11	59
North Carolina	4	6	130	-	-	-	-	-	-	-
North Dakota	61	11,011	213,795	1	(D)	120	22,599	438,020	-	-
Ohio	7	221	4,750	-	-	22	1,615	30,028	-	-
Oregon	10	166	3,753	7	(D)	6	209	6,205	3	129
Pennsylvania	71	1,779	41,275	-	-	205	2,473	42,346	2	(D)
Rhode Island	1	(D)	(D)	-	-	-	-	-	-	-
South Dakota	6	708	20,492	-	-	14	485	13,696	-	-
Vermont	-	-	-	-	-	3	6	150	-	-
Washington	24	5,245	308,729	22	4,969	30	6,016	253,751	27	5,911
West Virginia	7	204	7,630	-	-	9	41	538	-	-
Wisconsin	4	146	4,746	-	-	24	407	9,338	-	-
CANOLA (POUNDS)										
United States Total										
United States	3,123	1,149,682	1,418,549,887	104	13,535	3,831	1,208,251	1,446,267,120	79	8,925
States										
Alabama	-	-	-	-	-	2	(D)	(D)	-	-
Alaska	1	(D)	(D)	-	-	-	-	-	-	-
Arkansas	3	(D)	(D)	1	(D)	1	(D)	(D)	1	(D)
California	4	16	24,200	4	16	5	82	54,200	5	82
Colorado	17	1,757	2,342,920	15	1,512	7	414	599,616	6	387
Georgia	-	-	-	-	-	30	189	159,933	2	(D)
Idaho	87	18,391	23,247,016	8	(D)	90	19,909	29,637,407	6	1,250
Illinois	2	(D)	(D)	-	-	3	320	416,000	-	-
Indiana	1	(D)	(D)	-	-	2	(D)	(D)	-	-
Iowa	2	(D)	(D)	-	-	-	-	-	-	-
Kansas	33	3,362	3,401,048	2	(D)	4	25	7,900	-	-
Kentucky	-	-	-	-	-	3	1,994	3,180,260	-	-
Maine	14	1,364	(D)	-	-	20	1,535	2,493,068	-	-
Michigan	5	152	169,300	-	-	12	581	593,388	-	-
Minnesota	144	29,125	36,701,922	5	305	285	55,429	49,482,235	-	-
Montana	32	7,872	9,246,013	15	2,339	147	33,723	30,575,298	35	4,092
Nebraska	4	95	186,250	1	(D)	-	-	-	-	-
New York	2	(D)	(D)	-	-	-	-	-	-	-
North Carolina	1	(D)	(D)	-	-	-	-	-	-	-
North Dakota	2,618	1,067,764	1,310,076,253	3	336	3,145	1,082,894	1,315,271,274	6	848
Ohio	-	-	-	-	-	1	(D)	(D)	-	-
Oklahoma	37	2,287	2,598,552	3	125	-	-	-	-	-
Oregon	25	3,836	7,288,829	19	2,956	9	2,860	2,406,353	3	(D)
Pennsylvania	6	108	103,592	-	-	1	(D)	(D)	-	-
South Dakota	1	(D)	(D)	-	-	6	242	99,774	-	-
Texas	7	486	438,400	4	82	-	-	-	-	-
Utah	2	(D)	(D)	1	(D)	1	(D)	(D)	1	(D)
Vermont	2	(D)	(D)	-	-	-	-	-	-	-
Virginia	3	(D)	41,250	-	-	1	(D)	(D)	-	-
Washington	56	10,449	17,679,136	19	3,537	54	7,776	10,909,964	14	1,504
Wisconsin	11	1,996	2,207,200	1	(D)	2	(D)	(D)	-	-
Wyoming	3	(D)	(D)	3	(D)	-	-	-	-	-
CORN FOR GRAIN (BUSHELS)										
United States Total										
United States	347,760	86,248,542	12,738,519,330	38,911	13,156,769	348,590	68,230,523	8,613,061,814	34,278	9,709,872
States										
Alabama	1,872	276,661	21,008,771	190	24,866	2,301	176,122	15,241,418	129	11,990
Arizona	58	22,654	4,083,974	56	21,939	92	27,838	5,127,857	92	27,838
Arkansas	1,395	584,629	99,778,632	1,090	461,094	800	238,554	31,747,203	512	145,351
California	606	189,965	34,602,626	606	189,965	592	168,354	28,395,621	592	168,192
Colorado	2,585	1,054,844	140,523,805	1,989	635,630	1,991	708,197	102,653,083	1,845	634,015
Connecticut	61	3,563	424,350	5	(D)	40	3,010	361,647	3	(D)
Delaware	843	185,407	18,346,034	265	52,680	769	161,421	13,368,438	237	43,747
Florida	513	33,915	2,991,208	111	7,633	519	26,790	2,456,508	74	9,404
Georgia	3,114	449,007	54,137,330	1,399	210,608	3,070	252,176	26,720,244	902	99,179
Hawaii	14	3,115	124,878	14	3,115	12	4,383	203,391	12	4,383
Idaho	691	104,570	17,752,526	689	(D)	462	42,209	6,561,733	460	(D)
Illinois	38,260	13,096,231	2,248,664,947	1,107	330,642	41,032	10,742,787	1,418,566,127	913	211,167
Indiana	24,400	6,362,576	959,947,232	1,024	268,435	24,156	5,123,291	606,156,476	767	180,305
Iowa	50,095	13,842,282	2,292,163,101	566	126,232	52,806	11,761,392	1,851,276,224	416	86,261
Kansas	11,236	3,680,278	500,560,815	3,591	1,509,702	9,552	2,494,179	289,681,829	3,328	1,346,807
Kentucky	7,060	1,313,320	166,687,678	159	22,483	7,446	1,043,990	108,721,040	66	8,195
Louisiana	1,331	722,387	114,674,506	673	300,979	1,198	461,782	54,944,774	409	130,968
Maine	26	3,272	419,517	-	-	27	2,660	295,847	2	(D)
Maryland	2,803	460,137	45,548,271	273	38,964	2,958	406,841	30,041,896	209	31,940
Massachusetts	50	2,432	372,853	2	(D)	49	2,573	346,592	1	(D)
Michigan	13,768	2,350,668	288,066,336	978	241,060	13,613	2,007,021	234,709,542	857	180,261
Minnesota	30,976	7,801,001	1,138,660,229	1,265	250,683	31,782	6,556,082	989,887,877	973	178,457
Mississippi	2,091	873,618	127,841,765	624	346,506	2,099	496,219	58,487,848	307	123,232
Missouri	15,375	3,256,195	439,417,160	1,233	388,210	15,655	2,677,491	268,224,535	970	246,315
Montana	297	38,002	5,147,840	263	32,517	146	11,642	1,584,039	146	11,642
Nebraska	22,812	9,192,656	1,426,459,812	14,107	5,839,067	23,889	7,344,715	908,360,246	14,448	4,505,579

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
CORN FOR GRAIN (BUSHELS) - Con.										
States - Con.										
Nevada	10	473	73,176	10	473	6	241	34,447	6	241
New Hampshire	13	226	27,547	3	3	21	880	113,240	1	(D)
New Jersey	731	81,556	10,137,862	81	8,094	691	66,128	4,031,251	79	4,465
New Mexico	122	53,851	9,626,854	116	49,327	130	48,096	8,508,723	117	47,904
New York	4,243	551,629	71,454,280	27	1,208	4,246	450,664	42,767,720	100	4,262
North Carolina	6,324	965,426	98,245,673	436	28,481	6,096	700,045	58,918,039	359	23,716
North Dakota	5,809	2,348,171	275,329,681	364	99,184	3,540	991,390	111,380,248	218	54,445
Ohio	24,436	3,606,246	526,601,789	39	7,375	23,898	2,869,951	254,817,899	26	3,387
Oklahoma	913	270,838	38,603,555	275	105,793	740	182,777	23,642,448	231	99,457
Oregon	248	35,271	7,008,419	237	35,009	178	19,308	3,097,418	167	19,116
Pennsylvania	16,030	980,753	118,964,770	56	2,660	15,172	790,111	52,645,120	168	3,277
Rhode Island	4	41	3,207	-	-	5	41	3,616	-	-
South Carolina	2,601	372,558	35,122,617	252	31,971	2,243	240,085	11,147,604	162	14,932
South Dakota	12,198	4,455,368	518,552,101	788	192,582	11,446	3,165,190	295,166,830	717	123,229
Tennessee	4,653	780,608	83,636,352	115	20,272	4,249	593,564	64,081,209	56	7,286
Texas	4,543	1,963,640	286,386,341	1,892	846,750	5,102	1,815,560	197,109,321	1,691	658,177
Utah	331	21,367	3,249,594	331	21,367	231	14,999	2,134,158	231	14,999
Vermont	71	5,368	773,897	-	-	86	5,130	624,813	1	(D)
Virginia	3,063	401,070	34,811,582	169	15,364	3,123	335,692	22,656,691	143	12,953
Washington	550	118,665	24,553,928	547	(D)	382	73,703	14,155,973	375	73,038
West Virginia	686	26,618	2,916,834	3	(D)	663	29,123	3,057,437	2	(D)
Wisconsin	27,505	3,250,847	437,174,706	556	113,312	29,021	2,862,031	385,057,040	501	83,602
Wyoming	344	54,567	6,858,369	335	51,056	265	34,095	3,788,534	257	33,507
COTTON, ALL (BALES)										
United States Total										
United States	18,605	10,493,238	18,898,128	8,776	4,035,610	24,805	12,456,162	17,145,345	11,006	4,802,024
States										
Alabama	917	382,566	407,598	108	22,484	1,320	523,123	567,569	128	32,654
Arizona	301	171,300	513,758	301	171,300	409	222,722	626,649	409	222,722
Arkansas	915	854,410	1,902,073	805	687,334	1,192	921,316	1,655,956	992	711,970
California	855	471,378	1,418,751	855	471,378	1,393	694,653	2,056,964	1,393	694,653
Florida	213	80,053	109,206	12	9,145	268	101,766	93,915	30	8,491
Georgia	2,577	996,427	1,628,260	1,114	309,442	3,216	1,267,150	1,564,995	1,180	327,866
Kansas	106	40,924	54,814	34	10,419	162	55,953	75,581	61	24,990
Louisiana	645	333,804	698,557	284	87,442	1,072	474,784	737,641	459	151,671
Mississippi	980	656,051	1,289,270	394	295,396	1,596	1,157,432	1,944,513	543	401,320
Missouri	511	377,960	723,043	382	198,446	596	395,880	608,280	421	205,812
New Mexico	199	42,207	97,206	199	42,207	277	53,045	98,377	277	53,045
North Carolina	1,308	526,060	785,557	101	10,756	2,091	924,097	802,472	161	23,674
Oklahoma	420	164,273	279,871	167	67,687	581	172,228	210,027	197	66,596
South Carolina	458	158,296	159,213	90	14,259	497	208,420	134,886	80	14,861
Tennessee	779	504,057	581,236	45	11,386	920	533,755	813,853	21	9,548
Texas	7,225	4,674,229	8,147,970	3,876	1,626,181	8,897	4,657,029	5,060,144	4,638	1,851,321
Virginia	196	59,243	101,745	9	348	318	92,809	93,523	16	830
UPLAND COTTON (BALES)										
United States Total										
United States	18,286	10,202,566	18,098,998	8,455	3,744,938	24,606	12,223,770	16,529,672	10,807	4,569,632
States										
Alabama	917	382,566	407,598	108	22,484	1,320	523,123	567,569	128	32,654
Arizona	298	168,798	509,156	298	168,798	401	214,880	609,809	401	214,880
Arkansas	915	854,410	1,902,073	805	687,334	1,192	921,316	1,655,956	992	711,970
California	588	211,990	677,794	588	211,990	1,288	495,943	1,511,818	1,288	495,943
Florida	213	80,053	109,206	12	9,145	268	101,766	93,915	30	8,491
Georgia	2,577	996,427	1,628,260	1,114	309,442	3,216	1,267,150	1,564,995	1,180	327,866
Kansas	106	40,924	54,814	34	10,419	162	55,953	75,581	61	24,990
Louisiana	645	333,804	698,557	284	87,442	1,072	474,784	737,641	459	151,671
Mississippi	980	656,051	1,289,270	394	295,396	1,596	1,157,432	1,944,513	543	401,320
Missouri	511	377,960	723,043	382	198,446	596	395,880	608,280	421	205,812
New Mexico	182	37,615	88,790	182	37,615	238	45,994	83,908	238	45,994
North Carolina	1,308	526,060	785,557	101	10,756	2,091	924,097	802,472	161	23,674
Oklahoma	420	164,273	279,871	167	67,687	581	172,228	210,027	197	66,596
South Carolina	458	158,296	159,213	90	14,259	497	208,420	134,886	80	14,861
Tennessee	779	504,057	581,236	45	11,386	920	533,755	813,853	21	9,548
Texas	7,193	4,650,039	8,102,815	3,842	1,601,991	8,850	4,638,240	5,020,926	4,591	1,832,532
Virginia	196	59,243	101,745	9	348	318	92,809	93,523	16	830
PIMA COTTON (BALES)										
United States Total										
United States	551	290,672	799,130	551	290,672	524	232,392	615,673	524	232,392
States										
Arizona	13	2,502	4,602	13	2,502	45	7,842	16,840	45	7,842
California	424	259,388	740,957	424	259,388	322	198,710	545,146	322	198,710
New Mexico	44	4,592	8,416	44	4,592	81	7,051	14,469	81	7,051
Texas	70	24,190	45,155	70	24,190	76	18,789	39,218	76	18,789

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
DRY EDIBLE BEANS, EXCLUDING LIMAS (CWT)										
United States Total										
United States	6,236	1,455,549	25,353,900	2,456	353,503	8,647	1,691,775	29,687,475	3,858	581,595
States										
Alabama	-	-	-	-	-	5	5	78	-	-
Arizona	46	5,849	102,603	27	5,818	28	4,837	88,798	28	4,837
California	239	34,002	709,841	237	30,134	385	58,420	1,234,989	382	57,843
Colorado	281	46,629	785,848	245	30,790	686	82,721	1,778,029	684	81,548
Connecticut	3	3	90	3	3	6	(D)	(D)	2	(D)
Delaware	-	-	-	-	-	3	(D)	(D)	2	(D)
Idaho	641	88,987	1,646,970	519	49,435	762	79,791	1,665,528	710	68,617
Indiana	1	(D)	(D)	1	(D)	19	1,016	29,487	-	-
Iowa	1	(D)	(D)	-	-	56	2,270	71,739	-	-
Kansas	33	5,955	134,719	31	5,143	80	17,494	297,133	79	16,840
Kentucky	-	-	-	-	-	2	(D)	(D)	-	-
Louisiana	-	-	-	-	-	1	(D)	(D)	1	(D)
Maine	16	481	4,359	-	-	35	367	3,570	1	(D)
Maryland	-	-	-	-	-	7	160	2,844	-	-
Massachusetts	1	(D)	(D)	-	-	2	(D)	(D)	1	(D)
Michigan	1,183	195,419	3,207,689	61	8,182	1,587	259,026	4,862,193	82	13,183
Minnesota	526	145,422	2,638,507	93	26,692	665	156,707	2,683,985	111	33,293
Mississippi	-	-	-	-	-	10	52	276	-	-
Missouri	2	(D)	(D)	-	-	12	725	27,177	-	-
Montana	105	17,151	290,498	82	9,224	172	22,770	376,832	148	18,709
Nebraska	495	107,583	2,453,158	482	104,748	758	164,924	3,404,542	742	160,614
New Hampshire	2	(D)	(D)	-	-	3	7	95	-	-
New Jersey	2	(D)	(D)	-	-	5	14	146	-	-
New Mexico	178	7,760	173,070	178	7,760	38	8,377	144,639	38	8,377
New York	143	16,218	247,762	3	(D)	306	32,520	444,691	30	396
North Carolina	-	-	-	-	-	1	(D)	(D)	-	-
North Dakota	1,682	664,389	10,745,281	56	13,023	1,999	661,379	10,104,405	84	17,693
Ohio	1	(D)	(D)	-	-	44	3,988	118,072	-	-
Oklahoma	7	150	2,792	2	(D)	3	(D)	(D)	1	(D)
Oregon	49	7,559	149,465	36	4,562	79	8,478	144,260	63	5,444
Pennsylvania	17	153	3,045	1	(D)	16	525	12,160	2	(D)
South Dakota	34	11,891	208,659	11	2,826	45	11,430	192,232	13	4,675
Texas	58	6,675	127,400	28	2,946	218	25,906	286,553	120	15,357
Utah	16	1,627	6,994	10	159	10	277	4,410	10	277
Vermont	6	(D)	(D)	-	-	6	19	177	-	-
Virginia	-	-	-	-	-	2	(D)	(D)	-	-
Washington	269	61,055	1,049,750	152	22,017	343	49,429	936,604	290	37,880
West Virginia	-	-	-	-	-	4	8	58	-	-
Wisconsin	6	6,069	93,244	5	5,717	17	7,398	148,408	7	5,707
Wyoming	193	24,197	566,459	193	24,197	227	30,151	612,503	227	30,151
DRY LIMA BEANS (CWT)										
United States Total										
United States	167	30,355	702,373	159	29,639	300	45,961	1,072,859	268	43,526
States										
Alabama	-	-	-	-	-	7	(D)	184	-	-
California	139	28,786	673,392	139	28,213	242	44,546	1,039,088	234	42,281
Idaho	9	643	14,382	9	643	15	638	14,241	15	637
Louisiana	1	(D)	(D)	-	-	1	(D)	(D)	-	-
Maryland	-	-	-	-	-	1	(D)	(D)	-	-
Mississippi	3	3	18	-	-	-	-	-	-	-
New York	2	(D)	(D)	-	-	-	-	-	-	-
North Carolina	-	-	-	-	-	14	93	2,833	5	(D)
South Carolina	-	-	-	-	-	7	14	(D)	2	(D)
Virginia	3	(D)	(D)	2	(D)	-	-	-	-	-
Washington	10	877	13,895	9	(D)	13	645	16,390	12	565
DRY EDIBLE PEAS (CWT)										
United States Total										
United States	3,048	848,874	17,260,031	232	15,502	1,547	281,871	4,780,492	153	11,644
States										
Alabama	-	-	-	-	-	54	287	1,898	-	-
Arizona	5	(D)	(D)	1	(D)	-	-	-	-	-
Arkansas	-	-	-	-	-	2	(D)	(D)	-	-
California	1	(D)	(D)	1	(D)	6	21	177	6	15
Colorado	11	458	11,558	7	366	-	-	-	-	-
Florida	16	69	569	-	-	4	245	828	-	-
Idaho	173	23,819	412,377	75	4,156	205	36,709	680,842	65	3,284
Iowa	5	296	5,301	-	-	-	-	-	-	-
Kansas	2	(D)	(D)	-	-	-	-	-	-	-
Kentucky	2	(D)	(D)	-	-	2	(D)	(D)	-	-
Louisiana	-	-	-	-	-	2	(D)	(D)	-	-
Maine	1	(D)	(D)	1	(D)	-	-	-	-	-
Michigan	5	186	3,048	-	-	3	30	228	-	-
Minnesota	88	8,162	190,044	8	505	15	2,683	36,101	-	-
Mississippi	14	70	1,625	2	(D)	18	300	1,150	-	-
Missouri	1	(D)	(D)	1	(D)	4	483	5,901	1	(D)
Montana	544	222,415	3,988,953	33	3,020	134	26,291	221,742	11	1,576
Nebraska	6	177	2,913	-	-	-	-	-	-	-

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
DRY EDIBLE PEAS (CWT) - Con.										
States - Con.										
New Jersey	1	(D)	(D)	1	(D)	-	-	-	-	-
New Mexico	4	5	90	1	(D)	1	(D)	(D)	1	(D)
New York	10	509	4,966	-	-	-	-	-	-	-
North Carolina	1	(D)	(D)	-	-	-	-	-	-	-
North Dakota	1,684	499,470	10,856,233	11	940	648	124,263	2,064,231	2	(D)
Ohio	1	(D)	(D)	-	-	-	-	-	-	-
Oklahoma	11	1,597	5,705	1	(D)	4	335	5,400	-	-
Oregon	34	4,352	87,341	16	1,751	21	4,277	61,348	12	1,208
South Carolina	6	60	1,013	2	(D)	15	159	1,886	-	-
South Dakota	90	17,470	404,677	1	(D)	14	2,068	25,976	1	(D)
Tennessee	-	-	-	-	-	2	(D)	(D)	-	-
Texas	49	2,554	27,544	18	1,080	36	803	10,179	9	361
Utah	5	223	5,665	5	220	1	(D)	(D)	1	(D)
Virginia	2	(D)	(D)	2	(D)	41	456	2,172	-	-
Washington	266	65,243	1,228,583	45	2,910	314	81,820	1,651,620	44	4,745
Wisconsin	10	647	6,764	-	-	1	(D)	(D)	-	-
DRY SOUTHERN PEAS (COWPEAS) (BUSHELS)										
United States Total										
United States	222	18,544	228,371	64	6,385	410	21,778	236,666	88	6,635
States										
Alabama	-	-	-	-	-	23	233	3,253	4	14
Arizona	3	1,452	20,550	3	1,452	1	(D)	(D)	1	(D)
Arkansas	-	-	-	-	-	2	(D)	(D)	-	-
Colorado	1	(D)	(D)	-	-	-	-	-	-	-
Florida	54	2,546	30,798	13	191	67	6,503	52,046	15	261
Georgia	9	652	12,290	7	501	-	-	-	-	-
Kentucky	-	-	-	-	-	2	(D)	(D)	-	-
Louisiana	20	44	1,287	5	5	28	122	1,844	5	7
Mississippi	1	(D)	(D)	-	-	4	8	132	2	(D)
Missouri	6	4,606	42,395	3	(D)	16	2,076	24,755	5	896
New Mexico	2	(D)	(D)	2	(D)	5	75	2,113	2	(D)
North Carolina	6	12	137	1	(D)	43	474	5,469	10	16
Oklahoma	14	2,019	29,742	2	(D)	52	3,631	40,473	12	1,419
South Carolina	13	117	685	3	3	17	211	1,186	1	(D)
South Dakota	1	(D)	(D)	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	1	(D)	(D)	-	-
Texas	92	5,322	55,810	25	2,414	149	8,276	102,680	31	3,825
EMMER AND SPELT (BUSHELS)										
United States Total										
United States	899	14,066	882,517	2	(D)	979	14,426	896,203	15	194
States										
Colorado	-	-	-	-	-	1	(D)	(D)	1	(D)
Illinois	2	(D)	(D)	-	-	7	142	4,280	-	-
Indiana	14	87	5,355	-	-	25	268	17,395	-	-
Iowa	1	(D)	(D)	-	-	1	(D)	(D)	-	-
Kentucky	9	65	4,245	-	-	7	22	751	-	-
Maine	6	(D)	(D)	-	-	-	-	-	-	-
Maryland	6	74	5,610	-	-	7	33	2,066	1	(D)
Michigan	105	3,532	250,086	1	(D)	81	3,324	165,040	3	(D)
Minnesota	2	(D)	(D)	-	-	1	(D)	(D)	-	-
Missouri	25	205	9,077	-	-	13	84	4,960	-	-
Montana	10	975	45,950	1	(D)	3	(D)	(D)	-	-
New York	49	1,732	101,778	-	-	55	2,050	132,104	4	10
North Dakota	1	(D)	(D)	-	-	1	(D)	(D)	-	-
Ohio	281	3,785	244,064	-	-	297	4,125	288,125	-	-
Pennsylvania	358	2,983	189,538	-	-	452	3,675	238,876	3	12
Tennessee	1	(D)	(D)	-	-	-	-	-	-	-
Texas	1	(D)	(D)	-	-	-	-	-	-	-
Vermont	2	(D)	(D)	-	-	-	-	-	-	-
Virginia	2	(D)	(D)	-	-	-	-	-	-	-
Washington	-	-	-	-	-	3	150	10,500	3	150
West Virginia	5	56	2,820	-	-	5	65	5,480	-	-
Wisconsin	19	163	11,082	-	-	20	102	7,028	-	-
FLAXSEED (BUSHELS)										
United States Total										
United States	1,698	347,309	5,722,192	11	608	3,010	641,288	10,738,434	4	302
States										
Idaho	5	256	4,041	2	(D)	11	1,854	42,567	-	-
Iowa	8	203	2,885	-	-	2	(D)	(D)	-	-
Minnesota	56	3,823	68,179	-	-	79	4,211	69,880	-	-
Missouri	2	(D)	(D)	-	-	1	(D)	(D)	-	-
Montana	64	20,236	174,531	-	-	73	14,822	176,237	2	(D)
Nebraska	-	-	-	-	-	2	(D)	(D)	-	-
New York	-	-	-	-	-	1	(D)	(D)	-	-

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
FLAXSEED (BUSHELS) - Con.										
States - Con.										
North Dakota	1,515	315,807	5,387,903	5	(D)	2,798	616,205	10,413,597	2	(D)
Oregon	2	(D)	(D)	2	(D)	-	-	-	-	-
South Carolina	1	(D)	(D)	-	-	1	(D)	(D)	-	-
South Dakota	41	6,837	83,268	-	-	38	3,871	31,464	-	-
Utah	1	(D)	(D)	1	(D)	-	-	-	-	-
Washington	2	(D)	(D)	1	(D)	4	166	2,702	-	-
Wisconsin	1	(D)	(D)	-	-	-	-	-	-	-
LENTILS (CWT)										
United States Total										
United States	811	301,132	3,724,878	8	1,202	647	198,997	2,448,940	6	881
States										
Idaho	123	36,739	418,991	-	-	188	58,981	751,896	1	(D)
Minnesota	1	(D)	(D)	-	-	-	-	-	-	-
Montana	206	87,797	1,012,784	2	(D)	79	21,822	164,086	2	(D)
North Dakota	297	106,730	1,453,617	2	(D)	141	36,195	369,650	-	-
Oregon	4	1,217	15,459	2	(D)	3	159	3,218	2	(D)
South Dakota	4	(D)	(D)	-	-	13	71	140	-	-
Washington	176	67,474	809,400	2	(D)	223	81,769	1,159,950	1	(D)
MUSTARD SEED (POUNDS)										
United States Total										
United States	250	56,947	34,527,346	31	1,541	631	144,337	94,395,859	26	1,940
States										
California	9	(D)	(D)	8	(D)	4	529	384,730	2	(D)
Colorado	1	(D)	(D)	1	(D)	-	-	-	-	-
Idaho	11	1,572	1,356,887	8	455	71	14,465	13,894,930	1	(D)
Minnesota	1	(D)	(D)	-	-	3	(D)	257,600	-	-
Montana	38	14,192	6,223,513	-	-	88	25,835	12,525,341	2	(D)
North Dakota	143	34,848	21,456,103	-	-	364	88,422	56,357,927	-	-
Oregon	13	930	735,920	7	201	26	1,456	743,741	13	285
South Dakota	-	-	-	-	-	7	(D)	29,360	-	-
Texas	1	(D)	(D)	1	(D)	-	-	-	-	-
Washington	32	5,112	4,332,970	5	601	68	12,946	10,202,230	8	917
Wyoming	1	(D)	(D)	1	(D)	-	-	-	-	-
OATS FOR GRAIN (BUSHELS)										
United States Total										
United States	42,558	1,509,149	89,508,669	1,620	78,214	63,763	1,996,916	109,840,449	1,948	96,150
States										
Alabama	238	16,111	905,087	9	320	285	13,531	591,232	6	57
Alaska	8	1,017	49,230	1	(D)	10	1,107	46,033	-	-
Arizona	18	1,090	87,980	18	1,090	43	2,226	206,912	43	2,226
Arkansas	57	6,431	601,737	3	192	104	7,950	615,630	3	(D)
California	299	25,993	2,595,144	198	18,141	429	34,319	2,798,145	222	17,196
Colorado	165	9,921	531,736	105	5,072	121	6,813	364,903	94	4,965
Connecticut	2	(D)	(D)	-	-	6	67	3,313	1	(D)
Delaware	9	142	(D)	-	-	17	244	16,350	-	-
Florida	49	3,222	200,966	8	1,034	76	4,368	190,940	3	225
Georgia	476	28,770	1,535,663	69	4,106	573	23,056	1,287,164	42	2,237
Idaho	298	19,629	1,178,663	167	6,876	393	18,179	1,244,462	196	6,854
Illinois	1,006	24,265	1,500,658	2	(D)	2,109	39,258	2,839,874	5	20
Indiana	568	7,948	403,631	12	36	914	11,015	705,534	1	(D)
Iowa	3,056	66,651	4,481,462	4	(D)	6,963	143,513	10,761,952	1	(D)
Kansas	874	29,761	1,363,381	31	2,478	1,611	53,765	2,403,129	11	731
Kentucky	118	1,002	55,839	-	-	131	1,309	70,109	-	-
Louisiana	30	1,549	131,809	-	-	48	2,107	144,198	7	42
Maine	159	27,206	1,937,569	-	-	197	24,919	2,113,706	-	-
Maryland	184	2,338	152,306	4	4	256	3,684	226,016	3	(D)
Massachusetts	2	(D)	(D)	-	-	8	64	2,880	-	-
Michigan	2,181	55,046	2,972,519	23	93	2,756	63,485	3,994,940	32	519
Minnesota	5,499	180,942	10,494,120	76	2,249	7,464	231,859	12,958,117	42	1,419
Mississippi	44	1,345	107,161	3	(D)	82	2,699	111,430	3	35
Missouri	459	7,894	382,149	-	-	1,300	25,037	1,290,427	2	(D)
Montana	488	34,633	1,673,538	151	8,227	697	45,515	1,998,128	242	11,557
Nebraska	885	35,108	2,108,923	67	3,052	1,475	53,946	2,367,835	87	3,891
Nevada	2	(D)	(D)	2	(D)	36	4,682	485,280	36	4,682
New Jersey	50	1,234	61,563	-	-	74	2,250	144,613	3	(D)
New Mexico	45	(D)	16,467	26	143	39	985	58,669	33	924
New York	1,809	60,999	3,556,221	1	(D)	2,205	67,032	4,138,239	33	287
North Carolina	556	14,337	787,753	27	185	930	22,293	1,196,859	36	333
North Dakota	2,513	257,021	14,862,093	16	990	3,108	302,455	12,456,205	8	442
Ohio	2,800	46,348	2,883,967	-	-	3,865	55,151	3,254,377	2	(D)
Oklahoma	172	14,816	462,865	9	1,327	334	16,326	608,263	9	199
Oregon	259	17,958	1,417,220	72	5,023	425	29,968	2,495,654	107	8,939
Pennsylvania	5,089	79,943	4,237,273	-	-	7,396	117,653	6,768,130	40	111
Rhode Island	2	(D)	(D)	-	-	5	44	1,798	-	-
South Carolina	344	13,279	559,906	18	238	579	21,202	975,883	16	409
South Dakota	1,703	124,743	8,758,284	30	1,666	2,097	130,225	5,717,330	32	1,402

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
OATS FOR GRAIN (BUSHELS) - Con.										
States - Con.										
Tennessee	78	1,679	83,840	-	-	113	2,135	131,167	-	-
Texas	1,109	92,653	3,663,002	80	5,461	1,977	127,900	5,334,886	136	10,334
Utah	266	4,833	367,230	252	4,461	210	3,788	302,019	176	3,283
Vermont	12	211	11,525	-	-	26	412	15,663	-	-
Virginia	230	4,893	286,954	4	6	364	5,529	317,353	15	50
Washington	138	8,956	426,027	19	471	251	12,097	769,381	41	1,376
West Virginia	121	1,494	74,953	-	-	164	1,515	74,403	-	-
Wisconsin	7,934	166,794	11,122,339	19	1,779	11,300	245,695	14,600,211	29	2,751
Wyoming	154	8,040	382,864	94	3,099	197	13,544	640,707	150	8,067
PEANUTS FOR NUTS (POUNDS)										
United States Total										
United States	6,182	1,200,564	3,703,138,887	2,381	418,789	8,640	1,223,093	3,137,586,781	2,900	462,620
States										
Alabama	704	158,424	396,914,610	71	11,044	1,134	176,395	373,313,101	102	12,534
Arizona	1	(D)	(D)	1	(D)	2	(D)	(D)	2	(D)
Arkansas	1	(D)	(D)	1	(D)	15	1,413	3,757,277	10	1,000
California	11	14	28,000	11	14	16	22	38,600	16	22
Florida	423	118,637	341,137,148	92	27,044	494	76,459	210,036,443	94	20,312
Georgia	2,762	518,719	1,634,837,229	1,193	182,332	3,290	467,712	1,173,877,160	1,243	168,729
Louisiana	8	(D)	(D)	3	(D)	1	(D)	(D)	1	(D)
Mississippi	85	17,781	58,481,805	11	(D)	62	3,831	8,821,233	4	(D)
Missouri	1	(D)	(D)	-	-	1	(D)	(D)	-	-
New Mexico	29	10,305	31,988,642	29	10,305	57	15,299	45,062,549	57	15,299
North Carolina	699	89,029	250,970,518	94	8,587	1,236	100,650	219,305,939	111	7,986
Oklahoma	148	16,319	55,039,635	113	11,821	418	53,390	144,450,348	311	39,457
South Carolina	327	56,332	178,352,360	78	8,265	178	10,344	24,466,790	20	(D)
Tennessee	19	23	14,610	1	(D)	23	23	23,828	-	-
Texas	784	192,291	699,723,146	666	156,066	1,231	259,419	807,510,593	898	192,772
Virginia	180	21,631	52,797,144	17	1,193	482	57,373	125,121,968	31	2,403
POPCORN (POUNDS, SHELLED)										
United States Total										
United States	968	201,623	860,878,543	377	93,204	1,701	309,879	945,158,986	545	117,002
States										
Alabama	2	(D)	(D)	-	-	5	(D)	(D)	-	-
Arkansas	1	(D)	(D)	1	(D)	-	-	-	-	-
California	1	(D)	(D)	1	(D)	5	(D)	(D)	5	(D)
Colorado	5	(D)	(D)	4	(D)	11	1,191	1,733,622	6	806
Connecticut	1	(D)	(D)	1	(D)	-	-	-	-	-
Georgia	1	(D)	(D)	-	-	2	(D)	(D)	-	-
Idaho	-	-	-	-	-	2	(D)	(D)	2	(D)
Illinois	123	24,272	114,902,563	70	18,394	169	28,861	98,302,767	66	16,734
Indiana	182	55,768	220,971,578	29	8,369	273	69,207	219,836,706	40	9,791
Iowa	86	8,856	35,240,391	7	801	157	14,168	45,994,514	11	982
Kansas	3	3	300	3	3	33	6,033	19,414,222	4	764
Kentucky	21	5,615	18,946,770	-	-	41	11,058	25,430,995	-	-
Louisiana	-	-	-	-	-	2	(D)	(D)	-	-
Maine	2	(D)	(D)	-	-	-	-	-	-	-
Maryland	2	(D)	(D)	1	(D)	2	(D)	(D)	-	-
Massachusetts	2	(D)	(D)	1	(D)	4	(D)	(D)	-	-
Michigan	24	788	2,107,205	4	(D)	26	1,455	4,375,505	8	278
Minnesota	-	-	-	-	-	7	413	(D)	-	-
Mississippi	1	(D)	(D)	-	-	2	(D)	(D)	-	-
Missouri	26	4,219	17,828,110	11	1,989	84	9,414	23,596,607	12	2,504
Nebraska	253	59,728	294,541,958	232	57,095	441	88,717	346,856,579	379	80,017
New Jersey	3	5	9,800	1	(D)	6	161	262,630	1	(D)
New Mexico	2	(D)	(D)	2	(D)	1	(D)	(D)	1	(D)
New York	22	33	55,830	2	(D)	-	-	-	-	-
North Carolina	-	-	-	-	-	13	3,331	4,870,840	-	-
Ohio	165	31,803	109,921,351	-	-	353	67,378	128,293,432	2	(D)
Oklahoma	-	-	-	-	-	2	(D)	(D)	-	-
Pennsylvania	2	(D)	(D)	-	-	10	(D)	(D)	2	(D)
South Carolina	1	(D)	(D)	-	-	-	-	-	-	-
South Dakota	7	2,534	8,102,058	4	1,951	17	4,235	13,467,224	3	(D)
Tennessee	9	2,217	5,152,020	-	-	10	1,682	4,196,681	-	-
Texas	-	-	-	-	-	2	(D)	(D)	-	-
Vermont	-	-	-	-	-	2	(D)	(D)	-	-
Virginia	-	-	-	-	-	2	(D)	(D)	-	-
Washington	1	(D)	(D)	1	(D)	4	(D)	(D)	2	(D)
West Virginia	1	(D)	(D)	1	(D)	-	-	-	-	-
Wisconsin	19	132	105,240	1	(D)	13	374	1,050,488	1	(D)

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
PROSO MILLET (BUSHELS)										
United States Total										
United States	1,528	542,108	17,333,479	127	12,552	1,250	282,664	3,810,986	108	9,961
States										
Alabama	1	(D)	(D)	-	-	-	-	-	-	-
California	-	-	-	-	-	3	60	120	3	60
Colorado	564	258,592	8,476,657	40	3,942	416	113,684	1,209,096	26	2,073
Florida	5	590	5,205	1	(D)	5	266	6,234	-	-
Georgia	31	4,230	73,162	7	168	14	988	22,084	-	-
Illinois	1	(D)	(D)	-	-	2	(D)	(D)	-	-
Iowa	2	(D)	(D)	-	-	3	64	3,325	-	-
Kansas	15	5,414	162,196	2	(D)	16	3,930	48,432	3	270
Louisiana	1	(D)	(D)	-	-	-	-	-	-	-
Michigan	6	164	3,258	1	(D)	1	(D)	(D)	-	-
Minnesota	4	166	1,783	-	-	10	906	22,576	-	-
Mississippi	-	-	-	-	-	1	(D)	(D)	-	-
Montana	-	-	-	-	-	12	447	12,715	3	(D)
Nebraska	429	129,891	4,253,359	60	5,930	404	96,658	1,101,093	48	5,659
North Carolina	9	88	1,088	-	-	3	33	416	-	-
North Dakota	69	4,607	134,396	1	(D)	98	11,341	256,112	-	-
Ohio	-	-	-	-	-	1	(D)	(D)	-	-
Oklahoma	-	-	-	-	-	4	55	1,062	2	(D)
South Carolina	4	(D)	(D)	-	-	3	(D)	(D)	-	-
South Dakota	350	129,695	3,949,588	3	356	221	50,089	1,028,947	2	(D)
Texas	14	1,756	63,044	9	971	17	1,480	54,014	17	1,480
Virginia	1	(D)	(D)	-	-	-	-	-	-	-
West Virginia	1	(D)	(D)	-	-	-	-	-	-	-
Wisconsin	2	(D)	(D)	2	(D)	3	106	3,030	2	(D)
Wyoming	19	5,076	118,004	1	(D)	13	2,126	28,019	2	(D)
RAPESEED (POUNDS)										
United States Total										
United States	11	1,060	1,138,344	-	-	11	955	1,084,170	3	(D)
States										
California	-	-	-	-	-	2	(D)	(D)	2	(D)
Idaho	9	(D)	(D)	-	-	5	848	923,062	-	-
North Carolina	-	-	-	-	-	1	(D)	(D)	-	-
Oregon	1	(D)	(D)	-	-	3	(D)	(D)	1	(D)
Washington	1	(D)	(D)	-	-	-	-	-	-	-
RICE (CWT)										
United States Total										
United States	6,084	2,758,792	198,538,690	6,084	2,758,792	8,046	3,197,641	210,358,014	8,046	3,197,641
States										
Arkansas	2,752	1,326,377	96,033,069	2,752	1,326,377	3,573	1,506,615	97,254,798	3,573	1,506,615
California	1,304	531,075	43,018,947	1,304	531,075	1,473	531,314	43,581,796	1,473	531,314
Florida	7	11,376	975,319	7	11,376	10	14,108	722,435	10	14,108
Illinois	3	(D)	(D)	3	(D)	1	(D)	(D)	1	(D)
Louisiana	848	377,115	23,122,031	848	377,115	1,448	538,518	29,612,936	1,448	538,518
Mississippi	341	185,076	13,313,823	341	185,076	461	233,447	14,526,578	461	233,447
Missouri	435	179,300	12,266,645	435	179,300	445	167,716	9,965,432	445	167,716
Oklahoma	3	(D)	(D)	3	(D)	2	(D)	(D)	2	(D)
Tennessee	6	2,317	240,029	6	2,317	4	(D)	34,550	4	(D)
Texas	385	145,006	9,472,871	385	145,006	629	204,069	14,590,204	629	204,069
RYE FOR GRAIN (BUSHELS)										
United States Total										
United States	5,160	267,361	6,652,604	210	10,832	7,344	285,366	7,253,118	269	14,057
States										
Alabama	68	4,034	74,976	3	18	155	5,985	103,691	5	(D)
Arkansas	1	(D)	(D)	-	-	4	32	1,180	-	-
California	14	427	13,992	1	(D)	20	949	21,961	3	128
Colorado	9	850	26,267	3	379	7	1,069	21,056	3	(D)
Connecticut	15	258	7,895	-	-	20	505	15,548	2	(D)
Delaware	15	353	12,039	2	(D)	30	445	15,474	3	(D)
Florida	32	3,887	50,549	5	472	42	4,905	58,354	3	212
Georgia	564	39,633	766,569	42	1,672	681	34,713	557,091	47	1,828
Illinois	81	2,928	80,079	3	58	162	3,937	125,295	3	43
Indiana	37	833	24,061	2	(D)	91	1,070	30,250	-	-
Iowa	53	1,009	28,190	-	-	116	1,771	60,484	-	-
Kansas	70	9,319	309,317	11	864	137	15,017	432,931	8	1,104
Kentucky	19	955	22,140	-	-	25	360	12,640	-	-
Louisiana	-	-	-	-	-	1	(D)	(D)	-	-
Maine	6	257	5,910	-	-	13	394	19,557	-	-
Maryland	81	2,934	115,483	3	(D)	125	2,835	100,041	-	-
Massachusetts	3	(D)	(D)	-	-	12	283	11,783	-	-
Michigan	453	11,272	316,647	22	229	691	15,345	505,726	16	103
Minnesota	350	17,672	472,295	7	248	359	13,980	409,891	2	(D)
Missouri	28	1,071	38,073	-	-	55	1,839	65,211	2	(D)
Montana	4	890	32,086	-	-	8	278	13,002	2	(D)

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
RYE FOR GRAIN (BUSHELS) - Con.										
States - Con.										
Nebraska	290	15,354	443,793	41	1,952	275	12,376	319,263	27	1,352
Nevada	-	-	-	-	-	2	(D)	(D)	2	(D)
New Hampshire	2	(D)	(D)	-	-	4	37	712	-	-
New Jersey	81	1,933	61,869	2	(D)	185	4,882	177,617	14	275
New Mexico	1	(D)	(D)	1	(D)	12	2,679	84,953	5	(D)
New York	264	6,879	225,103	-	-	431	10,668	334,678	16	217
North Carolina	288	13,391	238,195	17	209	459	13,094	318,059	22	195
North Dakota	75	9,788	395,742	-	-	53	5,912	179,592	-	-
Ohio	93	1,380	47,171	-	-	270	3,521	115,021	2	(D)
Oklahoma	292	59,311	1,092,638	17	1,304	466	61,150	1,226,323	21	1,995
Oregon	5	575	11,081	-	-	15	1,576	46,397	2	(D)
Pennsylvania	810	9,281	334,039	-	-	1,226	17,173	620,310	16	120
Rhode Island	-	-	-	-	-	5	76	1,959	-	-
South Carolina	171	7,312	107,587	4	9	237	9,774	197,225	9	92
South Dakota	63	5,162	218,133	-	-	83	6,152	178,206	-	-
Tennessee	9	275	6,385	-	-	8	99	(D)	-	-
Texas	96	19,119	464,330	14	2,793	86	13,143	316,759	15	2,065
Utah	2	(D)	(D)	-	-	-	-	-	-	-
Vermont	7	100	1,922	-	-	10	147	5,771	-	-
Virginia	197	5,380	128,968	3	4	229	5,445	142,571	-	-
Washington	3	41	1,084	1	(D)	6	406	10,936	1	(D)
West Virginia	31	682	33,860	-	-	16	441	12,429	-	-
Wisconsin	477	12,455	431,045	6	280	512	10,570	353,108	18	1,018
SAFFLOWER (POUNDS)										
United States Total										
United States	766	164,003	203,814,924	250	37,787	878	182,292	270,105,054	264	52,199
States										
Arizona	-	-	-	-	-	9	1,274	2,530,700	9	1,274
California	255	47,550	112,031,287	159	29,892	435	97,440	208,919,130	212	49,434
Colorado	10	2,017	1,948,170	1	(D)	32	1,907	1,078,840	-	-
Idaho	34	10,428	5,252,340	6	(D)	47	10,300	6,741,401	16	(D)
Montana	124	37,188	31,489,359	3	(D)	126	36,327	27,264,351	5	332
Nebraska	4	206	254,840	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	4	(D)	(D)	4	(D)
New York	-	-	-	-	-	1	(D)	(D)	-	-
North Dakota	197	39,531	37,212,729	-	-	98	14,548	10,552,777	-	-
Oregon	4	(D)	(D)	4	69	5	352	308,983	-	-
South Dakota	26	9,641	5,465,738	-	-	49	7,489	3,144,186	1	(D)
Texas	1	(D)	(D)	-	-	-	-	-	-	-
Utah	111	17,278	10,022,918	77	7,280	72	12,615	9,546,886	17	856
SORGHUM FOR GRAIN (BUSHELS)										
United States Total										
United States	26,242	6,769,834	482,452,865	4,483	845,214	33,172	6,755,326	333,485,523	4,300	705,103
States										
Alabama	78	5,827	215,276	2	(D)	110	6,531	252,654	6	287
Arizona	79	19,703	1,696,731	79	19,703	28	6,025	430,648	28	6,025
Arkansas	697	216,432	20,761,820	295	76,032	813	203,527	15,738,086	264	54,537
California	58	10,909	909,160	53	9,705	66	10,676	807,824	66	10,542
Colorado	380	153,196	5,750,890	112	10,818	278	89,568	1,879,280	63	8,542
Delaware	10	327	17,927	2	(D)	12	455	19,793	2	(D)
Florida	21	1,331	68,866	2	(D)	18	1,385	60,951	2	(D)
Georgia	428	44,694	1,935,793	75	5,556	314	25,904	1,019,355	35	2,815
Idaho	-	-	-	-	-	1	(D)	(D)	1	(D)
Illinois	731	76,601	5,960,150	8	156	664	56,921	4,510,917	8	95
Indiana	78	8,938	811,912	3	(D)	94	9,950	751,444	3	(D)
Iowa	40	2,113	174,761	-	-	38	2,355	142,814	-	-
Kansas	11,379	2,625,920	201,048,807	1,121	141,668	15,086	2,863,487	126,371,170	1,193	159,859
Kentucky	92	11,590	950,509	3	74	83	9,400	717,391	-	-
Louisiana	615	245,384	22,397,992	85	19,684	465	120,732	9,356,983	41	6,559
Maryland	79	4,895	217,697	5	40	75	3,133	131,777	3	72
Michigan	26	658	41,825	3	(D)	22	559	21,255	1	(D)
Minnesota	3	36	360	-	-	13	185	7,942	-	-
Mississippi	302	116,901	9,815,654	81	23,194	267	70,932	5,418,279	43	6,881
Missouri	1,085	105,483	9,922,598	54	3,293	2,020	204,007	16,603,961	88	9,478
Nebraska	1,901	236,607	22,177,229	299	19,445	2,871	331,074	16,898,323	321	16,587
Nevada	1	(D)	(D)	1	(D)	1	(D)	(D)	1	(D)
New Jersey	12	614	33,018	-	-	27	2,071	75,119	1	(D)
New Mexico	217	73,048	2,806,719	92	12,329	218	67,226	2,131,743	104	18,943
New York	26	717	35,804	-	-	41	562	14,067	2	(D)
North Carolina	210	8,635	394,040	20	434	128	7,805	328,816	16	368
North Dakota	-	-	-	-	-	18	1,439	47,785	1	(D)
Ohio	16	1,203	50,854	-	-	21	996	62,303	-	-
Oklahoma	966	219,883	11,682,402	137	21,043	1,264	262,032	11,166,761	163	28,137
Oregon	3	87	8,189	3	87	-	-	-	-	-
Pennsylvania	117	3,155	177,639	-	-	142	4,529	181,215	-	-
South Carolina	91	5,996	210,854	3	(D)	60	3,467	100,221	1	(D)
South Dakota	394	129,413	7,732,205	2	(D)	422	67,712	2,319,260	7	266
Tennessee	72	10,107	831,540	2	(D)	139	19,389	1,554,244	2	(D)
Texas	5,975	2,427,580	153,531,033	1,938	480,510	7,235	2,297,102	114,127,221	1,825	373,249

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
SORGHUM FOR GRAIN (BUSHELS) - Con.										
States - Con.										
Utah	2	(D)	(D)	2	(D)	7	574	40,599	7	574
Vermont	1	(D)	(D)	-	-	-	-	-	-	-
Virginia	43	1,497	63,521	1	(D)	88	2,221	95,489	-	-
West Virginia	3	(D)	(D)	-	-	3	(D)	(D)	-	-
Wisconsin	11	242	12,774	-	-	19	1,294	93,075	2	(D)
Wyoming	-	-	-	-	-	1	(D)	(D)	-	-
SOYBEANS FOR BEANS (BUSHELS)										
United States Total										
United States	279,110	63,915,821	2,582,423,697	20,333	5,237,075	317,611	72,399,844	2,707,719,216	22,852	5,460,192
States										
Alabama	875	179,673	3,660,854	37	2,124	980	164,771	3,980,484	23	1,670
Arkansas	4,610	2,819,478	98,903,025	3,256	1,843,833	5,250	2,888,018	96,257,992	3,314	1,673,319
Colorado	34	2,948	148,420	24	1,882	37	5,302	179,254	33	4,523
Connecticut	6	294	13,365	1	(D)	1	(D)	(D)	-	-
Delaware	817	155,548	3,990,694	172	24,528	859	184,596	4,717,471	165	20,708
Florida	101	12,066	291,981	4	212	77	7,478	242,878	12	1,086
Georgia	1,617	280,220	7,970,113	340	35,285	1,108	136,138	3,083,878	159	17,301
Hawaii	-	-	-	-	-	1	(D)	(D)	1	(D)
Illinois	33,945	8,293,711	353,741,105	525	70,513	41,571	10,505,989	438,990,297	696	116,542
Indiana	21,973	4,783,821	211,074,079	628	82,454	25,212	5,761,363	235,450,361	558	84,571
Iowa	41,524	8,612,810	430,739,578	319	50,481	48,752	10,418,621	487,380,897	283	46,977
Kansas	13,232	2,591,428	82,719,224	1,610	261,588	13,622	2,534,974	57,946,285	1,966	312,149
Kentucky	4,129	1,087,037	29,582,097	52	10,147	5,645	1,343,039	43,939,662	47	5,550
Louisiana	1,455	593,815	24,717,263	321	95,413	1,840	660,650	20,736,686	303	73,597
Maine	14	766	22,570	-	-	18	940	34,009	-	-
Maryland	2,158	386,604	10,381,954	189	20,663	2,537	465,780	10,695,873	161	17,245
Massachusetts	5	247	10,530	-	-	8	127	2,632	2	(D)
Michigan	10,461	1,715,427	67,515,728	497	66,556	11,683	2,055,424	78,197,248	558	84,180
Minnesota	27,040	6,273,919	259,891,979	723	92,688	29,347	7,068,452	303,069,928	661	97,865
Mississippi	2,589	1,431,085	54,316,854	811	483,004	3,034	1,371,014	43,077,995	696	385,940
Missouri	18,388	4,672,738	165,947,323	1,249	365,094	21,687	5,001,858	165,048,253	1,292	348,286
Montana	8	409	16,084	7	(D)	12	(D)	(D)	10	(D)
Nebraska	16,620	3,834,855	189,547,373	8,088	1,570,110	20,074	4,571,558	173,029,716	10,050	1,923,066
New Hampshire	-	-	-	-	-	3	(D)	(D)	-	-
New Jersey	524	79,218	2,443,231	55	4,730	611	96,032	2,301,468	53	3,356
New Mexico	1	(D)	(D)	-	-	2	(D)	(D)	2	(D)
New York	1,347	199,775	7,456,657	2	(D)	1,128	139,435	4,472,702	24	768
North Carolina	6,896	1,380,792	29,142,115	325	13,830	7,596	1,314,672	31,026,968	305	16,353
North Dakota	5,779	3,073,981	106,556,290	85	12,513	5,308	2,629,364	87,793,840	87	16,387
Ohio	23,892	4,236,337	191,559,567	12	1,056	26,327	4,718,690	149,809,069	12	1,478
Oklahoma	813	180,878	4,559,245	89	12,497	1,167	246,962	6,218,396	90	11,499
Oregon	2	(D)	(D)	2	(D)	-	-	-	-	-
Pennsylvania	6,374	431,053	17,386,829	11	(D)	5,931	378,846	9,665,498	37	480
Rhode Island	-	-	-	-	-	1	(D)	(D)	-	-
South Carolina	1,920	442,461	7,833,696	106	8,943	1,741	350,272	5,897,022	73	7,300
South Dakota	9,862	3,222,872	130,377,538	348	52,661	11,593	4,087,380	126,607,265	514	89,353
Tennessee	2,967	976,011	18,552,793	37	4,077	3,974	1,088,889	33,646,638	38	9,435
Texas	371	93,453	3,439,765	86	16,269	902	196,340	5,415,147	239	45,446
Vermont	21	2,011	75,318	-	-	25	1,562	51,289	2	(D)
Virginia	2,104	490,396	12,624,547	90	8,007	2,576	467,210	11,025,598	112	7,994
Washington	8	725	27,781	5	385	-	-	-	-	-
West Virginia	115	13,717	480,186	-	-	126	16,359	621,463	-	-
Wisconsin	14,513	1,363,124	54,701,222	227	24,855	15,245	1,520,471	67,060,605	274	34,857
SUGARBEETS FOR SEED (POUNDS)										
United States Total										
United States	93	3,199	7,000,504	92	(D)	130	4,335	9,542,593	125	3,914
States										
California	-	-	-	-	-	1	(D)	(D)	1	(D)
Colorado	-	-	-	-	-	1	(D)	(D)	1	(D)
Michigan	-	-	-	-	-	5	421	(D)	-	-
New Jersey	1	(D)	(D)	-	-	-	-	-	-	-
Oregon	82	2,510	5,462,961	82	2,510	118	3,659	8,787,607	118	3,659
Texas	1	(D)	(D)	1	(D)	-	-	-	-	-
Utah	-	-	-	-	-	5	(D)	261,814	5	(D)
Washington	9	(D)	(D)	9	(D)	-	-	-	-	-
SUGARBEETS FOR SUGAR (TONS)										
United States Total										
United States	4,022	1,253,817	31,937,325	1,595	394,675	5,027	1,365,769	27,793,126	2,087	471,556
States										
California	155	42,984	1,539,394	155	42,984	228	55,692	2,063,080	228	55,680
Colorado	226	29,235	764,791	226	29,235	312	39,350	798,695	312	39,350
Idaho	507	163,598	5,631,170	507	163,598	655	202,932	4,934,966	655	202,932

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
SUGARBEETS FOR SUGAR (TONS) - Con.										
States - Con.										
Kansas	-	-	-	-	-	1	(D)	(D)	1	(D)
Michigan	737	150,054	3,532,941	36	3,018	989	180,054	3,324,568	46	(D)
Minnesota	1,247	485,650	11,432,253	25	5,211	1,369	476,617	8,793,583	22	4,647
Montana	220	47,533	1,174,370	220	47,533	282	56,027	1,123,844	282	56,027
Nebraska	162	44,938	1,064,504	162	44,938	184	41,285	762,822	184	41,285
North Dakota	553	245,735	5,695,862	49	14,068	694	260,235	4,811,685	64	15,789
Ohio	-	-	-	-	-	21	1,530	32,380	1	(D)
Oregon	73	11,232	346,233	73	11,232	101	11,313	313,222	101	11,313
Utah	-	-	-	-	-	3	(D)	(D)	3	(D)
Washington	3	2,076	80,206	3	2,076	7	3,711	130,149	7	3,711
Wyoming	139	30,782	675,601	139	30,782	181	36,105	683,010	181	36,105
SUGARCANE FOR SEED (TONS)										
United States Total										
United States	443	50,722	1,771,160	85	22,527	585	51,598	1,726,198	89	22,176
States										
Florida	59	19,242	762,510	59	19,242	65	19,579	728,426	59	19,245
Hawaii	5	(D)	(D)	2	(D)	3	(D)	(D)	2	(D)
Louisiana	346	27,667	895,283	1	(D)	486	29,019	887,281	2	(D)
Texas	33	(D)	(D)	23	(D)	31	(D)	(D)	26	(D)
SUGARCANE FOR SUGAR (TONS)										
United States Total										
United States	692	846,666	31,127,405	219	435,205	953	978,393	35,319,767	276	496,608
States										
Florida	108	378,587	14,127,121	108	378,587	120	440,768	16,174,145	120	433,043
Hawaii	9	(D)	(D)	6	(D)	2	(D)	(D)	2	(D)
Louisiana	461	405,433	14,086,448	1	(D)	665	471,628	15,367,635	8	2,167
Texas	114	(D)	(D)	104	(D)	166	(D)	(D)	146	(D)
SUGARCANE NOT HARVESTED										
United States Total										
United States	7	(D)	(NA)	7	(D)	4	(D)	(NA)	2	(D)
States										
Hawaii	7	(D)	(NA)	7	(D)	4	(D)	(NA)	2	(D)
SUNFLOWER SEED, ALL (POUNDS)										
United States Total										
United States	6,403	2,000,153	2,820,962,445	608	102,219	7,506	1,833,435	2,042,510,240	571	70,363
States										
Alabama	7	19	13,720	-	-	27	158	59,912	-	-
Arkansas	1	(D)	(D)	-	-	5	174	155,298	2	(D)
California	111	27,913	29,776,645	98	23,937	154	18,129	21,455,613	112	15,366
Colorado	282	112,991	124,244,896	101	15,064	202	69,306	49,517,380	78	13,372
Connecticut	-	-	-	-	-	8	11	4,150	-	-
Delaware	3	(D)	(D)	-	-	3	(D)	(D)	-	-
Georgia	35	2,150	(D)	6	21	45	553	518,969	2	(D)
Idaho	1	(D)	(D)	1	(D)	3	(D)	(D)	3	(D)
Illinois	46	3,217	4,356,557	1	(D)	87	1,580	1,549,546	-	-
Indiana	2	(D)	(D)	1	(D)	30	307	343,938	2	(D)
Iowa	5	667	631,300	-	-	6	(D)	(D)	-	-
Kansas	681	156,378	220,194,520	161	27,853	896	119,127	105,943,758	150	19,714
Kentucky	14	82	40,100	-	-	17	54	32,541	-	-
Louisiana	1	(D)	(D)	-	-	4	73	38,886	-	-
Maine	1	(D)	(D)	1	(D)	2	(D)	(D)	2	(D)
Maryland	22	596	614,150	4	(D)	25	104	34,965	-	-
Massachusetts	1	(D)	(D)	-	-	3	3	(D)	1	(D)
Michigan	67	5,888	7,206,293	2	(D)	91	2,275	3,381,523	3	(D)
Minnesota	505	126,552	190,298,028	6	392	367	65,514	84,268,425	2	(D)
Mississippi	1	(D)	(D)	-	-	1	(D)	(D)	-	-
Missouri	28	1,963	2,456,340	-	-	62	3,668	3,158,151	3	(D)
Montana	17	3,410	3,787,068	6	1,266	10	1,224	852,210	-	-
Nebraska	222	47,575	61,133,340	104	15,362	218	33,400	22,405,407	63	4,602
New Jersey	2	(D)	(D)	1	(D)	6	8	5,150	-	-
New Mexico	2	(D)	(D)	2	(D)	3	(D)	(D)	3	(D)
New York	28	357	367,672	-	-	82	502	379,813	12	14
North Carolina	29	402	383,562	-	-	94	523	225,311	6	9
North Dakota	3,000	1,054,584	1,496,184,686	7	1,065	3,555	1,128,498	1,409,006,958	5	511
Ohio	4	102	143,800	-	-	31	849	868,377	-	-
Oklahoma	20	3,626	6,574,767	4	1,956	23	4,711	8,000,456	6	1,632
Oregon	13	611	427,968	11	483	4	13	(D)	4	13

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
SUNFLOWER SEED, ALL (POUNDS) - Con.										
States - Con.										
Pennsylvania	32	660	405,407	1	(D)	77	937	566,771	6	6
South Carolina	39	764	249,094	-	-	83	516	111,550	9	14
South Dakota	910	400,181	613,668,505	10	831	1,078	348,788	303,203,319	10	804
Tennessee	8	23	20,500	-	-	-	-	-	-	-
Texas	118	35,309	45,693,688	63	12,806	122	25,447	20,808,808	75	12,759
Utah	12	5,332	2,460,696	4	75	5	503	124,290	2	(D)
Vermont	2	(D)	(D)	-	-	3	(D)	60,100	-	-
Virginia	24	137	79,944	2	(D)	14	190	29,122	3	(D)
Washington	4	(D)	61,858	2	(D)	-	-	-	-	-
West Virginia	4	8	1,500	-	-	-	-	-	-	-
Wisconsin	78	3,722	4,449,621	-	-	46	2,076	2,774,463	1	(D)
Wyoming	21	4,668	3,292,514	9	843	14	3,313	1,531,650	6	523
SUNFLOWER SEED, OIL VARIETIES (POUNDS)										
United States Total										
United States	5,501	1,710,057	2,443,486,848	415	73,297	6,286	1,500,828	1,694,628,777	394	46,709
States										
Alabama	5	(D)	(D)	-	-	12	126	51,912	-	-
Arkansas	1	(D)	(D)	-	-	5	174	155,298	2	(D)
California	76	24,481	25,580,856	67	21,023	88	11,788	13,865,183	74	10,336
Colorado	230	100,012	105,210,708	62	9,412	145	53,398	33,431,916	42	7,236
Connecticut	-	-	-	-	-	8	11	4,150	-	-
Delaware	1	(D)	(D)	-	-	2	(D)	(D)	-	-
Georgia	30	2,026	(D)	6	21	35	484	498,325	1	(D)
Idaho	-	-	-	-	-	2	(D)	(D)	2	(D)
Illinois	35	3,090	4,222,410	-	-	59	1,349	1,399,482	-	-
Indiana	1	(D)	(D)	-	-	22	282	332,638	2	(D)
Iowa	4	(D)	(D)	-	-	5	(D)	(D)	-	-
Kansas	613	139,856	197,522,403	131	22,077	836	109,355	96,365,605	125	16,666
Kentucky	11	(D)	(D)	-	-	12	27	13,841	-	-
Louisiana	-	-	-	-	-	1	(D)	(D)	-	-
Maine	1	(D)	(D)	1	(D)	1	(D)	(D)	1	(D)
Maryland	16	454	463,750	3	(D)	22	92	26,565	-	-
Massachusetts	1	(D)	(D)	-	-	-	-	-	-	-
Michigan	54	5,498	6,913,293	2	(D)	62	2,070	3,082,838	2	(D)
Minnesota	385	87,790	140,422,605	6	392	266	37,775	52,114,289	2	(D)
Mississippi	1	(D)	(D)	-	-	1	(D)	(D)	-	-
Missouri	28	1,963	2,456,340	-	-	62	3,668	3,158,151	3	(D)
Montana	17	3,410	3,787,068	6	1,266	9	(D)	(D)	-	-
Nebraska	163	34,104	42,461,345	64	9,285	173	26,067	16,941,244	50	3,186
New Jersey	-	-	-	-	-	3	4	(D)	-	-
New Mexico	-	-	-	-	-	2	(D)	(D)	2	(D)
New York	21	339	366,572	-	-	63	438	363,693	8	8
North Carolina	15	105	63,350	-	-	63	281	171,207	4	(D)
North Dakota	2,666	894,159	1,294,632,956	7	1,065	3,089	930,893	1,180,923,684	5	511
Ohio	4	102	143,800	-	-	19	817	834,047	-	-
Oklahoma	20	3,626	6,574,767	4	1,956	22	(D)	(D)	5	(D)
Oregon	4	444	323,255	4	326	1	(D)	(D)	1	(D)
Pennsylvania	25	(D)	250,807	-	-	51	460	343,813	3	3
South Carolina	22	474	202,594	-	-	54	303	76,772	7	(D)
South Dakota	861	380,313	582,128,519	10	(D)	965	300,690	268,539,114	8	(D)
Tennessee	2	(D)	(D)	-	-	-	-	-	-	-
Texas	66	14,356	18,892,241	37	5,422	58	8,760	8,430,473	39	5,323
Utah	10	(D)	(D)	2	(D)	3	(D)	(D)	1	(D)
Vermont	2	(D)	(D)	-	-	2	(D)	(D)	-	-
Virginia	21	(D)	(D)	1	(D)	11	186	28,722	1	(D)
Washington	2	(D)	(D)	-	-	-	-	-	-	-
Wisconsin	72	3,569	4,329,221	-	-	40	2,036	2,719,263	1	(D)
Wyoming	15	3,834	2,384,332	2	(D)	12	2,424	803,250	3	(D)
SUNFLOWER SEED, NON-OIL VARIETIES (POUNDS)										
United States Total										
United States	1,135	290,096	377,475,597	206	28,922	1,477	332,607	347,881,463	193	23,654
States										
Alabama	2	(D)	(D)	-	-	15	32	8,000	-	-
California	40	3,432	4,195,789	35	2,914	74	6,341	7,590,430	43	5,030
Colorado	67	12,979	19,034,188	43	5,652	69	15,908	16,085,464	37	6,136
Delaware	2	(D)	(D)	-	-	1	(D)	(D)	-	-
Georgia	6	124	75,700	-	-	10	69	20,644	1	(D)
Idaho	1	(D)	(D)	1	(D)	1	(D)	(D)	1	(D)
Illinois	11	127	134,147	1	(D)	28	231	150,064	-	-
Indiana	1	(D)	(D)	1	(D)	8	25	11,300	-	-
Iowa	1	(D)	(D)	-	-	1	(D)	(D)	-	-
Kansas	76	16,522	22,672,117	32	5,776	67	9,772	9,578,153	27	3,048
Kentucky	3	(D)	(D)	-	-	5	27	18,700	-	-
Louisiana	1	(D)	(D)	-	-	3	(D)	(D)	-	-
Maine	-	-	-	-	-	1	(D)	(D)	1	(D)
Maryland	6	142	150,400	1	(D)	4	12	8,400	-	-
Massachusetts	-	-	-	-	-	3	3	(D)	1	(D)

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
SUNFLOWER SEED, NON-OIL VARIETIES (POUNDS) - Con.										
States - Con.										
Michigan	13	390	293,000	-	-	29	205	298,685	1	(D)
Minnesota	140	38,762	49,875,423	-	-	120	27,739	32,154,136	-	-
Montana	-	-	-	-	-	1	(D)	(D)	-	-
Nebraska	69	13,471	18,671,995	41	6,077	51	7,333	5,464,163	14	1,416
New Jersey	2	(D)	(D)	1	(D)	3	4	(D)	-	-
New Mexico	2	(D)	(D)	2	(D)	1	(D)	(D)	1	(D)
New York	7	18	1,100	-	-	21	64	16,120	6	6
North Carolina	14	297	320,212	-	-	31	242	54,104	2	(D)
North Dakota	487	160,425	201,551,730	-	-	627	197,605	228,083,274	-	-
Ohio	-	-	-	-	-	12	32	34,330	-	-
Oklahoma	-	-	-	-	-	1	(D)	(D)	1	(D)
Oregon	9	167	104,713	7	157	3	(D)	300	3	(D)
Pennsylvania	8	(D)	154,600	1	(D)	27	477	222,958	3	3
South Carolina	17	290	46,500	-	-	29	213	34,778	2	(D)
South Dakota	62	19,868	31,539,986	1	(D)	143	48,098	34,664,205	2	(D)
Tennessee	6	(D)	(D)	-	-	-	-	-	-	-
Texas	57	20,953	26,801,447	27	7,384	71	16,687	12,378,335	41	7,436
Utah	2	(D)	(D)	2	(D)	2	(D)	(D)	1	(D)
Vermont	-	-	-	-	-	1	(D)	(D)	-	-
Virginia	3	(D)	(D)	1	(D)	3	4	400	2	(D)
Washington	2	(D)	(D)	2	(D)	-	-	-	-	-
West Virginia	4	8	1,500	-	-	-	-	-	-	-
Wisconsin	6	153	120,400	-	-	6	40	55,200	-	-
Wyoming	8	834	908,182	7	(D)	5	889	728,400	3	(D)
TOBACCO (POUNDS)										
United States Total										
United States	16,234	359,846	778,301,825	2,572	71,578	56,977	428,631	873,350,412	5,923	97,355
States										
Alabama	-	-	-	-	-	8	199	431,600	-	-
Connecticut	76	3,128	5,293,517	26	1,600	80	1,925	3,287,837	46	1,272
Florida	23	1,040	3,061,788	15	714	115	3,851	9,609,134	78	3,283
Georgia	224	17,989	39,810,076	141	9,006	822	25,060	49,998,195	436	16,288
Illinois	13	827	1,656,819	1	(D)	6	268	513,940	1	(D)
Indiana	267	2,174	4,525,089	9	219	1,282	4,034	7,411,634	57	317
Iowa	-	-	-	-	-	3	8	17,678	-	-
Kansas	-	-	-	-	-	12	(D)	(D)	3	(D)
Kentucky	8,113	87,641	196,259,377	999	13,999	29,237	110,734	219,978,920	2,226	15,026
Louisiana	-	-	-	-	-	6	301	(D)	6	301
Maryland	70	423	842,793	44	246	159	1,162	1,739,926	34	233
Massachusetts	60	1,324	2,328,982	18	310	50	1,113	1,792,954	24	653
Mississippi	-	-	-	-	-	7	158	256,301	-	-
Missouri	111	1,577	3,557,585	4	(D)	338	1,460	3,228,580	7	65
New York	-	-	-	-	-	1	(D)	(D)	1	(D)
North Carolina	2,622	170,083	365,958,031	742	31,212	7,850	167,677	353,125,841	1,645	40,437
Ohio	475	3,499	6,811,760	2	(D)	1,845	5,764	10,108,789	10	90
Pennsylvania	1,152	7,886	18,811,546	27	132	897	5,470	9,677,757	59	245
South Carolina	260	20,084	44,660,005	17	688	873	30,241	57,551,827	54	1,080
Tennessee	1,610	20,109	38,652,986	233	3,217	8,206	35,960	73,563,865	486	3,410
Virginia	895	20,881	43,338,678	291	10,006	4,184	30,308	64,751,252	743	14,499
West Virginia	68	248	478,054	3	(D)	544	1,373	1,874,110	3	(D)
Wisconsin	195	934	2,254,739	-	-	452	1,517	3,807,667	4	3
TRITICALE (BUSHELS)										
United States Total										
United States	464	49,636	2,533,989	124	14,600	290	20,292	890,690	94	7,027
States										
California	20	3,960	374,765	10	2,594	5	551	13,516	2	(D)
Colorado	50	4,453	169,135	16	1,022	11	649	14,404	4	337
Idaho	24	3,369	187,457	19	2,536	9	650	35,931	5	(D)
Illinois	1	(D)	(D)	-	-	-	-	-	-	-
Indiana	1	(D)	(D)	1	(D)	1	(D)	(D)	-	-
Iowa	5	148	9,760	-	-	2	(D)	(D)	-	-
Kansas	52	6,106	307,168	9	815	50	6,588	291,269	5	1,064
Maine	4	31	1,502	-	-	-	-	-	-	-
Maryland	8	468	28,538	-	-	6	80	1,052	-	-
Michigan	1	(D)	(D)	-	-	3	(D)	(D)	-	-
Minnesota	9	730	19,836	-	-	2	(D)	(D)	-	-
Missouri	4	149	5,803	-	-	1	(D)	(D)	-	-
Montana	10	677	24,919	4	249	9	683	11,544	3	(D)
Nebraska	19	1,122	43,840	1	(D)	20	1,563	36,395	7	432
Nevada	1	(D)	(D)	1	(D)	5	132	(D)	5	132
New Mexico	4	296	4,586	4	296	8	351	11,134	8	351
New York	62	2,407	115,853	-	-	33	744	25,191	2	(D)
North Carolina	6	271	10,826	-	-	1	(D)	(D)	-	-
North Dakota	8	814	32,277	-	-	2	(D)	(D)	-	-
Ohio	3	(D)	(D)	-	-	5	51	2,120	-	-
Oklahoma	13	1,583	24,475	-	-	12	858	20,486	-	-
Oregon	22	1,712	133,900	16	1,130	31	1,869	140,062	20	1,180
Pennsylvania	5	71	4,948	-	-	13	123	4,323	2	(D)
South Carolina	1	(D)	(D)	-	-	2	(D)	(D)	-	-

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
TRITICALE (BUSHELS) - Con.										
States - Con.										
South Dakota	15	1,587	40,644	-	-	-	-	-	-	-
Texas	31	7,264	400,810	17	3,878	18	2,032	103,779	10	1,482
Utah	4	180	15,671	2	(D)	5	260	15,242	5	260
Virginia	6	222	12,115	-	-	1	(D)	(D)	-	-
Washington	58	9,427	481,099	23	1,454	26	2,288	122,442	16	1,169
West Virginia	1	(D)	(D)	-	-	-	-	-	-	-
Wisconsin	12	904	16,767	-	-	9	180	4,510	-	-
Wyoming	4	923	(D)	1	(D)	-	-	-	-	-
WILD RICE (CWT)										
United States Total										
United States	94	57,204	646,598	86	47,916	97	38,007	285,594	96	37,982
States										
California	61	20,873	322,694	61	20,873	54	13,871	178,187	54	13,871
Idaho	4	369	428	2	(D)	-	-	-	-	-
Michigan	1	(D)	(D)	-	-	-	-	-	-	-
Minnesota	22	35,221	320,696	17	26,083	38	23,488	106,521	38	23,488
Oregon	2	(D)	(D)	2	(D)	2	(D)	(D)	1	(D)
Wisconsin	4	391	1,700	4	391	3	(D)	(D)	3	(D)
WHEAT FOR GRAIN, ALL (BUSHELS)										
United States Total										
United States	160,810	50,932,969	1,993,648,378	15,213	3,364,079	169,528	45,519,976	1,577,005,140	13,330	2,910,181
States										
Alabama	520	76,202	3,123,596	13	1,116	507	57,650	2,278,237	6	304
Arizona	201	85,567	8,715,906	201	85,567	232	100,078	9,600,854	232	100,078
Arkansas	2,112	696,681	27,859,060	199	65,896	2,971	770,551	34,967,687	201	43,179
California	1,191	354,165	30,224,394	1,000	300,284	1,573	410,369	33,590,674	1,278	338,749
Colorado	3,695	2,369,096	88,427,841	1,063	164,702	3,236	1,666,332	37,528,989	875	138,415
Connecticut	3	55	2,300	1	(D)	4	52	3,250	1	(D)
Delaware	340	54,546	3,635,755	88	10,541	371	53,497	3,604,610	64	6,581
Florida	79	9,157	497,844	3	(D)	68	6,108	211,973	5	(D)
Georgia	1,332	228,959	9,206,001	268	32,440	1,305	185,301	7,664,451	169	19,022
Idaho	2,850	1,191,086	84,614,401	1,908	529,424	2,736	1,201,942	78,507,447	1,793	502,284
Illinois	9,416	891,567	47,291,213	94	8,119	8,592	581,084	27,923,042	34	2,754
Indiana	5,058	362,571	19,693,426	89	6,960	5,907	299,873	15,345,210	30	2,862
Iowa	577	29,512	1,383,753	9	(D)	412	18,317	961,995	1	(D)
Kansas	22,630	8,527,780	270,115,386	2,123	517,995	24,236	8,080,854	262,980,052	1,739	423,549
Kentucky	1,414	239,267	11,108,925	2	(D)	2,145	318,856	16,447,721	2	(D)
Louisiana	815	215,177	11,502,018	44	7,652	690	148,926	5,708,218	33	2,155
Maine	13	512	22,474	1	(D)	12	302	(D)	1	(D)
Maryland	1,497	166,713	10,717,293	64	4,631	1,629	162,062	10,625,133	38	2,040
Massachusetts	7	(D)	(D)	2	(D)	5	(D)	(D)	-	-
Michigan	6,263	523,153	33,583,908	122	6,420	6,561	433,783	28,248,938	81	5,396
Minnesota	6,727	1,718,565	82,488,109	93	8,731	7,023	1,920,238	64,609,805	33	3,376
Mississippi	1,006	331,767	18,175,120	64	10,698	796	151,317	5,980,347	55	7,389
Missouri	7,640	881,227	36,293,751	194	40,715	8,475	811,586	34,888,755	191	37,472
Montana	5,460	5,059,916	147,533,888	897	161,697	5,504	4,876,699	112,449,587	659	111,490
Nebraska	8,037	1,964,302	81,748,076	1,711	256,119	6,674	1,526,775	50,299,684	784	101,120
Nevada	42	12,826	1,279,268	42	12,826	34	4,687	383,563	34	4,687
New Hampshire	1	(D)	(D)	-	-	1	(D)	(D)	1	(D)
New Jersey	318	27,991	1,426,039	21	1,174	418	30,460	1,717,558	23	1,043
New Mexico	535	302,958	8,236,505	204	61,986	415	161,341	4,212,138	233	70,373
New York	1,058	84,955	4,544,032	-	-	1,488	115,680	6,639,707	31	698
North Carolina	3,184	511,713	19,917,842	171	6,560	3,488	446,438	18,926,777	133	8,311
North Dakota	12,303	8,428,462	293,464,779	99	15,978	12,908	7,909,124	215,655,462	114	19,186
Ohio	11,485	732,106	42,997,358	-	-	14,340	796,085	46,929,358	1	(D)
Oklahoma	8,744	3,421,098	89,968,524	522	134,620	9,611	3,592,828	102,044,001	371	92,003
Oregon	1,406	855,052	43,969,219	524	89,923	1,823	837,251	34,080,499	683	95,062
Pennsylvania	4,577	152,528	8,949,116	-	-	5,499	172,137	8,936,589	40	265
Rhode Island	-	-	-	-	-	1	(D)	(D)	-	-
South Carolina	726	136,766	3,986,026	47	3,342	967	155,776	5,710,029	48	3,905
South Dakota	7,163	3,341,778	141,003,068	75	8,394	5,007	1,596,086	42,413,607	59	5,618
Tennessee	1,358	254,944	10,445,442	12	875	1,780	279,978	13,061,055	5	1,539
Texas	8,565	3,844,241	134,643,897	2,021	595,275	9,031	2,664,425	75,131,556	1,868	498,134
Utah	602	137,404	5,771,071	442	41,319	568	112,714	3,847,763	408	34,928
Vermont	9	379	13,722	-	-	14	775	38,443	-	-
Virginia	1,348	200,342	12,345,217	44	1,500	1,793	174,887	10,213,252	19	822
Washington	2,612	2,096,350	120,617,390	614	155,021	3,414	2,355,451	128,410,931	873	217,031
West Virginia	122	5,960	336,553	-	-	148	6,408	303,924	-	-
Wisconsin	5,422	280,464	18,789,893	22	1,501	4,801	194,863	11,693,175	15	678
Wyoming	347	127,051	2,978,072	100	10,538	315	129,979	2,213,032	66	7,109

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
WINTER WHEAT FOR GRAIN (BUSHELS)										
United States Total										
United States	136,103	35,785,969	1,444,540,438	12,669	2,654,048	141,062	29,303,293	1,104,334,391	10,805	2,222,029
States										
Alabama	520	76,202	3,123,596	13	1,116	507	57,650	2,278,237	6	304
Arizona	18	4,044	353,709	18	4,044	30	6,486	557,027	30	6,486
Arkansas	2,112	696,681	27,859,060	199	65,896	2,971	770,551	34,967,687	201	43,179
California	879	249,704	20,157,552	686	196,420	1,228	313,495	23,935,058	944	243,950
Colorado	3,566	2,343,606	86,598,055	964	148,489	3,165	1,647,856	36,056,384	827	127,263
Connecticut	3	55	2,300	1	(D)	4	52	3,250	1	(D)
Delaware	340	54,546	3,635,755	88	10,541	371	53,497	3,604,610	64	6,581
Florida	79	9,157	497,844	3	(D)	68	6,108	211,973	5	(D)
Georgia	1,332	228,959	9,206,001	268	32,440	1,305	185,301	7,664,451	169	19,022
Idaho	2,059	729,704	52,991,573	1,216	(D)	1,923	675,290	47,642,293	1,095	(D)
Illinois	9,407	891,399	47,282,936	94	8,119	8,592	581,084	27,923,042	34	2,754
Indiana	5,058	362,571	19,693,426	89	6,960	5,907	299,873	15,345,210	30	2,862
Iowa	526	27,836	1,305,539	9	(D)	405	18,038	952,550	1	(D)
Kansas	22,630	8,527,780	270,115,386	2,123	517,995	24,236	8,080,854	262,980,052	1,739	423,549
Kentucky	1,414	239,267	11,108,925	2	(D)	2,145	318,856	16,447,721	2	(D)
Louisiana	815	215,177	11,502,018	44	7,652	690	148,926	5,708,218	33	2,155
Maine	6	129	6,994	-	-	10	(D)	(D)	1	(D)
Maryland	1,495	(D)	(D)	64	4,631	1,629	162,062	10,625,133	38	2,040
Massachusetts	7	(D)	(D)	2	(D)	5	(D)	(D)	-	-
Michigan	6,217	520,601	33,481,512	122	6,420	6,488	430,193	28,080,725	81	5,396
Minnesota	683	(D)	(D)	6	(D)	475	28,951	996,753	3	(D)
Mississippi	1,006	331,767	18,175,120	64	10,698	796	151,317	5,980,347	55	7,389
Missouri	7,640	881,227	36,293,751	194	40,715	8,475	811,586	34,888,755	191	37,472
Montana	3,000	2,194,539	81,551,235	294	40,439	1,481	784,931	21,003,608	103	13,259
Nebraska	7,895	1,955,736	81,449,590	1,681	253,681	6,673	1,526,025	50,291,179	784	(D)
Nevada	37	11,838	1,190,936	37	11,838	26	3,109	268,529	26	3,109
New Hampshire	1	(D)	(D)	-	-	1	(D)	(D)	1	(D)
New Jersey	318	27,991	1,426,039	21	1,174	418	30,460	1,717,558	23	1,043
New Mexico	520	300,539	8,098,467	192	60,149	415	161,341	4,212,138	233	70,373
New York	1,012	82,172	4,422,712	-	-	1,482	115,300	6,630,107	31	698
North Carolina	3,184	511,713	19,917,842	171	6,560	3,488	446,438	18,926,777	133	8,311
North Dakota	1,434	446,115	21,336,301	3	456	315	65,965	2,155,698	-	-
Ohio	11,485	732,106	42,997,358	-	-	14,340	796,085	46,929,358	1	(D)
Oklahoma	8,744	3,421,098	89,968,524	522	134,620	9,611	3,592,828	102,044,001	371	92,003
Oregon	1,151	736,558	38,177,598	381	(D)	1,566	711,909	29,537,602	518	68,492
Pennsylvania	4,577	152,528	8,949,116	-	-	5,499	172,137	8,936,589	40	265
Rhode Island	-	-	-	-	-	1	(D)	(D)	-	-
South Carolina	726	136,766	3,986,026	47	3,342	967	155,776	5,710,029	48	3,905
South Dakota	4,461	1,995,368	89,916,077	57	6,533	2,151	646,340	18,789,968	28	2,073
Tennessee	1,358	254,944	10,445,442	12	875	1,780	279,978	13,061,055	5	1,539
Texas	8,493	3,825,581	134,070,553	2,012	592,648	9,028	2,663,505	75,101,434	1,867	(D)
Utah	546	129,946	5,386,467	390	37,461	492	102,245	3,437,995	348	30,515
Vermont	5	(D)	(D)	-	-	13	(D)	(D)	-	-
Virginia	1,348	200,342	12,345,217	44	1,500	1,793	174,887	10,213,252	19	822
Washington	2,303	1,652,961	100,463,766	429	112,393	3,002	1,802,614	104,532,829	608	153,767
West Virginia	122	5,960	336,553	-	-	148	6,408	303,924	-	-
Wisconsin	5,257	272,964	18,539,559	21	(D)	4,653	188,363	11,485,097	12	508
Wyoming	314	120,970	2,809,154	86	9,252	294	127,643	2,148,529	56	6,285
DURUM WHEAT FOR GRAIN (BUSHELS)										
United States Total										
United States	3,723	2,138,734	73,201,303	553	188,151	5,325	2,717,841	81,170,077	683	210,670
States										
Arizona	188	81,523	8,362,197	188	81,523	208	93,592	9,043,827	208	93,592
California	239	(D)	7,821,257	239	(D)	321	88,399	8,963,903	318	87,643
Colorado	32	(D)	(D)	26	4,921	4	416	50,517	3	(D)
Idaho	32	14,485	1,166,722	30	(D)	29	8,434	620,629	28	(D)
Minnesota	64	(D)	(D)	1	(D)	27	4,156	147,547	-	-
Montana	641	471,705	11,634,753	33	3,392	862	564,640	13,032,110	52	8,316
New Mexico	2	(D)	(D)	2	(D)	-	-	-	-	-
North Dakota	2,487	1,462,666	42,689,608	31	5,168	3,807	1,945,910	48,877,517	62	10,878
Oregon	5	165	13,380	1	(D)	-	-	-	-	-
South Dakota	24	7,403	184,348	-	-	46	6,364	127,822	-	-
Washington	9	1,793	138,646	2	(D)	21	5,930	306,205	12	(D)
OTHER SPRING WHEAT FOR GRAIN (BUSHELS)										
United States Total										
United States	28,733	13,008,266	475,906,637	2,681	521,880	30,333	13,498,842	391,500,672	2,581	477,482
States										
California	114	(D)	2,245,585	111	(D)	83	8,475	691,713	69	7,156
Colorado	127	(D)	(D)	85	11,292	96	18,060	1,422,088	58	(D)
Idaho	1,423	446,897	30,456,106	953	265,911	1,505	518,218	30,244,525	968	258,865
Illinois	12	168	8,277	-	-	-	-	-	-	-
Iowa	53	1,676	78,214	-	-	7	279	9,445	-	-
Maine	11	383	15,480	1	(D)	3	(D)	(D)	-	-
Maryland	2	(D)	(D)	-	-	-	-	-	-	-
Massachusetts	1	(D)	(D)	-	-	-	-	-	-	-

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Table 26. **Field Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
OTHER SPRING WHEAT FOR GRAIN (BUSHELS) - Con.										
States - Con.										
Michigan	55	2,552	102,396	-	-	116	3,590	168,213	-	-
Minnesota	6,217	1,646,309	79,279,840	88	(D)	6,688	1,887,131	63,465,505	30	(D)
Montana	3,621	2,393,672	54,347,900	699	117,866	4,515	3,527,128	78,413,869	561	89,915
Nebraska	164	8,566	298,486	35	2,438	6	750	8,505	1	(D)
Nevada	8	988	88,332	8	988	10	1,578	115,034	10	1,578
New Mexico	13	(D)	(D)	10	(D)	-	-	-	-	-
New York	76	2,783	121,320	-	-	7	380	9,600	-	-
North Dakota	10,670	6,519,681	229,438,870	70	10,354	10,988	5,897,249	164,622,247	56	8,308
Oregon	525	118,329	5,778,241	229	(D)	585	125,342	4,542,897	261	26,570
South Dakota	4,000	1,339,007	50,902,643	24	1,861	3,593	943,382	23,495,817	34	3,545
Texas	78	18,660	573,344	9	2,627	3	920	30,122	1	(D)
Utah	86	7,458	384,604	72	3,858	127	10,469	409,768	84	4,413
Vermont	6	(D)	(D)	-	-	1	(D)	(D)	-	-
Washington	1,232	441,596	20,014,978	272	(D)	1,792	546,907	23,571,897	435	(D)
Wisconsin	202	7,500	250,334	1	(D)	183	6,500	208,078	3	170
Wyoming	37	6,081	168,918	14	1,286	25	2,336	64,503	10	824

Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
FIELD AND GRASS SEED CROPS, ALL (SEE TEXT)										
United States Total										
United States	6,038	1,178,726	(X)	1,457	323,441	10,332	1,422,133	(X)	1,705	271,935
States										
Alabama	36	(D)	(X)	4	76	134	5,449	(X)	6	222
Alaska	7	337	(X)	3	97	8	324	(X)	4	65
Arizona	88	19,275	(X)	87	19,231	39	7,678	(X)	39	7,678
Arkansas	31	2,734	(X)	-	-	157	11,976	(X)	-	-
California	176	68,948	(X)	167	68,197	269	67,838	(X)	263	67,601
Colorado	21	2,771	(X)	15	2,499	39	2,810	(X)	21	848
Connecticut	2	(D)	(X)	-	-	-	-	(X)	-	-
Florida	99	14,264	(X)	13	(D)	169	20,131	(X)	14	1,100
Georgia	50	6,414	(X)	6	(D)	64	8,007	(X)	5	(D)
Idaho	311	70,933	(X)	128	16,161	442	94,130	(X)	200	25,575
Illinois	48	1,029	(X)	-	-	88	2,354	(X)	-	-
Indiana	6	201	(X)	1	(D)	14	249	(X)	-	-
Iowa	24	1,111	(X)	-	-	87	2,757	(X)	-	-
Kansas	161	15,667	(X)	5	782	640	54,589	(X)	7	818
Kentucky	139	5,141	(X)	8	131	59	2,973	(X)	-	-
Louisiana	3	(D)	(X)	1	(D)	1	(D)	(X)	-	-
Maine	1	(D)	(X)	-	-	-	-	(X)	-	-
Maryland	1	(D)	(X)	-	-	25	274	(X)	-	-
Massachusetts	-	-	(X)	-	-	1	(D)	(X)	-	-
Michigan	62	2,174	(X)	4	50	112	3,311	(X)	1	(D)
Minnesota	146	43,585	(X)	9	560	213	41,844	(X)	3	(D)
Mississippi	26	1,147	(X)	-	-	57	1,645	(X)	4	108
Missouri	1,884	176,138	(X)	2	(D)	4,096	355,850	(X)	12	588
Montana	147	31,008	(X)	70	12,889	155	22,086	(X)	64	6,489
Nebraska	60	3,769	(X)	13	1,183	97	5,230	(X)	12	935
Nevada	19	6,498	(X)	19	6,498	22	8,557	(X)	22	8,557
New Jersey	5	71	(X)	-	-	-	-	(X)	-	-
New Mexico	25	741	(X)	21	410	41	1,094	(X)	39	889
New York	53	2,420	(X)	-	-	211	8,435	(X)	8	(D)
North Carolina	13	784	(X)	-	-	136	4,563	(X)	-	-
North Dakota	7	379	(X)	-	-	18	1,121	(X)	2	(D)
Ohio	33	1,081	(X)	-	-	178	3,941	(X)	-	-
Oklahoma	120	8,783	(X)	5	1,227	201	15,189	(X)	8	815
Oregon	1,258	556,876	(X)	555	129,860	1,413	545,519	(X)	563	93,298
Pennsylvania	40	883	(X)	-	-	92	3,115	(X)	1	(D)
South Carolina	44	1,033	(X)	3	(D)	39	1,640	(X)	-	-
South Dakota	92	10,784	(X)	2	(D)	87	7,575	(X)	9	416
Tennessee	21	510	(X)	-	-	65	1,952	(X)	-	-
Texas	245	13,397	(X)	49	3,009	207	8,818	(X)	22	2,280
Utah	61	4,235	(X)	56	3,790	83	5,155	(X)	76	3,416
Vermont	3	32	(X)	-	-	1	(D)	(X)	-	-
Virginia	101	2,180	(X)	4	24	48	1,119	(X)	-	-
Washington	284	81,081	(X)	135	39,928	388	81,548	(X)	224	40,046
West Virginia	-	-	(X)	-	-	2	(D)	(X)	-	-
Wisconsin	8	1,328	(X)	2	(D)	60	5,033	(X)	2	(D)
Wyoming	77	13,216	(X)	70	11,754	74	6,162	(X)	74	6,156
ALFALFA SEED (POUNDS)										
United States Total										
United States	806	121,467	62,115,239	569	102,958	1,234	110,617	58,020,460	740	87,177
States										
Arizona	53	5,206	1,902,669	53	5,206	21	2,511	574,020	21	2,511
California	114	36,625	19,083,458	114	36,625	153	27,160	15,543,144	153	27,160
Colorado	8	1,815	(D)	7	1,807	15	406	58,293	11	323
Idaho	92	12,788	9,346,709	88	12,011	164	17,126	13,910,135	160	17,036
Iowa	5	(D)	(D)	-	-	52	471	12,467	-	-
Kansas	5	342	22,430	-	-	144	8,272	1,133,502	4	55
Michigan	10	(D)	15,610	-	-	10	114	8,870	-	-
Minnesota	17	611	63,461	4	(D)	23	658	59,245	-	-
Missouri	19	399	40,540	-	-	18	362	29,709	-	-
Montana	80	10,338	3,729,635	42	6,385	83	6,824	2,024,033	51	5,112
Nebraska	29	545	21,216	2	(D)	59	1,470	109,428	4	84
Nevada	19	6,498	4,237,101	19	6,498	22	(D)	4,695,737	22	(D)
New Mexico	15	310	29,907	15	310	33	697	75,036	33	697
New York	3	27	6,180	-	-	17	1,165	101,827	-	-
North Dakota	6	(D)	34,784	-	-	13	695	38,482	2	(D)
Ohio	1	(D)	(D)	-	-	3	(D)	2,520	-	-
Oklahoma	29	2,004	281,121	1	(D)	47	2,266	335,878	1	(D)
Oregon	32	4,959	3,183,375	32	4,959	62	5,605	3,783,887	60	5,558
Pennsylvania	-	-	-	-	-	3	(D)	480	-	-
South Dakota	47	6,014	428,447	-	-	67	5,456	327,576	3	(D)
Texas	24	546	79,885	23	536	9	606	77,600	5	412
Utah	54	3,803	2,077,813	51	3,516	68	2,596	830,889	62	2,057
Washington	82	17,127	10,860,608	63	15,233	103	14,161	11,887,387	103	14,161
Wyoming	62	10,548	5,915,816	55	9,586	45	4,049	2,400,315	45	4,049

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
BAHIA GRASS SEED (POUNDS)										
United States Total										
United States	184	17,326	1,884,964	13	1,196	443	29,021	2,274,519	22	1,388
States										
Alabama	9	(D)	(D)	-	-	84	3,104	406,163	2	(D)
Florida	93	13,652	1,440,046	11	(D)	167	19,916	1,303,522	14	1,100
Georgia	7	393	56,000	-	-	5	218	66,650	1	(D)
Louisiana	1	(D)	(D)	-	-	-	-	-	-	-
Mississippi	15	694	151,331	-	-	23	942	126,148	1	(D)
Oklahoma	1	(D)	(D)	-	-	8	385	27,940	2	(D)
South Carolina	3	(D)	1,634	1	(D)	17	191	5,810	-	-
Texas	55	1,571	203,023	1	(D)	139	4,265	338,286	2	(D)
BENTGRASS SEED (POUNDS)										
United States Total										
United States	64	(D)	(D)	34	3,812	79	(D)	(D)	50	(D)
States										
Illinois	1	(D)	(D)	-	-	-	-	-	-	-
Oregon	63	6,809	3,921,751	34	3,812	77	9,361	4,634,289	48	4,726
Washington	-	-	-	-	-	2	(D)	(D)	2	(D)
BERMUDA GRASS SEED (POUNDS)										
United States Total										
United States	176	37,750	16,115,285	114	36,134	184	42,617	16,757,215	128	39,429
States										
Arizona	27	6,797	2,971,124	26	6,753	18	4,487	1,566,360	18	4,487
Arkansas	-	-	-	-	-	2	(D)	(D)	-	-
California	73	28,321	12,693,167	73	28,041	105	34,281	14,499,181	105	34,281
Colorado	-	-	-	-	-	1	(D)	(D)	-	-
Georgia	5	128	19,200	1	(D)	-	-	-	-	-
Indiana	1	(D)	(D)	1	(D)	-	-	-	-	-
Kansas	1	(D)	(D)	1	(D)	-	-	-	-	-
Louisiana	1	(D)	(D)	1	(D)	-	-	-	-	-
Mississippi	7	66	4,101	-	-	21	337	29,535	1	(D)
New Mexico	1	(D)	(D)	1	(D)	-	-	-	-	-
Oklahoma	24	1,802	348,350	4	(D)	25	1,368	156,837	3	(D)
Oregon	-	-	-	-	-	3	1,580	400,000	-	-
South Carolina	3	21	10,500	-	-	-	-	-	-	-
Texas	33	534	58,698	6	79	9	532	100,902	1	(D)
BIRDSFOOT TREFOIL SEED (POUNDS)										
United States Total										
United States	20	1,014	72,825	1	(D)	89	4,676	418,343	1	(D)
States										
California	1	(D)	(D)	1	(D)	-	-	-	-	-
Michigan	7	409	13,025	-	-	37	962	56,481	1	(D)
Minnesota	4	(D)	9,400	-	-	10	390	46,580	-	-
New York	5	65	(D)	-	-	13	(D)	(D)	-	-
Pennsylvania	-	-	-	-	-	1	(D)	(D)	-	-
Wisconsin	3	402	46,000	-	-	28	2,929	290,146	-	-
BROMEGRASS SEED (POUNDS)										
United States Total										
United States	80	5,287	1,307,702	14	550	236	16,082	5,000,215	23	809
States										
Colorado	4	19	682	4	19	6	87	(D)	5	38
Idaho	5	408	299,259	-	-	7	530	305,064	1	(D)
Iowa	-	-	-	-	-	1	(D)	(D)	-	-
Kansas	39	3,220	558,633	-	-	159	11,948	3,032,108	1	(D)
Kentucky	-	-	-	-	-	2	(D)	(D)	-	-
Minnesota	2	(D)	(D)	-	-	3	(D)	3,800	-	-
Missouri	8	130	8,918	-	-	8	90	6,475	-	-
Montana	3	150	45,000	3	150	2	(D)	(D)	1	(D)
Nebraska	7	204	59,960	2	(D)	12	437	30,270	-	-
New Mexico	2	(D)	(D)	2	(D)	-	-	-	-	-
New York	-	-	-	-	-	2	(D)	(D)	-	-
Oklahoma	2	(D)	(D)	-	-	1	(D)	(D)	1	(D)
Oregon	1	(D)	(D)	-	-	7	483	508,444	2	(D)
Pennsylvania	-	-	-	-	-	1	(D)	(D)	-	-
South Dakota	2	(D)	(D)	-	-	-	-	-	-	-
Utah	1	(D)	(D)	1	(D)	1	(D)	(D)	1	(D)

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
BROMEGRASS SEED (POUNDS) - Con.										
States - Con.										
Virginia	-	-	-	-	-	1	(D)	(D)	-	-
Washington	1	(D)	(D)	-	-	15	1,471	722,549	3	310
Wyoming	3	(D)	(D)	2	(D)	8	304	148,256	8	304
CRIMSON CLOVER SEED (POUNDS)										
United States Total										
United States	67	3,496	2,602,578	11	457	56	3,166	2,002,569	9	507
States										
Alabama	-	-	-	-	-	3	(D)	8,600	-	-
Georgia	2	(D)	(D)	-	-	1	(D)	(D)	1	(D)
Michigan	1	(D)	(D)	-	-	1	(D)	(D)	-	-
Missouri	1	(D)	(D)	-	-	3	(D)	1,290	-	-
New York	3	87	10,800	-	-	-	-	-	-	-
North Carolina	1	(D)	(D)	-	-	-	-	-	-	-
Oregon	54	3,022	2,469,588	9	(D)	45	2,311	1,738,179	7	(D)
Texas	1	(D)	(D)	1	(D)	-	-	-	-	-
Virginia	1	(D)	(D)	-	-	2	(D)	(D)	-	-
Washington	3	(D)	57,200	1	(D)	-	-	-	-	-
Wyoming	-	-	-	-	-	1	(D)	(D)	1	(D)
FESCUE SEED (POUNDS)										
United States Total										
United States	2,917	386,122	303,243,394	272	39,930	5,172	565,691	323,023,498	280	34,491
States										
Alabama	6	476	225,600	-	-	36	1,155	172,360	2	(D)
Alaska	1	(D)	(D)	1	(D)	-	-	-	-	-
Arkansas	29	(D)	370,868	-	-	147	11,331	2,485,471	-	-
California	1	(D)	(D)	1	(D)	-	-	-	-	-
Colorado	-	-	-	-	-	1	(D)	(D)	1	(D)
Florida	5	(D)	(D)	2	(D)	1	(D)	(D)	-	-
Georgia	22	307	84,208	2	(D)	39	537	70,720	2	(D)
Idaho	13	742	385,546	3	148	21	1,743	740,406	4	221
Illinois	-	-	-	-	-	6	82	10,606	-	-
Indiana	-	-	-	-	-	3	(D)	258	-	-
Iowa	-	-	-	-	-	3	65	(D)	-	-
Kansas	67	8,228	1,335,081	-	-	165	21,323	4,599,538	-	-
Kentucky	118	4,596	1,090,602	6	(D)	41	2,469	427,547	-	-
Minnesota	1	(D)	(D)	-	-	-	-	-	-	-
Mississippi	1	(D)	(D)	-	-	7	286	31,220	-	-
Missouri	1,765	170,074	30,452,161	2	(D)	3,548	319,954	64,790,097	7	(D)
Montana	4	39	9,300	2	(D)	2	(D)	(D)	1	(D)
Nebraska	-	-	-	-	-	2	(D)	(D)	1	(D)
New Mexico	5	11	11,700	2	(D)	-	-	-	-	-
North Carolina	9	328	55,315	-	-	126	3,263	443,442	-	-
Ohio	-	-	-	-	-	1	(D)	(D)	-	-
Oklahoma	30	2,023	359,009	-	-	73	6,595	1,295,319	-	-
Oregon	693	190,472	263,002,921	233	38,150	807	188,101	241,965,678	228	30,421
South Carolina	23	492	189,415	2	(D)	15	864	164,640	-	-
Tennessee	21	(D)	137,222	-	-	59	1,728	330,478	-	-
Texas	6	88	5,319	2	(D)	-	-	-	-	-
Utah	-	-	-	-	-	1	(D)	(D)	1	(D)
Virginia	69	1,191	606,525	2	(D)	9	362	(D)	-	-
Washington	26	3,601	4,762,252	11	1,171	51	4,922	5,211,265	25	2,586
Wisconsin	1	(D)	(D)	-	-	-	-	-	-	-
Wyoming	1	(D)	(D)	1	(D)	8	231	83,180	8	231
KENTUCKY BLUEGRASS SEED (POUNDS)										
United States Total										
United States	475	151,299	86,903,842	160	40,555	525	148,418	76,414,727	161	37,975
States										
Alaska	1	(D)	(D)	-	-	3	(D)	(D)	2	(D)
California	-	-	-	-	-	1	(D)	(D)	1	(D)
Colorado	1	(D)	(D)	1	(D)	1	(D)	(D)	1	(D)
Idaho	170	52,714	27,155,744	12	(D)	181	57,592	24,820,925	17	6,458
Illinois	-	-	-	-	-	1	(D)	(D)	-	-
Kansas	-	-	-	-	-	7	190	15,450	-	-
Kentucky	3	265	34,400	1	(D)	2	(D)	(D)	-	-
Minnesota	57	24,005	4,250,594	-	-	59	22,097	5,368,880	1	(D)
Missouri	-	-	-	-	-	1	(D)	(D)	-	-
Montana	1	(D)	(D)	-	-	3	242	(D)	1	(D)
Nebraska	-	-	-	-	-	2	(D)	(D)	2	(D)
Nevada	-	-	-	-	-	2	(D)	(D)	2	(D)
Oregon	102	21,781	24,268,962	94	19,884	96	18,090	16,349,068	82	15,018
Utah	-	-	-	-	-	1	(D)	(D)	1	(D)
Washington	140	52,269	31,141,242	52	18,153	165	48,502	29,082,417	51	15,093

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
LADINO CLOVER SEED (POUNDS)										
United States Total										
United States	2	(D)	(D)	1	(D)	10	2,049	938,510	10	2,049
States										
California	1	(D)	(D)	1	(D)	10	2,049	938,510	10	2,049
Illinois	1	(D)	(D)	-	-	-	-	-	-	-
LESPEDEZA SEED (POUNDS)										
United States Total										
United States	66	4,909	1,132,473	1	(D)	358	23,898	5,413,440	2	(D)
States										
Alabama	1	(D)	(D)	-	-	2	(D)	(D)	-	-
Arkansas	-	-	-	-	-	4	(D)	28,042	-	-
Georgia	3	601	(D)	1	(D)	1	(D)	(D)	-	-
Illinois	-	-	-	-	-	3	(D)	(D)	-	-
Kansas	35	2,082	507,069	-	-	95	6,937	1,893,168	-	-
Kentucky	-	-	-	-	-	3	60	6,540	-	-
Missouri	19	755	161,501	-	-	220	13,251	2,664,997	2	(D)
North Carolina	2	(D)	(D)	-	-	8	556	163,000	-	-
Oklahoma	-	-	-	-	-	16	966	158,988	-	-
South Carolina	1	(D)	(D)	-	-	3	310	(D)	-	-
Tennessee	-	-	-	-	-	2	(D)	(D)	-	-
Texas	4	(D)	(D)	-	-	-	-	-	-	-
Virginia	1	(D)	(D)	-	-	1	(D)	(D)	-	-
ORCHARDGRASS SEED (POUNDS)										
United States Total										
United States	171	21,517	15,430,232	19	2,429	274	23,923	18,660,986	38	1,879
States										
Arizona	1	(D)	(D)	1	(D)	-	-	-	-	-
Colorado	1	(D)	(D)	1	(D)	1	(D)	(D)	1	(D)
Connecticut	2	(D)	(D)	-	-	-	-	-	-	-
Georgia	1	(D)	(D)	-	-	-	-	-	-	-
Idaho	2	(D)	(D)	2	(D)	4	(D)	14,245	3	56
Illinois	10	(D)	(D)	-	-	5	17	584	-	-
Indiana	1	(D)	(D)	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	2	(D)	(D)	-	-
Kansas	-	-	-	-	-	1	(D)	(D)	-	-
Kentucky	12	120	27,992	-	-	5	24	651	-	-
Maryland	-	-	-	-	-	18	208	10,570	-	-
Missouri	4	101	13,450	-	-	18	349	38,270	-	-
Nebraska	1	(D)	(D)	-	-	-	-	-	-	-
New York	-	-	-	-	-	6	173	14,550	-	-
North Carolina	-	-	-	-	-	10	112	6,200	-	-
Oregon	86	19,190	14,885,491	15	(D)	142	21,005	18,092,966	30	1,322
Pennsylvania	14	130	6,360	-	-	13	484	27,291	-	-
Tennessee	1	(D)	(D)	-	-	6	81	6,276	-	-
Virginia	25	895	114,507	-	-	31	604	62,863	-	-
Washington	10	252	(D)	-	-	11	(D)	317,876	3	(D)
Wyoming	-	-	-	-	-	1	(D)	(D)	1	(D)
RED CLOVER SEED (POUNDS)										
United States Total										
United States	434	21,387	8,213,873	107	5,657	1,240	43,936	9,284,591	111	4,484
States										
Alabama	-	-	-	-	-	1	(D)	(D)	-	-
California	-	-	-	-	-	4	(D)	(D)	4	(D)
Colorado	1	(D)	(D)	1	(D)	-	-	-	-	-
Idaho	25	959	571,430	25	959	22	975	543,900	22	975
Illinois	23	530	64,161	-	-	58	1,644	173,358	-	-
Indiana	3	(D)	(D)	-	-	9	172	12,040	-	-
Iowa	4	149	8,940	-	-	9	321	55,024	-	-
Kansas	9	201	18,310	-	-	94	4,392	389,043	-	-
Kentucky	7	80	6,665	1	(D)	3	65	(D)	-	-
Maryland	-	-	-	-	-	2	(D)	(D)	-	-
Michigan	28	1,220	202,150	1	(D)	68	1,799	207,918	-	-
Minnesota	8	311	39,465	-	-	53	1,886	218,117	-	-
Mississippi	-	-	-	-	-	2	(D)	(D)	-	-
Missouri	68	2,580	245,074	-	-	417	14,530	1,473,725	-	-
Nebraska	3	116	26,600	1	(D)	9	130	5,830	-	-
New Jersey	1	(D)	(D)	-	-	-	-	-	-	-
New York	35	1,675	342,707	-	-	82	2,677	399,797	-	-
Ohio	32	1,055	141,893	-	-	171	3,756	270,293	-	-
Oklahoma	-	-	-	-	-	3	41	7,340	-	-
Oregon	153	10,771	5,738,623	63	3,592	160	8,588	4,561,932	67	2,436
Pennsylvania	5	49	2,045	-	-	23	308	28,316	1	(D)

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
RED CLOVER SEED (POUNDS) - Con.										
States - Con.										
South Carolina	3	6	150	-	-	-	-	-	-	-
South Dakota	1	(D)	(D)	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	1	(D)	(D)	-	-
Texas	-	-	-	-	-	1	(D)	(D)	-	-
Vermont	2	(D)	(D)	-	-	1	(D)	(D)	-	-
Virginia	3	20	2,248	-	-	1	(D)	(D)	-	-
Washington	8	531	295,360	4	(D)	14	778	577,551	7	446
Wisconsin	1	(D)	(D)	-	-	23	1,097	96,344	1	(D)
Wyoming	11	715	464,912	11	715	9	460	183,981	9	460
RYEGRASS SEED (POUNDS)										
United States Total										
United States	968	307,722	504,262,904	300	54,641	1,039	290,963	459,929,090	260	32,031
States										
Alabama	8	60	(D)	1	(D)	11	330	28,399	2	(D)
Arkansas	2	(D)	(D)	-	-	4	490	232,000	-	-
California	1	(D)	(D)	-	-	-	-	-	-	-
Colorado	1	(D)	(D)	1	(D)	-	-	-	-	-
Florida	-	-	-	-	-	3	(D)	(D)	-	-
Georgia	8	197	61,718	-	-	14	(D)	95,870	-	-
Idaho	5	72	14,101	1	(D)	4	88	31,860	2	(D)
Illinois	5	20	20,000	-	-	1	(D)	(D)	-	-
Iowa	2	(D)	(D)	-	-	3	20	4,968	-	-
Kansas	2	(D)	(D)	1	(D)	-	-	-	-	-
Kentucky	-	-	-	-	-	1	(D)	(D)	-	-
Maryland	-	-	-	-	-	2	(D)	(D)	-	-
Massachusetts	-	-	-	-	-	1	(D)	(D)	-	-
Michigan	12	155	49,220	1	(D)	2	(D)	(D)	-	-
Minnesota	56	12,390	8,898,982	1	(D)	2	(D)	(D)	-	-
Missouri	1	(D)	(D)	-	-	-	-	-	-	-
Montana	4	181	289,600	2	(D)	9	3,425	632,289	-	-
Nebraska	-	-	-	-	-	3	(D)	(D)	1	(D)
New Jersey	1	(D)	(D)	-	-	-	-	-	-	-
New York	7	57	176,520	-	-	57	1,660	344,594	2	(D)
North Carolina	-	-	-	-	-	5	178	4,800	-	-
North Dakota	1	(D)	(D)	-	-	-	-	-	-	-
Oklahoma	11	333	103,929	-	-	14	727	18,640	1	(D)
Oregon	762	289,230	490,229,604	275	53,397	814	280,222	456,542,090	223	30,820
Pennsylvania	-	-	-	-	-	24	334	76,182	-	-
South Carolina	7	197	60,860	-	-	1	(D)	(D)	-	-
South Dakota	2	(D)	(D)	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	2	(D)	(D)	-	-
Texas	38	609	120,066	2	(D)	20	382	24,914	2	(D)
Utah	4	(D)	3,614	4	(D)	3	19	876	3	19
Virginia	3	(D)	(D)	-	-	1	(D)	(D)	-	-
Washington	20	2,359	2,765,213	7	610	26	1,395	1,644,391	12	669
Wisconsin	2	(D)	(D)	1	(D)	-	-	-	-	-
Wyoming	3	84	37,580	3	84	12	184	90,961	12	178
SUDANGRASS SEED (POUNDS)										
United States Total										
United States	60	11,867	22,904,416	33	10,081	78	6,758	10,476,796	49	5,040
States										
Arizona	19	7,189	14,239,058	19	7,189	5	(D)	428,540	5	(D)
California	9	(D)	6,201,664	9	(D)	22	3,153	6,883,848	22	3,153
Colorado	-	-	-	-	-	1	(D)	(D)	-	-
Illinois	-	-	-	-	-	4	(D)	2,230	-	-
Indiana	-	-	-	-	-	1	(D)	(D)	-	-
Iowa	1	(D)	(D)	-	-	-	-	-	-	-
Kansas	5	435	411,950	-	-	9	469	211,970	-	-
Mississippi	3	241	75,300	-	-	-	-	-	-	-
Missouri	1	(D)	(D)	-	-	-	-	-	-	-
Nebraska	2	(D)	(D)	-	-	-	-	-	-	-
New Mexico	-	-	-	-	-	5	279	(D)	5	(D)
Oregon	6	(D)	(D)	2	(D)	5	158	196,300	1	(D)
Pennsylvania	1	(D)	(D)	-	-	-	-	-	-	-
Texas	13	786	(D)	3	(D)	11	903	864,218	1	(D)
Washington	-	-	-	-	-	15	838	1,802,240	15	838
TIMOTHY SEED (POUNDS)										
United States Total										
United States	72	3,882	1,542,881	7	(D)	216	16,288	4,310,826	6	34
States										
Colorado	1	(D)	(D)	1	(D)	-	-	-	-	-
Idaho	7	1,284	826,960	-	-	11	2,043	951,762	-	-
Illinois	1	(D)	(D)	-	-	1	(D)	(D)	-	-
Kentucky	-	-	-	-	-	3	20	2,500	-	-

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
TIMOTHY SEED (POUNDS) - Con.										
States - Con.										
Maine	1	(D)	(D)	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	3	(D)	2,200	-	-
Michigan	2	(D)	(D)	-	-	-	-	-	-	-
Minnesota	18	1,831	545,201	-	-	68	10,324	2,802,957	-	-
Missouri	2	(D)	(D)	-	-	14	256	30,825	-	-
New Jersey	3	(D)	1,800	-	-	-	-	-	-	-
New York	13	179	30,480	-	-	73	2,183	410,958	6	34
Ohio	2	(D)	(D)	-	-	5	(D)	5,845	-	-
Pennsylvania	16	163	15,807	-	-	32	1,324	94,789	-	-
Tennessee	-	-	-	-	-	1	(D)	(D)	-	-
Virginia	-	-	-	-	-	2	(D)	(D)	-	-
Washington	6	147	73,792	6	147	-	-	-	-	-
West Virginia	-	-	-	-	-	2	(D)	(D)	-	-
Wisconsin	-	-	-	-	-	1	(D)	(D)	-	-
VETCH SEED (POUNDS)										
United States Total										
United States	61	(D)	1,157,122	6	(D)	69	3,190	956,272	6	196
States										
Alabama	1	(D)	(D)	-	-	-	-	-	-	-
California	8	(D)	187,835	-	-	8	331	94,247	2	(D)
Georgia	-	-	-	-	-	1	(D)	(D)	-	-
Idaho	-	-	-	-	-	1	(D)	(D)	1	(D)
Illinois	-	-	-	-	-	5	35	6,284	-	-
Indiana	1	(D)	(D)	-	-	2	(D)	(D)	-	-
Iowa	1	(D)	(D)	-	-	-	-	-	-	-
Kansas	2	(D)	(D)	-	-	-	-	-	-	-
Maryland	1	(D)	(D)	-	-	-	-	-	-	-
Michigan	1	(D)	(D)	-	-	2	(D)	(D)	-	-
Minnesota	5	365	56,210	2	(D)	14	1,166	150,610	-	-
Mississippi	-	-	-	-	-	2	(D)	(D)	-	-
Missouri	3	(D)	(D)	-	-	2	(D)	(D)	-	-
Montana	3	204	204,000	-	-	-	-	-	-	-
Nebraska	2	(D)	(D)	-	-	4	311	18,369	-	-
Oklahoma	2	(D)	(D)	-	-	1	(D)	(D)	-	-
Oregon	19	766	544,118	-	-	8	284	259,340	-	-
Pennsylvania	3	67	(D)	-	-	5	(D)	70,460	-	-
Texas	3	(D)	(D)	1	(D)	2	(D)	(D)	-	-
Utah	1	(D)	(D)	1	(D)	-	-	-	-	-
Virginia	-	-	-	-	-	1	(D)	(D)	-	-
Washington	-	-	-	-	-	1	(D)	(D)	1	(D)
Wisconsin	3	216	(D)	-	-	8	(D)	23,920	-	-
Wyoming	2	(D)	(D)	2	(D)	2	(D)	(D)	2	(D)
WHEATGRASS SEED (POUNDS)										
United States Total										
United States	115	21,214	3,853,410	40	8,239	126	17,921	3,268,256	59	6,190
States										
Alaska	1	(D)	(D)	1	(D)	3	(D)	6,900	1	(D)
Colorado	1	(D)	(D)	1	(D)	5	(D)	6,904	5	(D)
Idaho	5	898	138,183	-	-	19	4,885	449,510	5	(D)
Kansas	1	(D)	(D)	1	(D)	2	(D)	(D)	2	(D)
Mississippi	2	(D)	(D)	-	-	2	(D)	(D)	2	(D)
Montana	46	14,158	1,178,323	16	4,716	32	5,385	403,618	8	672
Nebraska	4	373	115,000	4	373	2	(D)	(D)	2	(D)
North Dakota	-	-	-	-	-	1	(D)	(D)	-	-
Oklahoma	2	(D)	(D)	-	-	6	270	106,500	-	-
Oregon	1	(D)	(D)	1	(D)	6	61	13,800	6	61
South Dakota	29	2,165	679,397	-	-	7	(D)	93,324	-	-
Texas	4	(D)	(D)	1	(D)	-	-	-	-	-
Utah	1	(D)	(D)	-	-	7	1,029	100,257	6	(D)
Washington	11	2,282	1,233,451	8	2,119	28	4,730	1,736,020	16	3,537
Wyoming	7	808	415,000	7	808	6	533	274,856	6	533
WHITE CLOVER SEED (POUNDS)										
United States Total										
United States	32	4,059	1,472,657	6	583	21	(D)	(D)	4	153
States										
Idaho	2	(D)	(D)	-	-	1	(D)	(D)	-	-
Minnesota	1	(D)	(D)	-	-	-	-	-	-	-
Montana	2	(D)	(D)	-	-	-	-	-	-	-
Oregon	26	3,740	1,445,066	6	583	19	2,675	1,149,776	4	153
Texas	1	(D)	(D)	-	-	1	(D)	(D)	-	-

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
OTHER FIELD AND GRASS SEED CROPS (POUNDS) (SEE TEXT)										
United States Total										
United States	380	48,117	16,136,284	111	14,793	319	44,075	11,582,288	105	12,349
States										
Alabama	16	3,196	1,485,511	3	(D)	-	-	-	-	-
Alaska	7	266	24,553	3	(D)	7	150	8,682	3	(D)
Arizona	2	(D)	(D)	2	(D)	1	(D)	(D)	1	(D)
California	3	(D)	(D)	3	(D)	5	592	384,672	5	592
Colorado	7	306	10,996	2	(D)	3	330	82,500	-	-
Florida	1	(D)	(D)	-	-	-	-	-	-	-
Georgia	5	4,523	963,190	2	(D)	7	6,006	1,055,221	1	(D)
Idaho	20	834	630,791	14	(D)	9	1,113	378,438	2	(D)
Illinois	7	(D)	45,454	-	-	-	-	-	-	-
Iowa	11	318	15,725	-	-	17	1,480	101,874	-	-
Kansas	3	(D)	(D)	2	(D)	7	672	281,884	3	(D)
Kentucky	4	80	4,548	-	-	4	180	7,800	-	-
Louisiana	1	(D)	(D)	-	-	1	(D)	(D)	-	-
Michigan	4	82	9,020	2	(D)	-	-	-	-	-
Minnesota	26	3,579	601,485	3	(D)	34	4,920	655,991	2	(D)
Mississippi	3	44	2,400	-	-	-	-	-	-	-
Missouri	20	1,892	180,204	-	-	33	6,640	860,947	3	12
Montana	24	5,718	1,272,540	8	1,517	17	2,612	638,157	4	229
Nebraska	15	2,302	489,183	6	626	12	2,080	370,524	4	210
New Mexico	4	(D)	(D)	3	(D)	3	118	8,764	1	(D)
New York	4	330	(D)	-	-	6	(D)	46,850	-	-
North Carolina	2	(D)	(D)	-	-	6	454	347,500	-	-
North Dakota	-	-	-	-	-	1	(D)	(D)	-	-
Oklahoma	22	2,211	360,440	2	(D)	23	2,417	515,629	1	(D)
Oregon	57	5,746	4,647,256	25	2,909	52	5,465	3,743,872	30	2,342
Pennsylvania	4	(D)	20,670	-	-	1	(D)	(D)	-	-
South Carolina	4	48	(D)	-	-	3	(D)	21,500	-	-
South Dakota	14	2,429	539,825	2	(D)	12	1,800	322,780	6	(D)
Texas	67	8,569	1,648,639	11	2,201	15	2,020	438,715	11	1,473
Utah	2	(D)	(D)	1	(D)	4	(D)	21,275	3	74
Vermont	1	(D)	(D)	-	-	-	-	-	-	-
Virginia	2	(D)	(D)	2	(D)	1	(D)	(D)	-	-
Washington	11	2,310	(D)	8	2,159	30	2,487	1,031,888	23	1,952
Wisconsin	1	(D)	(D)	1	(D)	4	(D)	(D)	1	(D)
Wyoming	6	433	150,620	6	433	1	(D)	(D)	1	(D)
FORAGE - LAND USED FOR ALL HAY AND ALL HAYLAGE, GRASS SILAGE, AND GREENCHOP (TONS, DRY EQUIVALENT) (SEE TEXT)										
United States Total										
United States	869,534	61,455,483	155,393,762	86,007	10,264,753	884,831	64,041,337	154,976,932	81,995	10,269,779
States										
Alabama	18,735	883,196	1,641,373	356	10,556	18,060	823,039	1,900,762	283	8,927
Alaska	243	23,315	33,336	13	2,364	255	25,051	28,154	13	1,399
Arizona	1,176	309,018	2,215,580	1,122	307,367	1,088	289,334	2,087,130	1,088	289,334
Arkansas	22,939	1,334,153	2,966,184	514	20,958	22,755	1,414,857	3,219,368	462	14,525
California	7,411	1,723,147	10,642,531	5,954	1,554,197	8,273	1,952,522	11,202,962	6,485	1,676,935
Colorado	13,998	1,621,178	4,256,940	10,418	1,156,305	10,758	1,236,356	2,736,171	8,706	935,457
Connecticut	2,060	81,269	176,786	-	-	1,649	73,757	170,199	5	51
Delaware	430	14,211	37,989	35	875	493	18,499	53,740	26	1,392
Florida	5,755	354,860	1,120,290	516	42,984	4,600	299,435	860,405	442	31,950
Georgia	14,556	663,750	1,380,403	927	42,119	14,627	614,719	1,465,735	726	22,141
Hawaii	30	1,000	2,215	22	149	14	1,112	2,261	7	243
Idaho	11,159	1,316,296	5,198,288	8,788	1,021,414	10,949	1,335,171	4,856,156	8,463	1,022,977
Illinois	19,865	593,186	1,770,834	68	1,373	20,691	729,662	2,234,607	91	2,997
Indiana	18,917	546,764	1,306,246	215	5,770	22,196	625,898	1,611,419	77	2,928
Iowa	26,901	1,125,565	3,897,996	89	1,644	33,406	1,533,027	5,177,896	28	1,424
Kansas	29,266	2,800,129	6,916,201	1,662	272,537	29,760	3,086,085	6,413,838	1,660	300,999
Kentucky	49,825	2,456,564	4,042,948	274	3,447	50,765	2,362,356	5,106,450	30	395
Louisiana	8,798	463,695	1,176,324	249	8,326	7,999	406,827	1,022,638	183	4,805
Maine	3,048	197,757	428,423	-	-	2,765	209,955	446,171	8	(D)
Maryland	5,123	223,390	552,667	128	3,100	4,885	227,727	553,823	96	2,652
Massachusetts	2,424	93,811	198,593	12	83	2,017	93,745	209,771	6	31
Michigan	21,853	1,160,467	2,966,956	429	18,394	22,067	1,212,603	3,557,828	454	17,414
Minnesota	29,844	1,716,693	4,392,567	574	28,592	33,574	2,112,533	5,741,264	477	30,059
Mississippi	13,271	680,402	1,572,853	190	6,171	13,507	641,924	1,557,537	354	9,561
Missouri	57,184	3,895,401	7,182,875	282	9,452	57,507	4,142,725	8,101,048	199	9,037
Montana	12,796	2,822,442	5,490,353	6,996	1,059,816	12,943	2,590,090	4,517,416	7,104	1,076,262
Nebraska	20,576	2,563,515	6,289,171	5,024	494,391	22,981	2,862,592	5,647,370	5,371	532,965
Nevada	1,436	464,598	1,582,983	1,435	463,464	1,390	510,223	1,581,117	1,390	496,129
New Hampshire	1,581	76,877	178,138	7	45	1,322	71,272	159,579	1	(D)
New Jersey	3,130	115,669	226,883	58	1,376	3,117	119,052	236,270	56	985
New Mexico	5,583	365,843	1,565,071	5,163	314,068	4,205	335,872	1,306,058	3,627	275,316
New York	20,194	1,962,620	4,981,812	119	2,816	21,959	2,258,448	5,717,950	-	-
North Carolina	19,432	687,650	1,170,258	1,324	56,147	21,322	715,519	1,370,181	1,663	63,315
North Dakota	11,561	2,525,213	4,832,502	264	25,565	12,545	2,827,815	3,525,003	268	30,730
Ohio	31,440	1,156,523	2,807,279	27	632	33,939	1,271,137	3,085,746	16	530
Oklahoma	39,449	3,231,691	6,718,879	1,029	86,344	36,898	3,084,888	5,802,990	996	85,909
Oregon	12,590	1,038,735	3,129,873	6,688	739,289	12,697	1,110,395	3,307,921	6,655	819,356
Pennsylvania	34,923	1,747,589	4,487,424	226	2,177	35,767	1,956,072	4,526,973	429	4,007
Rhode Island	351	9,304	19,042	3	18	251	7,417	15,900	2	(D)

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
FORAGE - LAND USED FOR ALL HAY AND ALL HAYLAGE, GRASS SILAGE, AND GREENCHOP (TONS, DRY EQUIVALENT) (SEE TEXT) - Con.										
States - Con.										
South Carolina	7,830	340,951	591,501	275	6,797	7,985	342,207	684,149	292	5,347
South Dakota	16,121	3,239,947	6,502,232	797	87,670	17,885	3,659,123	5,361,944	1,003	147,277
Tennessee	42,280	1,784,808	2,732,930	344	4,394	46,957	1,917,323	4,011,467	128	1,908
Texas	90,860	5,264,287	14,477,068	5,701	424,623	83,013	4,982,165	11,407,323	5,211	412,593
Utah	8,930	690,946	2,569,087	8,458	628,996	8,606	717,984	2,392,884	7,876	636,505
Vermont	3,624	330,984	962,986	4	230	3,452	350,261	1,017,408	6	59
Virginia	25,986	1,305,624	2,464,783	377	9,767	27,544	1,377,442	2,534,457	797	19,781
Washington	10,243	846,140	3,595,392	4,262	493,255	10,473	914,054	3,783,219	4,518	513,198
West Virginia	16,449	614,794	986,097	22	238	14,679	562,810	957,776	12	174
Wisconsin	42,082	2,797,497	8,528,063	269	20,124	43,561	3,089,564	10,135,628	253	17,015
Wyoming	5,276	1,192,019	2,426,555	4,298	824,334	4,680	938,695	1,572,870	3,952	742,728
HAY - ALL HAY INCLUDING ALFALFA, OTHER TAME, SMALL GRAIN, AND WILD (TONS, DRY) (SEE TEXT)										
United States Total										
United States	845,050	58,121,003	138,113,218	82,892	9,830,856	870,541	60,645,417	137,858,890	79,751	9,879,867
States										
Alabama	18,212	866,277	1,616,684	345	10,606	17,900	819,378	1,879,293	271	8,970
Alaska	228	21,034	30,407	11	2,109	245	22,578	25,507	12	1,239
Arizona	1,146	297,614	2,119,609	1,091	295,590	1,056	278,803	2,004,919	1,056	278,801
Arkansas	22,918	1,336,909	2,948,072	513	21,053	22,749	1,418,119	3,203,596	457	14,647
California	6,723	1,528,198	8,850,559	5,369	1,385,186	7,751	1,780,836	9,856,047	6,054	1,540,999
Colorado	13,689	1,596,887	4,128,786	10,196	1,139,480	10,602	1,222,993	2,670,074	8,594	927,094
Connecticut	1,961	71,662	137,172	-	-	1,601	64,748	123,058	3	(D)
Delaware	414	12,400	32,265	31	807	481	15,428	36,189	24	760
Florida	5,372	327,547	1,010,257	464	34,679	4,501	271,250	749,319	412	26,774
Georgia	14,217	646,885	1,319,408	876	36,908	14,466	607,734	1,413,338	692	19,529
Hawaii	21	893	2,018	14	102	9	820	1,658	4	108
Idaho	10,940	1,285,972	4,738,169	8,595	988,705	10,801	1,284,663	4,442,165	8,325	977,422
Illinois	19,331	561,847	1,613,251	62	1,200	20,379	695,561	2,025,270	85	2,204
Indiana	18,461	515,042	1,171,614	185	3,391	21,949	605,916	1,504,631	66	2,334
Iowa	26,322	1,064,906	3,538,758	85	1,441	33,057	1,471,257	4,792,462	26	1,352
Kansas	28,221	2,731,639	6,514,309	1,599	258,789	29,369	3,023,079	6,152,789	1,572	277,838
Kentucky	49,229	2,436,743	3,969,020	265	3,341	50,505	2,350,667	5,011,155	30	402
Louisiana	8,463	445,345	1,130,882	244	8,131	7,936	401,969	1,007,929	178	4,580
Maine	2,924	153,284	275,605	-	-	2,667	171,280	278,933	8	46
Maryland	4,905	201,174	449,561	119	2,003	4,784	202,828	439,214	84	1,599
Massachusetts	2,295	81,829	154,947	11	49	1,976	85,022	165,412	5	28
Michigan	21,152	963,958	2,109,172	353	9,228	21,602	1,011,807	2,699,551	382	8,919
Minnesota	28,991	1,551,586	3,620,921	483	20,975	32,899	1,936,969	4,854,212	421	24,315
Mississippi	12,810	661,160	1,534,496	184	5,949	13,357	638,899	1,536,469	347	9,473
Missouri	56,263	3,827,077	7,018,678	273	8,984	57,253	4,115,921	7,920,152	189	8,833
Montana	12,658	2,821,154	5,363,210	6,902	1,045,208	12,881	2,581,761	4,441,493	7,045	1,074,322
Nebraska	20,289	2,567,911	6,106,699	4,956	485,739	22,832	2,846,560	5,494,311	5,308	525,895
Nevada	1,417	470,068	1,558,120	1,417	470,068	1,379	502,724	1,534,490	1,379	501,146
New Hampshire	1,530	62,989	120,814	7	45	1,270	55,948	99,197	1	(D)
New Jersey	3,036	111,525	207,489	56	1,384	3,052	116,122	216,747	54	972
New Mexico	5,385	352,155	1,448,600	4,984	302,355	4,098	302,821	1,122,618	3,531	245,561
New York	18,987	1,395,813	2,791,688	103	2,051	21,116	1,720,718	3,489,291	-	-
North Carolina	19,214	684,770	1,140,216	1,316	59,453	21,084	711,579	1,328,956	1,635	65,203
North Dakota	11,480	2,537,069	4,747,946	260	24,970	12,518	2,831,377	3,487,764	266	30,561
Ohio	30,523	1,061,666	2,384,282	27	632	33,525	1,190,882	2,728,144	15	431
Oklahoma	38,897	3,250,005	6,607,628	997	84,998	36,701	3,085,186	5,722,242	971	80,645
Oregon	12,056	998,055	2,926,331	6,385	715,170	12,399	1,081,766	3,166,367	6,545	806,280
Pennsylvania	33,043	1,454,762	3,219,629	197	1,591	34,754	1,678,837	3,299,209	351	2,611
Rhode Island	336	9,091	17,018	3	18	247	7,395	14,454	2	(D)
South Carolina	7,677	336,603	575,816	271	6,747	7,844	337,269	640,284	276	5,041
South Dakota	15,973	3,255,897	6,309,185	788	85,990	17,814	3,651,564	5,236,834	998	146,150
Tennessee	41,879	1,776,875	2,697,457	337	4,388	46,725	1,915,741	3,940,436	113	1,458
Texas	88,241	5,145,606	13,817,811	5,420	383,248	81,626	4,896,017	10,962,234	5,034	390,341
Utah	8,800	680,709	2,467,077	8,330	620,054	8,508	686,062	2,228,840	7,792	613,507
Vermont	3,184	191,781	399,716	4	198	3,139	208,474	400,794	6	59
Virginia	25,246	1,258,823	2,333,380	339	8,426	27,268	1,347,229	2,393,852	752	18,388
Washington	9,666	789,524	3,173,489	3,967	464,606	10,028	845,139	3,281,688	4,250	481,292
West Virginia	15,959	586,671	928,926	20	222	14,520	545,750	903,910	10	154
Wisconsin	39,139	1,946,970	4,353,023	182	9,461	40,647	2,064,209	5,394,791	176	8,189
Wyoming	5,227	1,186,643	2,383,048	4,256	815,128	4,671	935,762	1,536,602	3,944	743,350
ALFALFA HAY (TONS, DRY)										
United States Total										
United States	290,726	20,244,497	65,349,074	56,390	6,556,652	344,197	22,637,984	68,524,529	55,841	6,809,432
States										
Alabama	340	7,526	16,944	13	91	397	8,847	20,915	17	182
Alaska	-	-	-	-	-	3	80	57	1	(D)
Arizona	943	257,407	1,968,043	920	257,263	847	232,579	1,844,626	847	232,579
Arkansas	278	11,732	28,647	15	932	410	16,639	48,091	11	659
California	3,587	986,982	7,057,014	3,488	963,086	4,391	1,176,021	7,966,902	4,291	1,151,351
Colorado	8,648	861,053	2,887,865	7,347	707,234	7,904	770,432	2,105,340	6,769	654,024
Connecticut	349	8,343	18,441	-	-	373	9,825	22,709	1	(D)
Delaware	177	3,687	13,530	22	421	278	(D)	(D)	18	368

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
ALFALFA HAY (TONS, DRY) - Con.										
States - Con.										
Florida	141	6,951	14,993	13	1,071	105	3,494	7,875	7	198
Georgia	134	1,655	4,810	18	243	66	1,151	3,196	18	369
Hawaii	5	89	267	5	89	2	(D)	(D)	2	(D)
Idaho	8,817	1,037,520	4,254,543	7,605	861,092	8,984	1,033,827	3,981,882	7,512	840,262
Illinois	12,913	322,339	1,138,512	47	906	14,375	416,997	1,461,589	51	1,118
Indiana	10,775	241,129	665,767	139	2,185	14,103	320,210	945,169	58	2,241
Iowa	22,040	830,440	3,054,729	62	1,198	29,114	1,168,668	4,183,945	22	1,214
Kansas	9,643	793,140	2,986,134	1,115	207,455	11,762	938,209	3,021,997	1,138	233,791
Kentucky	10,538	269,610	524,565	109	1,210	13,604	310,874	892,378	28	347
Louisiana	52	2,164	4,768	2	(D)	123	6,040	13,954	6	(D)
Maine	246	10,089	23,876	-	-	304	13,944	27,987	5	(D)
Maryland	1,429	40,576	120,402	49	712	1,916	57,104	161,009	39	595
Massachusetts	406	9,921	22,537	1	(D)	549	15,756	37,427	4	(D)
Michigan	16,431	698,595	1,707,036	291	8,080	18,122	806,713	2,355,909	305	7,580
Minnesota	20,398	944,775	2,671,173	384	15,603	25,016	1,264,403	3,780,181	354	20,266
Mississippi	159	3,931	7,113	4	35	-	-	-	-	-
Missouri	8,229	295,021	782,847	63	1,823	10,675	399,647	1,063,201	75	3,225
Montana	9,711	1,868,756	3,936,445	5,444	703,960	9,997	1,529,867	3,030,279	5,702	715,481
Nebraska	14,820	1,085,921	3,955,881	4,405	389,516	18,033	1,341,230	4,002,492	4,924	450,344
Nevada	1,128	274,004	1,217,586	1,128	274,004	1,142	304,033	1,236,920	1,142	302,901
New Hampshire	218	5,373	13,475	5	(D)	247	7,938	17,468	-	-
New Jersey	728	20,310	51,483	39	799	1,039	26,854	63,969	10	302
New Mexico	4,272	236,103	1,176,242	4,091	222,018	3,198	188,273	909,983	2,852	174,271
New York	7,707	450,144	1,119,421	31	901	10,227	657,019	1,598,411	-	-
North Carolina	758	10,322	16,755	67	360	1,324	21,907	44,071	65	659
North Dakota	8,985	1,457,604	3,072,682	240	21,773	9,688	1,388,395	1,829,771	231	22,400
Ohio	15,354	437,658	1,256,174	17	536	20,531	614,615	1,641,270	11	377
Oklahoma	3,781	334,990	1,131,938	294	33,000	4,152	349,028	1,112,624	317	33,585
Oregon	3,569	428,812	1,777,894	3,043	380,679	4,130	487,661	1,994,354	3,402	440,229
Pennsylvania	14,402	475,873	1,357,225	109	462	18,665	669,130	1,632,745	156	1,034
Rhode Island	63	1,035	1,806	1	(D)	64	1,731	3,663	1	(D)
South Carolina	143	4,070	8,860	20	274	139	3,030	7,025	6	43
South Dakota	12,653	1,996,599	4,414,338	716	75,913	15,097	2,393,123	3,903,003	941	132,779
Tennessee	1,655	20,074	45,819	28	(D)	2,317	29,617	105,601	9	155
Texas	2,391	153,763	721,303	1,154	98,831	2,516	164,069	634,342	973	88,267
Utah	7,780	548,570	2,172,218	7,413	507,798	7,579	562,326	1,995,259	6,992	505,163
Vermont	571	31,769	68,624	2	(D)	748	44,573	89,578	3	(D)
Virginia	3,063	89,213	233,807	76	679	5,199	140,045	332,293	143	2,137
Washington	4,294	448,588	2,192,001	2,822	334,005	5,142	535,694	2,523,068	3,165	379,524
West Virginia	1,185	28,465	62,484	5	(D)	1,932	52,567	127,504	1	(D)
Wisconsin	30,810	1,517,522	3,673,619	171	8,809	34,109	1,657,958	4,637,344	161	7,166
Wyoming	4,007	674,284	1,696,438	3,357	471,126	3,559	489,825	1,086,534	3,055	401,880
SMALL GRAIN HAY (TONS, DRY)										
United States Total										
United States	70,603	3,866,721	8,253,840	9,845	706,525	76,584	4,354,516	7,501,232	9,840	665,293
States										
Alabama	1,252	46,537	93,747	41	1,077	903	33,935	69,645	24	397
Alaska	20	490	751	1	(D)	19	(D)	(D)	-	-
Arizona	109	11,189	38,886	106	10,310	97	(D)	27,623	97	(D)
Arkansas	691	29,654	68,450	20	1,321	579	26,896	62,444	17	528
California	2,488	252,097	652,287	1,477	181,178	2,961	315,166	863,751	1,580	159,852
Colorado	1,367	126,159	267,737	845	56,516	867	70,838	124,120	569	35,087
Connecticut	98	2,262	5,727	-	-	75	1,620	3,285	-	-
Delaware	48	1,434	3,498	2	(D)	54	1,226	2,503	3	132
Florida	347	14,884	40,224	55	3,644	195	9,690	23,597	30	1,560
Georgia	1,006	52,877	96,475	97	5,716	963	36,166	71,398	68	1,451
Idaho	1,093	62,066	180,692	723	42,946	1,356	75,101	174,915	967	51,544
Illinois	893	20,450	51,006	3	(D)	1,292	29,217	63,000	2	(D)
Indiana	757	16,081	34,323	12	(D)	904	16,349	31,637	-	-
Iowa	1,842	42,744	106,481	4	(D)	3,084	62,606	145,901	3	(D)
Kansas	2,695	172,396	384,572	211	18,857	2,258	126,676	185,093	127	10,243
Kentucky	2,487	82,276	164,754	40	404	3,440	84,571	208,494	-	-
Louisiana	524	20,260	49,809	16	(D)	402	16,681	36,167	3	(D)
Maine	100	5,690	10,388	-	-	80	3,484	5,651	-	-
Maryland	409	13,588	40,003	13	473	391	(D)	(D)	7	(D)
Massachusetts	93	2,901	5,343	1	(D)	71	1,748	3,737	-	-
Michigan	693	19,608	40,754	15	79	860	20,572	33,327	26	142
Minnesota	2,173	56,928	119,519	30	865	2,900	80,535	152,701	20	728
Mississippi	32	1,354	2,895	1	(D)	7	105	145	3	21
Missouri	2,560	99,796	194,111	12	274	2,261	79,683	168,295	14	1,133
Montana	2,166	232,048	412,842	826	52,130	2,710	309,830	429,733	1,053	75,478
Nebraska	1,871	104,301	222,395	391	28,872	2,021	115,073	162,310	302	20,576
Nevada	194	18,970	58,496	194	18,970	197	15,349	44,786	197	15,236
New Hampshire	39	1,574	2,810	-	-	45	1,235	2,214	-	-
New Jersey	227	6,673	10,825	6	(D)	250	8,774	17,266	8	96
New Mexico	695	63,535	165,141	540	45,995	471	40,655	84,566	401	31,351
New York	1,202	47,721	102,178	6	(D)	1,180	45,958	86,971	-	-
North Carolina	2,314	66,122	118,240	245	6,993	2,813	77,019	154,292	260	7,342
North Dakota	2,375	260,025	483,032	25	1,252	3,545	539,029	560,076	52	3,942
Ohio	1,516	31,734	64,028	3	(D)	1,697	33,759	60,748	1	(D)
Oklahoma	6,207	472,577	903,993	227	17,371	6,739	510,012	786,086	175	12,062
Oregon	1,318	65,210	169,233	716	39,366	1,505	75,440	183,709	788	47,483
Pennsylvania	2,501	62,011	145,079	24	45	2,446	47,331	88,251	52	201
Rhode Island	15	214	562	-	-	10	173	341	-	-
South Carolina	1,056	34,141	56,262	27	684	1,161	37,739	74,308	43	533

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
SMALL GRAIN HAY (TONS, DRY) - Con.										
States - Con.										
South Dakota	1,872	206,003	378,034	101	5,034	2,725	388,382	436,942	116	5,657
Tennessee	2,833	97,834	199,607	42	333	3,126	99,578	245,560	8	42
Texas	10,145	655,601	1,502,698	1,173	100,841	9,091	633,127	1,096,137	861	94,624
Utah	1,012	36,741	110,507	918	31,362	1,154	39,886	98,931	1,049	35,982
Vermont	136	5,744	12,830	-	-	61	1,595	3,210	-	-
Virginia	2,010	71,646	153,340	34	555	2,293	61,956	124,747	75	539
Washington	816	46,899	87,307	267	10,250	976	43,481	81,366	361	12,644
West Virginia	596	16,289	32,298	5	(D)	408	7,692	15,449	1	(D)
Wisconsin	3,165	61,821	124,784	1	(D)	3,342	58,018	109,144	11	292
Wyoming	545	47,566	84,887	349	21,214	599	51,446	76,954	466	29,069
OTHER TAME HAY (TONS, DRY)										
United States Total										
United States	496,740	26,763,972	54,347,673	24,348	1,699,864	504,861	26,944,228	53,477,464	22,535	1,616,719
States										
Alabama	15,453	728,982	1,388,325	286	8,915	15,964	713,951	1,686,960	222	8,025
Alaska	209	20,073	29,400	10	(D)	231	21,229	24,182	11	(D)
Arizona	272	28,364	112,080	247	27,975	271	35,333	128,154	271	35,333
Arkansas	18,813	1,156,999	2,615,529	432	17,172	19,255	1,166,323	2,732,559	399	12,752
California	1,619	248,401	1,078,499	1,315	214,774	1,767	251,058	963,675	1,384	212,243
Colorado	3,896	421,719	758,985	2,805	268,397	2,862	298,765	363,839	2,019	175,009
Connecticut	1,288	46,448	87,528	-	-	1,063	41,338	78,802	1	(D)
Delaware	263	7,279	15,237	11	(D)	293	(D)	(D)	7	260
Florida	4,503	284,169	917,175	382	28,641	3,949	240,911	687,039	356	24,445
Georgia	12,567	558,825	1,169,839	773	30,609	13,393	542,983	1,295,545	596	17,403
Hawaii	16	804	1,751	9	13	7	(D)	(D)	2	(D)
Idaho	2,006	132,082	231,578	967	52,055	1,774	109,000	196,126	805	41,706
Illinois	7,082	199,649	393,439	13	231	7,221	230,871	471,417	32	871
Indiana	8,204	235,803	439,532	45	297	8,912	250,976	503,494	8	93
Iowa	5,258	171,487	343,635	18	114	5,579	217,296	426,591	4	(D)
Kansas	16,340	1,074,207	2,188,582	472	28,626	17,946	1,253,852	2,113,386	503	33,498
Kentucky	40,804	1,968,657	3,135,975	91	1,379	41,223	1,842,974	3,745,125	4	55
Louisiana	6,466	345,370	923,361	196	6,747	6,005	305,925	813,362	141	3,859
Maine	1,756	98,771	186,398	-	-	1,720	115,069	188,970	3	(D)
Maryland	3,583	133,713	269,033	68	804	3,672	136,490	259,405	43	923
Massachusetts	1,492	55,125	102,687	9	(D)	1,255	56,403	107,981	1	(D)
Michigan	4,711	201,420	303,699	55	899	3,762	149,403	267,751	65	1,149
Minnesota	7,320	363,145	561,312	82	3,888	7,563	395,492	644,597	48	2,810
Mississippi	9,910	504,994	1,252,879	135	4,238	10,952	520,573	1,297,755	252	7,245
Missouri	48,295	3,242,548	5,752,532	216	6,401	49,807	3,460,190	6,430,926	116	3,795
Montana	2,894	378,192	563,007	1,424	125,354	3,160	476,709	612,346	1,369	131,965
Nebraska	4,048	278,810	555,048	578	42,600	4,146	244,072	351,474	518	39,129
Nevada	240	47,003	100,950	240	47,003	235	38,947	80,997	235	38,924
New Hampshire	969	40,338	79,088	1	(D)	843	37,866	67,327	-	-
New Jersey	1,937	75,015	134,279	16	530	1,815	70,431	123,197	29	528
New Mexico	1,061	45,985	99,651	917	30,021	960	70,030	125,226	771	37,513
New York	10,664	707,600	1,322,963	71	1,040	11,598	829,621	1,549,980	-	-
North Carolina	16,799	581,914	974,415	1,151	51,472	18,150	582,863	1,091,480	1,413	55,830
North Dakota	2,918	403,014	623,812	29	1,945	3,433	403,867	509,891	29	2,519
Ohio	15,717	521,562	967,672	16	(D)	14,761	482,531	944,717	7	(D)
Oklahoma	25,422	1,803,936	3,613,517	579	33,164	24,425	1,685,475	3,099,416	555	33,672
Oregon	6,475	308,644	697,363	3,079	157,624	6,543	343,958	729,919	3,023	196,605
Pennsylvania	19,036	783,849	1,538,844	90	952	19,380	864,544	1,466,673	162	1,095
Rhode Island	247	6,771	12,840	2	(D)	167	4,724	9,232	2	(D)
South Carolina	6,476	276,588	484,490	222	5,688	6,785	277,030	534,679	219	4,019
South Dakota	3,596	467,278	773,202	69	3,616	3,549	395,273	443,527	77	3,603
Tennessee	36,525	1,564,507	2,333,408	289	3,849	42,654	1,728,197	3,503,754	103	1,261
Texas	70,799	3,888,394	10,747,031	3,618	171,513	67,635	3,717,107	8,617,675	3,483	198,868
Utah	1,167	55,107	118,443	1,051	49,139	963	46,571	86,646	842	42,006
Vermont	1,992	119,795	263,200	2	(D)	2,085	134,403	261,499	3	(D)
Virginia	20,468	995,412	1,806,008	225	6,335	22,187	1,048,104	1,816,350	507	13,955
Washington	3,777	226,539	793,608	1,223	114,398	3,714	203,476	578,942	1,120	83,596
West Virginia	11,892	453,574	718,576	11	116	10,646	401,719	658,975	8	130
Wisconsin	8,422	302,686	466,678	11	(D)	7,671	301,953	580,179	14	731
Wyoming	1,073	202,425	300,590	797	148,027	910	189,346	188,997	753	147,893
WILD HAY (TONS, DRY)										
United States Total										
United States	125,543	7,245,813	10,162,631	5,993	867,815	114,056	6,708,689	8,355,665	5,270	788,423
States										
Alabama	2,292	83,232	117,668	34	523	1,678	62,645	101,773	27	366
Alaska	15	471	256	-	-	15	(D)	(D)	-	-
Arizona	18	654	600	5	42	22	(D)	4,516	21	(D)
Arkansas	4,161	138,524	235,446	63	1,628	3,991	208,261	360,502	45	708
California	455	40,718	62,759	188	26,148	532	38,591	61,719	207	17,553
Colorado	2,109	187,956	214,199	747	107,333	703	82,958	76,775	455	62,974
Connecticut	504	14,609	25,476	-	-	382	11,965	18,262	1	(D)
Florida	621	21,543	37,865	42	1,323	380	17,155	30,808	32	571
Georgia	1,285	33,528	48,284	31	340	954	27,434	43,199	50	306
Idaho	700	54,304	71,356	328	32,612	732	66,735	89,242	348	43,910
Illinois	845	19,409	30,294	3	(D)	896	18,476	29,264	9	(D)
Indiana	1,038	22,029	31,992	8	(D)	1,010	18,381	24,331	-	-
Iowa	1,010	20,235	33,913	3	(D)	1,091	22,687	36,025	-	-

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
WILD HAY (TONS, DRY) - Con.										
States - Con.										
Kansas	9,447	691,896	955,021	79	3,851	9,657	704,342	832,313	15	306
Kentucky	4,300	116,200	143,726	47	348	4,095	112,248	165,158	-	-
Louisiana	1,884	77,551	152,944	35	966	1,831	73,323	144,446	33	521
Maine	1,037	38,734	54,943	-	-	816	38,783	56,325	1	(D)
Maryland	575	13,297	20,123	5	14	2	(D)	(D)	2	(D)
Massachusetts	581	13,882	24,380	-	-	473	11,115	16,267	-	-
Michigan	1,596	44,335	57,683	26	170	1,392	35,119	42,564	14	48
Minnesota	6,297	186,738	268,917	48	619	6,192	196,539	276,733	39	511
Mississippi	3,349	150,881	271,609	47	(D)	2,950	118,221	238,569	106	2,207
Missouri	4,629	189,712	289,188	17	486	4,139	176,401	257,730	11	680
Montana	2,299	342,158	450,916	801	163,764	2,044	265,355	369,135	810	151,398
Nebraska	6,447	1,098,879	1,373,375	345	24,751	6,682	1,146,185	978,035	265	15,846
Nevada	248	130,091	181,088	248	130,091	225	144,395	171,787	225	144,085
New Hampshire	479	15,704	25,441	1	(D)	315	8,909	12,188	1	(D)
New Jersey	505	9,527	10,902	3	(D)	504	10,063	12,315	12	46
New Mexico	164	6,532	7,566	111	4,321	97	3,863	2,843	55	2,426
New York	3,870	190,348	247,126	3	(D)	3,973	188,120	253,929	-	-
North Carolina	1,357	26,412	30,806	53	628	1,510	29,790	39,113	72	1,372
North Dakota	4,156	416,426	568,420	-	-	4,961	500,086	588,026	6	1,700
Ohio	2,679	70,712	96,408	-	-	2,588	59,977	81,409	-	-
Oklahoma	10,572	638,502	958,180	75	1,463	9,218	540,671	724,116	67	1,326
Oregon	2,635	195,389	281,841	809	137,501	2,528	174,707	258,385	744	121,963
Pennsylvania	4,665	133,029	178,481	42	132	3,906	97,832	111,540	40	281
Rhode Island	61	1,071	1,810	-	-	42	767	1,218	-	-
South Carolina	750	21,804	26,204	11	101	743	19,470	24,272	30	446
South Dakota	5,681	586,017	743,611	43	1,427	5,503	474,786	453,362	52	4,111
Tennessee	4,593	94,460	118,623	1	(D)	3,651	58,349	85,521	-	-
Texas	11,978	447,848	846,779	566	12,063	9,440	381,714	614,080	235	8,582
Utah	512	40,291	65,909	372	31,755	529	37,279	48,004	406	30,356
Vermont	879	34,473	55,062	-	-	748	27,903	46,507	1	(D)
Virginia	3,195	102,552	140,225	49	857	3,166	97,124	120,462	121	1,757
Washington	2,230	67,498	100,573	183	5,953	1,899	62,488	98,312	203	5,528
West Virginia	3,414	88,343	115,568	4	31	3,043	83,772	101,982	1	(D)
Wisconsin	2,646	64,941	87,942	-	-	2,118	46,280	68,124	-	-
Wyoming	780	262,368	301,133	517	174,761	690	205,145	184,117	508	164,508
ALL HAYLAGE, GRASS SILAGE, AND GREENCHOP (TONS, GREEN) (SEE TEXT)										
United States Total										
United States	68,936	5,494,926	34,959,627	6,340	799,363	62,785	5,324,920	34,631,619	5,028	686,112
States										
Alabama	690	26,665	49,948	15	252	301	12,047	43,458	15	518
Alaska	29	2,875	5,926	2	(D)	35	3,859	5,352	5	174
Arizona	109	48,697	194,156	109	48,697	111	41,212	166,316	111	41,212
Arkansas	110	6,875	36,641	3	(D)	65	4,856	31,897	6	263
California	1,329	305,816	3,625,272	1,147	271,934	1,269	270,087	2,724,872	1,098	234,874
Colorado	641	58,485	259,263	457	38,803	357	26,668	133,722	259	19,282
Connecticut	227	13,798	80,141	-	-	188	14,262	95,368	2	(D)
Delaware	55	1,855	11,581	6	170	77	4,236	35,501	6	679
Florida	492	39,262	222,603	74	9,559	202	33,578	224,732	61	6,920
Georgia	483	25,586	123,396	75	6,336	363	16,300	106,028	54	3,051
Hawaii	12	108	398	9	(D)	5	292	1,220	3	(D)
Idaho	536	86,749	930,849	463	81,103	483	72,470	837,529	434	67,518
Illinois	1,421	52,593	318,801	8	178	1,411	61,407	423,581	10	(D)
Indiana	1,188	48,066	272,368	55	2,633	937	34,869	216,037	17	826
Iowa	2,135	105,670	726,762	7	267	2,103	108,801	779,838	2	(D)
Kansas	2,278	158,189	813,053	159	30,645	1,230	100,998	528,170	166	34,029
Kentucky	1,449	48,080	149,562	19	287	1,170	39,590	192,759	-	-
Louisiana	460	23,619	91,933	7	225	169	8,470	29,767	9	414
Maine	441	54,715	309,160	-	-	445	55,166	338,317	-	-
Maryland	682	35,214	208,589	13	1,196	628	38,102	231,862	20	1,196
Massachusetts	272	15,822	88,299	1	(D)	198	13,787	89,744	1	(D)
Michigan	2,395	260,417	1,735,351	124	10,583	2,408	262,659	1,736,385	119	9,321
Minnesota	3,610	261,382	1,561,089	177	10,828	3,611	262,895	1,794,559	109	7,696
Mississippi	635	27,529	77,599	10	250	269	11,244	42,621	16	207
Missouri	2,027	104,671	332,181	26	715	1,336	75,289	366,018	11	292
Montana	364	48,395	257,219	232	27,952	221	30,711	153,591	165	19,985
Nebraska	962	62,362	369,152	244	21,828	723	54,268	309,663	226	22,000
Nevada	55	9,975	50,299	54	9,335	39	12,339	94,339	39	12,312
New Hampshire	188	17,103	115,971	-	-	205	20,031	122,160	-	-
New Jersey	173	7,383	39,235	-	-	158	7,697	39,504	3	(D)
New Mexico	353	28,251	235,629	316	21,694	205	38,019	371,116	180	35,437
New York	5,283	701,191	4,430,759	20	874	5,768	708,966	4,508,730	-	-
North Carolina	440	15,061	60,776	20	620	575	15,555	83,430	53	906
North Dakota	456	52,599	171,062	13	1,471	230	27,963	75,337	9	444
Ohio	3,084	148,078	855,749	1	(D)	2,648	130,327	723,448	1	(D)
Oklahoma	1,044	65,233	225,068	42	3,010	556	32,666	163,369	35	6,278
Oregon	814	57,644	411,779	462	38,660	536	37,983	286,415	216	20,033
Pennsylvania	7,759	430,085	2,564,830	64	633	7,651	438,847	2,483,965	129	1,634
Rhode Island	29	810	4,094	-	-	13	599	2,927	-	-
South Carolina	248	9,251	31,732	7	59	307	12,243	88,741	20	501
South Dakota	849	93,765	390,547	43	3,610	595	57,293	253,101	42	3,292
Tennessee	760	23,465	71,765	10	33	763	21,613	143,787	20	585
Texas	3,741	197,106	1,333,718	596	48,775	2,435	156,896	900,403	276	29,272
Utah	478	30,254	206,372	444	29,340	453	45,013	331,829	394	39,525

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
ALL HAYLAGE, GRASS SILAGE, AND GREENCHOP (TONS, GREEN) (SEE TEXT) - Con.										
States - Con.										
Vermont	1,090	168,948	1,139,530	2	(D)	1,229	190,716	1,247,473	-	-
Virginia	1,466	70,908	265,836	68	1,522	1,085	51,741	284,457	80	2,092
Washington	1,080	94,803	853,537	464	46,305	916	94,486	1,014,685	406	41,942
West Virginia	895	36,695	115,660	2	(D)	564	25,930	108,979	2	(D)
Wisconsin	13,466	1,291,222	8,446,369	141	12,023	15,472	1,530,091	9,591,142	134	10,740
Wyoming	153	21,601	88,018	129	15,859	67	9,783	73,375	64	9,233
HAYLAGE OR GREENCHOP FROM ALFALFA OR ALFALFA MIXTURES (TONS, GREEN)										
United States Total										
United States	40,948	3,414,270	22,604,406	3,180	393,665	43,798	3,547,160	23,403,394	2,623	365,572
States										
Alabama	51	1,302	1,584	-	-	40	2,022	4,960	1	(D)
Arizona	95	46,007	167,265	95	46,007	96	39,558	157,367	96	39,558
Arkansas	14	405	1,170	-	-	8	494	2,424	-	-
California	373	82,812	544,721	343	78,944	495	95,891	633,052	481	91,742
Colorado	273	22,484	117,509	233	20,479	200	14,412	83,146	152	11,963
Connecticut	97	3,916	23,460	-	-	74	4,466	27,223	-	-
Delaware	20	(D)	5,945	3	(D)	45	2,254	23,265	3	(D)
Florida	17	1,010	7,177	1	(D)	25	1,391	6,974	11	785
Georgia	43	802	2,754	5	116	55	151	531	8	104
Idaho	385	73,411	843,557	349	70,145	355	54,839	666,255	327	52,557
Illinois	846	34,341	241,910	5	(D)	1,113	49,643	354,116	7	(D)
Indiana	713	35,116	226,847	38	2,535	705	27,298	170,526	16	(D)
Iowa	1,631	89,720	668,898	7	267	1,798	96,148	688,470	2	(D)
Kansas	445	50,718	284,203	75	20,536	321	36,721	207,725	72	21,639
Kentucky	555	16,366	44,270	9	137	499	14,871	64,586	-	-
Louisiana	31	2,087	5,058	-	-	35	723	3,622	-	-
Maine	121	10,036	73,046	-	-	139	11,554	74,174	-	-
Maryland	402	18,086	122,069	9	340	473	23,613	152,158	11	461
Massachusetts	137	5,416	34,766	-	-	109	6,046	49,025	-	-
Michigan	2,035	238,142	1,659,013	116	10,493	2,076	238,399	1,620,171	104	9,073
Minnesota	3,143	232,275	1,455,578	159	9,516	3,199	231,828	1,630,710	100	7,320
Mississippi	38	1,035	2,195	1	(D)	61	1,463	11,604	-	-
Missouri	582	33,008	127,152	11	448	607	29,885	149,413	9	(D)
Montana	207	28,008	157,076	156	18,726	147	19,692	95,071	116	14,239
Nebraska	418	35,845	249,074	154	14,883	437	37,921	239,110	158	16,997
Nevada	40	(D)	39,534	40	(D)	31	8,690	65,189	31	8,663
New Hampshire	82	5,456	35,288	-	-	91	5,356	38,524	-	-
New Jersey	74	3,234	23,747	-	-	78	5,088	27,280	1	(D)
New Mexico	198	10,338	62,836	188	7,807	73	9,558	130,932	60	9,397
New York	3,802	450,887	3,095,530	11	743	4,163	445,774	3,093,103	-	-
North Carolina	34	1,441	7,732	3	(D)	223	3,067	19,990	19	265
North Dakota	223	25,803	99,136	11	(D)	100	9,592	29,948	2	(D)
Ohio	2,131	111,868	704,179	1	(D)	2,129	104,937	603,980	1	(D)
Oklahoma	125	7,938	40,979	7	776	177	4,403	21,588	14	586
Oregon	150	15,085	130,882	92	12,953	152	11,149	84,579	71	8,850
Pennsylvania	6,029	296,527	1,963,407	48	413	6,077	310,060	1,882,908	97	1,096
Rhode Island	10	166	921	-	-	9	257	1,430	-	-
South Carolina	25	1,202	7,856	-	-	118	1,637	31,216	4	17
South Dakota	509	58,425	258,442	31	2,483	364	35,456	164,405	35	3,038
Tennessee	103	2,493	8,739	1	(D)	290	2,929	31,171	2	(D)
Texas	517	22,832	143,210	283	8,794	590	17,997	97,746	35	4,585
Utah	310	20,859	148,026	283	20,201	272	28,975	212,876	231	25,188
Vermont	526	67,504	482,007	2	(D)	593	75,035	514,847	-	-
Virginia	467	17,768	81,183	40	827	550	19,631	111,405	43	1,108
Washington	243	21,145	182,548	153	14,822	241	23,349	226,202	140	15,520
West Virginia	235	8,734	31,535	1	(D)	196	7,508	39,404	-	-
Wisconsin	12,350	1,183,257	7,931,573	131	11,496	14,132	1,367,743	8,800,679	127	10,371
Wyoming	93	10,885	58,819	85	9,256	37	7,686	58,314	36	(D)
OTHER HAYLAGE, GRASS SILAGE, AND GREENCHOP (TONS, GREEN)										
United States Total										
United States	33,557	2,080,656	12,355,221	3,626	405,698	27,614	1,777,468	11,227,005	2,758	320,403
States										
Alabama	642	25,363	48,364	15	252	270	10,025	38,498	14	(D)
Alaska	29	2,875	5,926	2	(D)	35	3,859	5,352	5	174
Arizona	20	2,690	26,891	20	2,690	22	1,654	8,949	22	1,654
Arkansas	97	6,470	35,471	3	(D)	57	4,362	29,473	6	263
California	1,049	223,004	3,080,551	885	192,990	905	174,196	2,091,820	734	143,132
Colorado	396	36,001	141,754	244	18,324	177	12,256	50,576	122	7,319
Connecticut	155	9,882	56,681	-	-	158	9,796	68,145	2	(D)
Delaware	38	(D)	5,636	3	(D)	43	1,982	12,236	3	(D)
Florida	476	38,252	215,426	74	(D)	178	32,187	217,758	50	6,135
Georgia	442	24,784	120,642	70	6,220	315	16,149	105,497	47	2,947
Hawaii	12	108	398	9	(D)	-	-	-	-	-
Idaho	173	13,338	87,292	135	10,958	168	17,631	171,274	138	14,961
Illinois	633	18,252	76,891	3	(D)	441	11,764	69,465	4	(D)

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
OTHER HAYLAGE, GRASS SILAGE, AND GREENCHOP (TONS, GREEN) - Con.										
States - Con.										
Indiana	529	12,950	45,521	22	98	321	7,571	45,511	1	(D)
Iowa	611	15,950	57,864	-	-	505	12,653	91,368	-	-
Kansas	1,878	107,471	528,850	94	10,109	984	64,277	320,445	101	12,390
Kentucky	981	31,714	105,292	14	150	787	24,719	128,173	-	-
Louisiana	430	21,532	86,875	7	225	139	7,747	26,145	9	414
Maine	368	44,679	236,114	-	-	388	43,612	264,143	-	-
Maryland	403	17,128	86,520	5	856	343	14,489	79,704	12	735
Massachusetts	183	10,406	53,533	1	(D)	135	7,741	40,719	1	(D)
Michigan	459	22,275	76,338	9	90	542	24,260	116,214	21	248
Minnesota	709	29,107	105,511	23	1,312	828	31,067	163,849	17	376
Mississippi	598	26,494	75,404	9	(D)	220	9,781	31,017	16	207
Missouri	1,544	71,663	205,029	16	267	952	45,404	216,605	2	(D)
Montana	175	20,387	100,143	91	9,226	88	11,019	58,520	59	5,746
Nebraska	575	26,517	120,078	95	6,945	341	16,347	70,553	73	5,001
Nevada	22	(D)	10,765	21	(D)	13	3,649	29,150	13	3,649
New Hampshire	144	11,647	80,683	-	-	170	14,675	83,636	-	-
New Jersey	116	4,149	15,488	-	-	105	2,609	12,224	2	(D)
New Mexico	165	17,913	172,793	135	13,887	142	28,461	240,184	128	26,040
New York	2,466	250,304	1,335,229	9	131	2,972	263,192	1,415,627	-	-
North Carolina	411	13,620	53,044	17	(D)	382	12,488	63,440	39	641
North Dakota	255	26,796	71,926	2	(D)	151	18,371	45,389	7	(D)
Ohio	1,224	36,210	151,570	-	-	851	25,390	119,468	-	-
Oklahoma	925	57,295	184,089	35	2,234	406	28,263	141,781	23	5,692
Oregon	686	42,559	280,897	380	25,707	415	26,834	201,836	160	11,183
Pennsylvania	2,722	133,558	601,423	29	220	3,053	128,787	601,057	54	538
Rhode Island	19	644	3,173	-	-	8	342	1,497	-	-
South Carolina	225	8,049	23,876	7	59	199	10,606	57,525	16	484
South Dakota	372	35,340	132,105	12	1,127	249	21,837	88,696	8	254
Tennessee	667	20,972	63,026	9	(D)	507	18,684	112,616	18	(D)
Texas	3,437	174,274	1,190,508	519	39,981	2,007	138,899	802,657	249	24,687
Utah	189	9,395	58,346	181	9,139	220	16,038	118,953	196	14,337
Vermont	795	101,444	657,523	1	(D)	950	115,681	732,626	-	-
Virginia	1,092	53,140	184,653	29	695	718	32,110	173,052	45	984
Washington	874	73,658	670,989	330	31,483	724	71,137	788,483	289	26,422
West Virginia	713	27,961	84,125	1	(D)	435	18,422	69,575	2	(D)
Wisconsin	2,369	107,965	514,796	12	527	3,560	162,348	790,463	17	369
Wyoming	64	10,716	29,199	48	6,603	35	2,097	15,061	33	(D)
CORN FOR SILAGE OR GREENCHOP (TONS)										
United States Total										
United States	84,317	5,979,661	104,224,795	9,664	1,497,288	103,621	6,683,995	97,132,738	11,597	1,453,708
States										
Alabama	126	11,016	86,493	13	1,693	202	17,041	159,297	17	1,541
Arizona	116	33,941	891,902	116	33,941	137	31,922	803,358	137	31,922
Arkansas	30	1,887	26,326	8	540	31	(D)	(D)	14	2,357
California	1,975	460,614	12,019,578	1,975	460,514	2,012	393,694	10,117,296	2,012	391,300
Colorado	857	111,116	2,327,377	762	91,488	1,079	142,853	2,369,058	988	119,992
Connecticut	253	24,174	480,472	4	126	303	27,892	506,094	7	138
Delaware	73	6,353	67,825	17	632	91	9,700	128,220	12	1,284
Florida	119	27,005	484,308	75	23,162	131	27,049	425,131	91	20,885
Georgia	284	38,657	676,293	152	22,519	282	30,847	541,116	123	18,096
Hawaii	-	-	-	-	-	2	(D)	(D)	2	(D)
Idaho	1,115	211,748	5,695,090	1,115	211,748	1,021	134,133	3,490,255	1,020	(D)
Illinois	2,296	75,247	1,351,823	16	265	3,271	109,847	1,638,995	15	792
Indiana	2,120	105,937	1,956,429	77	6,569	2,875	116,939	1,747,847	41	5,222
Iowa	4,967	220,646	4,138,151	22	1,889	6,909	247,269	4,726,816	13	514
Kansas	1,665	166,018	2,988,294	439	69,075	2,865	307,303	3,213,232	769	108,872
Kentucky	2,255	86,542	1,189,499	49	986	2,307	82,820	1,287,831	-	-
Louisiana	39	4,087	69,995	5	403	68	6,661	66,951	4	205
Maine	185	23,516	429,432	3	39	233	24,351	407,813	6	21
Maryland	898	63,979	791,447	31	1,652	1,008	72,988	869,484	23	2,543
Massachusetts	230	13,895	275,194	7	(D)	297	17,365	333,411	4	(D)
Michigan	3,352	297,381	4,350,145	132	13,381	3,362	233,601	3,447,251	125	9,918
Minnesota	7,998	433,506	5,791,485	233	13,028	8,889	367,455	6,230,527	169	8,344
Mississippi	126	11,900	152,082	12	1,033	168	14,976	219,948	7	280
Missouri	1,704	69,353	1,041,591	36	1,869	1,803	71,185	942,789	36	1,722
Montana	383	45,172	974,410	342	41,122	419	50,094	1,087,841	403	48,572
Nebraska	2,671	185,584	3,171,470	1,295	101,256	5,408	409,447	4,476,086	2,141	155,646
Nevada	36	5,451	134,522	36	5,451	53	4,407	94,399	53	4,407
New Hampshire	135	12,640	262,867	-	-	160	14,191	270,510	3	(D)
New Jersey	234	11,528	164,400	5	148	261	14,328	162,232	2	(D)
New Mexico	285	79,141	1,937,769	284	78,398	343	93,381	2,200,352	324	92,644
New York	5,278	507,568	8,640,006	9	412	6,601	543,579	7,454,405	106	3,190
North Carolina	733	56,886	631,752	32	1,138	868	73,309	873,097	64	3,529
North Dakota	1,707	180,634	1,965,111	71	6,761	1,768	171,810	1,291,392	96	10,304
Ohio	3,928	182,935	3,191,893	5	480	5,503	255,359	2,617,895	7	548
Oklahoma	185	30,163	567,496	69	16,902	189	29,204	548,478	74	18,846
Oregon	247	25,386	633,222	229	23,811	335	25,377	590,650	302	23,114
Pennsylvania	10,230	429,139	7,057,789	37	1,605	11,968	536,615	5,770,515	160	2,521
Rhode Island	39	1,653	32,886	1	(D)	54	2,356	38,923	3	(D)
South Carolina	121	13,392	184,659	43	3,290	140	13,890	147,218	30	3,493
South Dakota	3,928	383,599	4,358,190	121	9,708	5,371	644,006	4,217,187	190	13,697
Tennessee	884	52,565	577,940	35	1,772	1,126	66,010	928,810	18	1,120

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Table 27. **Field Seeds, Grass Seeds, Hay, Forage, and Silage: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
CORN FOR SILAGE OR GREENCHOP (TONS) - Con.										
States - Con.										
Texas	560	151,091	3,417,965	357	102,392	686	141,431	2,680,497	401	80,995
Utah	573	45,375	969,548	573	45,375	713	46,442	958,300	713	46,442
Vermont	674	87,403	1,658,746	-	-	868	91,312	1,486,802	4	5
Virginia	2,013	126,295	1,717,974	75	3,671	2,305	139,420	1,637,114	124	5,010
Washington	537	83,353	2,129,010	360	57,381	596	63,303	1,633,993	341	37,308
West Virginia	550	19,408	272,039	5	226	594	18,964	304,619	1	(D)
Wisconsin	15,338	732,636	11,645,140	121	8,900	17,632	704,513	11,233,740	115	5,221
Wyoming	265	32,146	646,760	260	30,491	314	38,782	705,759	287	36,328
SORGHUM FOR SILAGE OR GREENCHOP (TONS)										
United States Total										
United States	5,625	450,041	5,763,450	1,163	170,742	7,042	406,031	3,904,834	1,103	98,016
States										
Alabama	30	1,701	17,075	1	(D)	27	1,407	13,988	5	294
Arizona	68	20,969	396,620	67	20,967	38	8,327	173,833	38	8,327
Arkansas	34	2,073	27,488	5	479	29	1,656	9,158	4	351
California	195	30,085	536,162	189	29,457	68	6,020	94,009	57	4,833
Colorado	105	13,128	167,647	69	8,374	183	17,628	118,784	112	6,855
Connecticut	5	77	(D)	-	-	2	(D)	(D)	-	-
Delaware	1	(D)	(D)	-	-	7	78	452	-	-
Florida	35	4,290	48,495	24	2,814	35	3,524	35,053	20	1,927
Georgia	106	9,982	119,277	34	4,214	135	12,541	151,413	28	2,169
Idaho	3	170	2,070	3	170	2	(D)	(D)	2	(D)
Illinois	58	1,169	13,502	-	-	106	3,308	33,155	5	185
Indiana	52	796	6,196	1	(D)	56	1,020	6,389	-	-
Iowa	51	837	8,738	-	-	90	1,868	24,993	-	-
Kansas	1,779	131,125	1,505,041	214	17,120	1,826	113,963	924,207	221	15,310
Kentucky	56	1,549	14,211	2	(D)	76	1,311	12,971	-	-
Louisiana	12	467	2,089	5	347	8	323	4,360	-	-
Maine	3	93	1,115	-	-	5	(D)	(D)	-	-
Maryland	40	1,008	7,745	1	(D)	55	1,206	7,525	1	(D)
Michigan	126	2,635	32,419	10	241	158	2,595	20,068	2	(D)
Minnesota	13	145	1,716	-	-	80	1,529	13,755	3	(D)
Mississippi	9	4,739	76,923	1	(D)	17	455	5,441	-	-
Missouri	174	6,533	79,962	-	-	197	4,993	47,636	6	126
Montana	2	(D)	(D)	2	(D)	16	823	5,577	12	693
Nebraska	444	20,376	235,551	100	6,300	630	22,198	164,404	128	4,508
Nevada	-	-	-	-	-	5	438	9,289	5	438
New Hampshire	1	(D)	(D)	-	-	3	61	572	-	-
New Jersey	13	220	2,294	1	(D)	21	439	4,133	-	-
New Mexico	97	18,833	297,382	78	12,566	104	13,842	233,241	85	10,861
New York	155	3,192	22,571	1	(D)	215	4,189	36,879	5	99
North Carolina	86	2,748	28,856	2	(D)	130	4,407	30,493	4	55
North Dakota	17	1,122	6,464	1	(D)	112	7,028	30,801	1	(D)
Ohio	122	2,718	33,003	-	-	110	1,861	15,564	-	-
Oklahoma	164	13,661	68,537	22	1,256	190	13,345	135,882	34	3,003
Oregon	2	(D)	(D)	1	(D)	2	(D)	(D)	2	(D)
Pennsylvania	335	4,471	40,767	-	-	471	6,211	51,523	8	70
South Carolina	25	1,898	13,596	5	350	56	3,885	26,447	2	(D)
South Dakota	191	17,983	178,535	3	(D)	475	29,676	178,180	16	425
Tennessee	48	1,533	8,961	-	-	52	1,427	17,656	-	-
Texas	697	121,393	1,705,391	299	64,263	905	105,277	1,195,133	264	35,650
Utah	7	404	6,408	7	404	22	858	9,500	22	858
Vermont	5	(D)	464	-	-	5	173	1,401	-	-
Virginia	87	2,573	17,516	4	60	108	2,788	24,286	4	64
Washington	1	(D)	(D)	1	(D)	-	-	-	-	-
West Virginia	23	409	2,539	-	-	46	727	8,227	-	-
Wisconsin	138	2,201	19,645	-	-	159	2,048	20,255	3	190
Wyoming	10	450	7,514	10	450	5	338	5,530	4	297

Table 28. **Other Crops: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
CRAMBE (POUNDS)										
United States Total										
United States	-	-	-	-	-	54	12,320	13,262,499	-	-
States										
Montana	-	-	-	-	-	20	4,839	5,788,748	-	-
North Dakota	-	-	-	-	-	34	7,481	7,473,751	-	-
DILL FOR OIL (POUNDS)										
United States Total										
United States	6	1,574	135,480	6	1,477	11	1,398	117,271	8	1,383
States										
Michigan	-	-	-	-	-	2	(D)	(D)	-	-
Montana	3	308	(D)	3	211	3	(D)	(D)	2	(D)
Oregon	1	(D)	(D)	1	(D)	2	(D)	(D)	2	(D)
Washington	2	(D)	(D)	2	(D)	4	1,096	94,522	4	1,096
GINGER ROOT (POUNDS)										
United States Total										
United States	46	(D)	(D)	24	54	72	185	5,330,284	16	37
States										
Hawaii	44	80	2,532,043	24	54	72	185	5,330,284	16	37
Kentucky	2	(D)	(D)	-	-	-	-	-	-	-
GUAR (POUNDS)										
United States Total										
United States	35	5,946	4,350,919	6	436	78	(D)	(D)	28	3,619
States										
Oklahoma	-	-	-	-	-	3	(D)	(D)	-	-
Texas	35	5,946	4,350,919	6	436	75	20,433	13,963,533	28	3,619
HERBS, DRIED (POUNDS)										
United States Total										
United States	177	7,566	14,069,710	77	5,875	249	3,788	3,473,232	134	2,350
States										
Alaska	-	-	-	-	-	1	(D)	(D)	1	(D)
Arizona	2	(D)	(D)	2	(D)	1	(D)	(D)	-	-
California	36	3,473	(D)	33	3,434	37	440	220,138	37	440
Colorado	15	111	13,360	7	9	3	3	350	3	3
Connecticut	-	-	-	-	-	2	(D)	(D)	-	-
Delaware	1	(D)	(D)	-	-	-	-	-	-	-
Georgia	-	-	-	-	-	3	3	1,200	-	-
Hawaii	-	-	-	-	-	1	(D)	(D)	1	(D)
Idaho	-	-	-	-	-	8	10	1,460	8	10
Illinois	3	(D)	(D)	1	(D)	-	-	-	-	-
Iowa	3	(D)	(D)	-	-	-	-	-	-	-
Kansas	1	(D)	(D)	-	-	-	-	-	-	-
Kentucky	4	7	7,000	-	-	8	10	7,000	2	(D)
Maine	-	-	-	-	-	11	14	1,627	4	4
Maryland	2	(D)	(D)	-	-	3	12	(D)	-	-
Massachusetts	1	(D)	(D)	-	-	6	9	1,387	2	(D)
Michigan	9	79	(D)	3	3	2	(D)	(D)	-	-
Minnesota	3	8	(D)	-	-	2	(D)	(D)	-	-
Missouri	-	-	-	-	-	2	(D)	(D)	-	-
Montana	-	-	-	-	-	6	32	5,750	6	32
Nevada	-	-	-	-	-	1	(D)	(D)	1	(D)
New Hampshire	4	(D)	(D)	2	(D)	5	5	(D)	3	(D)
New Mexico	2	(D)	(D)	2	(D)	3	(D)	(D)	3	(D)
New York	12	54	1,560	2	(D)	7	(D)	8,850	5	7
North Carolina	12	491	406,894	5	11	8	1,211	134,472	1	(D)
North Dakota	2	(D)	(D)	-	-	-	-	-	-	-
Ohio	9	11	1,260	-	-	-	-	-	-	-
Oregon	10	171	149,740	4	110	31	234	294,474	16	(D)
Pennsylvania	5	8	896	2	(D)	13	14	15,368	6	7
Rhode Island	-	-	-	-	-	2	(D)	(D)	1	(D)
South Carolina	1	(D)	(D)	1	(D)	3	(D)	(D)	-	-
South Dakota	1	(D)	(D)	-	-	-	-	-	-	-
Tennessee	4	10	(D)	1	(D)	12	19	9,900	4	10
Texas	-	-	-	-	-	3	9	7,200	3	9
Utah	1	(D)	(D)	1	(D)	-	-	-	-	-
Vermont	-	-	-	-	-	2	(D)	(D)	-	-
Virginia	8	150	(D)	-	-	9	17	(D)	3	8
Washington	21	903	1,761,417	11	(D)	49	794	(D)	22	692
West Virginia	4	8	(D)	-	-	5	8	2,120	2	(D)
Wisconsin	1	(D)	(D)	-	-	-	-	-	-	-

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Table 28. **Other Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
HOPS (POUNDS)										
United States Total										
United States	68	31,145	60,668,474	68	31,145	94	(D)	(D)	94	(D)
States										
California	-	-	-	-	-	2	(D)	(D)	2	(D)
Idaho	5	2,904	4,105,800	5	2,904	6	3,399	5,432,601	6	3,399
Oregon	25	5,334	9,599,720	25	5,334	35	5,651	9,539,856	35	5,651
Washington	38	22,907	46,962,954	38	22,907	51	20,833	43,603,062	51	20,833
JOJOBA HARVESTED (POUNDS)										
United States Total										
United States	11	2,991	1,322,455	10	2,948	28	(D)	(D)	23	(D)
States										
Arizona	4	1,725	1,077,052	4	1,725	5	(D)	(D)	5	(D)
California	7	1,266	245,403	6	1,223	23	1,607	88,578	18	1,504
MINT FOR OIL, ALL (POUNDS OF OIL)										
United States Total										
United States	341	89,783	8,694,739	295	77,973	519	108,798	9,919,641	418	92,504
States										
California	25	4,083	299,559	25	3,973	26	2,722	201,069	24	2,681
Idaho	55	13,169	1,288,758	55	13,169	75	13,744	1,300,607	75	13,744
Indiana	34	8,140	428,403	10	1,845	55	11,587	521,750	20	1,982
Kentucky	1	(D)	(D)	1	(D)	-	-	-	-	-
Michigan	10	1,620	106,933	3	(D)	47	2,471	120,627	6	(D)
Minnesota	-	-	-	-	-	1	(D)	(D)	1	(D)
Montana	5	554	34,453	5	554	20	1,453	110,886	16	1,335
Nevada	4	1,467	126,605	4	1,467	4	1,971	154,638	4	1,971
New Mexico	-	-	-	-	-	1	(D)	(D)	1	(D)
North Carolina	1	(D)	(D)	1	(D)	-	-	-	-	-
North Dakota	4	532	25,860	-	-	4	970	(D)	1	(D)
Ohio	-	-	-	-	-	1	(D)	(D)	-	-
Oregon	80	22,075	1,900,931	80	22,075	144	27,918	2,552,938	144	27,918
South Dakota	1	(D)	(D)	1	(D)	1	(D)	(D)	1	(D)
Utah	2	(D)	(D)	2	(D)	2	(D)	(D)	2	(D)
Washington	100	29,241	3,945,255	100	29,241	106	35,210	4,171,820	106	35,210
Wisconsin	19	6,011	325,782	8	2,754	32	7,471	451,861	17	4,229
MINT FOR OIL, PEPPERMINT (POUNDS OF OIL)										
United States Total										
United States	273	67,437	5,976,054	230	59,125	419	87,471	7,661,892	339	75,894
States										
California	24	(D)	(D)	24	(D)	22	2,256	181,507	20	2,215
Idaho	50	12,336	1,188,801	50	12,336	71	12,882	1,205,939	71	12,882
Indiana	31	6,800	348,457	7	1,395	47	9,699	440,706	18	1,704
Michigan	9	(D)	(D)	3	(D)	34	948	40,432	5	(D)
Minnesota	-	-	-	-	-	1	(D)	(D)	1	(D)
Montana	5	(D)	(D)	5	(D)	17	695	(D)	13	(D)
Nevada	4	1,467	126,605	4	1,467	4	1,971	154,638	4	1,971
New Mexico	-	-	-	-	-	1	(D)	(D)	1	(D)
North Dakota	3	(D)	(D)	-	-	1	(D)	(D)	-	-
Ohio	-	-	-	-	-	1	(D)	(D)	-	-
Oregon	78	19,838	1,632,979	78	19,838	138	26,513	2,422,198	138	26,513
South Dakota	1	(D)	(D)	1	(D)	-	-	-	-	-
Utah	2	(D)	(D)	2	(D)	2	(D)	(D)	2	(D)
Washington	48	16,424	1,989,263	48	16,424	52	25,311	2,697,616	52	25,311
Wisconsin	18	4,663	282,323	8	2,419	28	5,227	316,940	14	3,443
MINT FOR OIL, SPEARMINT (POUNDS OF OIL)										
United States Total										
United States	135	22,346	2,718,685	118	18,848	199	21,327	2,257,749	148	16,610
States										
California	1	(D)	(D)	1	(D)	4	466	19,562	4	466
Idaho	14	833	99,957	14	833	19	862	94,668	19	862
Indiana	10	1,340	79,946	5	450	22	1,888	81,044	7	278
Kentucky	1	(D)	(D)	1	(D)	-	-	-	-	-
Michigan	5	(D)	(D)	1	(D)	19	1,523	80,195	4	(D)
Minnesota	-	-	-	-	-	1	(D)	(D)	1	(D)
Montana	1	(D)	(D)	1	(D)	11	758	(D)	8	(D)
North Carolina	1	(D)	(D)	1	(D)	-	-	-	-	-
North Dakota	3	(D)	(D)	-	-	3	(D)	8,950	1	(D)
Oregon	6	2,237	267,952	6	2,237	14	1,405	130,740	14	1,405
South Dakota	1	(D)	(D)	1	(D)	1	(D)	(D)	1	(D)

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Table 28. **Other Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
MINT FOR OIL, SPEARMINT (POUNDS OF OIL) - Con.										
States - Con.										
Utah	2	(D)	(D)	2	(D)	2	(D)	(D)	2	(D)
Washington	81	12,817	1,955,992	81	12,817	81	9,899	1,474,204	81	9,899
Wisconsin	9	1,348	43,459	4	335	22	2,244	134,921	6	786
PINEAPPLES HARVESTED (TONS)										
United States Total										
United States	42	(D)	(D)	20	(D)	34	10,211	314,626	12	9,759
States										
Hawaii	42	(D)	(D)	20	(D)	34	10,211	314,626	12	9,759
PINEAPPLES NOT HARVESTED										
United States Total										
United States	21	(D)	(X)	6	26	19	6,978	(X)	7	(D)
States										
Hawaii	21	(D)	(X)	6	26	19	6,978	(X)	7	(D)
SESAME (POUNDS)										
United States Total										
United States	29	4,978	2,956,903	8	1,162	22	3,145	1,358,364	9	494
States										
California	-	-	-	-	-	2	(D)	(D)	2	(D)
Oklahoma	4	645	296,712	-	-	5	(D)	(D)	-	-
Texas	25	4,333	2,660,191	8	1,162	15	1,938	957,503	7	(D)
SORGHUM FOR SYRUP (GALLONS) (SEE TEXT)										
United States Total										
United States	245	1,367	131,462	10	17	285	1,038	97,420	17	21
States										
Alabama	8	14	232	-	-	18	49	3,846	2	(D)
Arkansas	6	8	744	1	(D)	5	57	3,273	2	(D)
Georgia	10	77	5,024	1	(D)	28	95	7,782	5	5
Illinois	5	48	(D)	-	-	-	-	-	-	-
Indiana	2	(D)	(D)	-	-	4	14	790	-	-
Iowa	5	8	790	1	(D)	4	(D)	511	-	-
Kansas	-	-	-	-	-	1	(D)	(D)	-	-
Kentucky	89	373	54,233	1	(D)	74	252	33,030	4	6
Michigan	-	-	-	-	-	1	(D)	(D)	-	-
Minnesota	1	(D)	(D)	-	-	-	-	-	-	-
Mississippi	17	87	3,188	-	-	4	26	840	-	-
Missouri	15	(D)	4,876	1	(D)	20	68	3,655	-	-
New York	1	(D)	(D)	-	-	-	-	-	-	-
North Carolina	14	28	949	1	(D)	34	82	6,109	4	(D)
Ohio	11	16	1,180	-	-	4	11	(D)	-	-
Pennsylvania	4	4	140	-	-	-	-	-	-	-
South Carolina	4	16	2,884	-	-	7	10	611	-	-
Tennessee	29	210	26,931	3	5	46	284	29,858	-	-
Texas	2	(D)	(D)	1	(D)	-	-	-	-	-
Virginia	7	7	500	-	-	21	29	1,767	-	-
West Virginia	9	9	797	-	-	11	14	444	-	-
Wisconsin	6	26	(D)	-	-	3	21	2,606	-	-
SWEET CORN FOR SEED (POUNDS)										
United States Total										
United States	178	14,534	29,832,100	121	8,798	129	6,404	9,065,451	121	6,375
States										
Arizona	-	-	-	-	-	1	(D)	(D)	1	(D)
Colorado	2	(D)	(D)	2	(D)	3	(D)	(D)	3	(D)
Florida	1	(D)	(D)	1	(D)	-	-	-	-	-
Idaho	79	4,800	7,847,581	79	4,800	89	5,128	7,415,991	89	5,128
Iowa	2	(D)	(D)	-	-	-	-	-	-	-
Kentucky	1	(D)	(D)	-	-	-	-	-	-	-
Louisiana	2	(D)	(D)	2	(D)	-	-	-	-	-
Michigan	5	202	517,000	1	(D)	-	-	-	-	-
Minnesota	30	3,753	5,073,514	5	161	-	-	-	-	-
Mississippi	11	24	45,400	-	-	-	-	-	-	-
Nebraska	2	(D)	(D)	1	(D)	-	-	-	-	-

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Table 28. **Other Crops: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002				
	Harvested			Irrigated		Harvested			Irrigated	
	Farms	Acres	Quantity	Farms	Acres	Farms	Acres	Quantity	Farms	Acres
SWEET CORN FOR SEED (POUNDS) - Con.										
States - Con.										
North Carolina	-	-	-	-	-	1	(D)	(D)	-	-
Oregon	6	210	244,674	6	210	5	(D)	(D)	5	(D)
South Carolina	5	138	108,400	1	(D)	-	-	-	-	-
Texas	14	3,876	14,245,580	7	2,355	-	-	-	-	-
Virginia	2	(D)	(D)	-	-	-	-	-	-	-
Washington	16	934	947,307	16	934	30	856	1,233,060	23	(D)
TARO (POUNDS)										
United States Total										
United States	159	(D)	(D)	141	(D)	177	592	4,564,494	111	473
States										
California	1	(D)	(D)	1	(D)	4	24	58,400	4	24
Hawaii	158	535	5,107,193	140	485	173	568	4,506,094	107	449
OTHER CROPS (SEE TEXT)										
United States Total										
United States	1,001	70,844	(X)	329	21,200	729	37,338	(X)	182	10,651
States										
Alabama	39	807	(X)	-	-	30	1,730	(X)	1	(D)
Alaska	1	(D)	(X)	-	-	1	(D)	(X)	-	-
Arizona	2	(D)	(X)	1	(D)	9	594	(X)	9	594
Arkansas	-	-	(X)	-	-	2	(D)	(X)	1	(D)
California	97	1,681	(X)	81	1,434	15	1,090	(X)	11	1,088
Colorado	10	66	(X)	7	49	11	531	(X)	9	371
Connecticut	-	-	(X)	-	-	5	15	(X)	-	-
Florida	27	426	(X)	7	106	38	645	(X)	21	449
Georgia	19	1,598	(X)	5	927	7	324	(X)	2	(D)
Hawaii	60	453	(X)	41	324	45	416	(X)	22	218
Idaho	14	1,812	(X)	11	717	7	776	(X)	6	752
Illinois	18	181	(X)	1	(D)	1	(D)	(X)	-	-
Indiana	12	31	(X)	4	7	7	57	(X)	-	-
Iowa	2	(D)	(X)	1	(D)	13	376	(X)	-	-
Kansas	9	590	(X)	1	(D)	7	1,502	(X)	3	893
Kentucky	7	151	(X)	2	(D)	13	2,648	(X)	-	-
Louisiana	-	-	(X)	-	-	1	(D)	(X)	-	-
Maine	4	11	(X)	-	-	7	16	(X)	-	-
Maryland	2	(D)	(X)	1	(D)	6	233	(X)	-	-
Massachusetts	6	38	(X)	-	-	12	53	(X)	1	(D)
Michigan	13	473	(X)	6	41	48	721	(X)	4	(D)
Minnesota	59	4,690	(X)	7	137	42	3,115	(X)	1	(D)
Mississippi	13	324	(X)	1	(D)	12	416	(X)	2	(D)
Missouri	38	524	(X)	3	5	12	543	(X)	-	-
Montana	113	24,688	(X)	1	(D)	10	703	(X)	5	106
Nebraska	6	364	(X)	3	326	22	2,110	(X)	5	607
Nevada	4	475	(X)	4	475	4	(D)	(X)	4	(D)
New Hampshire	1	(D)	(X)	1	(D)	4	5	(X)	-	-
New Jersey	1	(D)	(X)	-	-	15	1,238	(X)	1	(D)
New Mexico	-	-	(X)	-	-	7	434	(X)	5	169
New York	50	4,265	(X)	2	(D)	17	387	(X)	1	(D)
North Carolina	2	(D)	(X)	1	(D)	21	1,277	(X)	1	(D)
North Dakota	1	(D)	(X)	-	-	10	618	(X)	-	-
Ohio	21	458	(X)	-	-	20	159	(X)	4	16
Oklahoma	3	635	(X)	1	(D)	16	281	(X)	4	4
Oregon	72	3,973	(X)	44	2,596	27	1,836	(X)	19	1,427
Pennsylvania	50	854	(X)	1	(D)	29	268	(X)	3	3
Rhode Island	2	(D)	(X)	-	-	3	21	(X)	-	-
South Carolina	23	323	(X)	3	(D)	13	609	(X)	1	(D)
South Dakota	1	(D)	(X)	-	-	23	2,060	(X)	2	(D)
Tennessee	1	(D)	(X)	-	-	6	144	(X)	1	(D)
Texas	68	1,918	(X)	16	697	46	5,240	(X)	16	1,959
Utah	13	209	(X)	10	111	9	111	(X)	8	101
Vermont	5	206	(X)	-	-	-	-	(X)	-	-
Virginia	45	950	(X)	12	91	23	497	(X)	-	-
Washington	58	14,396	(X)	48	12,053	15	2,306	(X)	4	1,333
West Virginia	-	-	(X)	-	-	1	(D)	(X)	-	-
Wisconsin	8	153	(X)	1	(D)	34	654	(X)	2	(D)
Wyoming	1	(D)	(X)	1	(D)	3	325	(X)	3	325

Table 29. **Land Used For Vegetables and Vegetables Harvested For Sale: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002 [1]				
	Land used for vegetables (see text)				Vegetables harvested (see text) (acres)	Land used for vegetables (see text)				Vegetables harvested (see text) (acres)
	Harvested		Irrigated			Harvested		Irrigated		
	Farms	Acres	Farms	Acres		Farms	Acres	Farms	Acres	
UNITED STATES TOTAL										
United States	69,172	4,356,880	29,885	3,068,485	4,682,588	54,391	3,433,269	23,149	2,359,667	3,698,744
STATES										
Alabama	1,603	18,352	396	6,637	18,868	1,374	19,774	227	4,771	20,332
Alaska	96	1,176	45	640	1,184	55	357	27	252	364
Arizona	2,565	133,910	1,543	130,930	137,574	274	128,271	274	128,271	134,394
Arkansas	804	13,919	298	6,494	14,146	482	13,038	198	6,471	13,443
California	3,868	969,013	3,868	968,965	1,169,786	3,858	1,025,056	3,858	1,025,056	1,197,481
Colorado	708	95,163	708	95,163	97,251	451	38,452	451	38,452	39,526
Connecticut	735	10,290	215	2,709	10,514	582	10,319	199	4,023	10,691
Delaware	233	35,011	141	20,165	40,088	236	37,441	147	21,860	39,208
Florida	1,493	224,837	841	174,847	265,835	1,507	198,378	958	169,287	219,412
Georgia	1,445	119,003	599	67,077	128,720	1,668	133,090	626	79,368	149,556
Hawaii	901	6,243	511	5,005	6,845	633	5,824	417	5,038	6,554
Idaho	1,137	376,986	1,137	376,986	377,062	427	25,909	417	24,451	26,010
Illinois	1,377	69,584	376	29,663	71,371	1,107	66,670	253	23,840	70,430
Indiana	1,363	34,821	381	13,467	35,503	1,139	36,606	374	16,892	37,682
Iowa	881	9,080	181	2,815	9,544	752	9,268	117	1,197	9,435
Kansas	473	8,842	190	6,121	8,976	327	2,791	128	1,229	2,854
Kentucky	2,123	7,535	631	2,372	7,776	1,424	7,224	403	2,043	7,349
Louisiana	759	18,767	222	8,565	18,912	550	5,053	170	1,570	5,154
Maine	968	66,682	272	13,686	66,783	684	6,861	229	1,652	6,925
Maryland	931	32,159	392	18,672	33,447	804	30,774	336	16,097	31,701
Massachusetts	1,001	15,560	380	5,004	15,764	866	14,409	314	3,998	14,757
Michigan	2,878	170,945	1,110	91,755	174,685	2,519	135,428	817	60,186	137,887
Minnesota	2,720	241,996	422	35,287	247,099	2,639	225,203	300	17,836	225,640
Mississippi	1,156	30,711	175	5,480	31,088	799	11,660	104	2,860	11,705
Missouri	1,335	31,079	495	19,568	32,837	938	25,335	338	9,165	27,404
Montana	313	11,899	313	11,899	11,899	150	699	150	699	699
Nebraska	340	23,622	182	20,945	23,646	230	4,222	119	2,636	4,270
Nevada	50	11,208	50	11,208	11,217	51	4,230	51	4,230	4,752
New Hampshire	427	3,372	146	1,016	3,408	313	3,393	118	838	3,433
New Jersey	1,456	50,641	634	37,171	54,062	1,435	55,374	687	46,091	59,024
New Mexico	1,743	35,926	1,694	35,774	36,933	457	32,848	457	32,848	33,297
New York	3,192	160,146	966	34,170	160,596	2,637	140,637	868	29,350	143,967
North Carolina	3,740	117,032	1,061	23,396	118,780	2,550	64,790	896	20,821	66,521
North Dakota	224	94,531	60	32,977	94,543	69	649	25	343	655
Ohio	2,873	45,706	711	14,434	47,014	2,323	43,909	655	16,654	45,542
Oklahoma	834	17,182	276	8,518	18,013	582	18,179	208	8,310	18,565
Oregon	1,519	146,428	1,280	124,652	149,665	1,708	120,690	1,489	103,260	121,338
Pennsylvania	4,338	54,796	1,437	15,602	55,655	3,478	47,843	1,209	12,586	48,698
Rhode Island	203	2,380	84	843	2,418	141	1,911	52	634	1,961
South Carolina	1,520	25,809	444	13,456	28,275	1,046	29,025	342	11,460	30,362
South Dakota	141	1,760	56	795	1,766	151	2,333	33	251	2,502
Tennessee	1,543	28,766	487	7,464	34,013	1,501	34,532	226	6,766	39,502
Texas	2,353	122,205	890	74,538	128,108	2,506	123,653	1,081	72,118	126,044
Utah	583	5,862	583	5,862	5,920	323	4,749	323	4,749	4,792
Vermont	494	2,855	126	772	2,927	413	2,840	143	1,017	2,893
Virginia	1,616	26,265	499	14,859	27,887	1,195	23,203	442	14,651	24,377
Washington	2,026	332,477	1,471	302,496	343,787	1,804	210,008	1,298	177,983	215,135
West Virginia	726	2,178	145	587	2,210	365	1,685	74	492	1,707
Wisconsin	3,319	291,223	715	166,034	297,238	2,850	248,549	503	124,891	252,693
Wyoming	46	949	46	949	952	18	127	18	127	128

[1] 2002 data do not include potatoes, sweet potatoes, or ginseng.

Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002**

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
VEGETABLES HARVESTED FOR SALE (SEE TEXT) [1]								
United States Total								
United States	69,172	4,682,588	11,468	2,059,160	62,495	2,623,427	54,391	3,698,744
States								
Alabama	1,603	18,868	124	4,463	1,578	14,405	1,374	20,332
Alaska	96	1,184	1	(D)	96	(D)	55	364
Arizona	2,565	137,574	19	5,160	2,552	132,415	274	134,394
Arkansas	804	14,146	99	5,365	770	8,782	482	13,443
California	3,868	1,169,786	797	378,467	3,421	791,320	3,858	1,197,481
Colorado	708	97,251	17	1,781	703	95,470	451	39,526
Connecticut	735	10,514	49	226	725	10,288	582	10,691
Delaware	233	40,088	89	28,608	187	11,479	236	39,208
Florida	1,493	265,835	132	38,419	1,447	227,416	1,507	219,412
Georgia	1,445	128,720	42	4,953	1,426	123,767	1,668	149,556
Hawaii	901	6,845	1	(D)	900	(D)	633	6,554
Idaho	1,137	377,062	573	168,774	750	208,288	427	26,010
Illinois	1,377	71,371	430	53,701	1,047	17,670	1,107	70,430
Indiana	1,363	35,503	169	15,796	1,279	19,707	1,139	37,682
Iowa	881	9,544	127	4,660	807	4,884	752	9,435
Kansas	473	8,976	17	(D)	468	(D)	327	2,854
Kentucky	2,123	7,776	185	297	2,062	7,479	1,424	7,349
Louisiana	759	18,912	142	3,597	709	15,315	550	5,154
Maine	968	66,783	163	32,615	881	34,168	684	6,925
Maryland	931	33,447	192	20,850	845	12,597	804	31,701
Massachusetts	1,001	15,764	63	854	988	14,910	866	14,757
Michigan	2,878	174,685	596	107,973	2,558	66,712	2,519	137,887
Minnesota	2,720	247,099	1,534	215,133	1,347	31,966	2,639	225,640
Mississippi	1,156	31,088	173	5,802	1,111	25,286	799	11,705
Missouri	1,335	32,837	157	21,838	1,261	10,999	938	27,404
Montana	313	11,899	4	(D)	311	(D)	150	699
Nebraska	340	23,646	44	8,419	322	15,228	230	4,270
Nevada	50	11,217	9	1,956	48	9,262	51	4,752
New Hampshire	427	3,408	12	5	425	3,403	313	3,433
New Jersey	1,456	54,062	61	8,329	1,444	45,733	1,435	59,024
New Mexico	1,743	36,933	198	14,410	1,671	22,523	457	33,297
New York	3,192	160,596	591	78,183	2,987	82,413	2,637	143,967
North Carolina	3,740	118,780	591	29,436	3,522	89,343	2,550	66,521
North Dakota	224	94,543	75	69,907	171	24,637	69	655
Ohio	2,873	47,014	369	13,681	2,724	33,333	2,323	45,542
Oklahoma	834	18,013	63	10,707	799	7,306	582	18,565
Oregon	1,519	149,665	411	106,211	1,265	43,453	1,708	121,338
Pennsylvania	4,338	55,655	443	17,217	4,147	38,439	3,478	48,698
Rhode Island	203	2,418	5	(D)	203	(D)	141	1,961
South Carolina	1,520	28,275	131	3,303	1,480	24,971	1,046	30,362
South Dakota	141	1,766	8	823	137	943	151	2,502
Tennessee	1,543	34,013	19	(D)	1,535	(D)	1,501	39,502
Texas	2,353	128,108	416	43,773	2,173	84,335	2,506	126,044
Utah	583	5,920	41	76	573	5,844	323	4,792
Vermont	494	2,927	41	(D)	486	(D)	413	2,893
Virginia	1,616	27,887	216	4,881	1,562	23,006	1,195	24,377
Washington	2,026	343,787	536	268,077	1,680	75,711	1,804	215,135
West Virginia	726	2,210	9	6	723	2,204	365	1,707
Wisconsin	3,319	297,238	1,282	241,474	2,145	55,764	2,850	252,693
Wyoming	46	952	2	(D)	44	(D)	18	128
ARTICHOKES, EXCLUDING JERUSALEM								
United States Total								
United States	118	9,687	-	-	118	9,687	93	7,789
States								
Arizona	5	(D)	-	-	5	(D)	1	(D)
California	83	9,612	-	-	83	9,612	83	7,725
Hawaii	1	(D)	-	-	1	(D)	2	(D)
Oregon	13	30	-	-	13	30	4	24
Texas	1	(D)	-	-	1	(D)	-	-
Washington	15	(D)	-	-	15	(D)	3	(D)
ASPARAGUS								
United States Total								
United States	2,605	43,010	219	11,087	2,465	31,923	2,987	74,987
States								
Alabama	8	2	-	-	8	2	3	(Z)
Alaska	2	(D)	-	-	2	(D)	2	(D)
Arizona	7	1	-	-	7	1	14	4
Arkansas	18	9	2	(D)	16	(D)	16	18
California	115	20,211	-	-	115	20,211	189	34,249
Colorado	9	23	-	-	9	23	21	352
Connecticut	38	49	3	1	37	48	29	44
Delaware	12	(D)	-	-	12	(D)	15	76
Georgia	7	9	-	-	7	9	4	(D)
Hawaii	17	141	-	-	17	141	16	81
Idaho	17	125	5	15	17	111	29	397

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
ASPARAGUS - Con.								
States - Con.								
Illinois	97	152	5	3	97	149	93	224
Indiana	46	180	-	-	46	180	72	167
Iowa	85	60	2	(D)	84	(D)	80	129
Kansas	44	76	-	-	44	76	40	54
Kentucky	65	61	-	-	65	61	46	44
Louisiana	2	(D)	2	(D)	2	(D)	1	(D)
Maine	32	8	-	-	32	8	27	17
Maryland	54	81	2	(D)	54	(D)	66	148
Massachusetts	73	114	-	-	73	114	78	122
Michigan	354	12,127	150	10,031	251	2,096	431	16,157
Minnesota	64	(D)	-	-	64	(D)	86	194
Mississippi	-	-	-	-	-	-	6	(D)
Missouri	78	39	3	(D)	77	(D)	62	46
Montana	6	3	-	-	6	3	12	4
Nebraska	30	17	-	-	30	17	15	22
Nevada	1	(D)	-	-	1	(D)	4	1
New Hampshire	37	13	-	-	37	13	13	5
New Jersey	132	962	-	-	132	962	142	1,251
New Mexico	14	10	-	-	14	10	12	6
New York	129	204	14	18	120	186	173	342
North Carolina	66	108	1	(D)	66	(D)	60	563
North Dakota	2	(D)	-	-	2	(D)	4	2
Ohio	120	95	-	-	120	95	114	127
Oklahoma	22	13	1	(D)	22	(D)	31	16
Oregon	33	369	1	(D)	33	(D)	83	977
Pennsylvania	211	169	-	-	211	169	231	193
Rhode Island	4	2	-	-	4	2	6	3
South Carolina	5	(D)	-	-	5	(D)	13	(D)
South Dakota	12	10	-	-	12	10	10	7
Tennessee	13	6	-	-	13	6	12	4
Texas	9	16	1	(D)	8	(D)	20	11
Utah	12	13	-	-	12	13	19	14
Vermont	40	18	-	-	40	18	35	24
Virginia	78	88	4	2	75	87	74	122
Washington	140	7,005	23	976	121	6,029	314	18,226
West Virginia	17	13	-	-	17	13	11	8
Wisconsin	223	244	-	-	223	244	152	276
Wyoming	5	1	-	-	5	1	1	(D)
BEANS, GREEN LIMA								
United States Total								
United States	1,020	42,529	260	37,450	772	5,079	1,077	51,773
States								
Alabama	75	240	4	1	73	239	73	(D)
Arizona	5	2	-	-	5	2	-	-
Arkansas	8	4	-	-	8	4	4	4
California	71	7,802	40	7,755	31	47	78	14,821
Colorado	1	(D)	-	-	1	(D)	-	-
Connecticut	2	(D)	-	-	2	(D)	4	1
Delaware	44	11,188	33	11,169	11	19	37	11,172
Florida	14	88	-	-	14	88	25	68
Georgia	51	2,747	1	(D)	50	(D)	81	1,544
Hawaii	6	1	-	-	6	1	4	2
Illinois	71	2,580	54	2,543	21	36	48	2,979
Indiana	5	1	-	-	5	1	9	(D)
Iowa	7	1	-	-	7	1	1	(D)
Kansas	4	1	-	-	4	1	1	(D)
Kentucky	13	2	-	-	13	2	7	5
Louisiana	6	9	2	(D)	4	(D)	5	(D)
Maryland	40	636	10	613	30	23	44	(D)
Massachusetts	3	(Z)	-	-	3	(Z)	3	(D)
Michigan	18	(D)	1	(D)	17	9	15	(D)
Minnesota	16	849	10	(D)	6	(D)	20	(D)
Mississippi	35	153	5	(D)	31	(D)	47	707
Missouri	3	(D)	2	(D)	1	(D)	1	(D)
New Hampshire	-	-	-	-	-	-	2	(D)
New Jersey	35	450	4	408	31	42	64	(D)
New Mexico	6	2	-	-	6	2	1	(D)
New York	12	7	2	(D)	12	(D)	13	8
North Carolina	141	900	8	17	135	883	125	(D)
Ohio	16	10	3	2	13	8	16	26
Oklahoma	5	2	-	-	5	2	2	(D)
Oregon	10	2,101	8	(D)	2	(D)	4	(D)
Pennsylvania	64	23	-	-	64	23	80	33
Rhode Island	-	-	-	-	-	-	3	3
South Carolina	69	798	5	(D)	65	(D)	58	1,284
Tennessee	22	(D)	1	(D)	21	(D)	6	(D)
Texas	3	(D)	1	(D)	2	(D)	1	(D)
Vermont	-	-	-	-	-	-	2	(D)
Virginia	55	734	1	(D)	54	(D)	49	186
Washington	17	2,466	12	2,456	5	11	31	3,702
West Virginia	1	(D)	-	-	1	(D)	7	5
Wisconsin	66	3,435	53	3,433	13	2	106	5,458

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
BEANS, SNAP								
United States Total								
United States	17,300	303,997	1,999	198,101	15,654	105,896	11,343	307,101
States								
Alabama	474	338	12	7	467	331	420	495
Alaska	12	3	-	-	12	3	4	(D)
Arizona	224	103	-	-	224	103	34	26
Arkansas	214	2,241	30	2,134	190	108	124	2,991
California	374	5,474	6	750	370	4,724	503	10,070
Colorado	112	486	-	-	112	486	59	485
Connecticut	234	1,015	13	(D)	225	(D)	99	976
Delaware	52	2,960	19	1,501	45	1,459	32	2,988
Florida	373	39,897	9	1,670	370	38,227	391	32,897
Georgia	375	16,866	21	2,305	358	14,561	362	16,465
Hawaii	102	134	-	-	102	134	129	208
Idaho	63	22	-	-	63	22	48	1,253
Illinois	364	11,992	81	11,592	291	400	248	14,189
Indiana	385	4,526	44	4,134	348	391	303	6,234
Iowa	203	837	14	755	189	82	176	511
Kansas	106	50	-	-	106	50	74	26
Kentucky	815	424	47	17	783	407	424	541
Louisiana	167	152	17	60	155	93	125	118
Maine	319	185	21	3	309	182	174	156
Maryland	302	5,696	50	4,486	268	1,210	178	4,721
Massachusetts	336	394	-	-	336	394	161	294
Michigan	705	19,414	117	16,462	600	2,952	502	20,726
Minnesota	427	5,128	38	4,424	393	704	287	4,876
Mississippi	288	402	29	(D)	269	(D)	219	1,085
Missouri	431	7,636	44	6,801	393	836	200	3,962
Montana	71	19	-	-	71	19	41	15
Nebraska	97	25	5	1	93	25	52	40
Nevada	14	4	1	(D)	13	(D)	4	2
New Hampshire	189	116	2	(D)	188	(D)	65	87
New Jersey	372	3,265	9	641	366	2,624	222	4,716
New Mexico	121	934	13	662	108	272	31	902
New York	979	31,204	139	24,046	876	7,158	454	28,471
North Carolina	1,270	8,769	163	3,055	1,166	5,714	822	9,433
North Dakota	14	5	-	-	14	5	23	52
Ohio	786	2,511	52	44	751	2,467	622	2,070
Oklahoma	231	2,425	21	2,138	210	286	133	2,310
Oregon	475	18,445	144	17,870	342	575	495	19,754
Pennsylvania	1,065	9,348	130	8,000	958	1,348	537	9,939
Rhode Island	61	46	-	-	61	46	13	61
South Carolina	449	1,103	32	136	423	967	277	1,228
South Dakota	29	5	-	-	29	5	13	4
Tennessee	512	9,772	5	(D)	511	(D)	159	10,353
Texas	451	9,485	78	7,261	389	2,224	254	6,359
Utah	62	65	2	(D)	60	(D)	21	121
Vermont	168	68	9	1	162	67	82	71
Virginia	606	5,635	73	2,469	560	3,167	429	4,712
Washington	453	3,346	35	2,603	424	743	275	1,613
West Virginia	335	141	-	-	335	141	116	101
Wisconsin	1,020	70,885	474	69,862	553	1,023	926	78,395
Wyoming	13	1	-	-	13	1	1	(D)
BEETS								
United States Total								
United States	2,744	8,412	117	5,275	2,651	3,138	2,123	9,092
States								
Alabama	6	4	-	-	6	4	5	2
Alaska	12	5	-	-	12	5	10	4
Arizona	19	5	-	-	19	5	33	28
Arkansas	10	2	2	(D)	8	(D)	12	4
California	198	979	1	(D)	197	(D)	229	1,380
Colorado	40	85	-	-	40	85	28	72
Connecticut	31	8	-	-	31	8	27	10
Delaware	7	2	-	-	7	2	-	-
Florida	12	(D)	-	-	12	(D)	-	-
Georgia	10	(D)	-	-	10	(D)	11	24
Hawaii	29	11	-	-	29	11	18	3
Idaho	17	2	-	-	17	2	18	4
Illinois	78	48	6	1	74	47	40	(D)
Indiana	26	6	-	-	26	6	20	17
Iowa	52	7	-	-	52	7	33	8
Kansas	39	8	-	-	39	8	25	9
Kentucky	50	7	-	-	50	7	23	8
Louisiana	10	2	-	-	10	2	9	4
Maine	86	35	4	(D)	83	(D)	91	38
Maryland	51	14	6	1	45	13	40	33
Massachusetts	92	37	-	-	92	37	57	23
Michigan	140	(D)	2	(D)	139	333	65	255
Minnesota	134	34	4	(Z)	132	33	69	547
Mississippi	5	1	-	-	5	1	2	(D)
Missouri	55	12	4	6	51	7	34	12
Montana	52	10	-	-	52	10	25	7
Nebraska	19	8	-	-	19	8	23	7
Nevada	1	(D)	-	-	1	(D)	3	1

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
BEETS - Con.								
States - Con.								
New Hampshire	55	14	-	-	55	14	25	9
New Jersey	62	265	-	-	62	265	65	240
New Mexico	27	7	-	-	27	7	23	14
New York	185	2,173	23	2,058	169	115	182	1,868
North Carolina	91	(D)	-	-	91	(D)	43	25
North Dakota	12	3	-	-	12	3	9	2
Ohio	114	131	4	(D)	113	(D)	89	164
Oklahoma	36	13	5	1	33	12	16	5
Oregon	62	425	4	142	58	283	106	(D)
Pennsylvania	187	67	-	-	187	67	163	102
Rhode Island	14	3	-	-	14	3	7	4
South Carolina	6	(D)	-	-	6	(D)	2	(D)
South Dakota	5	1	-	-	5	1	4	2
Tennessee	24	10	-	-	24	10	3	1
Texas	33	515	5	210	31	305	58	431
Utah	19	6	-	-	19	6	16	6
Vermont	84	31	1	(D)	84	(D)	45	23
Virginia	68	31	3	1	66	30	50	203
Washington	145	88	1	(D)	145	(D)	102	64
West Virginia	14	3	-	-	14	3	20	4
Wisconsin	210	2,784	42	2,744	168	40	145	2,732
Wyoming	10	1	-	-	10	1	-	-
BROCCOLI								
United States Total								
United States	3,087	130,603	94	6,399	3,030	124,204	2,493	141,533
States								
Alabama	15	5	-	-	15	5	10	(D)
Alaska	22	28	-	-	22	28	31	37
Arizona	44	11,869	-	-	44	11,869	54	11,970
Arkansas	12	4	-	-	12	4	16	46
California	416	106,271	25	5,124	411	101,147	535	120,560
Colorado	20	509	-	-	20	509	25	562
Connecticut	63	38	4	(D)	59	(D)	30	20
Delaware	11	6	-	-	11	6	3	(D)
Florida	52	(D)	-	-	52	(D)	29	220
Georgia	29	219	-	-	29	219	15	(D)
Hawaii	26	100	-	-	26	100	23	153
Idaho	7	1	-	-	7	1	12	2
Illinois	47	50	-	-	47	50	38	34
Indiana	23	12	-	-	23	12	21	18
Iowa	42	11	3	(Z)	39	11	35	16
Kansas	37	6	-	-	37	6	19	6
Kentucky	58	16	-	-	58	16	24	49
Louisiana	36	22	1	(D)	35	(D)	24	19
Maine	71	(D)	-	-	71	(D)	59	(D)
Maryland	40	35	3	(D)	39	(D)	44	33
Massachusetts	98	71	-	-	98	71	74	43
Michigan	164	205	2	(D)	163	(D)	124	250
Minnesota	97	85	-	-	97	85	33	35
Mississippi	2	(D)	1	(D)	1	(D)	6	(D)
Missouri	33	9	1	(D)	33	(D)	29	6
Montana	42	10	-	-	42	10	17	4
Nebraska	18	5	-	-	18	5	9	1
Nevada	3	(D)	-	-	3	(D)	3	1
New Hampshire	51	24	-	-	51	24	28	7
New Jersey	74	139	-	-	74	139	70	123
New Mexico	5	1	-	-	5	1	6	1
New York	270	(D)	17	5	260	(D)	204	364
North Carolina	138	187	1	(D)	138	(D)	76	674
North Dakota	1	(D)	-	-	1	(D)	3	(Z)
Ohio	87	27	4	(Z)	83	27	64	37
Oklahoma	21	4	1	(D)	20	(D)	8	1
Oregon	104	1,410	18	1,204	87	206	117	1,414
Pennsylvania	218	183	1	(D)	218	(D)	219	211
Rhode Island	13	11	-	-	13	11	4	5
South Carolina	23	(D)	2	(D)	21	(D)	5	(D)
South Dakota	3	(Z)	-	-	3	(Z)	1	(D)
Tennessee	50	12	-	-	50	12	10	10
Texas	47	512	3	(D)	45	(D)	57	476
Utah	9	1	-	-	9	1	2	(D)
Vermont	75	33	2	(D)	73	(D)	48	50
Virginia	75	551	1	(D)	74	(D)	31	86
Washington	120	859	4	(D)	118	(D)	101	1,119
West Virginia	18	6	-	-	18	6	16	7
Wisconsin	155	(D)	-	-	155	(D)	80	78
Wyoming	2	(D)	-	-	2	(D)	1	(D)

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
BRUSSELS SPROUTS								
United States Total								
United States	483	3,874	16	924	476	2,950	193	3,100
States								
Alaska	7	3	-	-	7	3	1	(D)
Arizona	2	(D)	-	-	2	(D)	-	-
California	51	3,617	6	920	51	2,697	39	2,982
Colorado	4	2	-	-	4	2	-	-
Connecticut	10	1	-	-	10	1	4	(D)
Delaware	1	(D)	-	-	1	(D)	1	(D)
Florida	1	(D)	-	-	1	(D)	-	-
Georgia	1	(D)	-	-	1	(D)	-	-
Idaho	1	(D)	-	-	1	(D)	-	-
Illinois	20	(D)	-	-	20	(D)	2	(D)
Indiana	1	(D)	-	-	1	(D)	-	-
Iowa	3	(Z)	-	-	3	(Z)	-	-
Maine	10	2	-	-	10	2	6	2
Maryland	-	-	-	-	-	-	1	(D)
Massachusetts	24	6	-	-	24	6	7	5
Michigan	41	27	1	(D)	40	(D)	2	(D)
Minnesota	14	(D)	-	-	14	(D)	2	(D)
Montana	4	1	-	-	4	1	-	-
New Hampshire	7	1	-	-	7	1	1	(D)
New Jersey	16	17	-	-	16	17	12	7
New York	88	60	7	2	84	58	51	56
North Carolina	6	1	-	-	6	1	-	-
North Dakota	1	(D)	-	-	1	(D)	-	-
Ohio	10	2	-	-	10	2	1	(D)
Oklahoma	2	(D)	-	-	2	(D)	-	-
Oregon	11	(D)	1	(D)	10	(D)	5	2
Pennsylvania	35	19	-	-	35	19	41	29
Rhode Island	4	(Z)	-	-	4	(Z)	1	(D)
South Carolina	1	(D)	-	-	1	(D)	-	-
South Dakota	1	(D)	-	-	1	(D)	-	-
Texas	1	(D)	-	-	1	(D)	-	-
Vermont	27	5	-	-	27	5	10	3
Virginia	2	(D)	-	-	2	(D)	-	-
Washington	20	4	-	-	20	4	3	1
Wisconsin	56	15	1	(D)	55	(D)	3	1
CABBAGE, CHINESE								
United States Total								
United States	620	11,480	6	9	618	11,471	469	12,293
States								
Alabama	2	(D)	-	-	2	(D)	5	3
Alaska	4	1	-	-	4	1	-	-
Arizona	-	-	-	-	-	-	6	258
California	111	5,593	-	-	111	5,593	154	7,250
Colorado	3	(D)	-	-	3	(D)	-	-
Connecticut	5	3	-	-	5	3	1	(D)
Delaware	1	(D)	-	-	1	(D)	2	(D)
Florida	40	3,206	-	-	40	3,206	26	1,631
Georgia	9	10	-	-	9	10	5	(D)
Hawaii	53	271	-	-	53	271	40	268
Idaho	1	(D)	-	-	1	(D)	-	-
Illinois	3	(Z)	-	-	3	(Z)	-	-
Indiana	4	(D)	-	-	4	(D)	-	-
Iowa	3	(Z)	-	-	3	(Z)	-	-
Kansas	5	2	-	-	5	2	-	-
Kentucky	14	3	-	-	14	3	22	25
Louisiana	5	2	1	(D)	4	(D)	-	-
Maine	5	(D)	-	-	5	(D)	6	2
Maryland	7	17	-	-	7	17	6	36
Massachusetts	15	3	-	-	15	3	6	(D)
Michigan	28	194	-	-	28	194	5	115
Minnesota	10	4	-	-	10	4	-	-
Missouri	8	(D)	1	(D)	8	(D)	-	-
New Hampshire	2	(D)	-	-	2	(D)	-	-
New Jersey	27	981	-	-	27	981	31	928
New Mexico	8	1	-	-	8	1	-	-
New York	42	186	2	(D)	42	(D)	36	314
North Carolina	35	192	-	-	35	192	39	1,046
Ohio	18	14	-	-	18	14	2	(D)
Oklahoma	4	1	1	(D)	4	(D)	-	-
Oregon	12	42	-	-	12	42	11	18
Pennsylvania	18	9	-	-	18	9	15	26
Rhode Island	4	(Z)	-	-	4	(Z)	-	-
South Carolina	13	4	-	-	13	4	3	2
Tennessee	14	5	-	-	14	5	6	5
Texas	7	517	-	-	7	517	-	-
Utah	-	-	-	-	-	-	1	(D)
Vermont	5	(D)	-	-	5	(D)	5	1
Virginia	14	20	-	-	14	20	14	54
Washington	31	132	1	(D)	30	(D)	15	109
West Virginia	1	(D)	-	-	1	(D)	5	2
Wisconsin	29	27	-	-	29	27	2	(D)

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
CABBAGE, HEAD								
United States Total								
United States	4,086	80,620	175	9,866	3,986	70,753	3,757	85,324
States								
Alabama	60	(D)	2	(D)	60	(D)	35	118
Alaska	24	34	-	-	24	34	30	45
Arizona	23	2,675	-	-	23	2,675	22	3,794
Arkansas	26	12	-	-	26	12	17	165
California	177	14,099	4	147	177	13,952	256	11,603
Colorado	33	2,146	1	(D)	32	(D)	32	2,384
Connecticut	48	101	-	-	48	101	41	180
Delaware	7	(D)	2	(D)	5	(D)	10	(D)
Florida	81	9,817	-	-	81	9,817	126	7,418
Georgia	120	6,581	-	-	120	6,581	96	10,343
Hawaii	29	434	1	(D)	28	(D)	37	597
Idaho	6	1	-	-	6	1	15	6
Illinois	87	482	1	(D)	86	(D)	72	705
Indiana	66	101	1	(D)	65	(D)	84	227
Iowa	52	141	2	(D)	51	(D)	66	223
Kansas	34	(D)	1	(D)	33	12	20	9
Kentucky	150	219	2	(D)	148	(D)	116	262
Louisiana	48	82	1	(D)	47	(D)	40	79
Maine	59	80	-	-	59	80	50	93
Maryland	39	163	3	(D)	38	(D)	64	248
Massachusetts	93	260	3	(D)	91	(D)	68	240
Michigan	243	2,486	14	728	239	1,757	212	2,139
Minnesota	156	360	-	-	156	360	92	406
Mississippi	9	22	-	-	9	22	16	138
Missouri	39	88	-	-	39	88	32	114
Montana	49	13	-	-	49	13	27	10
Nebraska	23	10	-	-	23	10	17	26
Nevada	3	(D)	1	(D)	2	(D)	2	(D)
New Hampshire	31	15	-	-	31	15	16	13
New Jersey	94	1,620	1	(D)	94	(D)	124	1,778
New Mexico	42	348	-	-	42	348	15	251
New York	316	13,618	47	3,359	292	10,259	291	15,269
North Carolina	277	5,200	13	642	271	4,557	223	4,287
North Dakota	7	3	-	-	7	3	15	(D)
Ohio	249	2,311	17	1,501	238	810	263	1,954
Oklahoma	29	6	4	1	25	5	21	162
Oregon	58	978	9	247	52	731	107	942
Pennsylvania	361	1,146	8	9	354	1,138	367	1,323
Rhode Island	22	32	-	-	22	32	9	46
South Carolina	72	172	4	2	68	171	38	356
South Dakota	6	1	-	-	6	1	4	1
Tennessee	93	114	-	-	93	114	51	217
Texas	114	7,057	7	221	112	6,837	122	7,015
Utah	6	(D)	-	-	6	(D)	10	80
Vermont	52	37	1	(D)	52	(D)	32	47
Virginia	100	468	5	11	97	458	68	633
Washington	96	266	4	(D)	94	(D)	76	464
West Virginia	40	12	-	-	40	12	42	18
Wisconsin	233	5,990	16	2,449	221	3,541	167	8,044
Wyoming	4	(D)	-	-	4	(D)	1	(D)
CABBAGE, MUSTARD								
United States Total								
United States	53	66	1	(D)	52	(D)	29	160
States								
California	-	-	-	-	-	-	2	(D)
Hawaii	38	64	1	(D)	37	(D)	23	64
Idaho	2	(D)	-	-	2	(D)	-	-
Iowa	1	(D)	-	-	1	(D)	-	-
Kansas	1	(D)	-	-	1	(D)	-	-
New Jersey	1	(D)	-	-	1	(D)	-	-
New Mexico	4	(Z)	-	-	4	(Z)	-	-
New York	1	(D)	-	-	1	(D)	-	-
North Carolina	-	-	-	-	-	-	1	(D)
Ohio	-	-	-	-	-	-	2	(D)
Tennessee	-	-	-	-	-	-	1	(D)
Vermont	1	(D)	-	-	1	(D)	-	-
Washington	4	1	-	-	4	1	-	-
CANTALOUPES								
United States Total								
United States	9,148	84,290	18	34	9,140	84,256	7,478	105,262
States								
Alabama	323	475	-	-	323	475	258	600
Arizona	748	18,933	-	-	748	18,933	73	14,799
Arkansas	150	138	7	2	145	135	45	216
California	626	38,489	-	-	626	38,489	500	52,727
Colorado	62	1,499	-	-	62	1,499	81	1,453
Connecticut	47	54	-	-	47	54	56	36

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
CANTALOUPES - Con.								
States - Con.								
Delaware	42	150	-	-	42	150	42	179
Florida	138	2,795	-	-	138	2,795	87	2,767
Georgia	224	4,411	-	-	224	4,411	254	5,311
Hawaii	1	(D)	-	-	1	(D)	2	(D)
Idaho	47	(D)	-	-	47	(D)	31	37
Illinois	107	638	-	-	107	638	125	556
Indiana	185	1,447	-	-	185	1,447	260	2,211
Iowa	78	217	-	-	78	217	75	251
Kansas	75	164	-	-	75	164	71	365
Kentucky	446	620	-	-	446	620	339	575
Louisiana	102	63	-	-	102	63	41	40
Maine	30	14	-	-	30	14	44	13
Maryland	290	618	-	-	290	618	201	684
Massachusetts	51	46	-	-	51	46	59	46
Michigan	235	517	-	-	235	517	269	770
Minnesota	92	120	-	-	92	120	93	144
Mississippi	172	265	-	-	172	265	48	250
Missouri	293	431	-	-	293	431	136	367
Montana	19	27	-	-	19	27	11	25
Nebraska	44	81	-	-	44	81	45	196
Nevada	5	11	1	(D)	5	(D)	19	53
New Hampshire	24	11	-	-	24	11	35	19
New Jersey	137	273	-	-	137	273	158	495
New Mexico	220	(D)	7	27	218	(D)	93	301
New York	199	330	-	-	199	330	220	331
North Carolina	804	1,903	2	(D)	804	(D)	617	2,798
North Dakota	19	(D)	-	-	19	(D)	21	35
Ohio	273	576	-	-	273	576	349	624
Oklahoma	246	446	-	-	246	446	104	425
Oregon	75	141	-	-	75	141	140	217
Pennsylvania	480	805	-	-	480	805	569	1,014
Rhode Island	12	7	-	-	12	7	7	5
South Carolina	346	1,698	-	-	346	1,698	305	1,516
South Dakota	20	126	-	-	20	126	36	216
Tennessee	297	305	-	-	297	305	160	706
Texas	535	3,850	-	-	535	3,850	706	10,084
Utah	68	126	-	-	68	126	73	196
Vermont	41	11	-	-	41	11	31	17
Virginia	331	715	1	(D)	330	(D)	322	765
Washington	54	94	-	-	54	94	52	328
West Virginia	102	42	-	-	102	42	36	(D)
Wisconsin	229	235	-	-	229	235	176	292
Wyoming	4	(D)	-	-	4	(D)	3	(D)
CARROTS								
United States Total								
United States	2,543	90,292	202	24,931	2,393	65,362	1,792	107,013
States								
Alabama	6	3	-	-	6	3	4	(D)
Alaska	37	49	1	(D)	37	(D)	33	65
Arizona	43	(D)	-	-	43	(D)	33	2,190
Arkansas	13	5	-	-	13	5	4	(D)
California	326	56,263	34	4,594	303	51,669	417	68,635
Colorado	44	2,219	1	(D)	43	(D)	39	2,877
Connecticut	22	5	-	-	22	5	12	(D)
Delaware	2	(D)	-	-	2	(D)	-	-
Florida	23	1,509	2	(D)	22	(D)	22	(D)
Georgia	18	1,044	-	-	18	1,044	23	2,029
Hawaii	22	6	-	-	22	6	8	2
Idaho	48	19	-	-	48	19	20	8
Illinois	21	(D)	2	(D)	21	(D)	8	3
Indiana	14	2	-	-	14	2	4	(Z)
Iowa	32	128	3	124	30	4	22	(D)
Kansas	16	2	-	-	16	2	9	2
Kentucky	16	2	-	-	16	2	9	2
Louisiana	7	3	1	(D)	6	(D)	8	4
Maine	82	30	2	(D)	80	(D)	84	24
Maryland	12	1	-	-	12	1	10	14
Massachusetts	99	80	2	(D)	99	(D)	43	47
Michigan	140	5,499	26	3,338	118	2,161	97	6,047
Minnesota	97	1,371	6	888	92	483	59	1,789
Mississippi	1	(D)	1	(D)	-	-	1	(D)
Missouri	23	3	-	-	23	3	7	3
Montana	68	22	-	-	68	22	36	23
Nebraska	13	7	-	-	13	7	6	1
Nevada	5	3	1	(D)	4	(D)	5	2
New Hampshire	49	12	-	-	49	12	29	9
New Jersey	34	837	9	798	25	39	24	596
New Mexico	54	10	-	-	54	10	15	16
New York	119	1,194	14	1,050	109	143	123	1,481
North Carolina	37	6	-	-	37	6	23	8
North Dakota	6	(D)	1	(D)	5	2	9	(D)
Ohio	37	2,467	11	(D)	29	(D)	30	1,582
Oklahoma	21	6	1	(D)	20	(D)	3	(Z)
Oregon	180	1,084	5	405	176	679	86	193
Pennsylvania	63	85	2	(D)	61	(D)	54	176

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
CARROTS - Con.								
States - Con.								
Rhode Island	14	2	-	-	14	2	3	(D)
South Carolina	4	1	-	-	4	1	1	(D)
South Dakota	15	3	-	-	15	3	2	(D)
Tennessee	18	6	-	-	18	6	1	(D)
Texas	48	3,872	17	2,483	41	1,389	52	3,399
Utah	18	4	-	-	18	4	8	(D)
Vermont	68	27	2	(D)	66	(D)	53	26
Virginia	11	8	-	-	11	8	11	4
Washington	302	6,414	27	(D)	286	(D)	141	10,428
West Virginia	6	3	-	-	6	3	5	1
Wisconsin	181	3,988	31	3,942	150	46	94	4,674
Wyoming	8	1	-	-	8	1	2	(D)
CAULIFLOWER								
United States Total								
United States	1,136	39,515	49	2,019	1,104	37,496	1,032	44,163
States								
Alabama	1	(D)	-	-	1	(D)	-	-
Alaska	11	6	-	-	11	6	22	13
Arizona	27	3,905	-	-	27	3,905	18	4,632
Arkansas	-	-	-	-	-	-	2	(D)
California	194	32,277	11	838	189	31,439	256	35,494
Colorado	14	122	-	-	14	122	2	(D)
Connecticut	16	21	1	(D)	16	(D)	10	8
Delaware	10	27	1	(D)	10	(D)	1	(D)
Florida	11	(D)	-	-	11	(D)	15	(D)
Georgia	6	(D)	-	-	6	(D)	1	(D)
Hawaii	2	(D)	-	-	2	(D)	7	18
Idaho	1	(D)	-	-	1	(D)	4	(D)
Illinois	12	19	-	-	12	19	12	15
Indiana	13	6	-	-	13	6	15	12
Iowa	8	3	-	-	8	3	6	4
Kansas	8	1	-	-	8	1	2	(D)
Kentucky	16	5	-	-	16	5	-	-
Louisiana	20	29	-	-	20	29	9	10
Maine	12	(D)	-	-	12	(D)	11	8
Maryland	7	28	-	-	7	28	16	51
Massachusetts	25	11	-	-	25	11	12	(D)
Michigan	78	255	2	(D)	76	(D)	80	332
Minnesota	34	18	3	(Z)	33	18	11	27
Missouri	19	7	-	-	19	7	3	1
Montana	27	5	-	-	27	5	4	(Z)
Nebraska	9	2	-	-	9	2	2	(D)
Nevada	-	-	-	-	-	-	1	(D)
New Hampshire	10	7	-	-	10	7	2	(D)
New Jersey	20	42	-	-	20	42	19	48
New Mexico	-	-	-	-	-	-	3	(Z)
New York	142	295	9	54	138	242	100	366
North Carolina	3	1	-	-	3	1	-	-
North Dakota	-	-	-	-	-	-	1	(D)
Ohio	45	33	1	(D)	44	(D)	35	41
Oklahoma	1	(D)	1	(D)	-	-	2	(D)
Oregon	45	1,370	20	1,111	27	258	94	1,748
Pennsylvania	120	96	-	-	120	96	161	120
Rhode Island	2	(D)	-	-	2	(D)	-	-
South Carolina	3	1	-	-	3	1	-	-
South Dakota	1	(D)	-	-	1	(D)	-	-
Tennessee	14	3	-	-	14	3	-	-
Texas	23	123	-	-	23	123	18	102
Vermont	27	8	-	-	27	8	14	5
Virginia	7	1	-	-	7	1	-	-
Washington	29	310	-	-	29	310	25	450
West Virginia	7	1	-	-	7	1	1	(D)
Wisconsin	55	(D)	-	-	55	(D)	35	51
Wyoming	1	(D)	-	-	1	(D)	-	-
CELERY								
United States Total								
United States	326	29,907	30	1,606	311	28,301	303	28,241
States								
Alaska	4	(Z)	-	-	4	(Z)	5	2
Arizona	5	437	-	-	5	437	4	530
Arkansas	1	(D)	-	-	1	(D)	-	-
California	128	24,769	4	223	126	24,546	165	22,904
Connecticut	-	-	-	-	-	-	2	(D)
Delaware	3	(Z)	-	-	3	(Z)	-	-
Florida	3	(D)	-	-	3	(D)	8	(D)
Hawaii	8	14	-	-	8	14	6	46
Illinois	3	(Z)	-	-	3	(Z)	1	(D)
Indiana	1	(D)	-	-	1	(D)	-	-
Iowa	1	(D)	-	-	1	(D)	1	(D)
Kansas	2	(D)	-	-	2	(D)	2	(D)

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
CELERY - Con.								
States - Con.								
Louisiana	2	(D)	-	-	2	(D)	-	-
Maine	5	(D)	-	-	5	(D)	-	-
Maryland	-	-	-	-	-	-	2	(D)
Massachusetts	14	5	-	-	14	5	4	(D)
Michigan	33	1,968	18	(D)	27	(D)	34	2,232
Minnesota	3	(Z)	-	-	3	(Z)	-	-
Montana	2	(D)	-	-	2	(D)	-	-
Nebraska	-	-	-	-	-	-	1	(D)
New Hampshire	-	-	-	-	-	-	2	(D)
New Jersey	1	(D)	-	-	1	(D)	3	(D)
New Mexico	4	1	-	-	4	1	2	(D)
New York	15	10	3	(Z)	12	9	7	7
North Carolina	6	31	-	-	6	31	-	-
Ohio	3	(Z)	-	-	3	(Z)	3	16
Oklahoma	1	(D)	-	-	1	(D)	-	-
Oregon	10	50	3	(D)	8	(D)	14	137
Pennsylvania	25	28	-	-	25	28	15	33
Rhode Island	1	(D)	-	-	1	(D)	-	-
Tennessee	3	(Z)	-	-	3	(Z)	-	-
Texas	3	(D)	1	(D)	2	(D)	2	(D)
Vermont	1	(D)	-	-	1	(D)	5	2
Virginia	2	(D)	-	-	2	(D)	-	-
Washington	11	17	-	-	11	17	8	30
West Virginia	4	(Z)	-	-	4	(Z)	-	-
Wisconsin	18	(D)	1	(D)	17	3	7	(D)
CHICORY								
United States Total								
United States	46	2,118	-	-	46	2,118	53	2,649
States								
California	23	2,085	-	-	23	2,085	34	2,588
Florida	-	-	-	-	-	-	1	(D)
Illinois	-	-	-	-	-	-	1	(D)
Iowa	-	-	-	-	-	-	1	(D)
Maine	4	(D)	-	-	4	(D)	2	(D)
Massachusetts	2	(D)	-	-	2	(D)	-	-
Michigan	2	(D)	-	-	2	(D)	-	-
Nebraska	-	-	-	-	-	-	1	(D)
New Jersey	1	(D)	-	-	1	(D)	7	16
New York	7	2	-	-	7	2	6	8
Ohio	1	(D)	-	-	1	(D)	-	-
Oregon	1	(D)	-	-	1	(D)	-	-
Washington	5	1	-	-	5	1	-	-
COLLARDS								
United States Total								
United States	1,374	11,223	54	1,572	1,354	9,651	1,190	16,782
States								
Alabama	122	323	6	2	122	321	91	789
Alaska	2	(D)	-	-	2	(D)	9	5
Arizona	4	(D)	-	-	4	(D)	8	186
Arkansas	17	62	3	(D)	15	(D)	17	33
California	42	183	-	-	42	183	77	738
Connecticut	12	11	1	(D)	12	(D)	7	(D)
Delaware	8	1	-	-	8	1	6	(D)
Florida	156	227	-	-	156	227	114	755
Georgia	133	3,320	1	(D)	132	(D)	134	5,728
Hawaii	9	5	-	-	9	5	1	(D)
Illinois	11	13	-	-	11	13	8	(D)
Indiana	2	(D)	-	-	2	(D)	7	8
Iowa	9	1	-	-	9	1	5	2
Kansas	6	1	-	-	6	1	-	-
Kentucky	18	12	-	-	18	12	5	3
Louisiana	16	20	2	(D)	16	(D)	27	37
Maine	2	(D)	-	-	2	(D)	1	(D)
Maryland	29	(D)	1	(D)	28	(D)	41	231
Massachusetts	22	(D)	-	-	22	(D)	7	(D)
Michigan	42	152	-	-	42	152	20	185
Minnesota	1	(D)	-	-	1	(D)	-	-
Mississippi	25	74	4	(D)	24	(D)	21	61
Missouri	7	5	-	-	7	5	2	(D)
Nebraska	-	-	-	-	-	-	1	(D)
New Hampshire	-	-	-	-	-	-	3	1
New Jersey	54	838	2	(D)	53	(D)	63	705
New Mexico	7	1	-	-	7	1	2	(D)
New York	45	96	-	-	45	96	36	76
North Carolina	248	1,691	12	(D)	245	(D)	190	2,552
Ohio	24	211	-	-	24	211	16	102
Oklahoma	14	(D)	2	(D)	12	(D)	11	(D)
Oregon	3	2	-	-	3	2	2	(D)
Pennsylvania	16	15	-	-	16	15	26	101
Rhode Island	1	(D)	-	-	1	(D)	-	-

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
COLLARDS - Con.								
States - Con.								
South Carolina	125	2,377	6	(D)	122	(D)	90	2,011
Tennessee	16	(D)	1	(D)	15	12	6	(D)
Texas	41	620	8	302	36	318	48	1,068
Utah	3	(Z)	-	-	3	(Z)	-	-
Vermont	7	5	-	-	7	5	7	4
Virginia	54	138	5	15	54	122	72	343
Washington	5	1	-	-	5	1	2	(D)
West Virginia	7	2	-	-	7	2	2	(D)
Wisconsin	9	4	-	-	9	4	5	(D)
CUCUMBERS AND PICKLES								
United States Total								
United States	11,202	151,759	750	95,380	10,614	56,380	7,563	166,124
States								
Alabama	312	(D)	14	(D)	299	185	232	1,925
Alaska	13	2	-	-	13	2	4	2
Arizona	104	38	-	-	104	38	27	21
Arkansas	197	193	7	1	190	191	59	29
California	435	6,999	23	3,885	417	3,114	508	9,351
Colorado	53	130	-	-	53	130	54	286
Connecticut	140	302	3	(D)	139	(D)	119	373
Delaware	57	4,061	11	4,028	47	33	27	4,109
Florida	232	24,411	24	9,423	224	14,988	262	17,984
Georgia	237	9,800	9	1,089	231	8,711	235	12,604
Hawaii	36	296	-	-	36	296	73	378
Idaho	65	14	-	-	65	14	24	11
Illinois	144	1,351	13	1,038	132	313	109	1,151
Indiana	162	1,807	14	1,698	150	108	121	1,685
Iowa	87	35	5	(D)	84	(D)	79	88
Kansas	73	19	-	-	73	19	29	13
Kentucky	503	183	12	7	493	177	280	146
Louisiana	159	341	16	10	150	331	80	302
Maine	184	142	9	7	178	135	170	135
Maryland	299	2,841	29	2,483	276	358	146	3,552
Massachusetts	216	416	2	(D)	214	(D)	175	1,336
Michigan	490	40,829	117	35,812	386	5,017	481	42,303
Minnesota	246	168	3	(D)	246	(D)	144	470
Mississippi	201	(D)	13	8	191	(D)	35	40
Missouri	316	6,814	20	6,665	298	149	91	11,325
Montana	64	38	-	-	64	38	26	18
Nebraska	65	30	3	(D)	62	(D)	40	100
Nevada	4	(D)	-	-	4	(D)	4	1
New Hampshire	134	68	3	1	133	67	72	47
New Jersey	254	4,155	11	637	251	3,518	242	3,476
New Mexico	208	54	14	3	196	50	40	(D)
New York	462	3,785	19	115	456	3,670	368	3,265
North Carolina	1,016	12,528	118	6,184	916	6,344	686	16,396
North Dakota	16	9	-	-	16	9	20	12
Ohio	324	2,395	34	1,228	298	1,167	294	2,606
Oklahoma	249	76	6	1	244	75	84	152
Oregon	324	1,022	20	651	306	371	188	1,776
Pennsylvania	348	609	6	2	345	608	375	670
Rhode Island	40	16	-	-	40	16	23	15
South Carolina	396	2,035	25	941	378	1,093	267	4,858
South Dakota	19	6	-	-	19	6	11	(D)
Tennessee	359	174	4	1	356	173	113	116
Texas	483	10,395	72	8,052	422	2,343	313	10,377
Utah	28	(D)	-	-	28	(D)	25	14
Vermont	97	37	3	(D)	94	(D)	51	52
Virginia	457	861	30	(D)	434	(D)	322	2,069
Washington	345	2,072	26	1,461	326	611	176	4,304
West Virginia	182	48	-	-	182	48	59	31
Wisconsin	359	6,084	12	5,910	347	174	197	5,980
Wyoming	8	1	-	-	8	1	3	(D)
DAIKON								
United States Total								
United States	139	624	2	(D)	138	(D)	177	1,125
States								
Arizona	-	-	-	-	-	-	3	3
California	83	389	-	-	83	389	126	591
Florida	3	1	-	-	3	1	-	-
Hawaii	23	184	1	(D)	22	(D)	39	169
Iowa	1	(D)	-	-	1	(D)	-	-
Maryland	2	(D)	-	-	2	(D)	-	-
Massachusetts	1	(D)	-	-	1	(D)	-	-
Michigan	1	(D)	-	-	1	(D)	-	-
Minnesota	1	(D)	-	-	1	(D)	-	-
New Jersey	3	(D)	-	-	3	(D)	1	(D)
New York	10	16	1	(D)	10	(D)	1	(D)
North Carolina	1	(D)	-	-	1	(D)	3	36
Oregon	-	-	-	-	-	-	1	(D)
Pennsylvania	1	(D)	-	-	1	(D)	-	-

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
DAIKON - Con.								
States - Con.								
Texas	-	-	-	-	-	-	1	(D)
Vermont	-	-	-	-	-	-	2	(D)
Virginia	1	(D)	-	-	1	(D)	-	-
Washington	3	(Z)	-	-	3	(Z)	-	-
West Virginia	1	(D)	-	-	1	(D)	-	-
Wisconsin	4	(Z)	-	-	4	(Z)	-	-
EGGPLANT								
United States Total								
United States	2,904	6,038	25	228	2,892	5,810	2,213	6,401
States								
Alabama	33	16	-	-	33	16	31	36
Arizona	10	2	-	-	10	2	17	4
Arkansas	27	8	-	-	27	8	14	9
California	306	1,191	-	-	306	1,191	322	1,475
Colorado	23	22	-	-	23	22	10	4
Connecticut	109	230	2	(D)	109	(D)	75	96
Delaware	23	(D)	-	-	23	(D)	8	4
Florida	76	1,173	2	(D)	74	(D)	74	1,174
Georgia	55	827	1	(D)	55	(D)	44	1,120
Hawaii	165	83	-	-	165	83	143	163
Idaho	6	1	-	-	6	1	7	1
Illinois	73	54	-	-	73	54	38	19
Indiana	41	24	-	-	41	24	25	19
Iowa	23	6	-	-	23	6	20	6
Kansas	25	7	-	-	25	7	14	4
Kentucky	55	17	-	-	55	17	13	2
Louisiana	41	38	-	-	41	38	45	28
Maine	21	3	1	(D)	21	(D)	26	8
Maryland	72	40	-	-	72	40	63	67
Massachusetts	109	65	-	-	109	65	91	71
Michigan	128	236	1	(D)	127	(D)	69	400
Minnesota	57	33	-	-	57	33	25	18
Mississippi	19	(D)	-	-	19	(D)	15	20
Missouri	49	14	-	-	49	14	20	10
Montana	6	1	-	-	6	1	6	1
Nebraska	24	5	-	-	24	5	13	6
Nevada	4	1	-	-	4	1	1	(D)
New Hampshire	33	7	-	-	33	7	26	5
New Jersey	237	959	-	-	237	959	239	821
New Mexico	17	3	-	-	17	3	11	4
New York	183	222	9	14	176	208	124	136
North Carolina	101	127	2	(D)	101	(D)	70	170
North Dakota	3	1	-	-	3	1	2	(D)
Ohio	95	86	1	(D)	95	(D)	58	50
Oklahoma	22	6	-	-	22	6	14	2
Oregon	48	(D)	1	(D)	48	(D)	50	15
Pennsylvania	123	60	-	-	123	60	152	77
Rhode Island	40	16	-	-	40	16	13	13
South Carolina	34	40	1	(D)	34	(D)	11	123
South Dakota	4	1	-	-	4	1	-	-
Tennessee	34	18	-	-	34	18	8	10
Texas	44	80	2	(D)	42	(D)	67	105
Utah	8	4	-	-	8	4	1	(D)
Vermont	31	6	-	-	31	6	19	3
Virginia	87	45	2	(D)	87	(D)	46	65
Washington	60	26	-	-	60	26	23	14
West Virginia	28	8	-	-	28	8	7	4
Wisconsin	92	25	-	-	92	25	43	18
ESCAROLE AND ENDIVE								
United States Total								
United States	133	3,627	1	(D)	132	(D)	123	3,939
States								
Arizona	2	(D)	-	-	2	(D)	7	260
California	28	1,974	-	-	28	1,974	46	1,994
Connecticut	1	(D)	-	-	1	(D)	1	(D)
Florida	7	402	-	-	7	402	5	596
Indiana	1	(D)	-	-	1	(D)	-	-
Iowa	1	(D)	-	-	1	(D)	-	-
Maine	1	(D)	-	-	1	(D)	3	(D)
Maryland	1	(D)	-	-	1	(D)	2	(D)
Massachusetts	6	(D)	-	-	6	(D)	1	(D)
Michigan	6	4	-	-	6	4	-	-
New Jersey	32	546	-	-	32	546	40	729
New York	13	75	-	-	13	75	8	37
Ohio	4	164	-	-	4	164	4	312
Oregon	2	(D)	1	(D)	1	(D)	-	-
Pennsylvania	8	2	-	-	8	2	3	(D)
South Carolina	3	(D)	-	-	3	(D)	-	-
Texas	1	(D)	-	-	1	(D)	-	-
Vermont	-	-	-	-	-	-	3	(Z)

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
ESCAROLE AND ENDIVE - Con.								
States - Con.								
Washington	12	1	-	-	12	1	-	-
Wisconsin	4	1	-	-	4	1	-	-
GARLIC								
United States Total								
United States	2,277	26,172	128	14,285	2,188	11,887	1,855	32,398
States								
Alabama	7	5	-	-	7	5	1	(D)
Alaska	2	(D)	-	-	2	(D)	-	-
Arizona	20	647	4	(D)	16	(D)	12	5
Arkansas	14	2	-	-	14	2	7	(D)
California	280	22,177	59	12,510	231	9,666	339	28,690
Colorado	30	16	2	(D)	30	(D)	22	16
Connecticut	42	87	-	-	42	87	40	15
Delaware	-	-	-	-	-	-	1	(D)
Florida	5	1	-	-	5	1	9	3
Georgia	9	3	-	-	9	3	9	4
Hawaii	6	1	-	-	6	1	2	(D)
Idaho	21	5	-	-	21	5	16	14
Illinois	22	18	-	-	22	18	16	6
Indiana	23	7	-	-	23	7	8	2
Iowa	50	20	2	(D)	49	(D)	18	5
Kansas	21	5	-	-	21	5	8	2
Kentucky	32	11	1	(D)	32	(D)	20	8
Louisiana	9	5	-	-	9	5	6	3
Maine	36	9	2	(D)	34	(D)	64	19
Maryland	24	6	1	(D)	24	(D)	21	6
Massachusetts	53	18	1	(D)	52	(D)	39	16
Michigan	69	30	1	(D)	68	(D)	7	4
Minnesota	40	17	2	(D)	39	(D)	38	16
Mississippi	2	(D)	-	-	2	(D)	2	(D)
Missouri	34	6	-	-	34	6	25	6
Montana	56	23	2	(D)	56	(D)	33	17
Nebraska	4	3	-	-	4	3	7	3
Nevada	8	(D)	1	(D)	8	(D)	5	965
New Hampshire	49	12	2	(D)	49	(D)	24	5
New Jersey	18	7	-	-	18	7	17	8
New Mexico	59	26	-	-	59	26	23	8
New York	330	306	20	12	321	294	240	265
North Carolina	76	25	2	(D)	76	(D)	53	19
North Dakota	-	-	-	-	-	-	1	(D)
Ohio	71	32	-	-	71	32	65	22
Oklahoma	16	2	-	-	16	2	15	8
Oregon	161	1,783	14	(D)	149	(D)	193	1,954
Pennsylvania	93	(D)	1	(D)	93	(D)	97	45
Rhode Island	12	5	-	-	12	5	5	2
South Carolina	4	5	2	(D)	4	(D)	5	6
South Dakota	5	2	-	-	5	2	2	(D)
Tennessee	23	4	-	-	23	4	10	8
Texas	21	12	1	(D)	20	(D)	33	16
Utah	10	6	-	-	10	6	9	8
Vermont	47	10	1	(D)	46	(D)	45	18
Virginia	44	26	-	-	44	26	35	16
Washington	184	(D)	7	10	177	(D)	155	112
West Virginia	17	4	-	-	17	4	15	9
Wisconsin	116	34	-	-	116	34	37	23
Wyoming	2	(D)	-	-	2	(D)	1	(D)
GINSENG (SEE TEXT)								
United States Total								
United States	225	674	169	569	59	105	588	1,433
States								
Arkansas	-	-	-	-	-	-	2	(D)
California	2	(D)	-	-	2	(D)	1	(D)
Illinois	3	1	-	-	3	1	2	(D)
Indiana	-	-	-	-	-	-	3	8
Kentucky	3	(D)	-	-	3	(D)	4	5
Maine	2	(D)	-	-	2	(D)	1	(D)
Maryland	2	(D)	2	(D)	2	(D)	2	(D)
Michigan	2	(D)	1	(D)	2	(D)	10	59
Minnesota	5	15	2	(D)	3	(D)	6	15
Missouri	-	-	-	-	-	-	1	(D)
New Hampshire	-	-	-	-	-	-	1	(D)
New Jersey	2	(D)	-	-	2	(D)	-	-
New York	7	13	2	(D)	5	(D)	5	34
North Carolina	8	27	-	-	8	27	2	(D)
Ohio	5	(D)	2	(D)	3	(D)	-	-
Oregon	2	(D)	-	-	2	(D)	5	4
Pennsylvania	2	(D)	-	-	2	(D)	2	(D)
Tennessee	8	10	-	-	8	10	3	1
Texas	-	-	-	-	-	-	1	(D)
Virginia	-	-	-	-	-	-	3	(D)
Washington	5	1	-	-	5	1	7	15

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
GINSENG (SEE TEXT) - Con.								
States - Con.								
West Virginia	7	8	-	-	7	8	5	5
Wisconsin	160	554	160	554	-	-	522	1,261
HERBS, FRESH CUT								
United States Total								
United States	2,053	13,573	(X)	(X)	2,053	13,573	1,774	10,916
States								
Alabama	9	4	(X)	(X)	9	4	7	3
Alaska	5	2	(X)	(X)	5	2	5	3
Arizona	13	264	(X)	(X)	13	264	12	147
Arkansas	9	9	(X)	(X)	9	9	6	7
California	262	4,908	(X)	(X)	262	4,908	299	5,074
Colorado	35	468	(X)	(X)	35	468	20	(D)
Connecticut	15	4	(X)	(X)	15	4	24	8
Delaware	19	8	(X)	(X)	19	8	4	1
Florida	58	1,293	(X)	(X)	58	1,293	100	1,153
Georgia	18	11	(X)	(X)	18	11	22	75
Hawaii	97	292	(X)	(X)	97	292	90	221
Idaho	14	2	(X)	(X)	14	2	8	1
Illinois	29	96	(X)	(X)	29	96	22	237
Indiana	27	43	(X)	(X)	27	43	23	10
Iowa	25	8	(X)	(X)	25	8	16	7
Kansas	20	(D)	(X)	(X)	20	(D)	12	3
Kentucky	54	15	(X)	(X)	54	15	18	12
Louisiana	-	-	(X)	(X)	-	-	7	3
Maine	30	6	(X)	(X)	30	6	49	13
Maryland	29	13	(X)	(X)	29	13	12	5
Massachusetts	56	19	(X)	(X)	56	19	35	25
Michigan	74	102	(X)	(X)	74	102	56	228
Minnesota	49	(D)	(X)	(X)	49	(D)	34	59
Mississippi	8	4	(X)	(X)	8	4	8	2
Missouri	42	21	(X)	(X)	42	21	19	(D)
Montana	28	6	(X)	(X)	28	6	10	2
Nebraska	9	1	(X)	(X)	9	1	7	1
Nevada	3	2	(X)	(X)	3	2	3	(Z)
New Hampshire	30	18	(X)	(X)	30	18	20	18
New Jersey	106	1,749	(X)	(X)	106	1,749	98	1,251
New Mexico	30	30	(X)	(X)	30	30	16	5
New York	108	154	(X)	(X)	108	154	102	102
North Carolina	86	1,784	(X)	(X)	86	1,784	38	166
North Dakota	5	9	(X)	(X)	5	9	1	(D)
Ohio	60	191	(X)	(X)	60	191	41	92
Oklahoma	26	8	(X)	(X)	26	8	19	(D)
Oregon	78	305	(X)	(X)	78	305	117	412
Pennsylvania	72	46	(X)	(X)	72	46	72	38
Rhode Island	12	3	(X)	(X)	12	3	6	4
South Carolina	12	(D)	(X)	(X)	12	(D)	7	(D)
South Dakota	7	3	(X)	(X)	7	3	1	(D)
Tennessee	16	14	(X)	(X)	16	14	6	7
Texas	46	896	(X)	(X)	46	896	66	659
Utah	7	2	(X)	(X)	7	2	12	3
Vermont	29	15	(X)	(X)	29	15	24	6
Virginia	73	47	(X)	(X)	73	47	40	28
Washington	106	353	(X)	(X)	106	353	96	436
West Virginia	32	9	(X)	(X)	32	9	13	(D)
Wisconsin	72	21	(X)	(X)	72	21	51	56
Wyoming	3	1	(X)	(X)	3	1	-	-
HONEYDEW MELONS								
United States Total								
United States	396	17,344	1	(D)	396	(D)	363	24,258
States								
Alabama	7	12	-	-	7	12	1	(D)
Arizona	27	3,132	-	-	27	3,132	22	2,181
Arkansas	2	(D)	-	-	2	(D)	-	-
California	88	13,303	-	-	88	13,303	153	20,192
Colorado	5	5	-	-	5	5	1	(D)
Connecticut	1	(D)	-	-	1	(D)	-	-
Delaware	-	-	-	-	-	-	2	(D)
Florida	4	2	-	-	4	2	-	-
Georgia	1	(D)	-	-	1	(D)	-	-
Hawaii	1	(D)	-	-	1	(D)	2	(D)
Idaho	6	1	-	-	6	1	-	-
Illinois	8	2	-	-	8	2	8	4
Indiana	15	8	-	-	15	8	3	(D)
Iowa	1	(D)	-	-	1	(D)	-	-
Kansas	4	(D)	-	-	4	(D)	-	-
Kentucky	8	2	-	-	8	2	-	-
Louisiana	1	(D)	-	-	1	(D)	3	(Z)
Maine	1	(D)	-	-	1	(D)	4	1
Maryland	4	2	-	-	4	2	9	7
Massachusetts	5	2	-	-	5	2	3	1
Michigan	14	13	-	-	14	13	16	27

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
HONEYDEW MELONS - Con.								
States - Con.								
Minnesota	2	(D)	-	-	2	(D)	-	-
Missouri	2	(D)	-	-	2	(D)	-	-
Nebraska	2	(D)	-	-	2	(D)	4	3
Nevada	2	(D)	-	-	2	(D)	4	(D)
New Hampshire	2	(D)	-	-	2	(D)	3	(D)
New Jersey	6	6	-	-	6	6	9	33
New Mexico	33	32	1	(D)	33	(D)	4	3
New York	16	8	-	-	16	8	18	20
North Carolina	12	45	-	-	12	45	-	-
Ohio	12	12	-	-	12	12	11	5
Oklahoma	4	(Z)	-	-	4	(Z)	-	-
Oregon	4	(D)	-	-	4	(D)	15	16
Pennsylvania	15	17	-	-	15	17	28	21
Rhode Island	9	1	-	-	9	1	1	(D)
South Carolina	7	5	-	-	7	5	-	-
South Dakota	2	(D)	-	-	2	(D)	-	-
Tennessee	3	1	-	-	3	1	-	-
Texas	6	(D)	-	-	6	(D)	21	1,598
Utah	8	9	-	-	8	9	2	(D)
Vermont	2	(D)	-	-	2	(D)	4	1
Virginia	10	5	-	-	10	5	-	-
Washington	12	(D)	-	-	12	(D)	4	5
West Virginia	6	1	-	-	6	1	-	-
Wisconsin	16	3	-	-	16	3	8	3
HORSERADISH								
United States Total								
United States	112	3,692	28	3,597	87	94	(NA)	(NA)
States								
Alabama	2	(D)	-	-	2	(D)	(NA)	(NA)
California	3	(D)	2	(D)	1	(D)	(NA)	(NA)
Connecticut	2	(D)	1	(D)	1	(D)	(NA)	(NA)
Georgia	3	2	-	-	3	2	(NA)	(NA)
Idaho	3	1	-	-	3	1	(NA)	(NA)
Illinois	16	1,844	16	(D)	2	(D)	(NA)	(NA)
Indiana	4	(Z)	-	-	4	(Z)	(NA)	(NA)
Iowa	6	1	-	-	6	1	(NA)	(NA)
Kansas	2	(D)	-	-	2	(D)	(NA)	(NA)
Louisiana	1	(D)	-	-	1	(D)	(NA)	(NA)
Maryland	4	(D)	2	(D)	2	(D)	(NA)	(NA)
Massachusetts	1	(D)	-	-	1	(D)	(NA)	(NA)
Michigan	5	2	-	-	5	2	(NA)	(NA)
Minnesota	5	3	-	-	5	3	(NA)	(NA)
Montana	2	(D)	-	-	2	(D)	(NA)	(NA)
Nebraska	2	(D)	-	-	2	(D)	(NA)	(NA)
New Jersey	4	(D)	-	-	4	(D)	(NA)	(NA)
New York	8	5	-	-	8	5	(NA)	(NA)
North Carolina	1	(D)	-	-	1	(D)	(NA)	(NA)
North Dakota	1	(D)	-	-	1	(D)	(NA)	(NA)
Ohio	5	1	-	-	5	1	(NA)	(NA)
Oregon	1	(D)	-	-	1	(D)	(NA)	(NA)
Pennsylvania	16	8	4	5	13	3	(NA)	(NA)
Tennessee	2	(D)	-	-	2	(D)	(NA)	(NA)
Texas	1	(D)	-	-	1	(D)	(NA)	(NA)
Vermont	2	(D)	2	(D)	-	-	(NA)	(NA)
Washington	4	1	-	-	4	1	(NA)	(NA)
West Virginia	1	(D)	-	-	1	(D)	(NA)	(NA)
Wisconsin	5	(D)	1	(D)	4	1	(NA)	(NA)
KALE								
United States Total								
United States	954	3,994	12	211	946	3,784	679	4,901
States								
Alabama	12	1	-	-	12	1	11	33
Alaska	3	1	-	-	3	1	2	(D)
Arizona	3	(D)	-	-	3	(D)	8	143
California	96	1,077	-	-	96	1,077	131	1,571
Colorado	12	84	-	-	12	84	-	-
Connecticut	15	3	-	-	15	3	5	1
Delaware	14	4	-	-	14	4	7	15
Florida	28	(D)	-	-	28	(D)	9	22
Georgia	20	611	2	(D)	18	(D)	23	1,188
Hawaii	37	12	-	-	37	12	5	6
Idaho	4	1	-	-	4	1	-	-
Illinois	10	14	-	-	10	14	6	(D)
Indiana	17	12	-	-	17	12	11	27
Iowa	8	1	-	-	8	1	4	(Z)
Kansas	7	1	-	-	7	1	2	(D)
Kentucky	34	25	-	-	34	25	18	37
Louisiana	3	(D)	-	-	3	(D)	-	-
Maine	9	2	-	-	9	2	3	(Z)
Maryland	48	102	4	(D)	46	(D)	64	164
Massachusetts	22	37	-	-	22	37	23	35

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
KALE - Con.								
States - Con.								
Michigan	41	55	-	-	41	55	1	(D)
Minnesota	10	13	-	-	10	13	2	(D)
Mississippi	6	(D)	-	-	6	(D)	-	-
Missouri	3	(Z)	-	-	3	(Z)	-	-
Montana	7	1	-	-	7	1	3	(Z)
Nebraska	-	-	-	-	-	-	1	(D)
New Hampshire	17	2	-	-	17	2	8	2
New Jersey	30	355	2	(D)	29	(D)	50	349
New Mexico	10	2	-	-	10	2	4	(Z)
New York	46	57	-	-	46	57	17	20
North Carolina	64	363	-	-	64	363	52	128
Ohio	28	76	-	-	28	76	14	417
Oklahoma	19	7	-	-	19	7	-	-
Oregon	35	50	-	-	35	50	34	39
Pennsylvania	24	10	-	-	24	10	36	82
Rhode Island	5	1	-	-	5	1	-	-
South Carolina	10	(D)	-	-	10	(D)	13	178
South Dakota	1	(D)	-	-	1	(D)	-	-
Tennessee	7	(D)	1	(D)	6	5	10	57
Texas	13	214	-	-	13	214	14	124
Vermont	20	22	-	-	20	22	10	15
Virginia	41	71	1	(D)	41	(D)	40	128
Washington	56	57	1	(D)	55	(D)	35	18
West Virginia	16	3	-	-	16	3	2	(D)
Wisconsin	43	16	1	(D)	42	(D)	1	(D)
LETTUCE, ALL								
United States Total								
United States	3,839	313,036	(X)	(X)	3,839	313,036	2,903	306,849
States								
Alabama	20	12	(X)	(X)	20	12	9	4
Alaska	20	77	(X)	(X)	20	77	22	85
Arizona	84	66,820	(X)	(X)	84	66,820	103	72,022
Arkansas	21	11	(X)	(X)	21	11	14	6
California	753	227,515	(X)	(X)	753	227,515	659	219,701
Colorado	34	4,388	(X)	(X)	34	4,388	48	4,005
Connecticut	59	39	(X)	(X)	59	39	51	60
Delaware	17	6	(X)	(X)	17	6	2	(D)
Florida	75	7,239	(X)	(X)	75	7,239	41	(D)
Georgia	34	51	(X)	(X)	34	51	11	(D)
Hawaii	138	379	(X)	(X)	138	379	96	354
Idaho	25	5	(X)	(X)	25	5	14	6
Illinois	61	26	(X)	(X)	61	26	27	27
Indiana	40	15	(X)	(X)	40	15	37	40
Iowa	41	8	(X)	(X)	41	8	24	6
Kansas	18	3	(X)	(X)	18	3	16	4
Kentucky	71	23	(X)	(X)	71	23	39	14
Louisiana	20	10	(X)	(X)	20	10	3	1
Maine	116	54	(X)	(X)	116	54	99	51
Maryland	51	40	(X)	(X)	51	40	30	96
Massachusetts	124	223	(X)	(X)	124	223	106	192
Michigan	130	876	(X)	(X)	130	876	53	470
Minnesota	70	71	(X)	(X)	70	71	12	6
Mississippi	2	(D)	(X)	(X)	2	(D)	8	4
Missouri	60	17	(X)	(X)	60	17	43	21
Montana	54	22	(X)	(X)	54	22	6	4
Nebraska	14	2	(X)	(X)	14	2	9	2
Nevada	4	(D)	(X)	(X)	4	(D)	4	1
New Hampshire	78	35	(X)	(X)	78	35	45	25
New Jersey	111	1,488	(X)	(X)	111	1,488	136	2,270
New Mexico	43	607	(X)	(X)	43	607	33	688
New York	224	1,398	(X)	(X)	224	1,398	176	1,116
North Carolina	164	85	(X)	(X)	164	85	109	(D)
North Dakota	1	(D)	(X)	(X)	1	(D)	-	-
Ohio	109	435	(X)	(X)	109	435	79	718
Oklahoma	43	12	(X)	(X)	43	12	10	2
Oregon	134	345	(X)	(X)	134	345	169	360
Pennsylvania	136	104	(X)	(X)	136	104	115	113
Rhode Island	32	21	(X)	(X)	32	21	10	9
South Carolina	16	13	(X)	(X)	16	13	7	38
South Dakota	5	1	(X)	(X)	5	1	2	(D)
Tennessee	50	15	(X)	(X)	50	15	3	(D)
Texas	33	104	(X)	(X)	33	104	41	131
Utah	14	6	(X)	(X)	14	6	16	(D)
Vermont	95	91	(X)	(X)	95	91	88	144
Virginia	62	37	(X)	(X)	62	37	64	56
Washington	156	261	(X)	(X)	156	261	131	440
West Virginia	22	4	(X)	(X)	22	4	21	15
Wisconsin	149	39	(X)	(X)	149	39	62	31
Wyoming	6	2	(X)	(X)	6	2	-	-

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
LETTUCE, HEAD								
United States Total								
United States	1,158	166,838	(X)	(X)	1,158	166,838	830	188,700
States								
Alabama	11	9	(X)	(X)	11	9	3	(D)
Alaska	7	(D)	(X)	(X)	7	(D)	11	(D)
Arizona	64	39,187	(X)	(X)	64	39,187	68	50,856
Arkansas	4	1	(X)	(X)	4	1	1	(D)
California	414	118,676	(X)	(X)	414	118,676	310	130,389
Colorado	9	2,268	(X)	(X)	9	2,268	16	2,715
Connecticut	17	(D)	(X)	(X)	17	(D)	16	(D)
Delaware	-	-	(X)	(X)	-	-	1	(D)
Florida	10	(D)	(X)	(X)	10	(D)	2	(D)
Georgia	16	(D)	(X)	(X)	16	(D)	-	-
Hawaii	20	36	(X)	(X)	20	36	14	32
Idaho	1	(D)	(X)	(X)	1	(D)	1	(D)
Illinois	14	5	(X)	(X)	14	5	6	3
Indiana	3	1	(X)	(X)	3	1	4	1
Iowa	6	1	(X)	(X)	6	1	7	1
Kansas	6	1	(X)	(X)	6	1	7	1
Kentucky	15	4	(X)	(X)	15	4	10	4
Louisiana	8	4	(X)	(X)	8	4	1	(D)
Maine	19	5	(X)	(X)	19	5	15	8
Maryland	6	2	(X)	(X)	6	2	11	2
Massachusetts	46	50	(X)	(X)	46	50	27	21
Michigan	29	114	(X)	(X)	29	114	9	(D)
Minnesota	11	4	(X)	(X)	11	4	4	1
Missouri	11	3	(X)	(X)	11	3	6	1
Montana	7	7	(X)	(X)	7	7	-	-
Nebraska	-	-	(X)	(X)	-	-	1	(D)
Nevada	2	(D)	(X)	(X)	2	(D)	-	-
New Hampshire	19	7	(X)	(X)	19	7	8	5
New Jersey	34	(D)	(X)	(X)	34	(D)	36	(D)
New Mexico	11	582	(X)	(X)	11	582	17	622
New York	43	381	(X)	(X)	43	381	39	65
North Carolina	49	12	(X)	(X)	49	12	16	(D)
Ohio	16	3	(X)	(X)	16	3	17	4
Oklahoma	7	1	(X)	(X)	7	1	1	(D)
Oregon	28	15	(X)	(X)	28	15	30	8
Pennsylvania	31	14	(X)	(X)	31	14	32	37
Rhode Island	15	(D)	(X)	(X)	15	(D)	4	(D)
South Carolina	5	8	(X)	(X)	5	8	-	-
South Dakota	1	(D)	(X)	(X)	1	(D)	-	-
Tennessee	8	3	(X)	(X)	8	3	1	(D)
Texas	2	(D)	(X)	(X)	2	(D)	5	1
Utah	4	1	(X)	(X)	4	1	1	(D)
Vermont	38	10	(X)	(X)	38	10	15	13
Virginia	15	15	(X)	(X)	15	15	12	7
Washington	47	63	(X)	(X)	47	63	26	187
West Virginia	5	1	(X)	(X)	5	1	8	4
Wisconsin	24	4	(X)	(X)	24	4	11	6
LETTUCE, LEAF								
United States Total								
United States	2,891	58,861	(X)	(X)	2,891	58,861	2,153	58,324
States								
Alabama	8	(D)	(X)	(X)	8	(D)	4	(D)
Alaska	16	22	(X)	(X)	16	22	18	21
Arizona	45	10,472	(X)	(X)	45	10,472	54	7,901
Arkansas	14	9	(X)	(X)	14	9	13	(D)
California	520	44,068	(X)	(X)	520	44,068	427	45,939
Colorado	24	703	(X)	(X)	24	703	35	735
Connecticut	49	24	(X)	(X)	49	24	30	23
Delaware	17	6	(X)	(X)	17	6	2	(D)
Florida	63	287	(X)	(X)	63	287	35	164
Georgia	17	5	(X)	(X)	17	5	8	2
Hawaii	119	257	(X)	(X)	119	257	87	203
Idaho	21	(D)	(X)	(X)	21	(D)	13	(D)
Illinois	50	20	(X)	(X)	50	20	22	22
Indiana	34	14	(X)	(X)	34	14	33	38
Iowa	35	7	(X)	(X)	35	7	17	4
Kansas	15	2	(X)	(X)	15	2	9	2
Kentucky	57	13	(X)	(X)	57	13	31	9
Louisiana	18	6	(X)	(X)	18	6	3	(D)
Maine	95	46	(X)	(X)	95	46	85	35
Maryland	36	33	(X)	(X)	36	33	21	65
Massachusetts	99	129	(X)	(X)	99	129	85	143
Michigan	99	382	(X)	(X)	99	382	44	(D)
Minnesota	53	54	(X)	(X)	53	54	8	6
Mississippi	2	(D)	(X)	(X)	2	(D)	8	4
Missouri	40	10	(X)	(X)	40	10	34	14
Montana	48	14	(X)	(X)	48	14	6	4
Nebraska	11	1	(X)	(X)	11	1	9	(D)
Nevada	2	(D)	(X)	(X)	2	(D)	4	1
New Hampshire	66	25	(X)	(X)	66	25	36	18
New Jersey	58	344	(X)	(X)	58	344	85	645
New Mexico	29	8	(X)	(X)	29	8	16	66

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
LETTUCE, LEAF - Con.								
States - Con.								
New York	192	758	(X)	(X)	192	758	132	695
North Carolina	106	53	(X)	(X)	106	53	84	(D)
North Dakota	1	(D)	(X)	(X)	1	(D)	-	-
Ohio	85	354	(X)	(X)	85	354	54	483
Oklahoma	34	10	(X)	(X)	34	10	7	(D)
Oregon	110	222	(X)	(X)	110	222	143	286
Pennsylvania	109	83	(X)	(X)	109	83	82	66
Rhode Island	21	13	(X)	(X)	21	13	7	5
South Carolina	8	4	(X)	(X)	8	4	6	(D)
South Dakota	5	(D)	(X)	(X)	5	(D)	2	(D)
Tennessee	40	11	(X)	(X)	40	11	2	(D)
Texas	30	(D)	(X)	(X)	30	(D)	32	128
Utah	10	5	(X)	(X)	10	5	15	(D)
Vermont	78	72	(X)	(X)	78	72	78	118
Virginia	45	19	(X)	(X)	45	19	46	47
Washington	104	161	(X)	(X)	104	161	113	205
West Virginia	14	2	(X)	(X)	14	2	15	10
Wisconsin	133	32	(X)	(X)	133	32	53	23
Wyoming	6	2	(X)	(X)	6	2	-	-
LETTUCE, ROMAINE								
United States Total								
United States	1,057	87,337	(X)	(X)	1,057	87,337	709	59,825
States								
Alabama	1	(D)	(X)	(X)	1	(D)	2	(D)
Alaska	6	(D)	(X)	(X)	6	(D)	8	(D)
Arizona	41	17,161	(X)	(X)	41	17,161	39	13,265
Arkansas	4	1	(X)	(X)	4	1	-	-
California	414	64,771	(X)	(X)	414	64,771	243	43,373
Colorado	9	1,417	(X)	(X)	9	1,417	6	555
Connecticut	8	(D)	(X)	(X)	8	(D)	16	(D)
Florida	25	(D)	(X)	(X)	25	(D)	12	(D)
Georgia	5	(D)	(X)	(X)	5	(D)	3	(D)
Hawaii	40	86	(X)	(X)	40	86	28	118
Idaho	4	(D)	(X)	(X)	4	(D)	1	(D)
Illinois	7	1	(X)	(X)	7	1	5	2
Indiana	4	1	(X)	(X)	4	1	5	1
Iowa	4	(Z)	(X)	(X)	4	(Z)	3	1
Kansas	3	(Z)	(X)	(X)	3	(Z)	4	1
Kentucky	12	7	(X)	(X)	12	7	4	1
Louisiana	-	-	(X)	(X)	-	-	1	(D)
Maine	19	4	(X)	(X)	19	4	16	9
Maryland	12	4	(X)	(X)	12	4	8	29
Massachusetts	34	43	(X)	(X)	34	43	24	28
Michigan	37	380	(X)	(X)	37	380	8	(D)
Minnesota	18	13	(X)	(X)	18	13	-	-
Missouri	10	5	(X)	(X)	10	5	8	5
Montana	5	1	(X)	(X)	5	1	-	-
Nebraska	3	1	(X)	(X)	3	1	2	(D)
New Hampshire	11	4	(X)	(X)	11	4	5	3
New Jersey	50	(D)	(X)	(X)	50	(D)	56	(D)
New Mexico	6	17	(X)	(X)	6	17	-	-
New York	46	260	(X)	(X)	46	260	36	357
North Carolina	31	19	(X)	(X)	31	19	21	4
Ohio	25	78	(X)	(X)	25	78	17	231
Oklahoma	7	1	(X)	(X)	7	1	2	(D)
Oregon	21	109	(X)	(X)	21	109	37	66
Pennsylvania	26	7	(X)	(X)	26	7	21	10
Rhode Island	2	(D)	(X)	(X)	2	(D)	3	(D)
South Carolina	3	1	(X)	(X)	3	1	1	(D)
Tennessee	6	1	(X)	(X)	6	1	-	-
Texas	6	(D)	(X)	(X)	6	(D)	6	2
Utah	4	(Z)	(X)	(X)	4	(Z)	-	-
Vermont	24	9	(X)	(X)	24	9	16	13
Virginia	9	2	(X)	(X)	9	2	6	2
Washington	32	37	(X)	(X)	32	37	23	48
West Virginia	3	1	(X)	(X)	3	1	4	(Z)
Wisconsin	20	3	(X)	(X)	20	3	9	2
MUSTARD GREENS								
United States Total								
United States	871	8,323	32	1,310	848	7,013	871	13,917
States								
Alabama	32	17	3	1	29	16	22	45
Alaska	1	(D)	-	-	1	(D)	4	2
Arizona	8	277	-	-	8	277	4	122
Arkansas	18	592	3	(D)	15	(D)	27	426
California	87	1,902	-	-	87	1,902	110	5,996
Colorado	2	(D)	-	-	2	(D)	-	-
Connecticut	6	2	-	-	6	2	2	(D)
Delaware	-	-	-	-	-	-	4	2
Florida	90	161	-	-	90	161	96	271
Georgia	36	1,585	-	-	36	1,585	60	2,535

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
MUSTARD GREENS - Con.								
States - Con.								
Hawaii	13	2	-	-	13	2	15	(D)
Idaho	1	(D)	-	-	1	(D)	-	-
Illinois	8	32	-	-	8	32	14	422
Indiana	2	(D)	-	-	2	(D)	4	4
Iowa	3	1	-	-	3	1	3	1
Kansas	11	7	-	-	11	7	5	(D)
Kentucky	16	11	-	-	16	11	20	14
Louisiana	58	128	6	5	56	123	66	244
Maine	3	(Z)	-	-	3	(Z)	1	(D)
Maryland	12	9	-	-	12	9	15	62
Massachusetts	17	5	-	-	17	5	8	2
Michigan	29	308	-	-	29	308	18	219
Minnesota	4	(Z)	-	-	4	(Z)	1	(D)
Mississippi	33	149	1	(D)	32	(D)	38	235
Missouri	5	1	-	-	5	1	4	25
Nebraska	-	-	-	-	-	-	1	(D)
New Hampshire	9	2	-	-	9	2	4	(Z)
New Jersey	18	204	-	-	18	204	12	26
New Mexico	2	(D)	-	-	2	(D)	3	1
New York	24	36	-	-	24	36	11	66
North Carolina	70	335	1	(D)	69	(D)	75	795
Ohio	22	201	-	-	22	201	22	129
Oklahoma	23	623	6	535	18	88	12	517
Oregon	11	(D)	-	-	11	(D)	17	36
Pennsylvania	13	5	-	-	13	5	7	14
South Carolina	38	875	3	293	35	581	30	292
Tennessee	21	(D)	1	(D)	20	17	11	(D)
Texas	65	538	8	67	61	470	78	1,046
Utah	2	(D)	-	-	2	(D)	-	-
Vermont	3	4	-	-	3	4	2	(D)
Virginia	11	7	-	-	11	7	15	12
Washington	19	3	-	-	19	3	17	34
West Virginia	1	(D)	-	-	1	(D)	1	(D)
Wisconsin	24	8	-	-	24	8	12	25
OKRA								
United States Total								
United States	2,555	2,444	92	81	2,506	2,363	2,200	3,069
States								
Alabama	309	371	11	3	304	369	242	(D)
Arizona	15	4	-	-	15	4	23	10
Arkansas	101	46	11	2	91	44	66	63
California	108	254	-	-	108	254	145	172
Colorado	3	4	-	-	3	4	7	3
Connecticut	2	(D)	-	-	2	(D)	3	(D)
Delaware	2	(D)	-	-	2	(D)	3	5
Florida	138	494	7	4	138	490	146	548
Georgia	116	96	-	-	116	96	171	306
Hawaii	23	13	-	-	23	13	45	(D)
Idaho	4	1	-	-	4	1	1	(D)
Illinois	37	13	-	-	37	13	17	7
Indiana	25	9	-	-	25	9	17	4
Iowa	10	1	1	(D)	9	(D)	14	4
Kansas	45	12	-	-	45	12	24	12
Kentucky	77	20	-	-	77	20	42	12
Louisiana	99	111	4	4	99	107	110	201
Maine	2	(D)	-	-	2	(D)	3	(D)
Maryland	27	11	-	-	27	11	25	20
Massachusetts	7	1	1	(D)	7	(D)	4	(Z)
Michigan	32	15	-	-	32	15	29	16
Minnesota	12	16	2	(D)	12	(D)	-	-
Mississippi	103	94	5	(D)	99	(D)	81	55
Missouri	60	24	-	-	60	24	37	14
Nebraska	7	1	-	-	7	1	7	3
Nevada	1	(D)	-	-	1	(D)	1	(D)
New Hampshire	1	(D)	-	-	1	(D)	-	-
New Jersey	27	65	1	(D)	27	(D)	30	48
New Mexico	31	8	4	1	27	6	16	6
New York	12	4	-	-	12	4	6	1
North Carolina	285	130	16	11	272	120	180	118
Ohio	32	8	-	-	32	8	17	4
Oklahoma	133	42	4	1	129	42	129	162
Oregon	4	(D)	-	-	4	(D)	5	1
Pennsylvania	21	4	-	-	21	4	15	6
South Carolina	218	144	16	8	213	136	142	176
Tennessee	162	76	-	-	162	76	68	80
Texas	209	329	9	15	206	314	281	714
Vermont	3	1	-	-	3	1	1	(D)
Virginia	32	13	-	-	32	13	29	13
Washington	4	3	-	-	4	3	7	5
West Virginia	7	2	-	-	7	2	-	-
Wisconsin	9	2	-	-	9	2	11	4

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
ONIONS, DRY								
United States Total								
United States	4,249	166,484	335	40,199	4,047	126,285	3,746	164,375
States								
Alabama	16	3	-	-	16	3	8	3
Alaska	9	6	-	-	9	6	1	(D)
Arizona	65	1,035	3	500	62	535	24	1,468
Arkansas	21	6	1	(D)	20	(D)	12	26
California	380	43,255	86	19,357	312	23,898	461	38,797
Colorado	162	8,527	7	899	156	7,628	179	11,635
Connecticut	15	4	-	-	15	4	25	7
Delaware	1	(D)	-	-	1	(D)	-	-
Florida	22	24	-	-	22	24	19	11
Georgia	82	12,093	-	-	82	12,093	84	12,436
Hawaii	29	205	-	-	29	205	44	400
Idaho	76	9,236	28	1,889	64	7,346	127	9,827
Illinois	83	118	4	(Z)	79	118	59	197
Indiana	54	121	1	(D)	53	(D)	36	90
Iowa	53	79	2	(D)	51	(D)	52	58
Kansas	30	(D)	-	-	30	(D)	36	(D)
Kentucky	67	14	-	-	67	14	25	7
Louisiana	8	4	-	-	8	4	3	2
Maine	44	13	-	-	44	13	59	14
Maryland	28	8	2	(D)	26	(D)	16	3
Massachusetts	48	106	1	(D)	48	(D)	42	57
Michigan	193	4,592	4	70	192	4,522	136	4,409
Minnesota	348	305	4	(D)	344	(D)	90	346
Mississippi	6	2	1	(D)	5	(D)	2	(D)
Missouri	61	16	-	-	61	16	57	65
Montana	86	22	-	-	86	22	34	24
Nebraska	21	5	-	-	21	5	18	7
Nevada	13	(D)	2	(D)	11	(D)	20	3,442
New Hampshire	34	9	-	-	34	9	13	5
New Jersey	19	17	-	-	19	17	26	29
New Mexico	116	7,352	22	1,490	99	5,862	111	7,767
New York	234	9,571	23	371	222	9,200	232	11,516
North Carolina	63	158	-	-	63	158	24	(D)
North Dakota	20	(D)	3	(D)	18	(D)	12	(D)
Ohio	98	414	-	-	98	414	41	(D)
Oklahoma	66	23	4	(Z)	62	23	40	24
Oregon	328	23,780	60	8,045	300	15,736	393	21,242
Pennsylvania	138	107	-	-	138	107	109	60
Rhode Island	14	4	-	-	14	4	3	1
South Carolina	13	9	-	-	13	9	12	(D)
South Dakota	35	13	1	(D)	35	(D)	8	1
Tennessee	23	8	-	-	23	8	1	(D)
Texas	214	11,677	23	1,056	208	10,621	520	15,276
Utah	52	1,753	2	(D)	51	(D)	48	2,109
Vermont	72	19	4	(D)	70	(D)	44	18
Virginia	33	(D)	4	(D)	30	(D)	13	(D)
Washington	381	24,081	42	4,166	361	19,916	277	19,663
West Virginia	16	8	-	-	16	8	7	2
Wisconsin	246	2,163	1	(D)	246	(D)	143	2,009
Wyoming	13	2	-	-	13	2	-	-
ONIONS, GREEN								
United States Total								
United States	1,558	5,704	30	68	1,540	5,635	1,165	6,202
States								
Alabama	13	3	1	(D)	12	(D)	12	4
Alaska	4	3	-	-	4	3	6	3
Arizona	35	(D)	-	-	35	(D)	16	28
Arkansas	10	2	-	-	10	2	7	(D)
California	128	2,061	1	(D)	128	(D)	170	2,991
Colorado	4	(D)	-	-	4	(D)	7	25
Connecticut	20	5	1	(D)	19	(D)	10	5
Delaware	2	(D)	-	-	2	(D)	1	(D)
Florida	34	34	-	-	34	34	48	74
Georgia	10	391	-	-	10	391	28	197
Hawaii	56	149	-	-	56	149	63	130
Idaho	31	6	-	-	31	6	1	(D)
Illinois	29	27	-	-	29	27	22	67
Indiana	19	9	-	-	19	9	19	134
Iowa	25	6	-	-	25	6	27	12
Kansas	14	3	-	-	14	3	12	8
Kentucky	59	11	-	-	59	11	30	8
Louisiana	18	12	3	1	18	11	16	15
Maine	18	(D)	-	-	18	(D)	16	3
Maryland	15	3	-	-	15	3	13	3
Massachusetts	43	17	-	-	43	17	20	7
Michigan	52	87	-	-	52	87	23	288
Minnesota	24	67	-	-	24	67	27	91
Mississippi	9	14	-	-	9	14	11	3
Missouri	29	8	-	-	29	8	14	3
Montana	16	8	-	-	16	8	6	2
Nebraska	-	-	-	-	-	-	10	3
Nevada	-	-	-	-	-	-	1	(D)

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
ONIONS, GREEN - Con.								
States - Con.								
New Hampshire	13	(D)	-	-	13	(D)	9	3
New Jersey	21	231	-	-	21	231	29	195
New Mexico	26	9	-	-	26	9	6	1
New York	82	106	8	(D)	79	(D)	39	85
North Carolina	107	31	4	1	103	31	51	20
North Dakota	1	(D)	-	-	1	(D)	4	1
Ohio	66	268	1	(D)	65	(D)	39	212
Oklahoma	37	19	3	(D)	35	(D)	26	13
Oregon	29	(D)	-	-	29	(D)	51	199
Pennsylvania	79	29	-	-	79	29	62	29
Rhode Island	2	(D)	-	-	2	(D)	5	2
South Carolina	30	(D)	2	(D)	28	(D)	13	(D)
South Dakota	2	(D)	-	-	2	(D)	1	(D)
Tennessee	31	13	-	-	31	13	14	16
Texas	67	892	1	(D)	67	(D)	59	688
Utah	7	1	-	-	7	1	-	-
Vermont	30	5	-	-	30	5	12	3
Virginia	60	42	4	1	56	41	24	33
Washington	39	171	1	(D)	39	(D)	27	154
West Virginia	18	4	-	-	18	4	18	7
Wisconsin	92	20	-	-	92	20	40	41
Wyoming	2	(D)	-	-	2	(D)	-	-
PARSLEY								
United States Total								
United States	370	4,240	11	933	361	3,308	304	3,647
States								
Alabama	2	(D)	-	-	2	(D)	-	-
Alaska	1	(D)	-	-	1	(D)	-	-
Arizona	10	55	-	-	10	55	8	110
Arkansas	5	1	-	-	5	1	-	-
California	63	2,265	5	797	58	1,468	95	1,861
Colorado	2	(D)	-	-	2	(D)	-	-
Connecticut	6	2	1	(D)	5	(D)	4	(D)
Delaware	1	(D)	-	-	1	(D)	-	-
Florida	5	(D)	-	-	5	(D)	4	350
Hawaii	29	29	-	-	29	29	30	40
Illinois	5	1	-	-	5	1	8	(D)
Indiana	-	-	-	-	-	-	1	(D)
Iowa	3	(Z)	-	-	3	(Z)	3	(Z)
Kansas	1	(D)	-	-	1	(D)	-	-
Maine	7	1	-	-	7	1	11	2
Maryland	4	2	-	-	4	2	5	3
Massachusetts	18	5	-	-	18	5	4	(D)
Michigan	22	181	1	(D)	22	(D)	3	(D)
Minnesota	2	(D)	-	-	2	(D)	-	-
Nebraska	-	-	-	-	-	-	4	1
New Hampshire	-	-	-	-	-	-	4	(D)
New Jersey	55	717	1	(D)	55	(D)	57	(D)
New Mexico	-	-	-	-	-	-	1	(D)
New York	29	52	1	(D)	28	(D)	14	(D)
North Carolina	8	1	-	-	8	1	-	-
Ohio	21	291	1	(D)	20	(D)	8	254
Oregon	6	(D)	1	(D)	5	(D)	1	(D)
Pennsylvania	12	3	-	-	12	3	16	4
Rhode Island	4	(Z)	-	-	4	(Z)	-	-
South Carolina	1	(D)	-	-	1	(D)	-	-
Tennessee	2	(D)	-	-	2	(D)	-	-
Texas	13	443	-	-	13	443	12	(D)
Vermont	10	2	-	-	10	2	6	1
Virginia	1	(D)	-	-	1	(D)	5	5
Washington	6	1	-	-	6	1	-	-
Wisconsin	16	2	-	-	16	2	-	-
PEAS, CHINESE (SUGAR AND SNOW)								
United States Total								
United States	863	8,859	86	4,915	796	3,944	435	6,936
States								
Alabama	10	7	-	-	10	7	3	(D)
Alaska	2	(D)	-	-	2	(D)	-	-
Arizona	3	(Z)	-	-	3	(Z)	11	5
Arkansas	1	(D)	-	-	1	(D)	-	-
California	145	2,241	1	(D)	145	(D)	226	3,226
Colorado	3	(D)	-	-	3	(D)	-	-
Connecticut	8	(D)	-	-	8	(D)	-	-
Delaware	1	(D)	-	-	1	(D)	1	(D)
Florida	4	1	-	-	4	1	-	-
Georgia	-	-	-	-	-	-	2	(D)
Hawaii	6	1	-	-	6	1	7	2
Idaho	69	4,289	55	4,022	14	267	29	615
Illinois	20	8	-	-	20	8	-	-

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
PEAS, CHINESE (SUGAR AND SNOW) - Con.								
States - Con.								
Indiana	6	4	-	-	6	4	3	4
Iowa	14	8	-	-	14	8	-	-
Kansas	6	1	-	-	6	1	-	-
Kentucky	17	2	-	-	17	2	-	-
Maine	31	9	7	1	31	9	-	-
Maryland	13	8	2	(D)	13	(D)	1	(D)
Massachusetts	26	8	-	-	26	8	-	-
Michigan	23	10	-	-	23	10	-	-
Minnesota	21	68	1	(D)	20	(D)	2	(D)
Montana	9	1	-	-	9	1	-	-
Nebraska	4	1	-	-	4	1	-	-
New Hampshire	8	(D)	-	-	8	(D)	-	-
New Jersey	12	13	-	-	12	13	2	(D)
New Mexico	6	1	-	-	6	1	1	(D)
New York	75	312	6	(D)	73	(D)	1	(D)
North Carolina	22	31	-	-	22	31	-	-
North Dakota	2	(D)	-	-	2	(D)	-	-
Ohio	42	13	-	-	42	13	-	-
Oklahoma	3	(Z)	-	-	3	(Z)	-	-
Oregon	29	1,018	4	(D)	27	(D)	54	201
Pennsylvania	65	(D)	-	-	65	(D)	1	(D)
Rhode Island	1	(D)	-	-	1	(D)	-	-
South Carolina	5	2	-	-	5	2	3	6
South Dakota	2	(D)	-	-	2	(D)	-	-
Tennessee	7	2	-	-	7	2	-	-
Texas	3	(D)	-	-	3	(D)	3	(D)
Utah	1	(D)	-	-	1	(D)	-	-
Vermont	17	(D)	-	-	17	(D)	-	-
Virginia	14	6	3	1	14	6	1	(D)
Washington	35	327	6	318	29	9	79	2,455
West Virginia	5	1	-	-	5	1	-	-
Wisconsin	66	69	1	(D)	65	(D)	5	3
Wyoming	1	(D)	-	-	1	(D)	-	-
PEAS, GREEN (EXCLUDING SOUTHERN)								
United States Total								
United States	4,532	214,057	2,047	206,092	2,568	7,965	4,849	219,176
States								
Alabama	121	135	2	(D)	120	(D)	102	350
Alaska	17	22	-	-	17	22	13	26
Arizona	10	1	-	-	10	1	-	-
Arkansas	10	(D)	2	(D)	9	8	8	4
California	68	826	-	-	68	826	101	2,489
Colorado	60	102	-	-	60	102	7	35
Connecticut	27	59	-	-	27	59	21	85
Delaware	29	5,075	27	(D)	3	(D)	38	4,967
Florida	76	138	7	5	73	133	90	490
Georgia	83	731	-	-	83	731	98	792
Idaho	22	4	-	-	22	4	72	2,495
Illinois	143	9,509	121	9,395	23	114	152	7,397
Indiana	7	3	-	-	7	3	6	4
Iowa	47	1,342	22	1,291	25	51	46	1,140
Kansas	11	7	-	-	11	7	3	(Z)
Kentucky	31	7	1	(D)	31	(D)	13	4
Louisiana	15	14	-	-	15	14	20	55
Maine	90	103	-	-	90	103	107	103
Maryland	59	2,925	30	2,672	32	254	54	2,842
Massachusetts	56	50	-	-	56	50	56	107
Michigan	90	2,654	9	2,145	83	509	160	1,149
Minnesota	1,167	67,285	893	65,837	305	1,448	1,216	68,993
Mississippi	67	244	8	21	64	223	28	239
Missouri	9	(D)	-	-	9	(D)	16	3
Montana	49	14	-	-	49	14	39	18
Nebraska	3	(D)	-	-	3	(D)	10	4
Nevada	4	1	-	-	4	1	-	-
New Hampshire	37	(D)	-	-	37	(D)	33	27
New Jersey	61	1,541	15	(D)	46	(D)	84	2,638
New Mexico	19	7	2	(D)	19	(D)	12	5
New York	236	18,137	118	17,598	122	539	208	15,741
North Carolina	101	119	5	2	101	117	88	(D)
North Dakota	16	(D)	1	(D)	15	4	18	7
Ohio	47	19	2	(D)	47	(D)	38	32
Oklahoma	18	(D)	1	(D)	17	40	8	(D)
Oregon	188	21,895	54	20,802	137	1,093	248	23,561
Pennsylvania	80	125	2	(D)	78	(D)	139	776
Rhode Island	2	(D)	-	-	2	(D)	7	2
South Carolina	90	162	14	52	77	110	48	93
South Dakota	21	4	-	-	21	4	5	2
Tennessee	27	(D)	1	(D)	26	27	22	(D)
Texas	66	494	11	44	59	451	170	769
Utah	45	22	2	(D)	43	(D)	18	10
Vermont	61	32	-	-	61	32	63	35
Virginia	56	69	16	9	50	60	32	81
Washington	351	39,293	171	39,061	182	232	376	39,000

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
PEAS, GREEN (EXCLUDING SOUTHERN) - Con.								
States - Con.								
West Virginia	15	3	-	-	15	3	8	5
Wisconsin	618	37,405	510	37,315	108	91	747	39,181
Wyoming	6	1	-	-	6	1	1	(D)
PEAS, GREEN SOUTHERN (COWPEAS) - BLACKEYED, CROWDER, ETC.								
United States Total								
United States	3,061	27,089	334	15,386	2,859	11,703	2,372	28,867
States								
Alabama	371	1,580	28	36	362	1,545	293	1,744
Arizona	2	(D)	-	-	2	(D)	4	(D)
Arkansas	264	2,029	34	1,414	234	615	169	2,243
California	25	(D)	-	-	25	(D)	27	80
Delaware	6	279	5	(D)	1	(D)	1	(D)
Florida	250	1,628	-	-	250	1,628	187	1,425
Georgia	158	3,010	7	142	151	2,868	290	3,645
Illinois	1	(D)	-	-	1	(D)	-	-
Indiana	1	(D)	-	-	1	(D)	-	-
Kentucky	18	6	-	-	18	6	10	2
Louisiana	200	393	33	43	186	351	197	694
Maryland	9	4	-	-	9	4	1	(D)
Massachusetts	1	(D)	-	-	1	(D)	-	-
Minnesota	2	(D)	-	-	2	(D)	-	-
Mississippi	450	1,412	55	(D)	418	(D)	344	1,704
Missouri	69	2,211	14	2,187	55	24	39	2,216
New Jersey	-	-	-	-	-	-	1	(D)
New Mexico	70	(D)	4	(D)	66	23	4	(D)
New York	2	(D)	-	-	2	(D)	-	-
North Carolina	199	368	15	36	194	332	169	393
Ohio	2	(D)	-	-	2	(D)	-	-
Oklahoma	140	3,235	14	2,858	129	377	112	2,754
Pennsylvania	-	-	-	-	-	-	1	(D)
South Carolina	111	341	6	13	107	328	88	757
Tennessee	98	(D)	3	(D)	95	(D)	68	4,925
Texas	585	6,292	115	4,097	521	2,195	347	5,463
Virginia	25	28	1	(D)	25	(D)	20	40
West Virginia	2	(D)	-	-	2	(D)	-	-
PEPPERS, BELL (EXCLUDING PIMIENTOS) (SEE TEXT)								
United States Total								
United States	9,572	62,363	315	11,872	9,379	50,492	8,484	58,998
States								
Alabama	101	57	3	1	98	56	68	107
Arizona	24	(D)	-	-	24	(D)	19	7
Arkansas	64	41	5	1	59	40	48	49
California	367	21,098	30	(D)	345	(D)	467	18,850
Colorado	47	170	-	-	47	170	48	271
Connecticut	290	465	12	26	284	438	229	422
Delaware	29	181	2	(D)	28	(D)	45	168
Florida	76	19,328	2	(D)	76	(D)	93	17,028
Georgia	94	4,207	-	-	94	4,207	91	4,364
Hawaii	18	(D)	-	-	18	(D)	14	(D)
Idaho	27	118	4	(D)	24	(D)	15	73
Illinois	312	445	10	6	308	439	217	450
Indiana	337	245	8	7	335	239	280	225
Iowa	194	118	9	25	191	93	193	106
Kansas	125	107	-	-	125	107	76	25
Kentucky	234	214	10	20	231	193	184	348
Louisiana	64	234	6	(D)	59	(D)	56	201
Maine	195	52	5	2	192	50	204	71
Maryland	131	142	7	1	129	141	271	246
Massachusetts	340	287	5	4	335	282	295	298
Michigan	700	1,577	14	203	689	1,374	318	1,539
Minnesota	121	234	3	4	119	230	141	268
Mississippi	32	36	1	(D)	31	(D)	26	72
Missouri	146	98	-	-	146	98	114	59
Montana	27	15	-	-	27	15	12	7
Nebraska	97	(D)	5	(D)	92	(D)	50	(D)
Nevada	3	(D)	-	-	3	(D)	3	1
New Hampshire	124	38	1	(D)	123	(D)	104	55
New Jersey	529	3,749	8	161	527	3,589	608	3,761
New Mexico	35	20	3	1	34	19	49	39
New York	861	1,139	38	36	839	1,103	793	1,256
North Carolina	304	2,421	24	20	290	2,401	182	2,501
North Dakota	5	2	-	-	5	2	6	2
Ohio	823	1,547	36	491	794	1,056	717	1,347
Oklahoma	75	(D)	3	(D)	72	(D)	60	(D)
Oregon	113	561	6	(D)	111	(D)	149	130
Pennsylvania	1,038	986	32	11	1,020	975	1,036	1,156
Rhode Island	75	83	1	(D)	75	(D)	38	116

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
PEPPERS, BELL (EXCLUDING PIMIENTOS) (SEE TEXT) - Con.								
States - Con.								
South Carolina	71	497	3	1	68	496	27	441
South Dakota	11	1	-	-	11	1	11	7
Tennessee	144	183	-	-	144	183	64	178
Texas	103	97	3	(Z)	100	97	422	1,071
Utah	42	27	1	(D)	42	(D)	30	(D)
Vermont	132	46	6	(D)	126	(D)	95	65
Virginia	189	232	3	1	188	232	135	645
Washington	110	519	3	188	109	331	46	342
West Virginia	107	34	2	(D)	107	(D)	129	63
Wisconsin	486	396	1	(D)	485	(D)	206	284
PEPPERS OTHER THAN BELL (INCLUDING CHILE) (SEE TEXT)								
United States Total								
United States	6,124	37,372	466	23,278	5,780	14,093	4,748	42,666
States								
Alabama	97	(D)	8	8	90	(D)	72	87
Arizona	155	3,627	13	(D)	146	(D)	58	4,955
Arkansas	44	(D)	3	(D)	42	11	16	79
California	385	5,617	33	1,781	362	3,836	396	5,210
Colorado	72	372	1	(D)	71	(D)	71	882
Connecticut	144	127	5	(D)	141	(D)	95	109
Delaware	16	48	1	(D)	15	(D)	15	22
Florida	77	2,053	4	(D)	74	(D)	77	1,460
Georgia	62	907	-	-	62	907	55	1,412
Hawaii	18	14	-	-	18	14	19	23
Idaho	15	6	-	-	15	6	11	4
Illinois	198	125	9	4	194	121	100	102
Indiana	173	296	15	(D)	168	(D)	137	355
Iowa	137	65	11	4	129	61	104	56
Kansas	78	20	4	1	76	19	45	21
Kentucky	121	72	9	3	112	69	75	45
Louisiana	20	17	6	6	14	11	29	133
Maine	83	18	4	(Z)	80	17	71	15
Maryland	64	324	10	262	58	63	97	378
Massachusetts	186	173	7	(D)	179	(D)	113	221
Michigan	366	1,374	18	865	352	509	122	(D)
Minnesota	82	55	4	1	78	54	49	28
Mississippi	25	11	10	4	19	7	10	11
Missouri	82	28	2	(D)	82	(D)	43	26
Montana	15	4	-	-	15	4	11	(D)
Nebraska	58	22	7	(D)	53	(D)	35	12
Nevada	-	-	-	-	-	-	1	(D)
New Hampshire	50	9	1	(D)	49	(D)	36	8
New Jersey	268	761	2	(D)	267	(D)	269	914
New Mexico	330	10,684	115	9,075	244	1,608	282	16,569
New York	472	325	28	14	458	312	358	223
North Carolina	153	1,048	30	526	126	522	118	1,035
North Dakota	1	(D)	-	-	1	(D)	1	(D)
Ohio	463	742	32	462	437	280	351	1,046
Oklahoma	72	(D)	5	(D)	67	19	45	876
Oregon	76	(D)	1	(D)	75	46	109	216
Pennsylvania	500	233	22	4	483	228	398	202
Rhode Island	31	16	1	(D)	30	(D)	15	11
South Carolina	42	13	3	(Z)	39	13	26	79
South Dakota	7	2	-	-	7	2	3	2
Tennessee	65	41	-	-	65	41	44	71
Texas	177	6,018	29	4,756	150	1,262	459	4,350
Utah	25	29	1	(D)	25	(D)	18	28
Vermont	87	16	2	(D)	86	(D)	49	13
Virginia	95	161	1	(D)	95	(D)	56	214
Washington	100	55	4	3	97	52	59	115
West Virginia	66	23	2	(D)	66	(D)	60	35
Wisconsin	269	234	3	(D)	266	(D)	63	377
Wyoming	2	(D)	-	-	2	(D)	2	(D)
POTATOES (SEE TEXT)								
United States Total								
United States	15,014	1,131,963	1,739	599,604	13,855	532,359	9,408	1,266,087
States								
Alabama	267	1,082	11	(D)	263	(D)	126	2,742
Alaska	65	855	1	(D)	65	(D)	68	851
Arizona	123	3,972	1	(D)	122	(D)	22	7,679
Arkansas	168	76	7	2	161	74	43	36
California	224	37,858	22	8,554	212	29,305	269	48,217
Colorado	248	62,694	4	710	245	61,984	229	78,959
Connecticut	133	100	-	-	133	100	60	71
Delaware	21	2,402	2	(D)	19	(D)	11	3,897
Florida	181	26,526	37	18,285	146	8,241	106	35,386
Georgia	122	380	-	-	122	380	62	948
Hawaii	15	7	-	-	15	7	11	6

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
POTATOES (SEE TEXT) - Con.								
States - Con.								
Idaho	703	350,905	386	151,745	457	199,160	818	364,229
Illinois	253	6,244	16	5,261	241	983	84	6,825
Indiana	263	2,288	15	907	251	1,381	131	2,491
Iowa	230	646	6	465	226	181	117	1,005
Kansas	137	5,266	9	(D)	132	(D)	38	3,764
Kentucky	531	291	16	4	521	287	257	297
Louisiana	97	123	9	10	96	113	32	114
Maine	464	56,362	124	32,576	384	23,786	444	64,474
Maryland	236	2,964	27	2,674	218	290	139	3,038
Massachusetts	205	2,616	7	(D)	204	(D)	103	3,220
Michigan	600	42,267	66	30,373	558	11,894	395	45,840
Minnesota	478	49,935	62	34,906	427	15,029	284	58,107
Mississippi	178	166	24	65	168	102	54	69
Missouri	313	6,127	24	5,837	299	290	156	5,256
Montana	152	11,192	2	(D)	150	(D)	143	10,479
Nebraska	135	20,438	24	8,393	122	12,045	60	22,059
Nevada	24	7,491	4	(D)	22	(D)	14	7,607
New Hampshire	132	79	1	(D)	131	(D)	65	65
New Jersey	127	2,442	8	764	125	1,679	103	2,951
New Mexico	142	5,675	3	(D)	141	(D)	28	6,186
New York	860	18,911	76	8,117	818	10,794	530	22,094
North Carolina	1,123	14,760	89	7,634	1,058	7,125	504	19,500
North Dakota	152	91,855	68	67,733	100	24,122	216	105,367
Ohio	631	2,943	50	1,875	593	1,068	314	4,865
Oklahoma	215	307	8	2	207	305	67	434
Oregon	345	36,361	57	24,958	299	11,403	278	47,828
Pennsylvania	1,258	9,690	85	5,001	1,214	4,689	984	11,094
Rhode Island	30	542	2	(D)	30	(D)	15	525
South Carolina	226	154	6	2	222	152	77	305
South Dakota	45	854	3	820	42	34	22	967
Tennessee	398	304	1	(D)	398	(D)	192	423
Texas	330	17,129	38	12,100	304	5,029	250	18,504
Utah	113	464	15	6	111	458	92	749
Vermont	202	266	8	2	194	264	93	248
Virginia	596	5,408	62	673	556	4,735	302	5,774
Washington	618	157,499	196	128,631	462	28,868	408	159,317
West Virginia	277	275	6	5	271	270	182	186
Wisconsin	608	63,933	50	29,956	581	33,977	399	80,332
Wyoming	20	843	1	(D)	19	(D)	11	711
PUMPKINS								
United States Total								
United States	15,088	92,955	444	12,306	14,877	80,649	14,073	97,408
States								
Alabama	62	707	-	-	62	707	56	497
Alaska	8	1	-	-	8	1	4	(D)
Arizona	234	593	-	-	234	593	29	565
Arkansas	42	285	4	1	40	284	62	421
California	359	5,106	3	(Z)	359	5,105	407	6,384
Colorado	154	2,428	-	-	154	2,428	107	1,346
Connecticut	332	1,372	13	54	327	1,318	333	1,559
Delaware	36	493	-	-	36	493	66	599
Florida	35	149	-	-	35	149	18	36
Georgia	32	182	-	-	32	182	45	250
Hawaii	55	167	-	-	55	167	32	164
Idaho	74	233	-	-	74	233	43	196
Illinois	502	13,679	93	9,749	422	3,930	475	12,296
Indiana	454	3,246	11	15	450	3,231	495	4,242
Iowa	282	830	6	5	279	824	263	860
Kansas	135	1,008	-	-	135	1,008	102	705
Kentucky	393	1,081	4	8	393	1,073	348	1,524
Louisiana	8	38	-	-	8	38	30	48
Maine	372	806	11	11	364	795	335	684
Maryland	165	1,487	7	7	164	1,480	287	1,770
Massachusetts	503	2,037	14	(D)	499	(D)	510	2,723
Michigan	1,171	6,848	37	257	1,158	6,591	1,145	7,414
Minnesota	546	2,262	8	77	546	2,185	483	2,593
Mississippi	24	160	1	(D)	23	(D)	52	209
Missouri	240	1,430	11	(D)	233	(D)	301	1,697
Montana	80	109	-	-	80	109	49	100
Nebraska	118	1,440	9	6	112	1,434	82	791
Nevada	15	58	-	-	15	58	17	60
New Hampshire	225	633	2	(D)	225	(D)	200	719
New Jersey	530	2,523	-	-	530	2,523	628	3,094
New Mexico	139	4,030	2	(D)	139	(D)	43	3,225
New York	1,416	6,650	81	196	1,396	6,454	1,311	6,782
North Carolina	296	1,826	17	113	292	1,713	281	1,327
North Dakota	52	164	-	-	52	164	38	61
Ohio	1,091	5,092	28	147	1,076	4,945	1,088	5,564
Oklahoma	77	284	1	(D)	76	(D)	81	603
Oregon	346	2,031	11	1,034	339	998	240	1,782
Pennsylvania	1,690	7,717	33	79	1,680	7,638	1,576	7,402
Rhode Island	92	230	-	-	92	230	68	297
South Carolina	44	196	1	(D)	44	(D)	27	101
South Dakota	69	142	-	-	69	142	67	253
Tennessee	266	2,385	2	(D)	264	(D)	332	3,742

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
PUMPKINS - Con.								
States - Con.								
Texas	70	1,834	4	87	66	1,747	88	3,333
Utah	159	661	-	-	159	661	117	502
Vermont	259	420	6	(D)	259	(D)	211	547
Virginia	244	2,075	9	83	243	1,992	271	2,271
Washington	419	1,968	15	129	406	1,839	259	1,752
West Virginia	110	234	-	-	110	234	105	269
Wisconsin	1,055	3,600	-	-	1,055	3,600	861	4,023
Wyoming	8	28	-	-	8	28	5	(D)
RADISHES								
United States Total								
United States	818	14,599	18	264	805	14,335	626	17,056
States								
Alabama	9	17	-	-	9	17	7	1
Alaska	2	(D)	-	-	2	(D)	7	4
Arizona	15	(D)	-	-	15	(D)	4	(D)
Arkansas	4	(D)	3	(D)	2	(D)	1	(D)
California	76	1,705	-	-	76	1,705	92	3,411
Colorado	4	4	-	-	4	4	3	(D)
Connecticut	8	1	-	-	8	1	4	(D)
Delaware	7	5	-	-	7	5	2	(D)
Florida	25	6,279	-	-	25	6,279	16	5,464
Georgia	8	8	-	-	8	8	4	1
Hawaii	23	35	-	-	23	35	11	18
Idaho	3	1	-	-	3	1	4	1
Illinois	21	42	-	-	21	42	17	7
Indiana	5	2	-	-	5	2	10	236
Iowa	17	4	1	(D)	17	(D)	20	6
Kansas	17	8	-	-	17	8	5	1
Kentucky	10	2	-	-	10	2	6	(D)
Louisiana	1	(D)	-	-	1	(D)	-	-
Maine	3	(D)	-	-	3	(D)	13	2
Maryland	4	1	-	-	4	1	10	14
Massachusetts	24	(D)	-	-	24	(D)	20	43
Michigan	50	2,166	1	(D)	49	(D)	26	2,646
Minnesota	16	(D)	-	-	16	(D)	18	1,754
Missouri	8	1	-	-	8	1	2	(D)
Montana	28	5	-	-	28	5	8	2
Nebraska	14	30	-	-	14	30	10	19
Nevada	2	(D)	-	-	2	(D)	2	(D)
New Hampshire	14	3	-	-	14	3	7	(D)
New Jersey	27	232	-	-	27	232	23	192
New Mexico	21	10	-	-	21	10	8	1
New York	57	154	2	(D)	56	(D)	36	682
North Carolina	25	705	-	-	25	705	28	245
Ohio	20	999	3	(D)	19	(D)	14	1,231
Oklahoma	24	6	2	(D)	22	(D)	1	(D)
Oregon	31	648	3	210	28	438	32	396
Pennsylvania	34	11	-	-	34	11	41	12
Rhode Island	6	(D)	-	-	6	(D)	1	(D)
South Carolina	5	(D)	2	(D)	3	(D)	1	(D)
South Dakota	3	1	-	-	3	1	2	(D)
Tennessee	6	3	-	-	6	3	3	2
Texas	24	34	-	-	24	34	21	14
Utah	1	(D)	-	-	1	(D)	3	(D)
Vermont	11	2	-	-	11	2	11	2
Virginia	24	6	-	-	24	6	10	4
Washington	11	128	-	-	11	128	31	428
West Virginia	1	(D)	-	-	1	(D)	-	-
Wisconsin	68	33	1	(D)	67	(D)	31	19
Wyoming	1	(D)	-	-	1	(D)	-	-
RHUBARB								
United States Total								
United States	574	1,404	42	448	542	956	467	1,809
States								
Alaska	3	2	-	-	3	2	7	2
Arizona	2	(D)	-	-	2	(D)	2	(D)
California	17	4	-	-	17	4	19	(D)
Colorado	6	2	-	-	6	2	-	-
Connecticut	13	3	-	-	13	3	26	8
Florida	1	(D)	-	-	1	(D)	-	-
Georgia	-	-	-	-	-	-	3	20
Idaho	1	(D)	-	-	1	(D)	1	(D)
Illinois	13	8	-	-	13	8	13	4
Indiana	13	2	-	-	13	2	7	4
Iowa	22	5	3	(Z)	19	5	8	5
Kansas	15	12	-	-	15	12	9	3
Kentucky	2	(D)	-	-	2	(D)	6	2
Maine	15	3	1	(D)	15	(D)	19	3
Maryland	9	2	-	-	9	2	5	4
Massachusetts	25	26	-	-	25	26	17	7
Michigan	48	106	1	(D)	47	(D)	24	144

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
RHUBARB - Con.								
States - Con.								
Minnesota	42	79	4	5	40	74	7	6
Missouri	11	2	-	-	11	2	-	-
Montana	12	1	-	-	12	1	-	-
Nebraska	2	(D)	-	-	2	(D)	7	2
New Hampshire	11	(D)	1	(D)	10	(D)	8	(D)
New Jersey	7	7	-	-	7	7	11	12
New Mexico	1	(D)	-	-	1	(D)	-	-
New York	57	24	2	(D)	57	(D)	62	36
North Carolina	5	1	-	-	5	1	1	(D)
North Dakota	3	2	3	2	-	-	-	-
Ohio	29	20	2	(D)	29	(D)	26	45
Oklahoma	6	1	-	-	6	1	-	-
Oregon	31	616	6	222	28	394	46	(D)
Pennsylvania	31	9	2	(D)	29	(D)	38	6
Rhode Island	2	(D)	-	-	2	(D)	2	(D)
South Dakota	5	12	-	-	5	12	-	-
Vermont	14	7	1	(D)	13	(D)	8	2
Virginia	10	2	-	-	10	2	5	1
Washington	46	437	16	(D)	30	(D)	59	824
West Virginia	9	1	-	-	9	1	2	(D)
Wisconsin	35	6	-	-	35	6	19	9
SPINACH								
United States Total								
United States	1,202	44,071	112	14,226	1,121	29,846	1,109	49,859
States								
Alabama	1	(D)	-	-	1	(D)	7	1
Alaska	3	(D)	-	-	3	(D)	6	1
Arizona	19	3,639	-	-	19	3,639	29	4,099
Arkansas	11	3	-	-	11	3	5	95
California	174	25,843	28	6,999	158	18,844	232	28,017
Colorado	25	1,850	-	-	25	1,850	26	1,982
Connecticut	6	2	-	-	6	2	6	9
Delaware	5	(D)	3	(D)	2	(D)	5	675
Florida	17	30	3	10	15	20	13	23
Georgia	5	(D)	-	-	5	(D)	16	54
Hawaii	9	16	-	-	9	16	19	13
Idaho	15	2	-	-	15	2	3	(D)
Illinois	23	35	-	-	23	35	20	(D)
Indiana	13	1	-	-	13	1	13	(D)
Iowa	6	1	-	-	6	1	13	5
Kansas	14	5	-	-	14	5	8	9
Kentucky	11	(D)	-	-	11	(D)	4	1
Louisiana	4	(Z)	4	(Z)	-	-	2	(D)
Maine	22	5	-	-	22	5	23	10
Maryland	21	1,305	6	1,273	15	33	37	1,206
Massachusetts	42	15	1	(D)	42	(D)	14	7
Michigan	33	(D)	4	347	30	(D)	16	63
Minnesota	15	10	2	(D)	13	(D)	-	-
Mississippi	3	(Z)	-	-	3	(Z)	-	-
Missouri	31	5	-	-	31	5	16	9
Montana	22	5	-	-	22	5	-	-
Nebraska	5	5	-	-	5	5	6	3
Nevada	1	(D)	-	-	1	(D)	1	(D)
New Hampshire	15	4	-	-	15	4	12	13
New Jersey	72	2,737	21	1,248	56	1,489	83	3,442
New Mexico	22	10	4	3	18	7	13	254
New York	74	247	-	-	74	247	63	424
North Carolina	40	(D)	1	(D)	39	6	40	206
Ohio	17	7	1	(D)	16	(D)	26	109
Oklahoma	24	1,799	10	(D)	15	(D)	13	1,523
Oregon	32	521	1	(D)	31	(D)	44	285
Pennsylvania	56	34	-	-	56	34	62	588
Rhode Island	4	(Z)	-	-	4	(Z)	-	-
South Carolina	7	(D)	1	(D)	6	4	2	(D)
South Dakota	3	1	-	-	3	1	1	(D)
Tennessee	14	(D)	1	(D)	13	2	3	(D)
Texas	37	2,986	11	797	30	2,189	54	3,840
Utah	9	1	-	-	9	1	6	(D)
Vermont	49	21	5	(D)	49	(D)	37	23
Virginia	26	(D)	-	-	26	(D)	16	(D)
Washington	57	215	5	110	53	105	63	423
West Virginia	7	1	-	-	7	1	6	4
Wisconsin	78	18	-	-	78	18	24	14
Wyoming	3	1	-	-	3	1	1	(D)
SQUASH, ALL (SEE TEXT)								
United States Total								
United States	11,821	54,454	397	6,706	11,601	47,748	11,035	71,236
States								
Alabama	258	817	11	5	252	813	181	677
Alaska	9	12	-	-	9	(D)	26	(D)
Arizona	1,253	689	-	-	1,253	689	49	324

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
SQUASH, ALL (SEE TEXT) - Con.								
States - Con.								
Arkansas	119	193	18	38	103	156	76	404
California	706	5,535	15	326	697	5,210	830	10,302
Colorado	149	635	2	(D)	149	635	64	943
Connecticut	196	843	12	8	192	835	277	1,230
Delaware	35	69	-	-	35	69	50	125
Florida	188	7,349	4	(D)	184	(D)	406	9,692
Georgia	184	4,502	2	(D)	182	4,387	238	9,013
Hawaii	112	285	-	-	112	285	56	185
Idaho	49	37	-	-	49	37	30	175
Illinois	147	819	3	(D)	145	814	132	383
Indiana	141	284	5	23	140	261	108	470
Iowa	138	175	8	(D)	134	101	92	108
Kansas	63	51	-	-	63	51	25	50
Kentucky	239	179	3	(Z)	236	179	110	136
Louisiana	72	91	4	(D)	72	85	61	219
Maine	202	343	9	7	198	336	342	460
Maryland	163	480	4	(D)	161	333	281	907
Massachusetts	318	1,849	26	(D)	313	1,557	439	1,834
Michigan	582	7,513	46	2,529	550	4,984	802	7,341
Minnesota	476	931	12	60	470	871	387	908
Mississippi	100	132	14	(D)	91	83	68	246
Missouri	149	168	-	-	149	168	87	205
Montana	128	64	-	-	128	64	64	44
Nebraska	60	129	7	9	58	119	38	159
Nevada	15	25	1	(D)	15	25	11	29
New Hampshire	158	203	2	(D)	158	202	150	252
New Jersey	297	3,453	-	-	297	3,453	588	3,760
New Mexico	519	507	12	5	515	502	46	80
New York	742	3,896	43	630	719	3,265	1,098	4,226
North Carolina	503	2,864	31	253	482	2,611	351	2,864
North Dakota	27	34	-	-	27	34	31	29
Ohio	336	731	7	11	336	720	288	1,132
Oklahoma	125	96	2	(D)	123	73	87	359
Oregon	212	1,701	25	1,022	189	680	264	2,313
Pennsylvania	415	811	13	74	404	737	826	1,061
Rhode Island	56	172	1	(D)	56	153	50	218
South Carolina	217	1,048	9	204	208	844	112	1,589
South Dakota	66	97	-	-	66	97	51	138
Tennessee	200	449	1	(D)	200	372	97	1,256
Texas	288	1,627	14	204	284	1,424	355	1,807
Utah	169	265	3	(D)	167	250	33	80
Vermont	123	207	6	5	123	203	177	305
Virginia	234	408	12	15	231	393	160	872
Washington	244	646	10	(D)	237	613	223	1,022
West Virginia	79	34	-	-	79	34	91	53
Wisconsin	547	1,003	-	-	547	1,003	625	1,243
Wyoming	13	4	-	-	13	4	2	(D)
SQUASH, SUMMER (SEE TEXT)								
United States Total								
United States	9,170	34,094	229	2,933	9,029	31,160	(NA)	(NA)
States								
Alabama	250	808	10	(D)	245	(D)	(NA)	(NA)
Alaska	8	(D)	-	-	8	(D)	(NA)	(NA)
Arizona	1,185	642	-	-	1,185	642	(NA)	(NA)
Arkansas	117	191	18	38	101	153	(NA)	(NA)
California	580	3,523	12	257	574	3,266	(NA)	(NA)
Colorado	121	(D)	-	-	121	(D)	(NA)	(NA)
Connecticut	165	654	6	1	161	652	(NA)	(NA)
Delaware	34	(D)	-	-	34	(D)	(NA)	(NA)
Florida	162	5,512	4	(D)	158	(D)	(NA)	(NA)
Georgia	178	(D)	2	(D)	176	(D)	(NA)	(NA)
Hawaii	72	249	-	-	72	249	(NA)	(NA)
Idaho	32	10	-	-	32	10	(NA)	(NA)
Illinois	99	376	1	(D)	98	(D)	(NA)	(NA)
Indiana	91	98	1	(D)	90	(D)	(NA)	(NA)
Iowa	53	22	2	(D)	53	(D)	(NA)	(NA)
Kansas	50	27	-	-	50	27	(NA)	(NA)
Kentucky	206	140	3	(Z)	203	139	(NA)	(NA)
Louisiana	72	(D)	3	(D)	72	(D)	(NA)	(NA)
Maine	92	85	-	-	92	85	(NA)	(NA)
Maryland	151	400	4	(D)	148	(D)	(NA)	(NA)
Massachusetts	202	462	4	(D)	200	(D)	(NA)	(NA)
Michigan	342	2,886	15	662	330	2,224	(NA)	(NA)
Minnesota	309	325	2	(D)	308	(D)	(NA)	(NA)
Mississippi	97	109	12	(D)	90	(D)	(NA)	(NA)
Missouri	121	60	-	-	121	60	(NA)	(NA)
Montana	95	29	-	-	95	29	(NA)	(NA)
Nebraska	34	34	5	(D)	32	(D)	(NA)	(NA)
Nevada	15	(D)	-	-	15	(D)	(NA)	(NA)
New Hampshire	117	(D)	1	(D)	117	(D)	(NA)	(NA)
New Jersey	262	2,410	-	-	262	2,410	(NA)	(NA)
New Mexico	494	483	12	5	490	478	(NA)	(NA)
New York	447	1,008	20	40	437	968	(NA)	(NA)
North Carolina	465	2,731	27	(D)	446	(D)	(NA)	(NA)

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
SQUASH, SUMMER (SEE TEXT) - Con.								
States - Con.								
North Dakota	14	4	-	-	14	4	(NA)	(NA)
Ohio	231	432	5	9	231	423	(NA)	(NA)
Oklahoma	124	(D)	2	(D)	122	(D)	(NA)	(NA)
Oregon	144	746	11	380	134	366	(NA)	(NA)
Pennsylvania	284	488	7	37	278	451	(NA)	(NA)
Rhode Island	48	(D)	-	-	48	(D)	(NA)	(NA)
South Carolina	215	1,043	9	204	206	839	(NA)	(NA)
South Dakota	41	28	-	-	41	28	(NA)	(NA)
Tennessee	185	(D)	1	(D)	185	(D)	(NA)	(NA)
Texas	286	1,592	13	(D)	281	(D)	(NA)	(NA)
Utah	118	91	2	(D)	116	(D)	(NA)	(NA)
Vermont	82	65	-	-	82	65	(NA)	(NA)
Virginia	213	312	10	(D)	210	(D)	(NA)	(NA)
Washington	165	328	5	(D)	163	(D)	(NA)	(NA)
West Virginia	75	25	-	-	75	25	(NA)	(NA)
Wisconsin	218	180	-	-	218	180	(NA)	(NA)
Wyoming	9	1	-	-	9	1	(NA)	(NA)
SQUASH, WINTER (SEE TEXT)								
United States Total								
United States	4,798	20,360	193	3,773	4,654	16,587	(NA)	(NA)
States								
Alabama	15	10	1	(D)	14	(D)	(NA)	(NA)
Alaska	3	(D)	-	-	3	(D)	(NA)	(NA)
Arizona	79	47	-	-	79	47	(NA)	(NA)
Arkansas	6	3	-	-	6	3	(NA)	(NA)
California	252	2,012	3	69	249	1,944	(NA)	(NA)
Colorado	113	(D)	2	(D)	111	(D)	(NA)	(NA)
Connecticut	92	190	6	7	89	183	(NA)	(NA)
Delaware	4	(D)	-	-	4	(D)	(NA)	(NA)
Florida	42	1,837	1	(D)	41	(D)	(NA)	(NA)
Georgia	16	(D)	-	-	16	(D)	(NA)	(NA)
Hawaii	44	36	-	-	44	36	(NA)	(NA)
Idaho	32	27	-	-	32	27	(NA)	(NA)
Illinois	81	443	2	(D)	80	(D)	(NA)	(NA)
Indiana	66	187	5	(D)	65	(D)	(NA)	(NA)
Iowa	108	153	6	(D)	102	(D)	(NA)	(NA)
Kansas	17	25	-	-	17	25	(NA)	(NA)
Kentucky	70	40	-	-	70	40	(NA)	(NA)
Louisiana	3	(D)	1	(D)	2	(D)	(NA)	(NA)
Maine	160	258	9	7	151	251	(NA)	(NA)
Maryland	36	80	2	(D)	35	(D)	(NA)	(NA)
Massachusetts	241	1,387	22	(D)	231	(D)	(NA)	(NA)
Michigan	399	4,627	35	1,866	366	2,760	(NA)	(NA)
Minnesota	352	606	11	(D)	344	(D)	(NA)	(NA)
Mississippi	9	23	2	(D)	7	(D)	(NA)	(NA)
Missouri	55	108	-	-	55	108	(NA)	(NA)
Montana	81	34	-	-	81	34	(NA)	(NA)
Nebraska	33	95	2	(D)	31	(D)	(NA)	(NA)
Nevada	10	(D)	1	(D)	9	(D)	(NA)	(NA)
New Hampshire	112	(D)	2	(D)	112	(D)	(NA)	(NA)
New Jersey	83	1,043	-	-	83	1,043	(NA)	(NA)
New Mexico	46	24	-	-	46	24	(NA)	(NA)
New York	526	2,887	33	590	506	2,297	(NA)	(NA)
North Carolina	91	133	4	(D)	87	(D)	(NA)	(NA)
North Dakota	24	30	-	-	24	30	(NA)	(NA)
Ohio	172	299	3	2	172	297	(NA)	(NA)
Oklahoma	8	(D)	-	-	8	(D)	(NA)	(NA)
Oregon	119	956	15	642	105	314	(NA)	(NA)
Pennsylvania	210	323	6	37	205	286	(NA)	(NA)
Rhode Island	29	(D)	1	(D)	28	(D)	(NA)	(NA)
South Carolina	8	5	-	-	8	5	(NA)	(NA)
South Dakota	47	69	-	-	47	69	(NA)	(NA)
Tennessee	28	(D)	-	-	28	(D)	(NA)	(NA)
Texas	23	35	3	(D)	21	(D)	(NA)	(NA)
Utah	102	174	1	(D)	101	(D)	(NA)	(NA)
Vermont	96	143	6	5	91	138	(NA)	(NA)
Virginia	62	96	2	(D)	60	(D)	(NA)	(NA)
Washington	134	319	6	(D)	129	(D)	(NA)	(NA)
West Virginia	18	9	-	-	18	9	(NA)	(NA)
Wisconsin	433	823	-	-	433	823	(NA)	(NA)
Wyoming	8	3	-	-	8	3	(NA)	(NA)
SWEET CORN								
United States Total								
United States	28,241	622,946	3,670	361,886	25,409	261,060	22,473	692,819
States								
Alabama	674	1,204	37	39	656	1,164	685	2,956
Alaska	4	1	-	-	4	1	1	(D)
Arizona	2,172	4,813	-	-	2,172	4,813	50	1,670
Arkansas	242	1,342	24	(D)	220	(D)	137	1,910

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
SWEET CORN - Con.								
States - Con.								
California	330	24,866	-	-	330	24,866	433	28,969
Colorado	174	6,933	-	-	174	6,933	136	7,418
Connecticut	304	4,610	3	24	301	4,586	291	4,697
Delaware	79	9,067	35	5,661	49	3,406	78	10,470
Florida	385	39,622	16	12	374	39,610	340	38,933
Georgia	512	23,045	-	-	512	23,045	559	23,905
Hawaii	80	526	-	-	80	526	80	503
Idaho	260	11,904	143	10,991	119	913	203	10,783
Illinois	595	18,615	157	12,130	465	6,486	506	23,273
Indiana	624	4,304	51	(D)	603	(D)	559	5,569
Iowa	410	3,548	59	1,768	371	1,780	462	4,876
Kansas	165	792	1	(D)	165	(D)	140	684
Kentucky	1,065	2,304	79	65	1,025	2,238	724	2,010
Louisiana	199	423	28	52	181	372	209	438
Maine	284	1,915	5	3	280	1,912	279	1,970
Maryland	411	9,787	77	6,025	363	3,762	410	10,096
Massachusetts	372	5,248	-	-	372	5,248	376	5,680
Michigan	1,067	9,499	50	54	1,052	9,445	982	10,885
Minnesota	1,608	114,471	1,044	106,811	640	7,660	1,804	139,244
Mississippi	383	2,507	50	570	357	1,937	361	1,668
Missouri	561	3,065	53	30	530	3,035	369	1,633
Montana	108	170	-	-	108	170	81	234
Nebraska	132	839	12	7	123	832	140	1,844
Nevada	17	82	2	(D)	16	(D)	16	54
New Hampshire	187	1,745	1	(D)	186	(D)	158	1,743
New Jersey	456	7,677	5	546	454	7,131	508	11,799
New Mexico	1,155	3,016	41	24	1,148	2,991	69	379
New York	1,424	40,183	190	19,644	1,317	20,539	1,281	44,363
North Carolina	1,620	6,221	161	683	1,531	5,538	1,142	5,877
North Dakota	38	116	3	3	37	113	48	186
Ohio	1,467	13,180	127	443	1,413	12,738	1,292	12,854
Oklahoma	234	442	12	42	228	400	180	558
Oregon	520	27,825	154	23,158	382	4,668	694	36,760
Pennsylvania	2,342	17,219	141	2,351	2,289	14,868	2,101	17,340
Rhode Island	76	855	1	(D)	76	(D)	64	980
South Carolina	682	2,393	40	80	657	2,313	462	2,052
South Dakota	66	185	2	(D)	65	(D)	86	1,463
Tennessee	740	3,109	11	(D)	735	(D)	663	3,336
Texas	485	3,087	47	497	453	2,590	297	2,856
Utah	231	1,561	17	43	225	1,518	136	1,073
Vermont	235	1,105	7	(D)	229	(D)	194	951
Virginia	631	3,416	54	629	592	2,787	501	2,398
Washington	706	91,977	220	83,372	521	8,605	687	105,090
West Virginia	364	892	-	-	364	892	215	724
Wisconsin	1,350	91,218	510	83,644	850	7,573	1,278	97,647
Wyoming	15	27	-	-	15	27	6	(D)
SWEET POTATOES (SEE TEXT)								
United States Total								
United States	1,910	105,284	259	21,360	1,807	83,924	2,366	92,310
States								
Alabama	83	2,297	5	(D)	81	(D)	115	2,524
Arizona	1	(D)	-	-	1	(D)	-	-
Arkansas	53	3,125	7	369	48	2,757	50	1,164
California	92	13,644	17	1,789	87	11,856	133	10,007
Colorado	1	(D)	-	-	1	(D)	-	-
Connecticut	3	(D)	-	-	3	(D)	6	(D)
Delaware	10	10	-	-	10	10	4	(D)
Florida	31	2,859	8	(D)	27	(D)	38	3,105
Georgia	69	573	1	(D)	68	(D)	90	634
Hawaii	94	297	-	-	94	297	59	294
Illinois	21	19	-	-	21	19	36	40
Indiana	23	13	-	-	23	13	12	5
Iowa	19	8	-	-	19	8	18	8
Kansas	36	49	-	-	36	49	17	29
Kentucky	66	44	2	(D)	65	(D)	96	59
Louisiana	120	14,863	40	3,300	106	11,563	145	16,877
Maine	4	1	-	-	4	1	4	(D)
Maryland	61	107	9	27	57	80	66	164
Massachusetts	9	2	-	-	9	2	4	(D)
Michigan	22	27	-	-	22	27	-	-
Mississippi	122	21,027	43	4,163	109	16,865	156	13,492
Missouri	46	54	3	(D)	43	(D)	60	73
Nebraska	11	2	-	-	11	2	7	6
New Hampshire	-	-	-	-	-	-	3	1
New Jersey	60	1,068	-	-	60	1,068	92	1,208
New Mexico	2	(D)	-	-	2	(D)	1	(D)
New York	19	7	4	1	15	7	30	16
North Carolina	389	42,108	83	9,612	355	32,496	563	38,745
Ohio	33	12	3	(Z)	31	12	46	13
Oklahoma	29	13	3	(Z)	26	12	12	21
Oregon	1	(D)	-	-	1	(D)	-	-
Pennsylvania	54	38	-	-	54	38	81	34
Rhode Island	5	1	-	-	5	1	1	(D)
South Carolina	107	497	12	12	102	484	119	847

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
SWEET POTATOES (SEE TEXT) - Con.								
States - Con.								
South Dakota	2	(D)	-	-	2	(D)	-	-
Tennessee	57	167	-	-	57	167	64	279
Texas	45	2,006	11	577	45	1,429	86	2,192
Vermont	3	(D)	1	(D)	2	(D)	10	2
Virginia	83	330	7	8	81	322	133	456
Washington	3	(Z)	-	-	3	(Z)	1	(D)
West Virginia	7	1	-	-	7	1	8	2
Wisconsin	14	13	-	-	14	13	-	-
TOMATOES IN THE OPEN (SEE TEXT)								
United States Total								
United States	25,809	442,225	1,761	319,549	24,630	122,675	19,539	448,500
States								
Alabama	727	1,336	36	18	712	1,318	545	1,781
Alaska	1	(D)	-	-	1	(D)	1	(D)
Arizona	199	65	-	-	199	65	80	38
Arkansas	414	1,101	36	35	395	1,066	227	1,121
California	1,782	335,133	490	297,357	1,344	37,776	1,769	332,839
Colorado	201	322	-	-	201	322	130	297
Connecticut	435	609	15	17	425	591	347	477
Delaware	82	115	1	(D)	82	(D)	46	115
Florida	339	40,437	16	560	329	39,877	218	45,648
Georgia	378	4,611	-	-	378	4,611	353	5,779
Hawaii	124	677	-	-	124	677	72	664
Idaho	110	44	1	(D)	109	(D)	65	23
Illinois	525	857	28	118	516	740	334	964
Indiana	600	8,868	64	8,421	554	447	511	9,056
Iowa	346	168	16	5	338	164	288	205
Kansas	219	127	-	-	219	127	159	111
Kentucky	1,142	899	74	28	1,102	871	659	911
Louisiana	264	222	42	12	235	210	239	370
Maine	363	166	15	5	352	161	330	161
Maryland	468	769	32	109	455	660	393	811
Massachusetts	539	577	10	3	532	575	422	450
Michigan	1,155	5,490	75	2,995	1,120	2,494	831	6,041
Minnesota	542	1,568	19	(D)	529	(D)	376	344
Mississippi	426	431	43	(D)	399	(D)	279	305
Missouri	687	551	51	46	652	505	484	401
Montana	119	48	-	-	119	48	57	25
Nebraska	154	91	8	1	147	90	79	114
Nevada	21	16	1	(D)	20	(D)	25	39
New Hampshire	247	153	2	(D)	245	(D)	161	128
New Jersey	789	4,130	12	1,353	782	2,777	815	4,677
New Mexico	327	189	23	10	308	179	136	61
New York	1,407	2,876	95	509	1,368	2,367	1,212	2,402
North Carolina	1,429	3,726	107	55	1,365	3,671	851	2,608
North Dakota	20	15	-	-	20	15	29	(D)
Ohio	1,351	7,368	127	4,805	1,272	2,563	1,083	8,963
Oklahoma	458	229	19	5	444	224	271	226
Oregon	506	355	11	13	504	342	553	388
Pennsylvania	1,737	3,458	98	1,470	1,670	1,988	1,436	4,328
Rhode Island	111	124	1	(D)	111	(D)	70	91
South Carolina	580	3,134	23	166	567	2,968	357	3,080
South Dakota	63	32	3	(D)	63	(D)	44	37
Tennessee	806	4,021	4	1	803	4,020	362	4,327
Texas	833	1,487	65	146	797	1,341	976	1,536
Utah	224	166	9	3	217	163	127	177
Vermont	216	91	11	(D)	210	(D)	148	85
Virginia	772	4,462	65	35	731	4,427	559	5,314
Washington	409	318	13	4	403	313	301	367
West Virginia	371	188	-	-	371	188	192	146
Wisconsin	779	406	-	-	779	406	532	449
Wyoming	12	(D)	-	-	12	(D)	5	(D)
TURNIPS								
United States Total								
United States	914	3,632	39	582	890	3,050	837	5,293
States								
Alabama	50	44	8	2	48	42	31	25
Alaska	4	1	-	-	4	1	8	(D)
Arizona	12	2	-	-	12	2	1	(D)
Arkansas	18	14	1	(D)	17	(D)	6	26
California	44	246	-	-	44	246	90	891
Colorado	2	(D)	-	-	2	(D)	9	140
Connecticut	8	(D)	-	-	8	(D)	11	12
Delaware	3	1	-	-	3	1	8	6
Florida	15	27	-	-	15	27	18	37
Georgia	32	361	1	(D)	31	(D)	30	220
Hawaii	5	1	-	-	5	1	9	13
Idaho	-	-	-	-	-	-	1	(D)
Illinois	34	22	-	-	34	22	30	123

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
TURNIPS - Con.								
States - Con.								
Indiana	14	(D)	1	(D)	14	(D)	14	(D)
Iowa	9	1	-	-	9	1	5	1
Kansas	18	17	-	-	18	17	7	27
Kentucky	32	7	-	-	32	7	18	10
Louisiana	28	24	3	1	26	23	13	24
Maine	9	14	-	-	9	14	9	1
Maryland	25	14	3	1	23	13	35	40
Massachusetts	24	58	-	-	24	58	15	45
Michigan	33	822	3	(D)	30	(D)	26	588
Minnesota	3	(D)	-	-	3	(D)	2	(D)
Mississippi	20	55	3	(D)	18	(D)	14	23
Missouri	38	53	-	-	38	53	26	53
Montana	1	(D)	-	-	1	(D)	-	-
Nebraska	3	1	-	-	3	1	2	(D)
New Hampshire	6	(D)	-	-	6	(D)	3	(D)
New Jersey	24	208	-	-	24	208	29	251
New Mexico	13	4	-	-	13	4	9	2
New York	43	89	4	1	42	88	18	65
North Carolina	72	271	2	(D)	70	(D)	75	294
Ohio	30	57	2	(D)	29	(D)	25	87
Oklahoma	21	36	1	(D)	20	(D)	11	(D)
Oregon	17	330	1	(D)	16	(D)	17	526
Pennsylvania	52	43	1	(D)	52	(D)	69	76
Rhode Island	-	-	-	-	-	-	1	(D)
South Carolina	38	45	1	(D)	37	(D)	24	425
Tennessee	18	154	1	(D)	17	(D)	20	165
Texas	39	236	2	(D)	37	(D)	52	579
Vermont	2	(D)	-	-	2	(D)	9	5
Virginia	17	12	-	-	17	12	19	57
Washington	3	(D)	-	-	3	(D)	7	54
West Virginia	15	6	-	-	15	6	3	(Z)
Wisconsin	19	6	-	-	19	6	7	4
Wyoming	1	(D)	1	(D)	-	-	1	(D)
TURNIP GREENS								
United States Total								
United States	836	9,365	58	2,361	792	7,005	860	10,546
States								
Alabama	134	495	3	1	131	494	103	579
Alaska	1	(D)	-	-	1	(D)	2	(D)
Arizona	7	(D)	-	-	7	(D)	4	120
Arkansas	38	(D)	4	(D)	35	97	42	707
California	9	(D)	-	-	9	(D)	21	523
Connecticut	5	3	-	-	5	3	3	(D)
Delaware	2	(D)	-	-	2	(D)	2	(D)
Florida	42	55	-	-	42	55	61	73
Georgia	59	2,777	2	(D)	57	(D)	88	4,129
Illinois	9	49	-	-	9	49	11	(D)
Indiana	5	14	-	-	5	14	9	26
Iowa	1	(D)	-	-	1	(D)	2	(D)
Kansas	7	4	-	-	7	4	4	(D)
Kentucky	23	14	-	-	23	14	20	27
Louisiana	27	35	2	(D)	27	(D)	33	54
Maine	-	-	-	-	-	-	1	(D)
Maryland	20	66	5	(D)	16	(D)	17	43
Massachusetts	5	1	-	-	5	1	2	(D)
Michigan	25	158	-	-	25	158	12	154
Minnesota	-	-	-	-	-	-	1	(D)
Mississippi	64	331	8	(D)	58	(D)	58	132
Missouri	8	1	-	-	8	1	7	14
Nebraska	-	-	-	-	-	-	1	(D)
New Jersey	14	173	-	-	14	173	16	115
New Mexico	-	-	-	-	-	-	7	1
New York	20	16	-	-	20	16	13	56
North Carolina	83	579	10	(D)	76	(D)	89	460
Ohio	13	230	-	-	13	230	12	(D)
Oklahoma	24	(D)	9	(D)	15	7	13	261
Pennsylvania	4	1	-	-	4	1	11	16
South Carolina	48	1,824	7	609	42	1,214	46	791
Tennessee	53	(D)	1	(D)	52	93	53	1,274
Texas	54	683	7	(D)	51	(D)	64	359
Vermont	-	-	-	-	-	-	2	(D)
Virginia	27	13	-	-	27	13	25	65
Wisconsin	5	2	-	-	5	2	5	(D)
WATERCRESS								
United States Total								
United States	62	679	1	(D)	61	(D)	60	699
States								
Arizona	2	(D)	-	-	2	(D)	-	-
California	17	151	-	-	17	151	21	258
Florida	6	426	-	-	6	426	10	341

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
WATERCRESS - Con.								
States - Con.								
Georgia	1	(D)	-	-	1	(D)	3	2
Hawaii	15	21	-	-	15	21	19	33
Indiana	1	(D)	1	(D)	-	-	-	-
Maryland	2	(D)	-	-	2	(D)	-	-
Massachusetts	-	-	-	-	-	-	2	(D)
Michigan	1	(D)	-	-	1	(D)	-	-
Minnesota	3	1	-	-	3	1	-	-
Missouri	-	-	-	-	-	-	1	(D)
New York	4	8	-	-	4	8	-	-
North Carolina	3	2	-	-	3	2	-	-
Ohio	1	(D)	-	-	1	(D)	-	-
Oregon	-	-	-	-	-	-	1	(D)
Tennessee	3	2	-	-	3	2	-	-
Texas	-	-	-	-	-	-	1	(D)
Virginia	2	(D)	-	-	2	(D)	1	(D)
West Virginia	1	(D)	-	-	1	(D)	1	(D)
WATERMELONS								
United States Total								
United States	12,808	142,359	27	271	12,804	142,089	10,121	164,525
States								
Alabama	732	3,051	-	-	732	3,051	716	5,860
Arizona	1,450	6,295	-	-	1,450	6,295	68	5,541
Arkansas	271	2,059	2	(D)	271	(D)	191	2,267
California	276	10,977	-	-	276	10,977	349	12,899
Colorado	78	679	-	-	78	679	94	615
Connecticut	35	25	-	-	35	25	40	33
Delaware	86	2,769	-	-	86	2,769	83	2,024
Florida	401	20,418	-	-	401	20,418	464	23,239
Georgia	564	21,460	-	-	564	21,460	648	22,709
Hawaii	4	(D)	-	-	4	(D)	14	631
Idaho	29	25	-	-	29	25	19	61
Illinois	116	1,044	-	-	116	1,044	120	1,457
Indiana	228	6,582	-	-	228	6,582	269	5,976
Iowa	88	823	1	(D)	88	(D)	80	372
Kansas	88	363	-	-	88	363	77	343
Kentucky	554	641	-	-	554	641	383	450
Louisiana	222	1,294	-	-	222	1,294	226	1,785
Maine	15	6	-	-	15	6	15	7
Maryland	273	2,295	-	-	273	2,295	196	2,122
Massachusetts	40	29	-	-	40	29	23	14
Michigan	194	1,014	-	-	194	1,014	178	584
Minnesota	279	208	-	-	279	208	87	163
Mississippi	485	2,406	-	-	485	2,406	418	4,003
Missouri	318	3,479	-	-	318	3,479	285	4,993
Montana	31	10	-	-	31	10	8	(D)
Nebraska	58	376	-	-	58	376	69	814
Nevada	9	13	-	-	9	13	11	9
New Hampshire	14	6	-	-	14	6	18	8
New Jersey	179	769	-	-	179	769	188	647
New Mexico	400	1,813	10	7	397	1,805	98	1,992
New York	125	(D)	-	-	125	(D)	98	128
North Carolina	1,242	5,888	9	5	1,242	5,883	940	6,220
North Dakota	16	14	-	-	16	14	11	24
Ohio	213	256	-	-	213	256	208	354
Oklahoma	329	4,186	-	-	329	4,186	311	5,307
Oregon	65	908	-	-	65	908	62	830
Pennsylvania	413	647	-	-	413	647	414	554
Rhode Island	8	2	-	-	8	2	4	2
South Carolina	671	6,474	3	(D)	671	(D)	542	7,405
South Dakota	49	255	-	-	49	255	35	342
Tennessee	383	606	-	-	383	606	235	738
Texas	920	28,984	1	(D)	920	(D)	1,206	38,824
Utah	121	524	-	-	121	524	93	246
Vermont	30	6	-	-	30	6	14	6
Virginia	374	972	-	-	374	972	325	1,133
Washington	53	754	1	(D)	52	(D)	40	597
West Virginia	89	28	-	-	89	28	19	13
Wisconsin	185	198	-	-	185	198	128	187
Wyoming	5	3	-	-	5	3	1	(D)
VEGETABLES, OTHER (SEE TEXT)								
United States Total								
United States	6,846	47,563	381	1,683	6,668	45,880	2,982	31,819
States								
Alabama	135	276	9	6	129	270	44	745
Alaska	31	62	-	-	31	62	-	-
Arizona	41	(D)	-	-	41	(D)	14	1,884
Arkansas	11	29	1	(D)	11	(D)	6	13
California	540	21,031	40	515	519	20,515	404	10,429
Colorado	38	105	1	(D)	37	(D)	28	1,024
Connecticut	154	273	8	14	150	259	10	18

See footnote(s) at end of table.

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Table 30. **Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007						2002 harvested	
	Harvested		Harvested for processing		Harvested for fresh market			
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
VEGETABLES, OTHER (SEE TEXT) - Con.								
States - Con.								
Delaware	20	(D)	7	(D)	20	31	7	(D)
Florida	123	2,667	22	19	111	2,649	65	2,007
Georgia	68	784	-	-	68	784	38	873
Hawaii	406	966	-	-	406	966	161	454
Idaho	43	37	-	-	43	37	13	16
Illinois	108	249	9	16	99	234	75	2,072
Indiana	124	787	6	(D)	122	(D)	65	161
Iowa	113	231	11	27	107	204	41	42
Kansas	46	63	2	(D)	46	(D)	19	27
Kentucky	179	291	24	(D)	173	(D)	56	69
Louisiana	69	100	15	23	60	77	11	4
Maine	238	(D)	1	(D)	237	(D)	27	44
Maryland	58	297	1	(D)	58	(D)	63	394
Massachusetts	250	736	5	6	245	729	32	168
Michigan	268	2,032	18	89	262	1,943	107	(D)
Minnesota	154	232	4	2	153	230	43	906
Mississippi	85	532	12	35	80	497	30	111
Missouri	100	393	15	85	87	308	46	85
Montana	49	28	-	-	49	28	4	2
Nebraska	25	38	-	-	25	38	15	23
Nevada	3	2	-	-	3	2	1	(D)
New Hampshire	82	129	-	-	82	129	11	7
New Jersey	258	2,354	-	-	258	2,354	135	1,716
New Mexico	140	445	8	8	139	437	12	(D)
New York	320	1,889	29	49	315	1,839	153	718
North Carolina	241	774	20	79	235	695	114	1,505
North Dakota	7	4	-	-	7	4	-	-
Ohio	258	811	34	93	236	718	98	500
Oklahoma	50	42	-	-	50	42	12	64
Oregon	157	504	14	56	152	449	122	321
Pennsylvania	401	1,556	16	52	395	1,504	154	614
Rhode Island	71	219	-	-	71	219	9	22
South Carolina	113	728	5	(D)	111	(D)	25	(D)
South Dakota	8	6	-	-	8	6	8	19
Tennessee	82	157	-	-	82	157	440	571
Texas	117	1,355	12	21	110	1,334	10	745
Utah	59	41	3	1	59	40	18	18
Vermont	129	249	4	(Z)	126	248	16	22
Virginia	144	216	14	8	137	208	76	172
Washington	384	1,468	9	12	377	1,456	92	627
West Virginia	101	130	2	(D)	101	(D)	33	43
Wisconsin	244	687	-	-	244	687	19	(D)
Wyoming	1	(D)	-	-	1	(D)	-	-

[1] 2002 data do not include potatoes, sweet potatoes, or ginseng.

Table 31. **Land in Orchards: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007				2002			
	Total		Irrigated		Total		Irrigated	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
UNITED STATES TOTAL								
United States	115,935	5,039,476	61,189	3,981,316	113,649	5,330,439	64,907	4,374,125
STATES								
Alabama	1,897	22,122	238	1,926	1,852	28,009	182	2,399
Alaska	10	18	2	(D)	10	16	4	(D)
Arizona	1,527	37,200	1,259	37,022	1,504	63,180	1,504	63,180
Arkansas	666	13,932	147	1,432	565	14,487	137	1,827
California	39,484	2,826,291	32,908	2,728,176	38,693	2,871,626	34,566	2,828,788
Colorado	877	6,986	877	6,986	673	6,008	673	6,008
Connecticut	338	3,672	55	391	300	3,478	42	317
Delaware	32	524	13	(D)	25	672	12	(D)
Florida	8,993	677,403	5,789	597,775	10,115	894,955	7,106	824,984
Georgia	3,745	129,921	897	57,565	4,273	145,602	982	70,333
Hawaii	4,443	36,652	1,134	9,830	2,833	34,908	810	12,090
Idaho	485	7,682	404	7,556	442	7,172	344	6,831
Illinois	871	6,032	55	436	830	8,168	67	975
Indiana	546	3,843	45	342	613	5,354	47	268
Iowa	743	2,724	62	153	493	3,141	26	(D)
Kansas	432	7,162	63	322	476	7,042	76	522
Kentucky	1,040	3,861	117	364	839	4,380	80	379
Louisiana	1,050	18,201	149	1,816	1,022	15,778	192	2,105
Maine	374	3,015	37	101	415	4,037	62	358
Maryland	472	4,542	90	899	441	4,931	66	608
Massachusetts	458	5,416	86	766	384	5,426	79	698
Michigan	2,712	115,284	530	10,897	2,601	118,166	478	13,264
Minnesota	814	4,979	128	612	569	4,148	93	881
Mississippi	937	15,948	138	2,362	1,100	15,230	127	1,598
Missouri	1,345	22,447	214	2,428	1,267	21,755	150	2,491
Montana	389	1,491	288	1,173	386	1,740	296	1,399
Nebraska	339	1,500	140	456	231	1,080	87	282
Nevada	79	460	79	460	73	420	73	420
New Hampshire	263	2,285	34	185	204	2,658	34	222
New Jersey	718	10,537	177	6,407	721	12,155	156	6,437
New Mexico	2,783	43,859	2,450	40,082	2,824	43,182	2,761	42,597
New York	2,686	100,035	393	11,038	2,753	99,148	364	10,439
North Carolina	1,551	13,724	294	2,196	1,211	13,406	224	2,154
North Dakota	41	118	7	(D)	10	16	1	(D)
Ohio	1,462	10,367	115	639	1,654	13,144	192	922
Oklahoma	4,036	143,892	352	3,803	3,279	88,088	295	1,981
Oregon	4,004	99,614	1,660	49,575	4,109	96,243	1,893	53,695
Pennsylvania	2,686	46,560	286	3,897	2,370	50,287	288	5,561
Rhode Island	100	580	34	178	72	464	24	151
South Carolina	1,125	22,185	176	10,240	1,297	24,389	237	11,825
South Dakota	113	550	36	210	47	213	11	132
Tennessee	786	2,866	102	341	688	3,288	48	331
Texas	8,848	215,794	2,788	69,461	9,567	224,271	3,769	75,189
Utah	805	8,058	607	7,791	593	8,254	565	8,068
Vermont	310	3,547	36	344	261	3,552	37	303
Virginia	1,277	19,713	218	2,634	1,281	26,354	230	2,531
Washington	5,470	299,174	5,281	298,380	6,108	311,194	5,286	306,735
West Virginia	613	6,909	40	96	550	9,495	34	207
Wisconsin	1,135	9,730	138	1,055	1,009	9,683	82	1,178
Wyoming	25	73	21	67	16	48	15	(D)

Table 32. **Fruits and Nuts: 2007 and 2002**

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
NONCITRUS, ALL (SEE TEXT)						
United States Total						
United States 2007	72,757	2,176,511	65,697	1,948,205	27,375	228,307
2002	67,113	2,322,905	57,021	2,045,359	31,087	277,547
States, 2007						
Alabama	703	3,917	563	3,248	293	668
Alaska	10	18	10	(D)	3	(D)
Arizona	1,005	5,029	883	3,970	219	1,059
Arkansas	393	2,384	322	2,000	164	384
California	24,910	1,312,994	23,669	1,190,005	7,817	122,989
Colorado	864	6,805	745	5,562	369	1,243
Connecticut	334	3,633	312	3,247	114	387
Delaware	32	524	30	477	22	48
Florida	2,344	13,460	2,090	11,659	756	1,801
Georgia	792	15,613	697	12,007	325	3,606
Hawaii	3,903	18,021	3,674	14,487	1,274	3,534
Idaho	471	7,632	402	6,869	169	763
Illinois	765	5,391	642	4,456	378	935
Indiana	455	3,344	392	2,763	221	582
Iowa	667	2,054	520	1,445	315	609
Kansas	245	935	201	692	122	242
Kentucky	931	2,751	683	2,012	455	739
Louisiana	212	624	187	523	76	101
Maine	372	2,994	337	2,658	162	336
Maryland	451	4,419	401	3,768	155	651
Massachusetts	450	5,400	409	4,928	189	472
Michigan	2,581	113,624	2,356	96,398	1,234	17,226
Minnesota	789	4,515	646	3,488	444	1,026
Mississippi	340	(D)	277	1,130	139	(D)
Missouri	854	6,462	674	4,978	395	1,485
Montana	389	1,486	363	1,181	147	305
Nebraska	301	1,112	226	767	166	345
Nevada	66	(D)	52	208	26	(D)
New Hampshire	261	2,278	226	2,092	111	186
New Jersey	692	10,419	632	9,290	244	1,129
New Mexico	1,093	(D)	1,010	3,301	324	(D)
New York	2,639	99,658	2,447	91,627	1,070	8,031
North Carolina	1,349	12,318	1,149	10,154	588	2,164
North Dakota	41	(D)	32	(D)	22	(D)
Ohio	1,395	9,681	1,245	8,342	551	1,339
Oklahoma	585	2,032	453	1,465	264	567
Oregon	3,171	64,125	2,927	55,260	1,231	8,865
Pennsylvania	2,613	46,131	2,265	41,358	1,117	4,772
Rhode Island	100	580	98	543	27	37
South Carolina	630	17,495	551	14,827	216	2,667
South Dakota	111	(D)	86	337	72	(D)
Tennessee	759	2,696	605	2,057	367	640
Texas	2,298	12,232	1,791	8,935	1,048	3,297
Utah	778	7,872	727	6,751	231	1,121
Vermont	305	3,480	265	2,921	164	559
Virginia	1,204	19,054	1,002	16,948	539	2,105
Washington	5,363	298,587	5,128	273,824	1,941	24,763
West Virginia	584	6,771	358	5,687	430	1,084
Wisconsin	1,132	9,719	918	7,436	654	2,283
Wyoming	25	73	19	53	15	20
APPLES						
United States Total						
United States 2007	25,591	398,770	21,716	360,195	9,740	38,575
2002	26,853	464,025	21,084	401,706	12,344	62,319
States, 2007						
Alabama	231	393	144	307	121	86
Alaska	10	15	10	(D)	2	(D)
Arizona	496	1,344	424	1,249	111	95
Arkansas	153	287	116	220	63	67
California	2,074	22,184	1,850	20,954	536	1,230
Colorado	468	1,938	387	1,719	159	219
Connecticut	248	2,421	228	2,191	66	231
Delaware	23	(D)	19	(D)	20	(D)
Florida	126	105	82	40	64	65
Georgia	286	795	212	601	114	195
Hawaii	9	(D)	8	3	6	(D)
Idaho	321	3,021	276	2,807	94	214
Illinois	444	2,416	367	1,979	199	437
Indiana	265	2,106	233	1,839	107	267
Iowa	364	1,085	294	920	128	165
Kansas	147	333	122	245	53	88
Kentucky	623	1,268	465	964	248	304
Louisiana	35	39	21	29	18	10
Maine	345	2,883	314	2,595	136	288
Maryland	252	2,330	230	2,064	66	267
Massachusetts	369	4,287	330	3,938	151	349
Michigan	1,772	44,189	1,588	39,553	746	4,635
Minnesota	569	3,645	478	2,950	277	695
Mississippi	80	145	44	100	44	45
Missouri	438	2,179	338	1,819	174	360
Montana	186	340	159	219	65	121
Nebraska	125	(D)	84	(D)	62	67

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
APPLES - Con.						
States, 2007 - Con.						
Nevada	35	138	24	94	18	44
New Hampshire	215	2,070	184	1,912	93	158
New Jersey	471	2,112	427	1,859	138	253
New Mexico	807	2,057	723	1,769	235	288
New York	1,350	49,966	1,188	44,916	643	5,050
North Carolina	673	7,583	548	6,803	277	780
North Dakota	21	45	9	33	13	12
Ohio	1,000	5,970	893	5,296	342	675
Oklahoma	178	131	118	92	79	39
Oregon	1,330	6,234	1,191	5,562	352	672
Pennsylvania	1,886	23,552	1,575	20,791	772	2,761
Rhode Island	73	384	69	354	20	30
South Carolina	205	566	143	482	84	84
South Dakota	60	362	42	238	38	125
Tennessee	543	1,330	415	1,062	227	268
Texas	437	441	256	278	237	163
Utah	457	1,637	427	1,416	101	221
Vermont	264	3,241	235	2,806	124	435
Virginia	626	13,774	462	12,619	285	1,155
Washington	3,052	165,215	2,912	152,334	979	12,880
West Virginia	494	5,104	272	4,424	346	680
Wisconsin	935	6,406	768	5,136	495	1,270
Wyoming	20	54	12	44	12	10
APRICOTS						
United States Total						
United States 2007	3,141	13,750	2,458	12,830	952	920
2002	2,698	18,191	2,015	16,478	1,008	1,713
States, 2007						
Alabama	10	2	1	(D)	9	(D)
Arizona	382	127	337	106	50	21
Arkansas	12	2	7	(D)	7	(D)
California	775	11,290	670	10,683	221	607
Colorado	128	98	104	85	31	13
Connecticut	7	3	7	3	-	-
Florida	7	(D)	4	1	3	(D)
Georgia	12	(D)	5	(D)	7	2
Idaho	98	90	82	88	18	2
Illinois	57	10	20	4	45	6
Indiana	21	13	9	7	15	6
Iowa	38	8	22	4	17	4
Kansas	29	8	17	4	12	4
Kentucky	27	5	16	(D)	13	(D)
Louisiana	4	(D)	-	-	4	(D)
Maine	4	(Z)	1	(D)	3	(D)
Maryland	26	10	24	9	7	1
Massachusetts	22	9	14	(D)	9	(D)
Michigan	122	107	96	91	40	17
Minnesota	35	10	26	6	11	4
Mississippi	9	1	5	(D)	4	(D)
Missouri	19	3	13	2	7	1
Montana	43	15	30	10	19	5
Nebraska	32	9	14	(D)	20	(D)
Nevada	17	12	10	11	9	1
New Hampshire	2	(D)	2	(D)	-	-
New Jersey	13	25	13	(D)	1	(D)
New Mexico	147	76	136	74	14	3
New York	71	98	58	(D)	27	(D)
North Carolina	11	1	3	(Z)	8	1
North Dakota	4	(D)	4	(D)	-	-
Ohio	21	11	11	(D)	11	(D)
Oklahoma	24	26	9	(D)	16	(D)
Oregon	69	54	55	50	18	4
Pennsylvania	125	68	96	56	35	12
Rhode Island	1	(D)	1	(D)	-	-
South Carolina	9	3	5	(D)	5	(D)
South Dakota	7	2	5	1	4	1
Tennessee	11	3	6	1	5	2
Texas	86	37	39	14	51	23
Utah	212	199	187	179	41	21
Vermont	1	(D)	1	(D)	-	-
Virginia	41	10	22	6	21	4
Washington	316	1,287	248	1,181	98	106
West Virginia	10	(D)	5	(D)	6	(D)
Wisconsin	22	7	18	(D)	8	(D)
Wyoming	2	(D)	-	-	2	(D)

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
AVOCADOS						
United States Total						
United States 2007	8,245	82,647	7,670	72,747	2,855	9,900
2002	6,251	75,570	5,680	66,430	2,388	9,140
States, 2007						
Arizona	1	(D)	-	-	1	(D)
California	6,230	74,767	5,906	65,453	2,322	9,314
Florida	951	6,861	894	6,523	200	338
Hawaii	1,047	974	858	735	326	240
Texas	16	(D)	12	36	6	(D)
BANANAS						
United States Total						
United States 2007	1,326	2,547	1,175	2,100	355	447
2002	765	1,975	628	1,683	231	293
States, 2007						
California	15	44	4	(D)	11	(D)
Florida	134	280	121	239	47	42
Hawaii	1,173	2,217	1,048	1,860	294	357
Texas	4	6	2	(D)	3	(D)
CHERRIES, SWEET						
United States Total						
United States 2007	8,051	100,705	6,687	84,040	2,980	16,665
2002	8,043	91,735	6,259	72,380	3,632	19,356
States, 2007						
Alabama	18	2	5	1	13	1
Alaska	1	(D)	1	(D)	-	-
Arizona	63	59	48	54	20	5
Arkansas	12	2	7	1	7	1
California	1,291	30,433	1,115	24,091	450	6,341
Colorado	139	297	118	216	28	81
Connecticut	28	12	25	(D)	3	(D)
Delaware	6	(D)	6	(D)	6	(D)
Florida	12	2	4	1	11	1
Georgia	26	10	10	7	17	4
Idaho	135	930	112	851	35	79
Illinois	81	18	42	8	50	10
Indiana	29	11	18	5	13	6
Iowa	51	12	35	6	20	7
Kansas	29	14	15	6	14	9
Kentucky	98	26	52	16	50	10
Louisiana	1	(D)	-	-	1	(D)
Maine	13	2	12	(D)	5	(D)
Maryland	81	107	69	88	23	20
Massachusetts	41	25	24	17	19	8
Michigan	683	9,295	593	8,167	267	1,128
Minnesota	17	5	8	1	10	4
Mississippi	6	1	2	(D)	4	(D)
Missouri	37	12	17	7	22	5
Montana	249	942	231	789	83	152
Nebraska	31	10	13	3	21	7
Nevada	17	8	12	7	9	1
New Hampshire	19	(D)	15	(D)	4	(D)
New Jersey	66	54	52	39	16	15
New Mexico	111	110	97	102	23	9
New York	301	819	263	713	99	107
North Carolina	71	25	42	15	32	11
North Dakota	5	1	4	(D)	1	(D)
Ohio	150	63	95	44	73	19
Oklahoma	17	8	10	2	7	6
Oregon	896	17,288	798	14,110	338	3,178
Pennsylvania	460	449	350	350	158	99
Rhode Island	1	(D)	1	(D)	-	-
South Carolina	26	11	19	8	12	3
South Dakota	3	(D)	1	(D)	3	(D)
Tennessee	59	22	36	14	25	7
Texas	17	4	9	1	8	3
Utah	185	621	158	551	51	69
Vermont	6	(D)	2	(D)	6	(D)
Virginia	128	58	59	23	76	35
Washington	2,160	38,811	1,992	33,633	742	5,179
West Virginia	98	31	39	14	65	17
Wisconsin	77	84	51	59	40	25

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
CHERRIES, TART						
United States Total						
United States 2007	3,028	49,561	2,309	37,412	1,264	12,149
2002	2,955	47,138	2,190	38,419	1,330	8,719
States, 2007						
Alabama	4	2	2	(D)	3	(D)
Alaska	1	(D)	1	(D)	1	(D)
Arizona	33	14	19	9	15	5
Arkansas	5	1	3	(Z)	4	1
California	38	19	28	13	14	7
Colorado	93	189	72	146	30	42
Connecticut	10	3	6	2	4	1
Florida	1	(D)	1	(D)	-	-
Georgia	16	3	12	2	4	1
Idaho	37	(D)	34	7	6	(D)
Illinois	73	19	44	13	32	7
Indiana	24	14	14	7	11	7
Iowa	70	17	48	11	24	6
Kansas	32	11	15	5	20	5
Kentucky	104	25	72	15	39	11
Louisiana	1	(D)	1	(D)	-	-
Maine	22	12	12	3	10	9
Maryland	69	52	58	38	12	14
Massachusetts	24	9	19	8	7	1
Michigan	704	37,799	636	28,095	358	9,704
Minnesota	59	20	38	9	25	11
Mississippi	2	(D)	-	-	2	(D)
Missouri	30	6	21	4	11	2
Montana	44	97	35	90	10	7
Nebraska	35	13	17	7	19	6
Nevada	7	2	3	(D)	6	(D)
New Hampshire	17	4	17	4	-	-
New Jersey	33	29	25	21	13	8
New Mexico	36	23	35	(D)	2	(D)
New York	201	2,041	169	1,612	89	429
North Carolina	47	10	31	6	17	4
North Dakota	4	1	2	(D)	4	(D)
Ohio	112	44	74	27	41	17
Oklahoma	17	4	7	(D)	11	(D)
Oregon	136	821	112	(D)	31	(D)
Pennsylvania	283	843	204	620	110	224
South Carolina	31	12	23	10	10	2
South Dakota	15	11	10	9	8	2
Tennessee	45	12	28	8	21	5
Texas	12	4	6	2	7	3
Utah	81	3,284	75	2,813	25	472
Vermont	16	8	9	4	8	4
Virginia	83	41	43	21	43	20
Washington	130	1,444	103	1,241	39	203
West Virginia	60	22	24	11	45	11
Wisconsin	127	2,567	101	1,837	69	730
Wyoming	4	(D)	-	-	4	(D)
COFFEE						
United States Total						
United States 2007	1,521	7,891	1,404	6,652	439	1,238
2002	1,202	7,986	1,123	6,568	375	1,418
States, 2007						
Hawaii	1,521	7,891	1,404	6,652	439	1,238
DATES						
United States Total						
United States 2007	168	7,669	140	(D)	92	(D)
2002	209	7,585	187	5,710	104	1,874
States, 2007						
Arizona	17	1,354	16	(D)	7	(D)
California	151	6,315	124	5,131	85	1,184
FIGS						
United States Total						
United States 2007	1,101	9,739	828	9,315	357	423
2002	812	14,274	627	13,772	258	502
States, 2007						
Alabama	93	38	75	24	26	14
Arizona	7	(D)	5	(D)	2	(D)
Arkansas	1	(D)	1	(D)	-	-
California	302	9,384	240	9,069	85	315
Florida	64	17	45	13	23	4
Georgia	95	34	76	28	26	7
Kentucky	11	1	6	1	5	1

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
FIGS - Con.						
States, 2007 - Con.						
Louisiana	49	31	38	21	23	9
Maryland	18	(D)	15	(D)	3	(D)
Mississippi	34	17	20	5	15	12
Nevada	1	(D)	1	(D)	-	-
New Mexico	4	(D)	2	(D)	2	(D)
North Carolina	57	13	45	9	14	4
Oklahoma	6	2	5	(D)	2	(D)
Oregon	88	20	66	13	25	7
South Carolina	74	22	64	20	14	2
Tennessee	19	2	14	2	5	1
Texas	122	(D)	76	(D)	63	41
Virginia	17	5	12	4	7	1
Washington	38	6	21	3	17	3
West Virginia	1	(D)	1	(D)	-	-
GRAPES						
United States Total						
United States 2007	25,892	1,051,407	22,947	973,638	8,509	77,769
2002	23,856	1,060,295	19,819	965,114	9,844	95,180
States, 2007						
Alabama	284	468	205	345	117	123
Arizona	127	400	101	229	44	171
Arkansas	149	747	117	680	52	67
California	11,623	868,330	11,115	809,281	3,020	59,048
Colorado	248	1,167	193	805	109	362
Connecticut	104	503	97	399	37	104
Delaware	9	33	7	(D)	3	(D)
Florida	329	916	295	767	109	149
Georgia	427	1,646	380	1,226	132	420
Hawaii	5	36	4	(D)	3	(D)
Idaho	174	1,490	139	1,193	58	297
Illinois	316	979	258	754	136	225
Indiana	130	487	103	402	67	86
Iowa	335	797	219	403	183	394
Kansas	97	299	80	210	50	89
Kentucky	385	618	279	407	171	211
Louisiana	69	93	57	71	21	22
Maine	57	35	41	21	21	15
Maryland	164	512	135	372	69	141
Massachusetts	76	182	65	163	30	19
Michigan	711	14,701	649	14,026	193	675
Minnesota	277	717	177	428	184	289
Mississippi	115	652	99	570	36	82
Missouri	393	1,773	305	1,342	167	430
Montana	34	44	27	38	15	6
Nebraska	216	611	158	403	125	208
Nevada	34	68	26	38	10	30
New Hampshire	47	48	40	39	13	8
New Jersey	192	1,043	170	878	62	165
New Mexico	227	1,103	201	930	71	173
New York	1,438	42,544	1,365	40,675	389	1,869
North Carolina	660	3,185	555	2,100	255	1,085
North Dakota	19	23	16	15	9	7
Ohio	422	1,842	362	1,554	133	288
Oklahoma	261	597	170	327	145	270
Oregon	1,380	18,192	1,239	14,754	493	3,438
Pennsylvania	812	14,113	664	13,570	263	543
Rhode Island	19	129	18	125	4	5
South Carolina	258	463	218	387	72	77
South Dakota	60	151	44	80	38	71
Tennessee	297	580	225	367	129	213
Texas	570	3,835	395	2,961	316	874
Utah	121	61	109	46	19	15
Vermont	45	167	29	66	35	102
Virginia	517	3,258	434	2,661	251	597
Washington	1,219	61,056	1,086	57,025	393	4,030
West Virginia	180	222	94	167	106	55
Wisconsin	253	479	175	278	148	200
Wyoming	7	16	7	(D)	3	(D)
GUAVAS						
United States Total						
United States 2007	487	883	441	799	106	84
2002	308	1,213	239	959	95	254
States, 2007						
California	127	270	112	247	26	23
Florida	103	193	89	(D)	34	(D)
Hawaii	253	417	236	389	45	28
Texas	4	3	4	(D)	1	(D)

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
KIWIFRUIT						
United States Total						
United States 2007	430	4,509	373	4,307	96	202
2002	474	4,984	425	4,594	129	390
States, 2007						
Alabama	5	4	3	(D)	3	(D)
California	265	4,375	244	4,201	54	175
Florida	5	(D)	5	(D)	-	-
Georgia	2	(D)	2	(D)	1	(D)
Kentucky	5	1	1	(D)	4	(D)
Maryland	1	(D)	1	(D)	-	-
Mississippi	1	(D)	-	-	1	(D)
North Carolina	11	2	7	2	4	(Z)
Oklahoma	3	15	3	15	-	-
Oregon	60	67	55	50	7	17
South Carolina	6	11	5	(D)	1	(D)
Tennessee	3	(Z)	3	(Z)	-	-
Virginia	10	1	6	1	4	1
Washington	47	30	37	24	12	6
West Virginia	6	1	1	(D)	5	(D)
MANGOES						
United States Total						
United States 2007	877	2,259	736	1,845	289	413
2002	623	1,938	464	1,600	267	338
States, 2007						
California	19	(D)	13	(D)	9	(D)
Florida	418	1,212	377	1,009	113	203
Hawaii	438	(D)	345	(D)	165	205
Texas	2	(D)	1	(D)	2	(D)
NECTARINES						
United States Total						
United States 2007	2,269	31,846	1,864	28,432	737	3,414
2002	2,261	45,645	1,845	39,159	901	6,486
States, 2007						
Alabama	29	50	21	41	12	10
Arizona	12	2	10	(D)	2	(D)
Arkansas	17	18	13	14	5	4
California	743	28,431	674	25,508	230	2,923
Colorado	48	40	39	(D)	15	(D)
Connecticut	19	24	16	21	5	3
Delaware	3	11	3	(D)	1	(D)
Florida	21	20	12	17	13	3
Georgia	25	34	15	26	16	7
Idaho	37	137	27	(D)	12	(D)
Illinois	28	19	22	17	11	2
Indiana	18	16	7	8	13	8
Iowa	9	3	9	(D)	1	(D)
Kansas	11	12	6	5	7	7
Kentucky	40	19	26	16	14	3
Louisiana	6	4	2	(D)	4	(D)
Maine	5	1	5	(D)	1	(D)
Maryland	41	55	39	53	7	2
Massachusetts	40	51	31	(D)	9	(D)
Michigan	104	139	89	125	32	14
Mississippi	5	1	1	(D)	4	(D)
Missouri	18	5	13	4	6	1
Nebraska	5	(D)	4	(D)	1	(D)
Nevada	4	(Z)	3	(D)	1	(D)
New Hampshire	5	(D)	5	(D)	-	-
New Jersey	49	358	47	296	13	62
New Mexico	13	3	11	2	4	1
New York	98	117	90	103	31	14
North Carolina	35	22	21	19	14	3
Ohio	44	23	29	17	18	6
Oklahoma	18	18	15	18	6	1
Oregon	70	60	54	50	20	10
Pennsylvania	205	421	175	384	51	37
Rhode Island	6	(D)	6	3	1	(D)
South Carolina	32	33	17	31	16	3
Tennessee	21	15	19	14	3	1
Texas	27	16	15	11	16	5
Utah	49	27	43	25	7	2
Vermont	1	(D)	1	(D)	-	-
Virginia	54	97	31	81	26	16
Washington	226	1,511	187	1,302	68	209
West Virginia	25	26	10	20	19	6
Wisconsin	3	(D)	1	(D)	2	(D)

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
OLIVES						
United States Total						
United States 2007	1,696	39,540	1,470	31,217	509	8,324
2002	1,549	39,591	1,352	36,526	503	3,064
States, 2007						
Arizona	5	(D)	4	(D)	2	(D)
California	1,660	38,142	1,455	29,986	483	8,156
Oregon	8	13	2	(D)	8	(D)
Texas	23	(D)	9	(D)	16	134
PAPAYAS						
United States Total						
United States 2007	586	2,501	520	1,926	188	575
2002	451	3,001	398	2,231	176	769
States, 2007						
California	1	(D)	1	(D)	-	-
Florida	68	(D)	60	(D)	8	(D)
Hawaii	515	2,318	457	1,788	179	530
Texas	2	(D)	2	(D)	1	(D)
PASSION FRUIT						
United States Total						
United States 2007	129	93	121	(D)	21	(D)
2002	66	53	43	32	25	21
States, 2007						
California	5	(D)	5	(D)	2	(D)
Florida	19	43	19	(D)	1	(D)
Hawaii	104	29	96	22	17	7
Texas	1	(D)	1	(D)	1	(D)
PEACHES, ALL (SEE TEXT)						
United States Total						
United States 2007	13,582	149,237	11,102	126,226	5,094	23,014
2002	14,526	184,495	11,062	156,327	6,544	28,168
States, 2007						
Alabama	293	2,593	213	2,259	137	334
Arizona	68	215	39	156	39	60
Arkansas	235	1,240	194	1,025	89	215
California	2,005	66,408	1,834	57,546	632	8,862
Colorado	381	2,663	328	2,220	152	443
Connecticut	142	445	133	408	32	36
Delaware	12	212	11	(D)	9	(D)
Florida	145	234	104	136	64	98
Georgia	279	12,356	232	9,602	114	2,754
Hawaii	5	(D)	5	(D)	-	-
Idaho	142	1,171	120	1,117	40	54
Illinois	296	1,799	220	1,603	126	196
Indiana	119	565	96	419	67	147
Iowa	114	36	86	23	41	13
Kansas	98	213	77	183	33	30
Kentucky	353	584	244	477	136	107
Louisiana	66	294	55	270	22	25
Maine	38	15	27	8	18	7
Maryland	182	1,079	165	928	36	151
Massachusetts	206	498	189	431	67	67
Michigan	682	5,400	583	4,605	252	797
Minnesota	14	5	10	3	4	2
Mississippi	121	372	78	290	66	83
Missouri	352	2,314	269	1,677	148	637
Montana	33	12	26	8	12	4
Nebraska	54	32	24	9	33	24
Nevada	25	35	16	24	15	11
New Hampshire	86	123	78	105	16	18
New Jersey	249	6,370	229	5,791	78	579
New Mexico	342	245	304	221	69	24
New York	439	2,157	380	1,871	171	286
North Carolina	384	1,317	319	1,097	137	221
Ohio	483	1,309	393	1,065	194	244
Oklahoma	268	929	203	739	107	191
Oregon	365	900	305	745	131	155
Pennsylvania	970	5,246	820	4,430	374	816
Rhode Island	38	45	36	(D)	4	(D)
South Carolina	283	16,160	241	13,706	101	2,454
South Dakota	5	1	4	1	3	1
Tennessee	253	613	202	505	87	108
Texas	1,382	5,851	1,032	4,257	588	1,595
Utah	397	1,792	357	1,505	113	287
Vermont	30	23	22	(D)	12	(D)
Virginia	363	1,484	264	1,283	153	201
Washington	482	2,698	390	2,302	170	396

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
PEACHES, ALL (SEE TEXT) - Con.						
States, 2007 - Con.						
West Virginia	256	1,165	116	914	179	250
Wisconsin	46	18	28	(D)	23	(D)
Wyoming	1	(D)	1	(D)	-	-
PEARS, ALL						
United States Total						
United States 2007	9,878	68,216	7,882	62,995	3,100	5,224
2002	10,809	80,801	7,884	71,483	4,506	9,318
States, 2007						
Alabama	202	144	135	87	78	57
Arizona	107	53	86	40	27	12
Arkansas	96	67	71	50	36	17
California	739	15,859	631	14,818	203	1,041
Colorado	152	353	124	294	33	58
Connecticut	96	177	85	167	19	10
Delaware	10	1	10	(D)	1	(D)
Florida	135	134	107	94	43	39
Georgia	187	450	136	383	77	67
Hawaii	3	1	-	-	3	1
Idaho	143	164	115	157	30	7
Illinois	130	85	77	48	60	37
Indiana	81	58	60	38	31	21
Iowa	121	39	82	27	46	12
Kansas	71	32	57	(D)	18	(D)
Kentucky	255	114	169	79	98	35
Louisiana	65	35	48	20	24	15
Maine	81	31	59	20	28	10
Maryland	110	150	92	101	24	49
Massachusetts	109	288	91	274	23	14
Michigan	437	1,045	343	919	137	129
Minnesota	66	21	46	16	20	6
Mississippi	116	77	76	48	55	28
Missouri	192	82	156	61	61	21
Montana	61	21	47	14	20	7
Nebraska	46	19	20	11	30	9
Nevada	22	10	14	(D)	13	(D)
New Hampshire	33	16	30	(D)	3	(D)
New Jersey	172	312	151	293	42	18
New Mexico	202	116	186	109	29	7
New York	375	1,510	316	1,322	120	188
North Carolina	174	66	124	47	66	19
Ohio	285	177	219	127	91	50
Oklahoma	119	212	88	184	48	28
Oregon	888	18,416	795	17,341	248	1,075
Pennsylvania	647	1,041	500	855	202	187
Rhode Island	12	8	12	(D)	1	(D)
South Carolina	144	92	109	67	46	25
South Dakota	14	7	5	(D)	12	(D)
Tennessee	184	83	132	56	66	27
Texas	548	545	378	398	215	147
Utah	189	147	161	125	43	22
Vermont	34	26	23	(D)	15	(D)
Virginia	197	171	115	127	94	43
Washington	1,530	25,514	1,430	23,924	364	1,590
West Virginia	147	148	63	107	96	42
Wisconsin	147	101	108	68	57	33
Wyoming	4	(Z)	-	-	4	(Z)
PERSIMMONS						
United States Total						
United States 2007	1,505	4,191	1,195	3,451	526	741
2002	1,425	4,855	1,161	3,602	518	1,252
States, 2007						
Alabama	49	32	39	21	17	11
Arizona	1	(D)	-	-	1	(D)
Arkansas	3	(D)	3	(D)	-	-
California	745	3,236	686	2,906	165	329
Connecticut	4	2	3	(D)	1	(D)
Florida	110	288	95	228	48	60
Georgia	65	138	42	30	34	108
Hawaii	52	55	43	49	15	6
Idaho	1	(D)	-	-	1	(D)
Illinois	17	9	12	6	5	2
Indiana	24	31	13	11	17	19
Iowa	13	2	6	(D)	7	(D)
Kansas	8	2	3	(D)	5	(D)
Kentucky	33	24	16	6	20	18
Louisiana	29	21	22	15	14	6
Maryland	14	7	10	5	8	2
Michigan	11	6	3	3	10	3
Mississippi	21	20	17	15	9	5
Missouri	15	11	10	6	6	5
Nebraska	1	(D)	1	(D)	-	-
New Jersey	7	2	5	(D)	3	(D)

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
PERSIMMONS - Con.						
States, 2007 - Con.						
New York	3	(D)	2	(D)	1	(D)
North Carolina	37	26	17	5	22	21
Ohio	6	2	4	(D)	2	(D)
Oklahoma	9	8	5	5	5	4
Oregon	29	7	21	4	8	3
Pennsylvania	27	11	16	7	13	4
South Carolina	29	16	20	12	13	4
Tennessee	7	3	5	1	4	2
Texas	84	204	50	88	46	116
Virginia	25	17	17	16	9	2
Washington	6	1	1	(D)	5	(D)
West Virginia	20	9	8	2	12	7
PLUOTS (SEE TEXT)						
United States Total						
United States 2007	308	4,332	258	3,843	97	489
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
States, 2007						
California	249	4,137	213	3,701	76	436
Idaho	5	11	3	11	4	(Z)
Oregon	9	5	4	1	5	4
Washington	45	179	38	130	12	50
PLUMS AND PRUNES						
United States Total						
United States 2007	6,987	109,319	5,623	97,901	2,294	11,420
2002	7,300	148,839	5,476	130,054	3,166	18,784
States, 2007						
Alabama	135	111	99	87	50	24
Alaska	1	(D)	1	(D)	-	-
Arizona	52	14	38	11	16	3
Arkansas	28	13	23	6	11	7
California	2,024	102,860	1,884	92,479	651	10,381
Colorado	118	57	97	41	31	17
Connecticut	45	37	42	36	7	1
Delaware	1	(D)	1	(D)	-	-
Florida	85	36	54	19	37	17
Georgia	92	88	62	63	38	25
Idaho	152	610	134	541	27	69
Illinois	82	24	61	17	31	7
Indiana	38	16	16	8	22	8
Iowa	59	16	42	10	19	6
Kansas	31	11	19	7	13	4
Kentucky	112	29	61	14	51	15
Louisiana	47	23	35	18	13	6
Maine	40	11	27	(D)	14	(D)
Maryland	63	38	55	36	10	3
Massachusetts	69	39	56	33	19	5
Michigan	313	907	238	789	116	118
Minnesota	79	55	66	42	25	13
Mississippi	35	22	25	16	13	6
Missouri	117	31	82	22	42	10
Montana	50	15	40	11	17	4
Nebraska	32	19	17	9	22	10
Nevada	15	5	10	(D)	9	(D)
New Hampshire	18	(D)	16	(D)	4	(D)
New Jersey	54	56	48	36	15	21
New Mexico	133	60	121	48	22	13
New York	208	367	178	310	62	57
North Carolina	90	32	63	20	31	12
North Dakota	7	4	4	(D)	5	(D)
Ohio	119	70	90	56	43	14
Oklahoma	93	64	63	49	43	15
Oregon	546	1,921	477	1,798	97	123
Pennsylvania	332	235	265	174	97	61
Rhode Island	5	(D)	5	(D)	-	-
South Carolina	87	69	65	56	29	13
South Dakota	9	7	8	6	4	1
Tennessee	75	32	60	26	19	6
Texas	491	423	312	283	221	139
Utah	107	33	84	24	28	10
Vermont	15	9	7	6	9	3
Virginia	98	49	51	25	50	23
Washington	418	699	329	589	118	111
West Virginia	70	36	30	21	46	15
Wisconsin	93	57	62	39	43	18
Wyoming	4	(D)	-	-	4	(D)

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
POMEGRANATES						
United States Total						
United States 2007	599	24,517	432	12,103	291	12,415
2002	369	9,535	312	4,044	109	5,491
States, 2007						
Arizona	11	24	5	(D)	6	(D)
California	517	24,458	379	12,057	256	12,401
Florida	6	(D)	4	(D)	3	(Z)
Georgia	8	4	6	(D)	2	(D)
Hawaii	4	(D)	2	(D)	2	(D)
Louisiana	6	2	5	(D)	1	(D)
Mississippi	1	(D)	-	-	1	(D)
Nevada	6	9	6	9	-	-
New Mexico	2	(D)	2	(D)	-	-
North Carolina	4	2	-	-	4	2
Texas	18	12	14	8	8	4
Utah	13	4	9	2	5	2
Washington	3	(Z)	-	-	3	(Z)
OTHER NONCITRUS FRUIT (SEE TEXT)						
United States Total						
United States 2007	4,866	10,383	4,312	8,278	971	2,105
2002	1,640	9,184	1,217	6,486	815	2,698
States, 2007						
Alabama	61	78	58	75	5	4
Arizona	549	275	491	232	68	43
Arkansas	3	7	1	(D)	3	(D)
California	701	(D)	661	(D)	81	(D)
Colorado	8	4	8	(D)	1	(D)
Connecticut	17	7	16	(D)	1	(D)
Delaware	4	(D)	4	(D)	-	-
Florida	756	2,933	602	2,230	284	703
Georgia	13	52	8	(D)	5	(D)
Hawaii	1,193	3,301	1,046	2,389	315	912
Idaho	2	(D)	1	(D)	1	(D)
Illinois	14	13	10	7	6	6
Indiana	38	28	31	21	7	7
Iowa	38	39	35	37	3	2
Kentucky	16	37	9	15	13	22
Louisiana	28	82	24	74	5	8
Maine	13	4	12	(D)	2	(D)
Maryland	32	74	30	(D)	2	(D)
Massachusetts	16	12	16	(D)	2	(D)
Michigan	41	37	27	25	17	12
Minnesota	40	37	34	34	9	3
Mississippi	55	91	46	85	13	6
Missouri	57	47	44	34	15	13
Montana	3	(Z)	3	(Z)	-	-
Nebraska	2	(D)	1	(D)	1	(D)
Nevada	8	11	8	11	-	-
New Hampshire	5	3	5	3	-	-
New Jersey	42	60	41	(D)	3	(D)
New Mexico	58	31	55	28	5	2
New York	42	(D)	37	(D)	5	(D)
North Carolina	45	33	42	31	3	2
North Dakota	9	32	4	2	7	29
Ohio	114	169	107	147	15	22
Oklahoma	31	18	31	18	-	-
Oregon	100	128	90	115	13	12
Pennsylvania	120	152	107	122	17	30
Rhode Island	6	5	6	5	-	-
South Carolina	33	37	30	(D)	3	(D)
South Dakota	2	(D)	1	(D)	1	(D)
Texas	190	427	180	391	22	36
Utah	92	67	91	66	3	1
Vermont	4	1	4	1	-	-
Virginia	79	90	77	82	7	8
Washington	173	137	166	(D)	7	(D)
West Virginia	8	(D)	7	6	1	(D)
Wisconsin	5	(D)	5	(D)	-	-
CITRUS FRUIT, ALL						
United States Total						
United States 2007	15,658	1,005,806	14,934	944,312	3,738	61,495
2002	17,727	1,279,324	16,750	1,198,212	4,675	81,112
States, 2007						
Alabama	40	109	37	73	10	36
Arizona	329	18,261	315	17,564	61	697
California	7,358	303,101	7,027	279,212	1,652	23,890
Florida	6,061	654,747	5,914	619,385	1,462	35,362
Georgia	6	6	5	(D)	3	(D)
Hawaii	884	893	727	675	296	218
Louisiana	210	936	175	642	103	294

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
CITRUS FRUIT, ALL - Con.						
States, 2007 - Con.						
Mississippi	14	(D)	10	(D)	5	(D)
New Mexico	2	(D)	-	-	2	(D)
South Carolina	4	6	2	(D)	2	(D)
Texas	750	27,701	722	26,711	142	990
GRAPEFRUIT						
United States Total						
United States 2007	2,923	102,578	2,751	96,675	519	5,903
2002	4,006	156,869	3,759	149,416	810	7,453
States, 2007						
Arizona	63	537	61	520	7	17
California	879	10,725	815	9,520	177	1,205
Florida	1,185	72,611	1,147	68,666	191	3,946
Hawaii	201	45	160	38	49	7
Louisiana	22	10	17	7	8	3
Texas	573	18,650	551	17,924	87	725
KUMQUATS						
United States Total						
United States 2007	154	183	129	164	38	19
2002	114	192	106	(D)	14	(D)
States, 2007						
California	94	133	82	126	17	8
Florida	38	46	36	36	7	9
Louisiana	16	3	5	(D)	13	(D)
Texas	6	1	6	(D)	1	(D)
LEMONS						
United States Total						
United States 2007	2,607	66,972	2,364	62,718	575	4,254
2002	2,142	80,898	1,969	73,275	540	7,622
States, 2007						
Arizona	172	12,891	165	12,369	32	522
California	1,880	53,232	1,735	49,563	410	3,670
Florida	60	621	48	607	13	14
Hawaii	406	127	345	99	89	28
Louisiana	35	8	20	5	18	3
Texas	54	93	51	76	13	17
LIMES						
United States Total						
United States 2007	862	1,251	756	1,135	192	116
2002	633	1,368	557	1,258	147	110
States, 2007						
Arizona	3	(D)	3	(D)	-	-
California	363	525	352	494	64	31
Florida	57	518	49	493	16	25
Hawaii	427	204	346	146	104	58
Louisiana	6	(D)	2	(D)	6	(D)
Texas	6	(D)	4	2	2	(D)
ORANGES, ALL (SEE TEXT)						
United States Total						
United States 2007	12,116	785,856	11,612	742,625	2,611	43,230
2002	14,288	987,743	13,515	925,635	3,581	62,108
States, 2007						
Alabama	7	6	7	6	-	-
Arizona	163	2,616	152	2,526	26	91
California	5,254	212,313	5,042	200,424	1,036	11,889
Florida	5,561	561,324	5,424	530,535	1,287	30,790
Hawaii	543	322	436	248	150	75
Louisiana	130	542	107	376	54	166
Texas	458	8,732	444	8,511	58	220

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
VALENCIA ORANGES						
United States Total						
United States 2007	6,537	354,288	6,295	335,131	1,160	19,157
2002	8,635	457,922	8,282	429,272	1,625	28,650
States, 2007						
Arizona	80	898	71	855	14	43
California	2,620	54,051	2,522	52,001	372	2,049
Florida	3,432	296,574	3,368	279,588	675	16,986
Hawaii	240	136	182	107	74	29
Louisiana	23	39	18	25	6	14
Texas	142	2,591	134	2,555	19	36
OTHER ORANGES (SEE TEXT)						
United States Total						
United States 2007	9,659	431,568	9,242	407,494	2,016	24,073
2002	11,786	529,821	11,135	496,362	2,677	33,459
States, 2007						
Alabama	7	6	7	6	-	-
Arizona	118	1,718	114	1,671	16	48
California	4,052	158,263	3,867	148,423	833	9,840
Florida	4,575	264,751	4,457	250,946	964	13,804
Hawaii	407	186	329	141	106	45
Louisiana	116	503	94	351	52	152
Texas	384	6,141	374	5,957	45	184
TANGELOS						
United States Total						
United States 2007	800	9,694	737	8,932	140	762
2002	961	14,382	906	13,641	187	740
States, 2007						
Arizona	65	1,669	62	(D)	10	(D)
California	253	4,517	239	3,998	50	519
Florida	266	3,430	262	3,269	24	161
Hawaii	209	75	171	59	51	16
Louisiana	5	(D)	1	(D)	5	(D)
Texas	2	(D)	2	(D)	-	-
TANGERINES						
United States Total						
United States 2007	1,976	36,965	1,756	30,072	479	6,893
2002	1,731	31,419	1,590	29,040	366	2,379
States, 2007						
Arizona	36	544	35	(D)	4	(D)
California	706	21,528	595	15,030	234	6,499
Florida	839	14,604	804	14,243	130	361
Hawaii	300	87	236	69	89	18
Louisiana	36	28	31	(D)	13	(D)
Texas	59	174	55	165	9	9
TEMPLES						
United States Total						
United States 2007	116	1,211	114	1,198	12	13
2002	345	3,678	344	(D)	16	(D)
States, 2007						
Florida	116	1,211	114	1,198	12	13
OTHER CITRUS FRUIT (SEE TEXT)						
United States Total						
United States 2007	407	1,097	359	792	134	305
2002	461	2,624	360	2,046	175	579
States, 2007						
Alabama	33	104	30	68	10	36
Arizona	1	(D)	1	(D)	-	-
California	40	127	35	57	15	70
Florida	151	382	144	339	31	42
Georgia	6	6	5	(D)	3	(D)
Hawaii	46	33	38	16	10	16
Louisiana	81	342	66	(D)	43	(D)
Mississippi	14	(D)	10	(D)	5	(D)
New Mexico	2	(D)	-	-	2	(D)
South Carolina	4	6	2	(D)	2	(D)
Texas	29	(D)	28	(D)	13	(D)

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
NUTS, ALL (SEE TEXT)						
United States Total						
United States 2007	39,480	1,857,179	34,776	1,553,492	13,268	303,687
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
States, 2007						
Alabama	1,364	18,096	1,281	16,085	327	2,011
Arizona	258	13,910	222	13,442	80	467
Arkansas	329	11,548	266	8,835	116	2,713
California	12,639	1,210,203	11,494	990,830	4,892	219,374
Colorado	34	182	26	147	11	35
Connecticut	21	38	18	34	3	4
Florida	1,085	9,196	911	7,147	384	2,050
Georgia	3,227	114,302	2,982	102,609	808	11,693
Hawaii	1,063	17,743	985	16,722	193	1,021
Idaho	70	51	51	19	23	32
Illinois	174	642	88	265	122	377
Indiana	129	498	62	183	89	315
Iowa	133	670	82	236	80	434
Kansas	221	6,228	166	5,299	97	929
Kentucky	227	1,110	126	594	143	516
Louisiana	783	16,641	670	13,624	320	3,017
Maine	20	21	14	7	12	14
Maryland	74	122	58	81	26	41
Massachusetts	26	16	17	13	11	3
Michigan	281	1,660	200	887	154	773
Minnesota	71	465	41	150	43	315
Mississippi	697	14,500	600	11,385	252	3,115
Missouri	626	15,985	441	12,653	291	3,332
Montana	18	5	14	4	6	1
Nebraska	72	388	46	162	44	226
Nevada	28	(D)	20	(D)	10	(D)
New Hampshire	8	8	5	1	7	7
New Jersey	59	118	44	83	26	36
New Mexico	1,804	40,035	1,722	36,264	331	3,771
New York	135	377	91	197	63	181
North Carolina	374	1,406	271	904	174	502
North Dakota	1	(D)	1	(D)	-	-
Ohio	164	688	125	387	64	301
Oklahoma	3,613	141,860	3,390	124,676	1,020	17,184
Oregon	1,214	35,490	1,127	32,996	295	2,493
Pennsylvania	287	429	191	238	140	191
South Carolina	660	4,683	547	3,855	187	829
South Dakota	4	(D)	2	(D)	4	(D)
Tennessee	81	170	67	120	16	50
Texas	6,682	175,862	5,796	151,171	2,070	24,692
Utah	87	187	73	164	29	23
Vermont	17	68	7	2	10	66
Virginia	207	661	147	406	102	254
Washington	308	590	230	400	122	190
West Virginia	97	138	53	43	67	96
Wisconsin	8	12	6	8	4	4
ALMONDS						
United States Total						
United States 2007	6,700	790,245	5,956	649,953	2,820	140,292
2002	6,482	696,635	6,004	625,616	2,434	71,019
States, 2007						
Alabama	6	1	1	(D)	5	(D)
Arizona	16	6	6	(D)	11	(D)
California	6,474	790,161	5,821	649,892	2,721	140,269
Colorado	11	(D)	7	3	4	(D)
Florida	1	(D)	-	-	1	(D)
Georgia	9	5	5	(D)	4	(D)
Kentucky	12	4	6	1	6	3
Louisiana	1	(D)	1	(D)	-	-
Maryland	2	(D)	1	(D)	1	(D)
Massachusetts	3	(Z)	3	(Z)	-	-
Michigan	3	(D)	1	(D)	2	(D)
Missouri	6	1	2	(D)	4	(D)
Nevada	4	(D)	1	(D)	3	(Z)
New Jersey	1	(D)	-	-	1	(D)
New Mexico	15	6	12	(D)	4	(D)
North Carolina	15	13	7	8	10	5
Ohio	1	(D)	1	(D)	-	-
Oklahoma	7	(D)	4	(D)	3	(D)
Oregon	31	6	21	3	12	3
South Carolina	4	(D)	2	(D)	2	(D)
Tennessee	3	1	3	1	-	-
Texas	12	2	7	1	5	1
Utah	30	11	25	10	6	1
Virginia	20	8	13	7	8	1
Washington	10	1	5	1	5	1
West Virginia	3	(D)	1	(D)	2	(D)

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
CHESTNUTS (SEE TEXT)						
United States Total						
United States 2007	1,200	3,335	845	2,072	538	1,262
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
States, 2007						
Alabama	34	26	25	18	11	9
California	76	334	62	(D)	31	(D)
Connecticut	14	35	11	31	3	4
Florida	81	283	63	203	28	80
Georgia	29	36	19	15	13	21
Hawaii	1	(D)	-	-	1	(D)
Idaho	6	(D)	6	6	1	(D)
Illinois	26	51	13	4	18	47
Indiana	8	16	5	(D)	3	(D)
Iowa	32	122	16	48	22	73
Kansas	5	39	5	(D)	4	(D)
Kentucky	48	43	37	29	19	14
Louisiana	1	(D)	1	(D)	-	-
Maine	10	(D)	9	(D)	3	(D)
Maryland	29	39	21	27	9	11
Massachusetts	12	9	8	(D)	4	(D)
Michigan	154	813	120	492	76	321
Minnesota	7	(D)	4	31	5	(D)
Mississippi	9	12	1	(D)	9	(D)
Missouri	22	95	8	40	19	55
Montana	1	(D)	-	-	1	(D)
Nebraska	7	5	2	(D)	5	(D)
Nevada	4	(D)	-	-	4	(D)
New Hampshire	2	(D)	1	(D)	1	(D)
New Jersey	12	(D)	10	(D)	4	(D)
New York	37	120	29	55	13	65
North Carolina	42	92	29	40	17	52
Ohio	69	279	46	227	28	52
Oklahoma	1	(D)	1	(D)	-	-
Oregon	92	333	69	207	53	126
Pennsylvania	120	135	87	84	44	51
South Carolina	22	21	13	(D)	10	(D)
Tennessee	16	10	15	(D)	2	(D)
Texas	3	2	-	-	3	2
Utah	4	(Z)	4	(Z)	-	-
Vermont	3	(D)	-	-	3	(D)
Virginia	66	157	46	96	24	61
Washington	43	66	31	43	16	23
West Virginia	51	70	28	23	30	47
Wisconsin	1	(D)	-	-	1	(D)
HAZELNUTS (FILBERTS)						
United States Total						
United States 2007	1,557	34,465	1,218	31,903	522	2,562
2002	1,231	33,801	1,042	31,753	385	2,049
States, 2007						
Alabama	13	5	5	(D)	9	(D)
California	12	10	7	(D)	5	(D)
Colorado	1	(D)	-	-	1	(D)
Connecticut	4	2	4	2	-	-
Georgia	9	5	5	(D)	4	(D)
Idaho	19	4	12	(D)	7	(D)
Illinois	9	3	4	1	6	2
Indiana	21	23	2	(D)	19	(D)
Iowa	29	20	12	6	21	14
Kansas	4	(D)	1	(D)	3	(D)
Kentucky	30	12	21	8	11	5
Maine	6	1	1	(D)	5	(D)
Maryland	11	5	10	(D)	3	(D)
Michigan	65	139	33	(D)	44	(D)
Minnesota	31	138	20	44	15	95
Mississippi	3	1	2	(D)	3	(D)
Missouri	16	4	9	(D)	7	(D)
Montana	15	2	13	(D)	2	(D)
Nebraska	8	5	5	(D)	4	(D)
New Hampshire	1	(D)	1	(D)	-	-
New Jersey	15	17	8	11	9	6
New York	28	25	13	5	18	20
North Carolina	19	7	11	4	8	3
Ohio	27	22	22	(D)	7	(D)
Oregon	850	33,661	798	31,431	177	2,230
Pennsylvania	56	22	33	12	25	10
South Carolina	5	(D)	1	(D)	4	(D)
South Dakota	2	(D)	-	-	2	(D)
Tennessee	12	3	9	(D)	3	(D)
Texas	4	4	2	(D)	3	(D)
Utah	13	3	6	2	8	1
Vermont	4	(D)	4	(D)	-	-
Virginia	27	11	15	4	13	7
Washington	160	298	118	216	59	82
West Virginia	25	6	10	(D)	15	(D)
Wisconsin	3	(D)	1	(D)	2	(D)

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
MACADAMIA NUTS						
United States Total						
United States 2007	1,150	17,811	1,042	16,732	234	1,079
2002	1,059	18,682	979	17,962	238	720
States, 2007						
California	139	184	100	102	56	82
Hawaii	1,011	17,628	942	16,630	178	997
PECANS, ALL (SEE TEXT)						
United States Total						
United States 2007	21,856	581,809	19,248	506,181	6,560	75,628
2002	22,371	545,344	16,980	408,079	10,670	137,265
States, 2007						
Alabama	1,323	18,025	1,260	16,055	305	1,970
Arizona	196	12,365	180	11,950	50	415
Arkansas	312	11,396	253	8,698	112	2,698
California	283	3,128	233	2,487	96	641
Colorado	7	48	5	(D)	2	(D)
Florida	963	8,652	810	6,741	334	1,911
Georgia	3,210	114,227	2,964	102,567	794	11,660
Idaho	6	18	2	(D)	4	(D)
Illinois	90	359	32	154	70	204
Indiana	32	106	15	46	21	60
Iowa	24	28	11	9	18	19
Kansas	215	6,178	157	5,265	95	913
Kentucky	105	594	36	400	78	194
Louisiana	778	16,557	664	(D)	318	(D)
Maryland	15	(D)	8	(D)	8	(D)
Michigan	30	(D)	9	7	23	(D)
Minnesota	4	(D)	-	-	4	(D)
Mississippi	673	14,343	591	11,321	234	3,023
Missouri	391	13,369	258	11,117	193	2,252
Nebraska	23	102	12	48	16	54
Nevada	7	4	4	2	5	1
New Jersey	3	(D)	1	(D)	2	(D)
New Mexico	1,742	39,245	1,673	35,746	296	3,499
New York	9	3	4	1	8	2
North Carolina	318	1,262	233	826	146	435
Ohio	21	(D)	16	12	5	(D)
Oklahoma	3,589	141,675	3,372	124,553	1,010	17,122
Pennsylvania	19	29	11	25	10	4
South Carolina	634	4,600	535	3,813	167	787
Tennessee	56	143	47	99	9	45
Texas	6,625	174,929	5,750	150,426	2,044	24,503
Utah	38	104	32	93	16	11
Virginia	88	241	59	116	41	125
West Virginia	26	41	10	4	25	37
Wisconsin	1	(D)	1	(D)	1	(D)
PECANS, IMPROVED (SEE TEXT)						
United States Total						
United States 2007	12,869	308,634	11,142	266,081	3,962	42,553
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
States, 2007						
Alabama	815	11,073	777	9,969	187	1,105
Arizona	196	12,365	180	11,950	50	415
Arkansas	210	7,718	169	5,565	72	2,153
California	279	3,128	233	2,487	92	641
Colorado	6	(D)	4	47	2	(D)
Florida	565	5,499	481	4,347	211	1,152
Georgia	2,057	96,254	1,874	87,041	529	9,213
Idaho	6	18	2	(D)	4	(D)
Illinois	42	110	14	31	32	79
Indiana	14	52	10	33	7	20
Iowa	14	17	7	6	10	11
Kansas	92	1,235	69	781	45	454
Kentucky	50	308	22	178	32	130
Louisiana	440	10,305	373	8,576	168	1,729
Maryland	8	(D)	3	1	6	(D)
Michigan	17	6	6	(D)	11	(D)
Minnesota	2	(D)	-	-	2	(D)
Mississippi	434	10,538	387	8,077	153	2,462
Missouri	135	1,714	74	972	94	742
Nebraska	17	96	11	(D)	10	(D)
Nevada	6	2	3	(D)	5	(D)
New Jersey	2	(D)	1	(D)	1	(D)
New Mexico	1,742	39,245	1,673	35,746	296	3,499
New York	6	2	4	1	5	1
North Carolina	236	888	167	577	109	311
Ohio	11	(D)	8	(D)	3	(D)
Oklahoma	1,051	21,609	917	16,549	350	5,061
Pennsylvania	15	28	11	25	6	3
South Carolina	366	2,979	308	2,526	105	453
Tennessee	32	96	30	(D)	2	(D)

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
PECANS, IMPROVED (SEE TEXT) - Con.						
States, 2007 - Con.						
Texas	3,912	83,030	3,268	70,274	1,319	12,755
Utah	21	80	16	74	7	6
Virginia	59	170	38	106	27	63
West Virginia	10	9	1	(D)	9	(D)
Wisconsin	1	(D)	1	(D)	1	(D)
PECANS, NATIVE AND SEEDLING (SEE TEXT)						
United States Total						
United States 2007	11,180	273,175	9,955	240,100	3,008	33,075
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
States, 2007						
Alabama	623	6,952	588	6,087	139	865
Arkansas	132	3,678	105	3,133	44	545
California	4	(Z)	-	-	4	(Z)
Colorado	1	(D)	1	(D)	-	-
Florida	452	3,153	376	2,394	138	759
Georgia	1,476	17,972	1,385	15,525	301	2,447
Illinois	54	249	21	123	40	126
Indiana	19	54	5	13	15	41
Iowa	12	11	5	3	9	9
Kansas	141	4,943	101	4,484	54	460
Kentucky	61	286	17	222	48	64
Louisiana	435	6,252	364	(D)	172	(D)
Maryland	8	2	6	(D)	2	(D)
Michigan	13	(D)	3	(D)	12	(D)
Minnesota	2	(D)	-	-	2	(D)
Mississippi	293	3,805	251	3,244	88	561
Missouri	285	11,656	203	10,145	116	1,510
Nebraska	6	6	1	(D)	6	(D)
Nevada	3	1	3	(D)	2	(D)
New Jersey	1	(D)	-	-	1	(D)
New York	3	1	-	-	3	1
North Carolina	97	373	73	249	44	124
Ohio	10	9	8	(D)	2	(D)
Oklahoma	3,042	120,066	2,914	108,005	748	12,061
Pennsylvania	4	2	-	-	4	2
South Carolina	312	1,621	268	1,287	71	334
Tennessee	26	48	19	(D)	7	(D)
Texas	3,600	91,900	3,189	80,152	896	11,747
Utah	17	24	16	19	9	5
Virginia	32	71	24	9	15	62
West Virginia	16	32	9	(D)	16	(D)
PISTACHIOS						
United States Total						
United States 2007	1,306	154,103	1,070	117,044	498	37,059
2002	1,320	126,569	1,097	95,040	483	31,529
States, 2007						
Arizona	50	1,523	41	1,479	18	44
California	1,141	151,484	936	114,832	435	36,651
Nevada	19	154	15	(D)	4	(D)
New Mexico	70	767	64	506	27	261
Texas	16	127	8	35	10	92
Utah	10	49	6	(D)	4	(D)
WALNUTS, ENGLISH						
United States Total						
United States 2007	7,161	267,751	6,385	225,106	2,421	42,644
2002	7,025	292,691	6,291	244,907	2,574	47,784
States, 2007						
Alabama	28	24	15	7	13	17
Arizona	7	(D)	5	(D)	2	(D)
Arkansas	7	22	5	(D)	4	(D)
California	5,712	264,517	5,345	222,887	1,878	41,629
Colorado	13	21	10	3	3	18
Connecticut	3	1	3	1	-	-
Florida	1	(D)	1	(D)	-	-
Georgia	12	2	6	1	6	1
Idaho	47	18	38	11	11	8
Illinois	63	93	36	43	36	50
Indiana	42	73	15	16	32	57
Iowa	42	135	33	74	13	61
Kentucky	15	41	10	14	7	28
Maine	1	(D)	-	-	1	(D)
Maryland	30	40	18	30	15	11
Massachusetts	8	4	6	(D)	3	(D)
Michigan	84	219	53	39	38	181
Minnesota	20	66	12	33	10	34
Mississippi	5	16	-	-	5	16
Missouri	52	208	25	117	30	91

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Table 32. **Fruits and Nuts: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Number	Farms	Number
WALNUTS, ENGLISH - Con.						
States, 2007 - Con.						
Montana	6	(D)	2	(D)	4	(D)
Nebraska	17	24	9	15	9	10
Nevada	4	1	3	(Z)	3	1
New Hampshire	6	(D)	3	(D)	6	(D)
New Jersey	24	30	19	20	7	10
New Mexico	13	17	7	(D)	6	(D)
New York	52	72	34	50	24	22
North Carolina	23	22	15	20	10	2
Ohio	29	15	24	6	6	9
Oklahoma	12	65	5	15	10	50
Oregon	354	1,460	326	1,336	75	124
Pennsylvania	128	122	74	67	61	55
South Carolina	21	14	15	12	6	2
South Dakota	2	(D)	2	(D)	2	(D)
Tennessee	5	4	5	4	-	-
Texas	8	18	7	(D)	2	(D)
Utah	26	19	23	(D)	3	(D)
Vermont	7	42	3	(D)	4	(D)
Virginia	54	128	38	102	22	26
Washington	173	173	130	108	54	65
West Virginia	2	(D)	2	(D)	-	-
Wisconsin	3	1	3	1	-	-
OTHER NUTS (SEE TEXT)						
United States Total						
United States 2007	1,302	7,661	887	4,500	666	3,161
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
States, 2007						
Alabama	8	15	3	(D)	5	(D)
Arizona	2	(D)	2	(D)	2	(D)
Arkansas	13	130	11	(D)	2	(D)
California	21	387	17	358	5	29
Colorado	8	110	8	(D)	3	(D)
Florida	58	(D)	53	(D)	27	(D)
Georgia	10	28	7	22	5	6
Hawaii	53	(D)	45	92	14	(D)
Idaho	2	(D)	1	(D)	2	(D)
Illinois	51	137	28	63	35	74
Indiana	60	280	34	107	34	173
Iowa	50	366	26	99	35	267
Kansas	4	(D)	4	(D)	-	-
Kentucky	123	415	65	143	80	272
Louisiana	7	(D)	7	(D)	2	(D)
Maine	8	10	5	5	5	5
Maryland	17	33	14	17	6	17
Massachusetts	6	3	3	1	4	2
Michigan	63	475	36	(D)	45	(D)
Minnesota	27	206	16	43	17	163
Mississippi	23	128	10	(D)	14	(D)
Missouri	229	2,308	176	1,378	96	931
Montana	1	(D)	1	(D)	-	-
Nebraska	41	252	26	97	28	155
New Jersey	16	53	13	41	8	12
New York	43	158	29	86	17	72
North Carolina	14	10	10	5	6	5
North Dakota	1	(D)	1	(D)	-	-
Ohio	55	357	44	131	28	226
Oklahoma	21	111	17	(D)	8	(D)
Oregon	25	30	18	19	7	11
Pennsylvania	68	121	33	50	50	71
South Carolina	21	47	13	19	11	27
Tennessee	5	10	3	(D)	3	(D)
Texas	61	780	44	688	23	92
Utah	5	1	2	(D)	3	(D)
Vermont	5	24	-	-	5	24
Virginia	37	116	33	81	15	35
Washington	20	53	15	34	6	19
West Virginia	18	18	12	11	9	7
Wisconsin	2	(D)	2	(D)	1	(D)

Table 33. **Land in Berries: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Irrigated	
	Farms	Acres	Farms	Acres
UNITED STATES TOTAL				
United States	25,017	261,733	11,510	176,568
STATES				
Alabama	496	809	171	350
Alaska	39	28	20	13
Arizona	33	15	16	(D)
Arkansas	259	1,104	136	751
California	1,411	42,081	1,411	42,081
Colorado	53	75	45	67
Connecticut	343	866	74	376
Delaware	47	83	27	59
Florida	812	10,135	511	8,353
Georgia	725	9,423	316	5,899
Idaho	128	133	82	93
Illinois	376	664	116	261
Indiana	407	1,248	116	606
Iowa	313	289	74	110
Kansas	90	77	53	39
Kentucky	636	772	213	244
Louisiana	237	835	99	435
Maine	1,013	45,811	132	4,913
Maryland	335	598	133	328
Massachusetts	1,027	14,804	617	13,673
Michigan	1,636	24,291	776	16,449
Minnesota	450	1,008	173	508
Mississippi	369	2,350	160	1,437
Missouri	498	716	204	357
Montana	98	63	78	59
Nebraska	68	78	27	49
Nevada	4	(D)	4	(D)
New Hampshire	298	874	96	213
New Jersey	641	13,323	262	10,526
New Mexico	76	64	46	38
New York	1,234	4,314	423	1,597
North Carolina	1,052	8,156	438	4,744
North Dakota	41	61	5	14
Ohio	933	2,012	303	741
Oklahoma	264	409	90	96
Oregon	1,644	24,538	1,053	18,504
Pennsylvania	1,549	2,543	476	961
Rhode Island	99	348	30	164
South Carolina	395	993	150	398
South Dakota	19	45	8	25
Tennessee	610	914	167	270
Texas	684	1,702	287	913
Utah	108	163	108	163
Vermont	344	705	84	292
Virginia	512	982	182	405
Washington	1,282	20,324	891	19,176
West Virginia	305	413	52	84
Wisconsin	1,019	20,485	571	19,717
Wyoming	5	(D)	4	(D)

Table 34. **Berries: 2007 and 2002**

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Harvested		Not harvested	
	Farms	Acres	Farms	Acres	Farms	Acres
BLACKBERRIES AND DEWBERRIES						
United States Total						
United States 2007	5,694	14,874	4,471	10,728	1,873	4,146
2002	(NA)	(NA)	3,565	10,210	(NA)	(NA)
States, 2007						
Alabama	120	75	85	45	54	31
Arizona	17	10	13	7	5	2
Arkansas	118	516	89	395	45	121
California	383	1,132	335	920	80	212
Colorado	9	8	8	(D)	1	(D)
Connecticut	36	(D)	28	6	8	(D)
Delaware	6	(D)	6	(D)	-	-
Florida	97	167	66	99	43	68
Georgia	131	364	107	303	39	61
Idaho	39	14	33	12	7	2
Illinois	107	74	85	46	25	28
Indiana	79	54	74	42	14	12
Iowa	60	18	42	14	20	4
Kansas	50	25	38	15	17	10
Kentucky	271	246	178	103	121	143
Louisiana	53	(D)	41	19	16	(D)
Maine	50	38	44	26	14	12
Maryland	124	94	113	84	19	10
Massachusetts	72	(D)	61	35	11	(D)
Michigan	149	128	109	59	45	68
Minnesota	34	17	29	13	10	4
Mississippi	33	57	22	21	13	36
Missouri	256	275	165	119	121	156
Montana	19	4	17	3	3	(Z)
Nebraska	25	(D)	20	5	7	(D)
Nevada	1	(D)	1	(D)	-	-
New Hampshire	35	14	31	13	10	1
New Jersey	100	79	92	70	17	10
New Mexico	27	21	25	20	3	(Z)
New York	219	355	187	300	47	55
North Carolina	250	221	176	133	99	88
North Dakota	1	(D)	1	(D)	-	-
Ohio	274	196	183	110	113	87
Oklahoma	193	266	124	112	90	154
Oregon	513	7,950	446	6,068	194	1,882
Pennsylvania	192	110	167	86	39	24
Rhode Island	12	6	12	6	-	-
South Carolina	97	100	82	85	19	15
South Dakota	1	(D)	1	(D)	-	-
Tennessee	269	316	188	167	133	149
Texas	485	800	404	545	142	256
Utah	32	30	20	14	14	16
Vermont	28	8	22	6	6	2
Virginia	193	268	171	180	49	89
Washington	223	549	187	341	63	208
West Virginia	125	131	64	36	85	95
Wisconsin	86	38	79	34	12	4
BLUEBERRIES, TAME						
United States Total						
United States 2007	9,991	77,150	7,516	60,353	3,790	16,797
2002	(NA)	(NA)	6,428	52,002	(NA)	(NA)
States, 2007						
Alabama	372	616	201	347	194	270
Alaska	1	(D)	1	(D)	-	-
Arizona	3	1	-	-	3	1
Arkansas	138	443	82	269	67	174
California	223	3,081	186	2,232	72	849
Colorado	1	(D)	-	-	1	(D)
Connecticut	212	401	191	333	40	68
Delaware	8	8	4	(D)	4	(D)
Florida	566	3,357	442	2,376	221	981
Georgia	587	8,848	343	4,802	327	4,046
Idaho	15	17	9	13	6	4
Illinois	90	136	56	103	45	33
Indiana	105	713	87	588	39	125
Iowa	28	16	16	8	13	8
Kansas	13	8	5	4	8	4
Kentucky	192	207	58	35	149	172
Louisiana	151	509	128	436	47	73
Maine	166	409	144	267	42	143
Maryland	103	146	94	128	22	17
Massachusetts	331	659	304	512	71	148
Michigan	840	21,758	758	19,641	300	2,116
Minnesota	88	99	74	69	27	31
Mississippi	329	2,230	317	2,209	37	21
Missouri	155	217	65	53	101	164
Montana	4	(D)	1	(D)	3	(D)
Nebraska	1	(D)	-	-	1	(D)
New Hampshire	193	259	170	221	53	37
New Jersey	299	9,170	268	7,605	135	1,564
New Mexico	5	(D)	5	(D)	-	-
New York	467	1,317	407	1,097	112	220

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Table 34. **Berries: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Harvested		Not harvested	
	Farms	Acres	Farms	Acres	Farms	Acres
BLUEBERRIES, TAME - Con.						
States, 2007 - Con.						
North Carolina	595	6,367	297	5,323	355	1,044
North Dakota	1	(D)	1	(D)	-	-
Ohio	263	382	183	193	108	189
Oklahoma	43	55	22	19	24	36
Oregon	828	6,769	713	5,185	210	1,584
Pennsylvania	538	786	465	638	142	149
Rhode Island	61	148	51	138	14	10
South Carolina	244	527	166	292	96	235
South Dakota	2	(D)	1	(D)	1	(D)
Tennessee	263	265	84	61	194	204
Texas	211	759	172	579	58	180
Utah	8	4	-	-	8	4
Vermont	213	362	179	275	47	87
Virginia	204	256	137	160	87	97
Washington	564	5,490	475	3,926	163	1,563
West Virginia	134	133	57	50	90	84
Wisconsin	133	216	97	161	53	55
BLUEBERRIES, WILD						
United States Total						
United States 2007	907	45,763	728	23,492	582	22,271
2002	(NA)	(NA)	665	23,851	(NA)	(NA)
States, 2007						
Alabama	20	3	13	2	7	1
Connecticut	7	5	5	(D)	2	(D)
Kansas	1	(D)	-	-	1	(D)
Maine	577	44,462	488	22,747	444	21,715
Maryland	1	(D)	-	-	1	(D)
Massachusetts	58	187	51	92	19	95
Michigan	35	112	19	42	16	69
Minnesota	2	(D)	-	-	2	(D)
Missouri	1	(D)	1	(D)	1	(D)
New Hampshire	28	379	26	196	14	183
New Jersey	22	36	18	23	9	13
New York	48	281	36	175	18	107
North Carolina	28	(D)	16	(D)	12	3
Oklahoma	12	30	9	14	8	16
Pennsylvania	24	33	16	11	11	22
Rhode Island	5	2	3	(D)	2	(D)
South Carolina	1	(D)	1	(D)	-	-
Vermont	17	13	12	(D)	5	(D)
Virginia	16	(D)	12	(D)	7	4
West Virginia	4	7	2	(D)	3	(D)
BOYSENBERRIES						
United States Total						
United States 2007	304	1,068	270	823	61	245
2002	(NA)	(NA)	320	1,097	(NA)	(NA)
States, 2007						
Arizona	3	1	3	1	-	-
California	117	114	104	103	22	11
Idaho	2	(D)	-	-	2	(D)
Maryland	1	(D)	1	(D)	-	-
Minnesota	1	(D)	1	(D)	-	-
Ohio	2	(D)	2	(D)	-	-
Oregon	143	913	132	701	28	212
Washington	34	40	26	(D)	9	(D)
Wisconsin	1	(D)	1	(D)	-	-
CRANBERRIES						
United States Total						
United States 2007	1,134	41,310	1,088	38,597	385	2,712
2002	(NA)	(NA)	1,099	40,685	(NA)	(NA)
States, 2007						
Connecticut	2	(D)	2	(D)	-	-
Maine	40	299	37	(D)	11	(D)
Massachusetts	469	13,368	448	12,521	121	847
Michigan	19	307	17	(D)	7	(D)
Minnesota	5	10	3	(D)	2	(D)
New Hampshire	2	(D)	2	(D)	-	-
New Jersey	41	3,550	39	3,111	26	439
New York	3	1	3	1	-	-
Oregon	151	3,048	149	2,766	69	282
Pennsylvania	3	1	-	-	3	1
Rhode Island	3	(D)	3	(D)	1	(D)
Vermont	3	(D)	3	(D)	1	(D)
Washington	130	1,899	123	1,752	48	147
Wisconsin	263	18,696	259	17,752	96	944

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Table 34. **Berries: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Harvested		Not harvested	
	Farms	Acres	Farms	Acres	Farms	Acres
CURRANTS						
United States Total						
United States 2007	323	382	276	253	74	129
2002	(NA)	(NA)	103	294	(NA)	(NA)
States, 2007						
California	7	(D)	5	2	3	(D)
Connecticut	14	(D)	12	(D)	3	(D)
Idaho	6	(D)	2	(D)	4	5
Maine	7	1	5	(D)	2	(D)
Massachusetts	18	(D)	18	(D)	-	-
Michigan	30	10	27	9	5	2
Minnesota	20	(D)	19	(D)	2	(D)
New Hampshire	7	(D)	6	(D)	1	(D)
New Jersey	7	4	7	(D)	1	(D)
New York	67	44	61	43	9	1
Oregon	40	27	35	25	10	2
Pennsylvania	21	18	19	17	6	1
Rhode Island	1	(D)	1	(D)	-	-
Utah	4	(D)	-	-	4	(D)
Vermont	15	6	12	5	3	1
Washington	35	103	25	83	14	20
Wisconsin	24	11	22	6	7	4
LOGANBERRIES						
United States Total						
United States 2007	97	93	89	77	11	16
2002	(NA)	(NA)	129	(D)	(NA)	(NA)
States, 2007						
Alaska	1	(D)	1	(D)	-	-
California	5	2	5	2	-	-
Georgia	1	(D)	1	(D)	1	(D)
Kentucky	1	(D)	1	(D)	-	-
Louisiana	2	(D)	2	(D)	-	-
Massachusetts	2	(D)	-	-	2	(D)
New Mexico	2	(D)	2	(D)	-	-
New York	3	(D)	3	(D)	-	-
Ohio	2	(D)	2	(D)	-	-
Oregon	46	54	42	52	5	2
Virginia	1	(D)	1	(D)	1	(D)
Washington	30	10	28	(D)	2	(D)
Wisconsin	1	(D)	1	(D)	-	-
RASPBERRIES, ALL						
United States Total						
United States 2007	6,588	21,554	5,719	19,363	1,405	2,191
2002	(NA)	(NA)	4,521	19,888	(NA)	(NA)
States, 2007						
Alabama	16	3	8	1	9	2
Alaska	26	17	24	(D)	3	(D)
Arizona	5	1	4	(D)	1	(D)
Arkansas	37	18	27	12	10	7
California	274	3,247	254	3,084	51	163
Colorado	29	31	28	31	3	(Z)
Connecticut	127	129	113	106	25	23
Delaware	2	(D)	2	(D)	-	-
Florida	18	7	2	(D)	16	(D)
Georgia	21	6	13	4	8	2
Idaho	94	59	76	(D)	18	(D)
Illinois	123	77	100	65	39	11
Indiana	69	58	60	51	14	8
Iowa	184	98	175	88	21	10
Kansas	23	10	16	5	9	5
Kentucky	98	33	56	17	47	16
Louisiana	2	(D)	2	(D)	-	-
Maine	187	112	182	103	18	10
Maryland	113	83	108	66	11	17
Massachusetts	224	162	202	140	46	22
Michigan	478	654	427	615	78	38
Minnesota	281	296	247	223	60	72
Mississippi	6	4	4	(D)	2	(D)
Missouri	105	38	72	23	37	15
Montana	66	30	64	25	6	4
Nebraska	38	14	21	6	23	8
Nevada	3	(D)	3	(D)	-	-
New Hampshire	137	(D)	131	(D)	22	(D)
New Jersey	163	140	154	132	18	8
New Mexico	39	30	35	27	6	3
New York	525	621	485	531	98	90
North Carolina	112	37	75	23	44	14
North Dakota	19	19	19	(D)	2	(D)
Ohio	362	456	287	303	110	153
Oklahoma	24	(D)	16	(D)	8	3
Oregon	420	3,470	361	3,025	101	445
Pennsylvania	492	319	464	292	54	27

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Table 34. **Berries: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Harvested		Not harvested	
	Farms	Acres	Farms	Acres	Farms	Acres
RASPBERRIES, ALL - Con.						
States, 2007 - Con.						
Rhode Island	34	(D)	31	(D)	4	1
South Carolina	22	10	18	9	4	(Z)
South Dakota	11	9	10	(D)	2	(D)
Tennessee	77	32	48	20	34	12
Texas	8	8	5	(D)	3	(D)
Utah	57	108	46	78	17	30
Vermont	142	(D)	125	112	24	(D)
Virginia	124	78	106	60	25	17
Washington	657	10,431	578	9,607	136	825
West Virginia	103	62	62	27	56	35
Wisconsin	406	286	368	242	81	44
Wyoming	5	(D)	5	7	1	(D)
STRAWBERRIES						
United States Total						
United States 2007	8,638	58,718	7,807	55,601	1,976	3,117
2002	(NA)	(NA)	6,799	55,866	(NA)	(NA)
States, 2007						
Alabama	78	112	58	91	20	21
Alaska	16	(D)	15	3	1	(D)
Arizona	9	3	8	(D)	1	(D)
Arkansas	67	119	51	89	18	30
California	729	34,442	719	34,101	77	341
Colorado	22	35	18	33	6	2
Connecticut	113	208	101	173	34	35
Delaware	40	61	31	59	9	2
Florida	212	6,594	202	6,538	15	56
Georgia	83	198	64	182	22	16
Idaho	31	26	25	19	9	8
Illinois	233	363	201	277	84	86
Indiana	233	415	219	366	57	49
Iowa	150	136	128	127	29	10
Kansas	42	25	30	15	16	10
Kentucky	295	276	235	181	99	95
Louisiana	62	176	61	(D)	4	(D)
Maine	163	484	155	415	44	69
Maryland	150	248	144	229	15	19
Massachusetts	195	337	186	300	29	37
Michigan	496	1,229	432	1,032	136	198
Minnesota	227	550	214	406	75	144
Mississippi	13	38	12	(D)	1	(D)
Missouri	204	172	154	99	62	74
Montana	48	24	33	21	15	2
Nebraska	27	41	23	24	12	17
Nevada	2	(D)	2	(D)	-	-
New Hampshire	90	131	82	114	27	17
New Jersey	211	315	198	281	33	34
New Mexico	12	7	12	(D)	1	(D)
New York	625	1,659	598	1,435	146	224
North Carolina	380	1,360	333	1,303	62	56
North Dakota	13	(D)	13	(D)	-	-
Ohio	483	950	450	804	110	146
Oklahoma	66	53	52	40	20	13
Oregon	315	2,271	285	1,960	67	311
Pennsylvania	856	1,254	835	1,123	128	131
Rhode Island	30	55	29	49	5	6
South Carolina	128	351	120	334	15	17
South Dakota	8	20	8	20	-	-
Tennessee	219	301	151	194	89	107
Texas	52	126	47	112	7	13
Utah	21	11	11	8	12	3
Vermont	122	185	112	162	32	23
Virginia	178	330	157	296	36	34
Washington	326	1,715	304	1,408	54	307
West Virginia	107	77	69	45	54	32
Wisconsin	455	1,229	419	914	187	315
Wyoming	1	(D)	1	(D)	1	(D)
OTHER BERRIES						
United States Total						
United States 2007	856	828	691	503	227	325
2002	(NA)	(NA)	353	(D)	(NA)	(NA)
States, 2007						
Alaska	12	7	10	(D)	2	(D)
Arizona	4	(Z)	4	(Z)	-	-
Arkansas	6	7	2	(D)	4	(D)
California	67	(D)	62	27	6	(D)
Colorado	3	(D)	3	(D)	-	-
Connecticut	26	(D)	23	(D)	8	(D)
Delaware	3	(D)	3	(D)	1	(D)
Florida	6	10	5	(D)	1	(D)
Georgia	3	(D)	2	(D)	2	(D)
Idaho	7	9	5	(D)	2	(D)
Illinois	26	14	18	8	9	6

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Table 34. **Berries: 2007 and 2002** - Con.

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total		Harvested		Not harvested	
	Farms	Acres	Farms	Acres	Farms	Acres
OTHER BERRIES - Con.						
States, 2007 - Con.						
Indiana	9	8	8	(D)	1	(D)
Iowa	14	21	10	(D)	4	(D)
Kansas	6	(D)	6	4	4	(D)
Kentucky	23	(D)	8	(D)	15	8
Louisiana	22	119	12	39	15	80
Maine	12	5	7	2	5	4
Maryland	22	(D)	22	(D)	5	11
Massachusetts	15	(D)	13	(D)	2	(D)
Michigan	44	95	37	82	11	13
Minnesota	18	(D)	13	(D)	7	3
Mississippi	14	22	14	22	-	-
Missouri	20	(D)	14	(D)	6	10
Montana	9	(D)	7	2	2	(D)
Nebraska	14	17	8	(D)	6	(D)
New Hampshire	5	1	4	(D)	1	(D)
New Jersey	44	30	44	23	8	7
New Mexico	12	(D)	7	(D)	5	1
New York	41	(D)	34	28	10	(D)
North Carolina	21	(D)	14	(D)	7	4
North Dakota	14	35	12	(D)	2	(D)
Ohio	34	(D)	29	(D)	9	14
Oklahoma	3	(D)	1	(D)	2	(D)
Oregon	37	37	27	26	10	10
Pennsylvania	48	24	45	22	8	2
Rhode Island	2	(D)	2	(D)	-	-
South Carolina	9	(D)	8	2	3	(D)
South Dakota	1	(D)	-	-	1	(D)
Texas	8	9	8	9	-	-
Utah	20	(D)	20	(D)	-	-
Vermont	10	1	6	1	4	1
Virginia	38	19	37	(D)	1	(D)
Washington	78	88	63	38	26	51
West Virginia	15	3	8	1	7	2
Wisconsin	11	(D)	6	(D)	5	7

Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
AQUATIC PLANTS								
United States Total								
United States	659	1,712,080	1,128	651	35,193,380	1,019	3,546,388	1,259
States								
Alabama	9	2,047	1	9	21,694	20	21,500	(D)
Arizona	3	(D)	-	3	(D)	8	-	11
Arkansas	10	8,850	5	10	237,000	19	(D)	25
California	44	145,812	20	44	(D)	53	182,783	51
Colorado	13	72,629	6	13	396,960	12	4,049	14
Connecticut	5	(D)	(D)	5	(D)	6	7,944	(D)
Delaware	-	-	-	-	-	1	(D)	-
Florida	61	313,596	500	61	9,557,129	85	320,403	179
Georgia	10	(D)	10	10	379,600	21	28,732	(D)
Hawaii	10	(D)	2	9	35,584	11	(D)	3
Idaho	5	(D)	(D)	5	(D)	6	5,600	(D)
Illinois	12	42,550	(D)	12	698,442	11	(D)	1
Indiana	15	22,791	7	15	839,295	15	(D)	4
Iowa	5	12,965	(D)	5	(D)	7	26,765	(D)
Kansas	7	3,588	(D)	7	(D)	7	(D)	(D)
Kentucky	11	10,156	2	11	66,860	20	25,558	2
Louisiana	4	-	6	4	84,000	14	(D)	121
Maine	5	(D)	(D)	5	(D)	8	(D)	7
Maryland	10	70,575	(D)	10	1,791,365	18	68,638	(D)
Massachusetts	5	(D)	3	5	383,148	14	5,400	6
Michigan	33	39,908	26	33	303,330	33	323,360	23
Minnesota	9	(D)	5	9	321,825	16	43,330	(D)
Mississippi	7	(D)	(D)	7	(D)	7	(D)	8
Missouri	23	10,600	17	23	1,844,200	30	125,284	16
Montana	4	4,954	(Z)	4	233,852	1	(D)	-
Nebraska	5	1,870	(D)	5	25,275	5	4,202	(D)
Nevada	3	(D)	2	2	(D)	3	(D)	7
New Hampshire	2	(D)	(D)	2	(D)	1	(D)	-
New Jersey	16	70,420	11	16	471,760	23	(D)	11
New Mexico	5	28,650	(D)	5	(D)	10	15,049	21
New York	25	12,543	24	25	2,591,626	50	168,236	(D)
North Carolina	20	28,220	8	20	(D)	43	65,090	11
North Dakota	3	(D)	(D)	3	2,150	1	(D)	-
Ohio	20	14,000	8	20	349,314	48	146,108	17
Oklahoma	12	22,550	(D)	11	197,176	19	22,649	(D)
Oregon	37	184,840	36	37	2,331,162	56	173,561	59
Pennsylvania	53	69,980	34	53	1,485,657	84	529,862	40
Rhode Island	1	(D)	(D)	1	(D)	2	(D)	(D)
South Carolina	2	(D)	(D)	2	(D)	12	(D)	16
South Dakota	1	-	(D)	1	(D)	1	(D)	-
Tennessee	19	29,025	10	17	462,707	58	(D)	26
Texas	37	43,952	48	35	1,076,510	54	266,890	(D)
Utah	3	-	(D)	3	12,054	2	(D)	(D)
Vermont	2	-	(D)	2	(D)	8	5,348	4
Virginia	14	59,500	5	14	434,250	30	343,114	29
Washington	26	60,939	17	26	708,659	33	75,432	18
West Virginia	4	(D)	1	4	1,100	5	(D)	(D)
Wisconsin	29	59,810	167	28	1,342,175	26	72,209	(D)
Wyoming	-	-	-	-	-	2	(D)	(D)
BULBS, CORMS, RHIZOMES, AND TUBERS - DRY								
United States Total								
United States	909	2,111,759	6,060	896	90,304,021	1,567	4,043,848	9,300
States								
Alabama	21	91,900	70	21	(D)	14	35,784	32
Alaska	4	(D)	(D)	4	8,520	4	3,050	-
Arizona	4	2,000	1	4	3,160	3	-	(D)
Arkansas	10	(D)	14	10	28,785	9	53,100	(D)
California	86	95,958	823	86	38,208,034	172	542,134	1,396
Colorado	20	86,761	45	20	1,752,570	20	140,365	32
Connecticut	5	(D)	(D)	5	(D)	11	41,991	(D)
Delaware	2	-	(D)	2	(D)	1	(D)	-
Florida	41	(D)	1,348	41	10,538,903	91	(D)	1,657
Georgia	28	8,869	38	28	135,567	30	35,893	19
Hawaii	11	15,406	6	10	23,705	15	(D)	(D)
Idaho	15	44,787	70	15	588,391	12	(D)	(D)
Illinois	9	(D)	33	9	89,202	21	(D)	73
Indiana	17	3,650	(D)	17	161,233	17	13,306	(D)
Iowa	13	(D)	7	7	(D)	10	(D)	3
Kansas	7	(D)	4	7	6,909	9	(D)	8
Kentucky	7	(D)	4	7	145,556	21	25,306	21
Louisiana	14	15,040	24	11	74,375	19	35,700	(D)
Maine	14	27,750	10	14	97,742	20	(D)	12
Maryland	5	(D)	12	5	33,377	13	24,910	5
Massachusetts	19	153,415	8	19	(D)	26	130,358	9
Michigan	29	184,020	(D)	29	4,068,547	64	379,768	581
Minnesota	17	13,640	26	17	130,743	22	34,072	(D)
Mississippi	11	1,766	6	11	42,678	3	(D)	(D)
Missouri	19	-	55	19	193,814	27	(D)	36
Montana	5	-	4	5	(D)	6	(D)	6

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
BULBS, CORMS, RHIZOMES, AND TUBERS - DRY - Con.								
States - Con.								
Nebraska	21	20,787	14	21	34,707	15	(D)	9
Nevada	1	-	(D)	1	(D)	1	-	(D)
New Hampshire	2	(D)	-	2	(D)	6	8,750	(D)
New Jersey	21	93,075	15	21	1,170,760	62	136,530	61
New Mexico	5	(D)	(D)	4	(D)	7	(D)	12
New York	28	29,075	22	28	177,184	71	167,511	39
North Carolina	36	(D)	26	36	(D)	103	315,893	287
Ohio	23	28,354	14	23	381,307	40	115,930	36
Oklahoma	10	(D)	9	10	27,090	19	(D)	(D)
Oregon	80	20,001	543	79	8,509,993	138	67,793	870
Pennsylvania	42	(D)	22	42	1,245,862	92	481,844	37
Rhode Island	2	-	(D)	2	(D)	1	(D)	(D)
South Carolina	15	(D)	7	15	(D)	18	21,810	22
South Dakota	3	(D)	(D)	3	(D)	4	(D)	(D)
Tennessee	36	19,509	39	35	410,172	29	29,270	33
Texas	38	49,116	61	38	696,446	73	236,316	(D)
Utah	4	(D)	(D)	4	34,420	4	(D)	(D)
Vermont	4	(D)	(D)	4	19,830	9	12,600	2
Virginia	12	-	22	12	56,048	21	49,820	(D)
Washington	76	3,823	1,755	76	6,243,232	142	69,801	2,717
West Virginia	6	2,046	1	6	1,996	14	17,960	(D)
Wisconsin	10	(D)	(D)	10	395,804	37	47,800	43
Wyoming	1	(D)	-	1	(D)	1	(D)	-
CUTTINGS, SEEDLINGS, LINERS, AND PLUGS								
United States Total								
United States	1,464	29,975,544	4,089	1,447	440,932,591	(NA)	(NA)	(NA)
States								
Alabama	34	760,740	10	33	14,226,950	(NA)	(NA)	(NA)
Arizona	7	(D)	(D)	7	(D)	(NA)	(NA)	(NA)
Arkansas	13	43,075	4	13	195,661	(NA)	(NA)	(NA)
California	128	4,426,391	177	128	84,376,862	(NA)	(NA)	(NA)
Colorado	15	861,832	(D)	15	28,504,088	(NA)	(NA)	(NA)
Connecticut	12	314,720	3	12	4,299,800	(NA)	(NA)	(NA)
Delaware	7	768	(D)	7	(D)	(NA)	(NA)	(NA)
Florida	152	8,452,393	157	152	91,273,587	(NA)	(NA)	(NA)
Georgia	35	460,896	377	35	13,533,104	(NA)	(NA)	(NA)
Hawaii	64	281,694	60	55	3,467,512	(NA)	(NA)	(NA)
Idaho	11	103,668	15	11	1,189,934	(NA)	(NA)	(NA)
Illinois	30	247,990	23	30	(D)	(NA)	(NA)	(NA)
Indiana	21	324,644	(D)	21	4,185,363	(NA)	(NA)	(NA)
Iowa	7	563,060	-	6	5,253,795	(NA)	(NA)	(NA)
Kansas	4	(D)	(D)	4	167,000	(NA)	(NA)	(NA)
Kentucky	28	110,823	10	28	1,240,758	(NA)	(NA)	(NA)
Louisiana	29	601,914	18	29	6,667,154	(NA)	(NA)	(NA)
Maine	28	35,185	(D)	28	296,640	(NA)	(NA)	(NA)
Maryland	15	197,555	(D)	15	2,624,342	(NA)	(NA)	(NA)
Massachusetts	12	48,341	(D)	12	1,152,627	(NA)	(NA)	(NA)
Michigan	74	2,071,351	184	73	28,661,100	(NA)	(NA)	(NA)
Minnesota	11	(D)	(D)	11	(D)	(NA)	(NA)	(NA)
Mississippi	21	59,386	172	21	2,295,640	(NA)	(NA)	(NA)
Missouri	19	47,168	22	19	1,367,295	(NA)	(NA)	(NA)
Montana	6	(D)	(D)	6	450,340	(NA)	(NA)	(NA)
Nebraska	12	83,559	7	12	456,566	(NA)	(NA)	(NA)
Nevada	3	2,200	(D)	3	29,800	(NA)	(NA)	(NA)
New Hampshire	5	6,935	(D)	5	98,973	(NA)	(NA)	(NA)
New Jersey	34	1,718,468	241	34	19,128,281	(NA)	(NA)	(NA)
New Mexico	6	31,700	-	6	171,700	(NA)	(NA)	(NA)
New York	40	431,874	2	40	4,446,591	(NA)	(NA)	(NA)
North Carolina	59	280,510	44	58	2,776,906	(NA)	(NA)	(NA)
North Dakota	2	(D)	(D)	2	(D)	(NA)	(NA)	(NA)
Ohio	33	413,396	6	33	3,420,018	(NA)	(NA)	(NA)
Oklahoma	13	74,988	25	13	858,039	(NA)	(NA)	(NA)
Oregon	118	1,240,746	428	118	24,999,362	(NA)	(NA)	(NA)
Pennsylvania	52	510,577	101	50	10,800,053	(NA)	(NA)	(NA)
Rhode Island	8	37,150	(Z)	8	443,500	(NA)	(NA)	(NA)
South Carolina	18	20,300	(D)	18	553,406	(NA)	(NA)	(NA)
Tennessee	75	383,952	143	73	3,550,968	(NA)	(NA)	(NA)
Texas	64	638,447	356	64	11,097,732	(NA)	(NA)	(NA)
Utah	4	(D)	(D)	4	(D)	(NA)	(NA)	(NA)
Vermont	7	25,800	(D)	7	198,732	(NA)	(NA)	(NA)
Virginia	30	308,320	88	30	3,997,673	(NA)	(NA)	(NA)
Washington	50	1,891,834	548	50	29,617,227	(NA)	(NA)	(NA)
West Virginia	13	(D)	-	13	(D)	(NA)	(NA)	(NA)
Wisconsin	35	189,452	208	35	3,405,952	(NA)	(NA)	(NA)

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
FLORICULTURE CROPS - BEDDING/GARDEN PLANTS, CUT FLOWERS AND CUT FLORIST GREENS, FOLIAGE PLANTS, POTTED FLOWERING PLANTS, AND OTHER FLORICULTURE AND BEDDING CROPS, TOTAL								
United States Total								
United States	26,236	819,940,649	54,196	26,137	6,466,885,753	29,788	973,658,415	68,214
States								
Alabama	278	9,329,568	561	278	87,088,158	363	11,606,204	406
Alaska	101	986,805	24	101	12,460,245	87	1,151,218	16
Arizona	98	1,184,278	581	98	(D)	110	4,539,020	550
Arkansas	178	2,461,384	315	178	(D)	168	2,280,151	165
California	1,870	103,139,657	12,017	1,865	1,222,371,503	2,481	146,729,367	18,608
Colorado	208	9,008,832	134	208	120,132,280	227	12,515,785	118
Connecticut	447	9,441,760	457	447	130,097,751	518	10,101,689	447
Delaware	111	654,127	69	111	6,710,359	73	(D)	75
Florida	1,598	255,981,229	9,801	1,593	909,212,711	2,032	320,884,771	12,771
Georgia	401	8,247,156	367	400	89,035,382	582	9,962,964	597
Hawaii	1,154	21,999,212	2,429	1,096	75,709,230	1,117	28,837,733	2,913
Idaho	208	1,925,127	117	208	19,252,948	172	1,972,559	89
Illinois	652	19,071,248	1,340	652	188,291,446	533	13,422,917	1,278
Indiana	586	8,942,942	367	586	64,587,556	701	14,629,453	500
Iowa	313	7,302,075	316	313	56,042,988	314	5,043,738	319
Kansas	225	5,188,648	131	225	36,272,765	231	5,064,684	120
Kentucky	617	6,499,682	279	616	45,094,228	665	7,913,985	289
Louisiana	206	4,202,871	347	206	32,439,697	288	4,884,321	263
Maine	500	2,471,473	238	500	23,560,794	620	2,623,797	276
Maryland	406	7,725,935	425	406	82,723,067	451	7,818,991	626
Massachusetts	597	8,302,646	907	597	117,748,643	713	10,437,228	727
Michigan	1,332	52,915,651	3,413	1,330	439,220,434	1,271	48,186,105	3,880
Minnesota	472	13,915,949	992	472	123,381,541	483	13,104,446	1,185
Mississippi	205	2,543,412	199	205	13,063,847	181	2,993,372	240
Missouri	525	6,413,684	429	524	68,005,821	561	6,889,562	465
Montana	219	1,606,162	36	219	12,686,084	181	1,621,191	38
Nebraska	173	1,876,710	44	173	(D)	162	1,359,795	83
Nevada	16	104,261	11	16	(D)	19	(D)	11
New Hampshire	300	2,968,014	170	300	49,882,990	271	2,857,829	165
New Jersey	830	20,065,160	2,665	828	196,267,583	880	17,280,688	3,441
New Mexico	114	5,248,424	100	114	39,684,047	111	4,184,417	102
New York	1,334	25,430,297	1,597	1,334	225,918,639	1,738	26,382,886	1,772
North Carolina	906	21,337,221	835	898	260,670,801	1,050	25,215,286	1,326
North Dakota	37	382,328	15	37	4,857,032	40	(D)	30
Ohio	1,227	24,431,023	903	1,226	247,179,189	1,416	33,171,108	1,170
Oklahoma	243	3,283,323	282	243	(D)	338	5,117,898	155
Oregon	1,035	17,833,262	2,578	1,032	158,134,953	1,209	16,263,107	2,564
Pennsylvania	1,548	22,037,433	962	1,547	214,458,329	1,709	30,647,920	1,493
Rhode Island	168	1,043,055	145	168	8,678,677	156	1,402,641	88
South Carolina	279	6,453,439	676	279	99,792,022	388	5,982,743	1,762
South Dakota	67	2,143,129	13	67	14,336,672	67	2,821,715	28
Tennessee	611	10,608,389	620	602	75,347,766	897	11,686,742	724
Texas	879	41,059,894	1,856	877	326,418,037	984	40,764,732	1,533
Utah	117	4,996,394	106	117	71,613,813	147	6,508,872	108
Vermont	305	1,492,557	305	305	14,915,956	327	1,710,431	217
Virginia	527	9,872,686	573	527	115,462,218	676	10,902,336	828
Washington	820	10,561,649	2,522	820	142,798,533	998	17,831,790	2,929
West Virginia	212	2,260,356	57	212	12,298,039	238	2,415,430	72
Wisconsin	953	12,710,866	864	953	124,311,086	814	11,945,115	644
Wyoming	28	279,266	6	28	(D)	30	248,305	7
BEDDING/GARDEN PLANTS								
United States Total								
United States	18,376	361,050,691	18,647	18,337	3,763,633,057	20,460	386,963,439	21,484
States								
Alabama	197	6,133,725	178	197	67,773,942	240	7,748,871	176
Alaska	90	888,983	18	90	11,595,358	76	1,014,506	11
Arizona	42	377,724	91	42	10,682,034	55	3,344,854	171
Arkansas	147	1,666,944	225	147	11,067,953	135	1,777,716	94
California	618	24,093,631	2,602	615	397,805,269	837	33,712,945	4,833
Colorado	170	7,042,126	85	170	101,718,649	183	9,420,073	69
Connecticut	368	6,876,742	297	368	101,066,748	420	7,134,238	250
Delaware	93	(D)	44	93	(D)	61	598,146	31
Florida	360	21,256,379	1,329	358	170,778,118	457	26,792,369	761
Georgia	324	6,632,065	227	323	74,601,274	449	7,451,095	456
Hawaii	119	292,541	89	117	3,629,168	64	151,367	58
Idaho	174	1,587,340	72	174	15,510,761	129	1,452,713	24
Illinois	568	14,860,622	926	568	142,537,699	471	9,985,374	853
Indiana	488	6,808,980	233	488	52,423,511	599	9,471,681	300
Iowa	259	6,182,464	189	259	46,339,961	254	3,838,850	223
Kansas	189	4,349,536	83	189	28,819,589	207	3,947,261	82
Kentucky	508	4,609,342	161	508	31,255,924	566	5,679,724	205
Louisiana	149	2,956,662	161	149	22,169,970	196	2,842,551	139
Maine	423	2,132,002	172	423	20,392,461	542	2,085,586	162
Maryland	317	5,675,955	261	317	70,739,582	355	5,458,434	391
Massachusetts	503	5,473,619	511	503	68,085,034	549	7,029,968	288

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
BEDDING/GARDEN PLANTS - Con.								
States - Con.								
Michigan	1,131	44,368,310	1,713	1,129	380,720,857	1,077	38,237,074	1,825
Minnesota	406	10,904,851	401	406	98,035,514	410	9,665,729	232
Mississippi	148	1,824,424	98	148	9,547,006	132	2,087,195	153
Missouri	445	5,038,516	320	444	51,479,887	481	5,049,124	254
Montana	195	1,421,018	23	195	11,413,665	162	1,444,293	23
Nebraska	147	1,609,462	26	147	(D)	143	1,045,004	62
Nevada	9	(D)	(D)	9	(D)	15	143,052	5
New Hampshire	253	2,243,262	105	253	38,454,012	222	2,013,104	99
New Jersey	633	15,547,899	1,099	631	138,943,748	627	12,442,982	984
New Mexico	82	1,677,782	36	81	10,206,230	83	831,522	45
New York	1,127	18,383,973	855	1,127	187,587,157	1,408	17,428,456	894
North Carolina	711	15,867,143	463	703	211,617,141	767	14,694,714	550
North Dakota	33	365,308	13	33	4,562,957	39	520,348	(D)
Ohio	1,043	19,225,582	632	1,041	196,346,853	1,196	24,215,599	801
Oklahoma	212	2,491,257	254	212	15,744,171	286	3,694,054	126
Oregon	660	9,491,341	801	659	102,969,548	751	7,979,195	431
Pennsylvania	1,252	15,819,145	543	1,249	160,635,687	1,388	19,751,378	663
Rhode Island	136	836,707	57	136	7,112,679	134	1,139,300	54
South Carolina	202	4,295,120	357	202	52,416,895	292	4,368,181	1,201
South Dakota	58	1,775,507	6	58	11,161,830	60	2,362,265	24
Tennessee	491	6,890,009	502	481	55,916,584	762	8,177,923	521
Texas	590	18,741,407	867	589	179,120,813	677	23,276,174	697
Utah	101	3,055,142	99	101	53,537,136	117	4,130,381	58
Vermont	251	1,221,397	123	251	11,968,169	277	1,472,719	102
Virginia	409	7,569,316	320	409	92,137,631	519	6,767,815	415
Washington	514	7,938,980	613	514	102,109,040	688	12,522,663	1,262
West Virginia	186	1,813,629	37	186	9,424,750	206	1,927,878	46
Wisconsin	819	9,952,075	324	819	101,720,701	668	8,404,490	351
Wyoming	26	258,036	(D)	26	3,172,802	28	232,505	(D)
CUT FLOWERS AND CUT FLORIST GREENS								
United States Total								
United States	5,085	174,339,910	25,698	5,056	711,369,050	5,868	230,313,795	33,079
States								
Alabama	29	33,670	(D)	29	(D)	25	290,370	117
Alaska	9	(D)	(D)	9	73,933	8	8,772	4
Arizona	19	876	391	19	(D)	17	500	332
Arkansas	17	(D)	46	17	(D)	19	(D)	13
California	768	38,885,970	8,126	766	412,597,447	1,138	59,770,438	11,527
Colorado	40	(D)	36	40	2,486,299	46	852,948	37
Connecticut	63	206,324	(D)	63	1,132,463	79	207,226	48
Delaware	16	-	18	16	115,000	11	(D)	25
Florida	286	115,110,097	5,318	286	129,406,450	409	142,760,428	8,399
Georgia	24	(D)	28	24	458,520	23	11,524	15
Hawaii	698	8,485,657	1,529	676	25,844,224	718	10,391,404	1,414
Idaho	36	57,952	34	36	(D)	37	101,551	61
Illinois	61	181,760	280	61	2,376,230	50	205,628	201
Indiana	58	(D)	79	58	(D)	73	461,610	85
Iowa	55	(D)	48	55	247,968	48	14,649	79
Kansas	30	26,995	32	30	226,596	25	25,368	34
Kentucky	62	281,746	53	61	1,849,802	38	72,540	25
Louisiana	15	2,565	29	15	(D)	20	572	30
Maine	91	59,855	54	91	821,245	116	76,230	75
Maryland	84	137,181	112	84	1,809,593	95	(D)	181
Massachusetts	111	468,432	(D)	111	4,001,834	165	498,780	204
Michigan	176	175,956	1,628	176	10,403,276	188	251,045	1,926
Minnesota	78	(D)	(D)	78	4,564,557	93	1,035,563	157
Mississippi	12	52,540	9	12	(D)	14	66,960	13
Missouri	38	(D)	36	38	484,327	48	21,659	76
Montana	28	28,940	8	28	136,291	23	13,000	(D)
Nebraska	22	27,510	15	22	147,543	24	28,370	18
Nevada	2	-	(D)	2	(D)	2	-	(D)
New Hampshire	64	(D)	(D)	64	951,551	52	57,315	33
New Jersey	183	298,693	1,403	183	14,584,314	232	706,135	2,156
New Mexico	26	(D)	44	26	(D)	17	(D)	49
New York	224	336,219	470	223	5,605,995	291	657,856	580
North Carolina	129	537,169	274	128	4,233,669	142	567,306	362
North Dakota	2	-	(D)	2	(D)	1	-	(D)
Ohio	146	266,748	159	146	3,947,207	144	1,346,649	216
Oklahoma	24	(D)	20	24	(D)	26	109,978	16
Oregon	278	847,383	1,614	276	19,573,488	370	1,396,596	1,441
Pennsylvania	188	1,192,835	269	188	13,178,581	200	1,159,268	287
Rhode Island	29	(D)	70	29	189,324	18	(D)	27
South Carolina	29	(D)	140	29	523,145	34	14,200	395
South Dakota	6	2,000	(D)	6	8,016	5	(D)	2
Tennessee	56	151,400	54	56	706,359	33	126,516	52
Texas	92	(D)	279	92	(D)	53	(D)	245
Utah	12	(D)	5	12	(D)	24	124,439	41
Vermont	57	(D)	151	57	1,018,584	76	(D)	109
Virginia	104	154,109	213	104	2,902,956	110	220,630	308
Washington	325	991,292	1,785	325	30,003,006	314	1,982,313	1,393
West Virginia	24	13,892	15	24	(D)	31	42,690	18
Wisconsin	158	261,684	(D)	158	4,876,855	140	243,452	240
Wyoming	1	-	(D)	1	(D)	3	(D)	(D)

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
FOLIAGE PLANTS, INDOOR								
United States Total								
United States	2,622	139,863,389	4,846	2,593	733,423,833	4,269	183,251,147	8,231
States								
Alabama	51	691,893	(D)	51	3,386,946	103	879,921	35
Alaska	6	(D)	(D)	6	123,255	7	21,620	(D)
Arizona	30	321,110	72	30	10,851,073	34	703,874	38
Arkansas	29	172,332	20	29	1,749,151	41	(D)	24
California	289	12,213,485	778	287	120,065,062	412	19,668,213	872
Colorado	17	59,704	(D)	17	(D)	22	108,690	(D)
Connecticut	22	85,050	(D)	22	1,731,808	19	238,735	4
Delaware	6	40,765	-	6	2,402,104	4	(D)	-
Florida	695	104,087,192	2,166	691	465,720,083	1,000	126,952,319	2,958
Georgia	54	(D)	13	54	1,014,596	119	550,366	53
Hawaii	162	7,401,708	712	142	19,773,809	229	12,574,852	1,346
Idaho	5	(D)	(D)	5	(D)	14	16,735	2
Illinois	36	355,351	(D)	36	5,394,301	31	221,796	22
Indiana	36	334,971	(D)	36	2,622,473	101	1,054,042	20
Iowa	16	63,631	(D)	16	1,517,843	29	122,888	(D)
Kansas	21	187,590	(D)	21	1,887,190	26	203,996	-
Kentucky	42	207,300	(D)	42	668,701	80	355,708	13
Louisiana	35	(D)	(D)	35	2,427,355	92	859,196	48
Maine	20	(D)	(D)	20	(D)	26	25,637	3
Maryland	19	98,693	(D)	19	(D)	38	121,922	16
Massachusetts	31	201,799	(D)	31	754,564	39	491,744	11
Michigan	78	685,871	3	78	2,614,566	95	877,475	26
Minnesota	25	(D)	(D)	25	4,796,953	33	126,432	(D)
Mississippi	34	(D)	(D)	34	(D)	51	293,218	37
Missouri	23	265,444	14	23	2,070,496	57	395,226	92
Montana	11	65,128	-	11	301,051	12	15,378	(D)
Nebraska	11	14,008	2	11	38,750	8	8,022	2
Nevada	1	(D)	(D)	1	(D)	2	-	(D)
New Hampshire	7	70,255	-	7	258,136	13	168,122	(D)
New Jersey	38	329,438	5	38	3,090,196	50	555,332	60
New Mexico	15	(D)	(D)	14	4,816,720	20	325,802	5
New York	83	309,470	5	83	1,944,038	138	463,180	9
North Carolina	76	454,040	7	76	4,744,581	156	585,650	142
North Dakota	1	-	(D)	1	(D)	4	(D)	-
Ohio	58	340,071	13	58	8,056,922	109	790,018	52
Oklahoma	29	266,426	1	29	1,895,673	62	443,272	3
Oregon	47	(D)	14	47	(D)	89	313,942	612
Pennsylvania	83	333,213	(D)	82	3,268,769	151	924,309	(D)
Rhode Island	3	(D)	-	3	(D)	4	(D)	(D)
South Carolina	27	270,393	(D)	27	(D)	69	494,769	98
South Dakota	8	(D)	-	8	353,871	7	304,328	-
Tennessee	56	717,914	7	55	5,736,391	164	636,290	60
Texas	164	(D)	353	164	25,087,552	258	8,574,193	258
Utah	9	(D)	(D)	9	1,240,970	14	172,880	(D)
Vermont	10	(D)	(D)	10	(D)	19	(D)	-
Virginia	15	147,100	4	15	922,771	56	493,484	38
Washington	19	98,400	8	19	2,004,971	81	651,008	181
West Virginia	17	80,046	-	17	702,920	24	47,364	2
Wisconsin	49	301,560	(D)	49	(D)	53	158,512	8
Wyoming	3	(D)	-	3	(D)	4	(D)	-
POTTED FLOWERING PLANTS								
United States Total								
United States	6,287	142,637,616	4,211	6,257	1,239,520,013	8,429	173,130,034	5,419
States								
Alabama	93	2,331,358	220	93	13,691,287	136	2,687,042	79
Alaska	20	73,237	(D)	20	667,699	21	106,320	(D)
Arizona	22	484,568	10	22	(D)	22	489,792	9
Arkansas	44	552,388	24	44	(D)	58	346,725	35
California	418	27,854,763	431	418	289,618,722	579	33,577,771	1,377
Colorado	40	1,617,191	(D)	40	14,278,590	56	2,134,074	(D)
Connecticut	132	2,269,844	89	132	26,149,232	165	2,521,490	146
Delaware	28	148,752	8	28	609,934	24	337,600	19
Florida	451	15,014,660	963	451	142,785,131	493	24,379,655	653
Georgia	91	1,254,557	80	91	12,652,410	180	1,949,979	73
Hawaii	306	5,803,062	88	282	26,282,791	284	5,720,110	95
Idaho	38	258,923	(D)	38	2,937,389	36	401,560	2
Illinois	147	3,648,215	117	147	37,778,804	153	3,010,119	203
Indiana	155	1,702,425	39	155	8,219,644	251	3,642,120	95
Iowa	66	1,030,226	(D)	66	7,869,817	91	1,067,351	(D)
Kansas	39	624,527	(D)	39	5,339,390	62	888,059	5
Kentucky	167	1,357,882	61	167	11,050,328	228	1,806,013	45
Louisiana	68	731,905	110	68	6,624,441	104	1,182,002	45
Maine	91	243,830	11	91	1,856,938	150	436,344	37
Maryland	104	1,814,106	41	104	9,365,981	129	(D)	38
Massachusetts	162	2,070,211	286	162	44,781,951	231	2,416,736	224
Michigan	291	7,554,104	66	291	45,086,155	320	8,820,511	103
Minnesota	66	2,397,740	24	66	15,971,435	107	2,276,722	(D)
Mississippi	64	496,268	84	64	2,579,078	65	545,999	36
Missouri	112	1,015,662	37	112	13,725,659	164	1,423,553	43
Montana	34	91,076	5	34	835,077	24	148,520	(D)

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
POTTED FLOWERING PLANTS - Con.								
States - Con.								
Nebraska	32	225,730	2	32	1,351,331	37	278,399	1
Nevada	3	(D)	(D)	3	17,000	4	(D)	(D)
New Hampshire	57	593,261	14	57	10,213,991	65	619,288	(D)
New Jersey	210	3,889,130	159	210	39,649,325	242	3,576,239	241
New Mexico	18	1,875,856	(D)	18	22,213,831	24	(D)	3
New York	358	6,217,704	239	358	30,118,764	514	7,833,394	289
North Carolina	232	4,470,528	68	232	39,786,817	370	9,367,616	272
North Dakota	9	17,020	(D)	9	285,075	9	53,096	(D)
Ohio	299	4,520,582	100	299	38,237,407	405	6,818,842	101
Oklahoma	51	510,606	6	51	(D)	112	870,594	10
Oregon	189	7,176,874	41	189	25,153,827	258	6,573,374	80
Pennsylvania	466	4,531,306	(D)	466	34,175,036	622	8,812,965	(D)
Rhode Island	38	128,121	17	38	1,221,325	39	204,205	(D)
South Carolina	84	1,869,870	120	84	43,996,166	122	1,105,593	68
South Dakota	18	(D)	(D)	18	2,812,955	13	(D)	2
Tennessee	172	2,769,386	56	168	12,735,945	287	2,746,013	90
Texas	261	13,154,321	307	260	117,482,233	358	(D)	333
Utah	32	1,851,348	(D)	32	16,730,437	41	2,081,172	(D)
Vermont	55	188,124	10	55	1,317,878	40	156,698	7
Virginia	102	1,977,661	35	102	19,287,297	221	3,420,407	67
Washington	108	1,478,459	23	107	7,903,708	229	2,675,806	93
West Virginia	62	352,789	(D)	62	2,083,533	75	397,498	6
Wisconsin	177	2,195,547	3	177	15,186,067	203	3,138,661	46
Wyoming	5	(D)	(D)	5	106,008	6	(D)	-
OTHER FLORICULTURE AND BEDDING CROPS (SEE TEXT)								
United States Total								
United States	306	2,049,043	794	301	18,939,800	(NA)	(NA)	(NA)
States								
Alabama	5	138,922	(D)	5	(D)	(NA)	(NA)	(NA)
Arizona	4	-	16	4	(D)	(NA)	(NA)	(NA)
Arkansas	5	(D)	-	5	(D)	(NA)	(NA)	(NA)
California	27	91,808	81	27	2,285,003	(NA)	(NA)	(NA)
Colorado	5	(D)	(D)	5	(D)	(NA)	(NA)	(NA)
Connecticut	3	3,800	-	3	17,500	(NA)	(NA)	(NA)
Delaware	1	(D)	-	1	(D)	(NA)	(NA)	(NA)
Florida	26	512,901	26	26	522,929	(NA)	(NA)	(NA)
Georgia	6	(D)	19	6	308,582	(NA)	(NA)	(NA)
Hawaii	17	16,244	10	14	179,238	(NA)	(NA)	(NA)
Idaho	3	(D)	(D)	3	(D)	(NA)	(NA)	(NA)
Illinois	9	25,300	(D)	9	204,412	(NA)	(NA)	(NA)
Indiana	2	(D)	(D)	2	(D)	(NA)	(NA)	(NA)
Iowa	5	(D)	(D)	5	67,399	(NA)	(NA)	(NA)
Kentucky	8	43,412	(D)	8	269,473	(NA)	(NA)	(NA)
Louisiana	5	(D)	(D)	5	(D)	(NA)	(NA)	(NA)
Maine	3	(D)	(D)	3	(D)	(NA)	(NA)	(NA)
Maryland	3	-	(D)	3	(D)	(NA)	(NA)	(NA)
Massachusetts	7	88,585	(D)	7	125,260	(NA)	(NA)	(NA)
Michigan	12	131,410	4	12	395,580	(NA)	(NA)	(NA)
Minnesota	3	(D)	(D)	3	13,082	(NA)	(NA)	(NA)
Mississippi	2	(D)	(D)	2	(D)	(NA)	(NA)	(NA)
Missouri	9	(D)	22	9	245,452	(NA)	(NA)	(NA)
Nevada	1	(D)	-	1	(D)	(NA)	(NA)	(NA)
New Hampshire	3	(D)	(D)	3	5,300	(NA)	(NA)	(NA)
New Mexico	6	9,800	(D)	6	(D)	(NA)	(NA)	(NA)
New York	21	182,931	29	20	662,685	(NA)	(NA)	(NA)
North Carolina	19	8,341	23	19	288,593	(NA)	(NA)	(NA)
Ohio	5	78,040	-	5	590,800	(NA)	(NA)	(NA)
Oklahoma	1	(D)	-	1	(D)	(NA)	(NA)	(NA)
Oregon	18	(D)	107	18	(D)	(NA)	(NA)	(NA)
Pennsylvania	12	160,934	(D)	12	3,200,256	(NA)	(NA)	(NA)
Rhode Island	4	(D)	2	4	(D)	(NA)	(NA)	(NA)
South Carolina	3	(D)	(D)	3	(D)	(NA)	(NA)	(NA)
Tennessee	9	79,680	1	9	252,487	(NA)	(NA)	(NA)
Texas	12	6,300	50	12	(D)	(NA)	(NA)	(NA)
Utah	1	(D)	-	1	(D)	(NA)	(NA)	(NA)
Vermont	3	(D)	(D)	3	(D)	(NA)	(NA)	(NA)
Virginia	6	24,500	1	6	211,563	(NA)	(NA)	(NA)
Washington	10	54,518	93	9	777,808	(NA)	(NA)	(NA)
West Virginia	1	-	(D)	1	(D)	(NA)	(NA)	(NA)
Wisconsin	1	-	(D)	1	(D)	(NA)	(NA)	(NA)
FLOWER SEEDS								
United States Total								
United States	500	319,577	9,709	491	35,995,358	681	1,187,990	8,256
States								
Alabama	5	420	(D)	3	(D)	2	(D)	(D)
Alaska	2	(D)	(D)	2	(D)	2	(D)	-
Arizona	3	-	45	3	417,000	12	(D)	(D)

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
FLOWER SEEDS - Con.								
States - Con.								
Arkansas	5	8,100	(D)	5	2,780	5	(D)	(D)
California	29	23,984	1,065	29	13,557,218	47	390,262	1,636
Colorado	18	(D)	161	18	509,608	10	(D)	81
Connecticut	2	-	(D)	2	(D)	6	1,706	(D)
Delaware	-	-	-	-	-	2	(D)	-
Florida	12	(D)	41	12	60,180	22	5,288	49
Georgia	7	1,500	2	7	(D)	11	15,578	(D)
Hawaii	-	-	-	-	-	1	-	(D)
Idaho	4	-	(D)	4	127,544	4	-	8
Illinois	16	8,488	256	16	(D)	14	(D)	243
Indiana	6	(D)	(Z)	6	3,760	7	(D)	(D)
Iowa	26	13,789	2,233	25	3,000,858	16	7,957	(D)
Kansas	3	(D)	(D)	3	1,832	-	-	-
Kentucky	20	12,452	16	20	41,490	10	3,120	12
Louisiana	2	(D)	(D)	2	(D)	1	-	(D)
Maine	7	11,800	(D)	6	43,980	18	16,625	(D)
Maryland	4	(D)	2	4	3,870	8	(D)	(D)
Massachusetts	7	10,180	(D)	7	(D)	12	32,348	2
Michigan	19	54,254	64	15	188,756	26	170,624	39
Minnesota	17	(D)	689	17	805,440	24	(D)	533
Mississippi	4	340	(D)	4	3,748	2	(D)	(D)
Missouri	17	(D)	178	17	315,160	12	(D)	(D)
Montana	6	900	(Z)	6	2,480	9	1,800	2
Nebraska	7	1,775	(D)	7	12,475	6	11,678	(D)
Nevada	1	-	(D)	1	(D)	1	-	(D)
New Hampshire	1	(D)	-	1	(D)	8	1,950	(D)
New Jersey	4	8,100	-	4	30,300	17	(D)	3
New Mexico	6	(D)	1	5	(D)	4	(D)	(D)
New York	21	6,561	15	21	79,088	34	85,760	(D)
North Carolina	16	7,100	9	16	90,026	24	29,534	(D)
North Dakota	-	-	-	-	-	1	-	(D)
Ohio	15	11,350	8	15	42,660	16	25,288	5
Oklahoma	7	(D)	396	7	713,300	2	-	(D)
Oregon	46	5,200	1,982	46	3,416,865	60	8,683	1,082
Pennsylvania	9	(D)	(D)	9	(D)	39	59,292	130
Rhode Island	6	10,032	-	6	(D)	2	(D)	-
South Carolina	9	3,300	17	9	34,300	18	9,816	4
South Dakota	3	(D)	(D)	3	(D)	2	-	(D)
Tennessee	14	6,562	4	14	21,726	11	1,200	4
Texas	22	918	896	22	(D)	40	13,886	(D)
Utah	5	-	8	5	11,380	9	(D)	4
Vermont	4	(D)	-	4	200,200	8	(D)	4
Virginia	8	(D)	17	8	32,610	7	1,584	(D)
Washington	22	139	(D)	22	315,594	38	31,028	1,150
West Virginia	3	900	-	3	1,200	15	9,863	(D)
Wisconsin	28	7,800	623	28	1,718,916	34	8,285	672
Wyoming	2	(D)	(D)	2	(D)	2	(D)	-
GREENHOUSE FRUITS AND BERRIES (SEE TEXT)								
United States Total								
United States	249	(D)	(X)	244	11,422,793	(NA)	(NA)	(NA)
States								
Alabama	2	(D)	(X)	2	(D)	(NA)	(NA)	(NA)
Arizona	1	(D)	(X)	1	(D)	(NA)	(NA)	(NA)
Arkansas	5	(D)	(X)	5	5,200	(NA)	(NA)	(NA)
California	13	(D)	(X)	13	(D)	(NA)	(NA)	(NA)
Colorado	4	683	(X)	4	1,025	(NA)	(NA)	(NA)
Connecticut	4	31,834	(X)	4	7,656	(NA)	(NA)	(NA)
Delaware	1	(D)	(X)	1	(D)	(NA)	(NA)	(NA)
Florida	17	593,323	(X)	17	(D)	(NA)	(NA)	(NA)
Georgia	8	5,066	(X)	8	7,600	(NA)	(NA)	(NA)
Hawaii	4	3,796	(X)	3	1,944	(NA)	(NA)	(NA)
Idaho	1	(D)	(X)	1	(D)	(NA)	(NA)	(NA)
Illinois	2	(D)	(X)	2	(D)	(NA)	(NA)	(NA)
Indiana	2	(D)	(X)	2	(D)	(NA)	(NA)	(NA)
Iowa	4	5,480	(X)	4	12,470	(NA)	(NA)	(NA)
Kentucky	6	8,000	(X)	6	12,000	(NA)	(NA)	(NA)
Maine	9	6,682	(X)	9	7,823	(NA)	(NA)	(NA)
Maryland	8	160,036	(X)	8	(D)	(NA)	(NA)	(NA)
Massachusetts	4	(D)	(X)	4	(D)	(NA)	(NA)	(NA)
Michigan	14	32,642	(X)	13	33,227	(NA)	(NA)	(NA)
Minnesota	8	9,740	(X)	8	14,710	(NA)	(NA)	(NA)
Mississippi	1	(D)	(X)	1	(D)	(NA)	(NA)	(NA)
Missouri	11	24,500	(X)	11	25,870	(NA)	(NA)	(NA)
Montana	1	(D)	(X)	1	(D)	(NA)	(NA)	(NA)
Nebraska	1	(D)	(X)	1	(D)	(NA)	(NA)	(NA)
New Hampshire	3	(D)	(X)	3	(D)	(NA)	(NA)	(NA)
New Jersey	5	(D)	(X)	5	(D)	(NA)	(NA)	(NA)
New Mexico	6	2,458	(X)	6	3,692	(NA)	(NA)	(NA)
New York	8	25,965	(X)	8	(D)	(NA)	(NA)	(NA)
North Carolina	8	9,290	(X)	8	23,495	(NA)	(NA)	(NA)
Ohio	7	5,812	(X)	7	8,214	(NA)	(NA)	(NA)
Oklahoma	1	(D)	(X)	1	(D)	(NA)	(NA)	(NA)

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
GREENHOUSE FRUITS AND BERRIES (SEE TEXT) - Con.								
States - Con.								
Oregon	17	279,808	(X)	17	1,572,247	(NA)	(NA)	(NA)
Pennsylvania	15	107,928	(X)	15	159,092	(NA)	(NA)	(NA)
Rhode Island	1	(D)	(X)	1	(D)	(NA)	(NA)	(NA)
South Carolina	2	(D)	(X)	2	(D)	(NA)	(NA)	(NA)
Tennessee	3	(D)	(X)	3	(D)	(NA)	(NA)	(NA)
Texas	11	13,050	(X)	11	19,575	(NA)	(NA)	(NA)
Vermont	4	17,400	(X)	4	26,100	(NA)	(NA)	(NA)
Virginia	6	17,764	(X)	6	26,646	(NA)	(NA)	(NA)
Washington	14	4,966	(X)	11	6,549	(NA)	(NA)	(NA)
Wisconsin	7	19,752	(X)	7	28,927	(NA)	(NA)	(NA)
TOTAL GREENHOUSE VEGETABLES AND FRESH CUT HERBS (SEE TEXT)								
United States Total								
United States	4,075	61,765,935	(X)	4,056	553,034,688	3,416	64,364,430	(X)
States								
Alabama	30	251,739	(X)	30	1,954,022	21	880,022	(X)
Alaska	40	155,273	(X)	40	992,504	38	153,609	(X)
Arizona	26	(D)	(X)	26	(D)	39	8,248,203	(X)
Arkansas	31	46,434	(X)	31	353,481	15	72,324	(X)
California	182	12,924,882	(X)	181	112,284,392	234	16,455,074	(X)
Colorado	63	(D)	(X)	63	(D)	51	4,190,906	(X)
Connecticut	80	475,394	(X)	80	(D)	64	476,342	(X)
Delaware	19	90,652	(X)	19	691,650	8	23,680	(X)
Florida	81	2,783,850	(X)	77	(D)	83	3,327,935	(X)
Georgia	44	285,525	(X)	43	2,238,414	31	190,200	(X)
Hawaii	96	(D)	(X)	91	10,062,567	60	860,304	(X)
Idaho	32	131,993	(X)	32	824,029	39	62,288	(X)
Illinois	82	422,871	(X)	82	3,281,100	45	601,790	(X)
Indiana	91	627,344	(X)	90	4,761,836	49	384,632	(X)
Iowa	106	910,479	(X)	106	7,570,534	41	(D)	(X)
Kansas	46	407,482	(X)	46	3,557,771	28	271,403	(X)
Kentucky	118	498,218	(X)	118	3,704,534	69	501,082	(X)
Louisiana	20	105,660	(X)	20	676,200	34	352,437	(X)
Maine	125	1,289,335	(X)	125	(D)	145	292,222	(X)
Maryland	72	300,598	(X)	72	1,947,783	38	265,242	(X)
Massachusetts	120	577,141	(X)	120	(D)	111	707,229	(X)
Michigan	170	782,938	(X)	170	2,707,450	111	1,057,297	(X)
Minnesota	92	1,425,980	(X)	92	14,743,607	61	944,479	(X)
Mississippi	36	238,544	(X)	36	1,440,580	21	95,252	(X)
Missouri	148	467,591	(X)	148	3,705,812	81	529,076	(X)
Montana	46	119,058	(X)	46	957,064	30	100,577	(X)
Nebraska	32	118,698	(X)	32	1,466,345	28	792,968	(X)
Nevada	5	2,962	(X)	5	22,926	3	(D)	(X)
New Hampshire	74	207,520	(X)	74	(D)	57	197,925	(X)
New Jersey	48	332,710	(X)	47	2,487,862	39	472,680	(X)
New Mexico	45	76,098	(X)	45	750,397	17	61,511	(X)
New York	201	3,039,549	(X)	201	17,706,164	212	2,861,826	(X)
North Carolina	160	627,001	(X)	157	5,196,062	125	1,218,074	(X)
North Dakota	8	34,806	(X)	8	264,089	9	(D)	(X)
Ohio	183	625,693	(X)	183	4,021,654	139	1,151,891	(X)
Oklahoma	49	232,866	(X)	48	1,442,671	30	151,974	(X)
Oregon	132	711,275	(X)	132	5,857,898	180	1,619,419	(X)
Pennsylvania	323	1,818,817	(X)	322	23,698,996	274	2,367,107	(X)
Rhode Island	28	348,921	(X)	28	(D)	21	144,763	(X)
South Carolina	24	53,995	(X)	24	1,100,882	20	138,960	(X)
South Dakota	21	32,880	(X)	21	117,245	13	37,998	(X)
Tennessee	101	613,262	(X)	100	2,485,354	116	639,523	(X)
Texas	103	(D)	(X)	103	(D)	90	6,241,515	(X)
Utah	23	104,284	(X)	23	357,520	18	(D)	(X)
Vermont	111	425,083	(X)	111	3,951,342	98	476,602	(X)
Virginia	76	(D)	(X)	76	(D)	52	1,754,889	(X)
Washington	163	495,725	(X)	163	5,473,535	195	969,301	(X)
West Virginia	28	188,580	(X)	28	1,511,977	22	89,131	(X)
Wisconsin	132	621,727	(X)	132	3,269,176	108	750,242	(X)
Wyoming	9	41,940	(X)	9	291,067	3	(D)	(X)
GREENHOUSE TOMATOES (SEE TEXT)								
United States Total								
United States	2,926	43,949,871	(X)	2,919	393,783,610	(NA)	(NA)	(NA)
States								
Alabama	26	79,039	(X)	26	705,046	(NA)	(NA)	(NA)
Alaska	30	107,262	(X)	30	684,900	(NA)	(NA)	(NA)
Arizona	8	(D)	(X)	8	(D)	(NA)	(NA)	(NA)
Arkansas	21	35,982	(X)	21	269,865	(NA)	(NA)	(NA)
California	81	6,008,943	(X)	81	51,016,867	(NA)	(NA)	(NA)
Colorado	45	(D)	(X)	45	(D)	(NA)	(NA)	(NA)
Connecticut	60	222,742	(X)	60	(D)	(NA)	(NA)	(NA)
Delaware	18	67,136	(X)	18	503,522	(NA)	(NA)	(NA)
Florida	21	609,940	(X)	21	(D)	(NA)	(NA)	(NA)

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
GREENHOUSE TOMATOES (SEE TEXT) - Con.								
States - Con.								
Georgia	28	58,732	(X)	27	319,840	(NA)	(NA)	(NA)
Hawaii	33	873,449	(X)	33	6,477,757	(NA)	(NA)	(NA)
Idaho	23	81,081	(X)	23	525,358	(NA)	(NA)	(NA)
Illinois	58	227,086	(X)	58	1,539,996	(NA)	(NA)	(NA)
Indiana	59	247,995	(X)	58	1,727,364	(NA)	(NA)	(NA)
Iowa	90	281,819	(X)	90	1,681,864	(NA)	(NA)	(NA)
Kansas	30	130,870	(X)	30	756,525	(NA)	(NA)	(NA)
Kentucky	90	366,191	(X)	90	2,726,997	(NA)	(NA)	(NA)
Louisiana	19	98,110	(X)	19	(D)	(NA)	(NA)	(NA)
Maine	104	1,173,913	(X)	104	(D)	(NA)	(NA)	(NA)
Maryland	55	231,594	(X)	55	1,556,451	(NA)	(NA)	(NA)
Massachusetts	93	412,744	(X)	93	(D)	(NA)	(NA)	(NA)
Michigan	127	471,665	(X)	127	1,206,121	(NA)	(NA)	(NA)
Minnesota	72	1,187,382	(X)	72	12,840,573	(NA)	(NA)	(NA)
Mississippi	31	202,745	(X)	31	1,154,188	(NA)	(NA)	(NA)
Missouri	126	402,971	(X)	126	2,769,558	(NA)	(NA)	(NA)
Montana	35	57,101	(X)	35	423,158	(NA)	(NA)	(NA)
Nebraska	27	73,484	(X)	27	400,735	(NA)	(NA)	(NA)
Nevada	4	(D)	(X)	4	(D)	(NA)	(NA)	(NA)
New Hampshire	61	177,322	(X)	61	(D)	(NA)	(NA)	(NA)
New Jersey	28	162,305	(X)	27	1,186,498	(NA)	(NA)	(NA)
New Mexico	26	39,554	(X)	26	254,505	(NA)	(NA)	(NA)
New York	145	2,766,251	(X)	145	15,448,816	(NA)	(NA)	(NA)
North Carolina	127	471,353	(X)	125	2,243,302	(NA)	(NA)	(NA)
North Dakota	8	(D)	(X)	8	(D)	(NA)	(NA)	(NA)
Ohio	136	357,958	(X)	136	2,550,384	(NA)	(NA)	(NA)
Oklahoma	43	129,514	(X)	42	960,855	(NA)	(NA)	(NA)
Oregon	87	354,178	(X)	87	2,344,098	(NA)	(NA)	(NA)
Pennsylvania	248	1,390,317	(X)	247	15,406,189	(NA)	(NA)	(NA)
Rhode Island	15	252,864	(X)	15	(D)	(NA)	(NA)	(NA)
South Carolina	18	32,826	(X)	18	(D)	(NA)	(NA)	(NA)
South Dakota	16	23,890	(X)	16	86,325	(NA)	(NA)	(NA)
Tennessee	78	429,897	(X)	78	1,797,772	(NA)	(NA)	(NA)
Texas	72	(D)	(X)	72	(D)	(NA)	(NA)	(NA)
Utah	16	90,654	(X)	16	250,355	(NA)	(NA)	(NA)
Vermont	98	309,161	(X)	98	2,925,836	(NA)	(NA)	(NA)
Virginia	51	(D)	(X)	51	5,984,866	(NA)	(NA)	(NA)
Washington	122	309,555	(X)	122	1,934,663	(NA)	(NA)	(NA)
West Virginia	21	162,860	(X)	21	1,304,177	(NA)	(NA)	(NA)
Wisconsin	88	326,530	(X)	88	1,347,547	(NA)	(NA)	(NA)
Wyoming	8	29,860	(X)	8	203,950	(NA)	(NA)	(NA)
OTHER GREENHOUSE VEGETABLES AND FRESH CUT HERBS (SEE TEXT)								
United States Total								
United States	2,032	17,816,064	(X)	2,015	159,251,078	(NA)	(NA)	(NA)
States								
Alabama	12	172,700	(X)	12	1,248,976	(NA)	(NA)	(NA)
Alaska	28	48,011	(X)	27	307,604	(NA)	(NA)	(NA)
Arizona	22	(D)	(X)	22	(D)	(NA)	(NA)	(NA)
Arkansas	13	10,452	(X)	13	83,616	(NA)	(NA)	(NA)
California	140	6,915,939	(X)	139	61,267,525	(NA)	(NA)	(NA)
Colorado	42	84,050	(X)	42	1,360,857	(NA)	(NA)	(NA)
Connecticut	37	252,652	(X)	37	5,756,252	(NA)	(NA)	(NA)
Delaware	7	23,516	(X)	7	188,128	(NA)	(NA)	(NA)
Florida	63	2,173,910	(X)	59	15,539,442	(NA)	(NA)	(NA)
Georgia	29	226,793	(X)	28	1,918,574	(NA)	(NA)	(NA)
Hawaii	71	(D)	(X)	66	3,584,810	(NA)	(NA)	(NA)
Idaho	16	50,912	(X)	16	298,671	(NA)	(NA)	(NA)
Illinois	44	195,785	(X)	44	1,741,104	(NA)	(NA)	(NA)
Indiana	36	379,349	(X)	35	3,034,472	(NA)	(NA)	(NA)
Iowa	46	628,660	(X)	46	5,888,670	(NA)	(NA)	(NA)
Kansas	23	276,612	(X)	23	2,801,246	(NA)	(NA)	(NA)
Kentucky	43	132,027	(X)	43	977,537	(NA)	(NA)	(NA)
Louisiana	5	7,550	(X)	5	(D)	(NA)	(NA)	(NA)
Maine	53	115,422	(X)	53	844,840	(NA)	(NA)	(NA)
Maryland	33	69,004	(X)	33	391,332	(NA)	(NA)	(NA)
Massachusetts	58	164,397	(X)	58	2,255,185	(NA)	(NA)	(NA)
Michigan	84	311,273	(X)	84	1,501,329	(NA)	(NA)	(NA)
Minnesota	41	238,598	(X)	41	1,903,034	(NA)	(NA)	(NA)
Mississippi	11	35,799	(X)	11	286,392	(NA)	(NA)	(NA)
Missouri	34	64,620	(X)	34	936,254	(NA)	(NA)	(NA)
Montana	31	61,957	(X)	31	533,906	(NA)	(NA)	(NA)
Nebraska	14	45,214	(X)	14	1,065,610	(NA)	(NA)	(NA)
Nevada	3	(D)	(X)	3	(D)	(NA)	(NA)	(NA)
New Hampshire	25	30,198	(X)	25	218,924	(NA)	(NA)	(NA)
New Jersey	26	170,405	(X)	25	1,301,364	(NA)	(NA)	(NA)
New Mexico	31	36,544	(X)	31	495,892	(NA)	(NA)	(NA)
New York	94	273,298	(X)	94	2,257,348	(NA)	(NA)	(NA)
North Carolina	65	155,648	(X)	64	2,952,760	(NA)	(NA)	(NA)
North Dakota	3	(D)	(X)	3	(D)	(NA)	(NA)	(NA)
Ohio	77	267,735	(X)	77	1,471,270	(NA)	(NA)	(NA)
Oklahoma	26	103,352	(X)	26	481,816	(NA)	(NA)	(NA)
Oregon	92	357,097	(X)	92	3,513,800	(NA)	(NA)	(NA)
Pennsylvania	132	428,500	(X)	131	8,292,807	(NA)	(NA)	(NA)

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
OTHER GREENHOUSE VEGETABLES AND FRESH CUT HERBS (SEE TEXT) - Con.								
States - Con.								
Rhode Island	18	96,057	(X)	18	333,356	(NA)	(NA)	(NA)
South Carolina	11	21,169	(X)	11	(D)	(NA)	(NA)	(NA)
South Dakota	9	8,990	(X)	9	30,920	(NA)	(NA)	(NA)
Tennessee	36	183,365	(X)	35	687,582	(NA)	(NA)	(NA)
Texas	57	574,504	(X)	57	3,033,254	(NA)	(NA)	(NA)
Utah	11	13,630	(X)	11	107,165	(NA)	(NA)	(NA)
Vermont	58	115,922	(X)	58	1,025,506	(NA)	(NA)	(NA)
Virginia	51	134,369	(X)	51	(D)	(NA)	(NA)	(NA)
Washington	88	186,170	(X)	88	3,538,872	(NA)	(NA)	(NA)
West Virginia	12	25,720	(X)	12	207,800	(NA)	(NA)	(NA)
Wisconsin	66	295,197	(X)	66	1,921,629	(NA)	(NA)	(NA)
Wyoming	5	12,080	(X)	5	87,117	(NA)	(NA)	(NA)
MUSHROOMS (SEE TEXT)								
United States Total								
United States	462	45,308,740	(X)	460	985,295,349	462	48,339,412	(X)
States								
Alabama	1	(D)	(X)	1	(D)	2	(D)	(X)
Alaska	1	(D)	(X)	1	(D)	-	-	(X)
Arizona	-	-	(X)	-	-	2	(D)	(X)
Arkansas	5	59,420	(X)	5	(D)	10	240,042	(X)
California	55	5,483,804	(X)	53	223,457,225	78	9,250,637	(X)
Colorado	5	(D)	(X)	5	(D)	1	(D)	(X)
Connecticut	3	(D)	(X)	3	(D)	3	(D)	(X)
Delaware	3	(D)	(X)	3	(D)	3	(D)	(X)
Florida	12	(D)	(X)	12	(D)	13	(D)	(X)
Georgia	1	(D)	(X)	1	(D)	-	-	(X)
Hawaii	3	(D)	(X)	3	(D)	3	(D)	(X)
Idaho	-	-	(X)	-	-	1	(D)	(X)
Illinois	6	(D)	(X)	6	(D)	3	(D)	(X)
Indiana	2	(D)	(X)	2	(D)	5	(D)	(X)
Iowa	-	-	(X)	-	-	3	(D)	(X)
Kansas	2	(D)	(X)	2	(D)	-	-	(X)
Kentucky	27	(D)	(X)	27	342,891	19	61,446	(X)
Louisiana	2	(D)	(X)	2	(D)	1	(D)	(X)
Maine	2	(D)	(X)	2	(D)	5	(D)	(X)
Maryland	4	(D)	(X)	4	(D)	7	(D)	(X)
Massachusetts	6	(D)	(X)	6	99,419	4	(D)	(X)
Michigan	7	(D)	(X)	7	26,858	4	(D)	(X)
Minnesota	5	(D)	(X)	5	(D)	6	121,542	(X)
Mississippi	1	(D)	(X)	1	(D)	1	(D)	(X)
Missouri	11	10,482	(X)	11	203,924	8	149,172	(X)
Montana	2	(D)	(X)	2	(D)	5	(D)	(X)
Nevada	1	(D)	(X)	1	(D)	-	-	(X)
New Hampshire	2	(D)	(X)	2	(D)	2	(D)	(X)
New Jersey	2	(D)	(X)	2	(D)	4	133,560	(X)
New Mexico	3	1,800	(X)	3	47,000	3	740	(X)
New York	12	69,517	(X)	12	238,021	15	332,086	(X)
North Carolina	60	2,121	(X)	60	108,609	11	98,179	(X)
Ohio	7	19,034	(X)	7	225,240	11	23,179	(X)
Oklahoma	4	(D)	(X)	4	(D)	2	(D)	(X)
Oregon	25	427,516	(X)	25	10,303,278	44	1,050,054	(X)
Pennsylvania	95	18,990,506	(X)	95	486,672,248	102	18,966,736	(X)
Rhode Island	4	3,060	(X)	4	(D)	-	-	(X)
South Carolina	5	1,337	(X)	5	(D)	5	113,456	(X)
Tennessee	5	(D)	(X)	5	(D)	8	(D)	(X)
Texas	4	(D)	(X)	4	(D)	4	(D)	(X)
Utah	1	(D)	(X)	1	(D)	1	(D)	(X)
Vermont	5	10,585	(X)	5	41,366	4	(D)	(X)
Virginia	19	27,125	(X)	19	808,140	12	61,790	(X)
Washington	15	(D)	(X)	15	(D)	16	416,945	(X)
West Virginia	10	2,690	(X)	10	15,694	13	87,024	(X)
Wisconsin	17	89,636	(X)	17	2,057,661	18	154,286	(X)
MUSHROOM SPAWN								
United States Total								
United States	16	(X)	(X)	16	33,919,494	(NA)	(NA)	(NA)
States								
Arkansas	1	(X)	(X)	1	(D)	(NA)	(NA)	(NA)
California	2	(X)	(X)	2	(D)	(NA)	(NA)	(NA)
New Jersey	1	(X)	(X)	1	(D)	(NA)	(NA)	(NA)
New York	2	(X)	(X)	2	(D)	(NA)	(NA)	(NA)
North Carolina	3	(X)	(X)	3	6,000	(NA)	(NA)	(NA)
Pennsylvania	3	(X)	(X)	3	(D)	(NA)	(NA)	(NA)
West Virginia	2	(X)	(X)	2	(D)	(NA)	(NA)	(NA)
Wisconsin	2	(X)	(X)	2	(D)	(NA)	(NA)	(NA)

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
NURSERY STOCK								
United States Total								
United States	22,407	221,813,698	446,496	22,130	6,568,562,723	24,975	187,765,579	463,631
States								
Alabama	307	6,151,997	6,758	306	99,704,294	372	8,931,841	7,360
Alaska	43	(D)	60	43	1,760,976	35	15,800	(D)
Arizona	155	7,039,293	6,939	154	198,590,309	225	3,517,233	8,644
Arkansas	123	316,424	1,152	123	(D)	104	428,922	886
California	1,655	25,179,297	31,889	1,626	1,682,234,080	1,807	31,574,891	32,583
Colorado	304	338,686	6,350	304	72,639,390	247	(D)	3,992
Connecticut	207	724,212	4,245	206	115,607,170	192	189,336	4,911
Delaware	47	(D)	541	47	4,750,748	55	(D)	1,190
Florida	3,184	68,835,482	45,134	3,139	844,297,935	2,716	30,220,544	36,936
Georgia	501	3,633,707	7,991	499	125,233,223	578	4,928,904	8,438
Hawaii	532	883,390	1,137	473	23,275,977	274	982,759	805
Idaho	318	86,783	5,620	312	43,755,169	274	116,126	4,248
Illinois	531	1,521,246	20,703	531	166,185,949	572	1,877,325	21,112
Indiana	291	709,958	5,226	291	40,947,480	442	470,108	8,210
Iowa	154	29,885	1,875	148	11,780,934	201	144,585	2,509
Kansas	136	85,754	2,057	136	22,920,957	109	464,075	1,969
Kentucky	332	1,096,239	3,951	332	23,635,510	413	759,618	5,422
Louisiana	298	2,606,983	3,240	297	58,954,819	380	2,529,427	4,757
Maine	145	95,166	1,057	144	6,873,044	139	101,729	(D)
Maryland	261	3,735,094	10,689	261	97,446,286	311	5,050,345	8,488
Massachusetts	210	247,335	1,856	208	40,603,603	196	98,049	2,028
Michigan	813	9,803,292	16,095	768	131,403,626	928	10,017,485	22,018
Minnesota	363	281,494	7,917	360	72,491,156	433	96,191	11,777
Mississippi	208	760,614	1,525	208	16,972,224	152	406,933	1,067
Missouri	247	361,882	4,237	245	25,335,095	312	466,791	4,625
Montana	149	117,056	1,204	149	11,010,816	141	78,742	1,397
Nebraska	183	136,355	1,858	183	(D)	165	301,052	3,026
Nevada	20	68,652	519	18	(D)	17	(D)	(D)
New Hampshire	85	59,640	497	85	12,845,908	73	11,200	(D)
New Jersey	972	7,823,616	21,328	967	185,288,767	1,087	3,750,480	20,579
New Mexico	80	346,082	959	80	12,691,450	112	(D)	1,075
New York	697	906,523	14,638	694	101,095,581	858	535,199	15,924
North Carolina	1,250	4,824,577	23,333	1,242	251,810,276	1,466	5,220,882	18,423
North Dakota	33	(D)	376	33	(D)	31	-	(D)
Ohio	873	10,271,927	21,968	873	173,843,270	1,267	4,229,895	26,963
Oklahoma	134	4,756,192	3,469	134	105,602,907	181	(D)	4,093
Oregon	1,479	15,740,936	41,088	1,467	757,363,416	1,686	23,467,850	37,312
Pennsylvania	947	9,408,134	24,303	919	108,089,720	1,260	9,107,339	31,351
Rhode Island	84	395,664	1,286	84	16,259,497	62	201,368	1,237
South Carolina	314	1,490,449	7,341	314	91,395,683	396	3,546,914	(D)
South Dakota	60	38,583	507	60	3,291,488	60	(D)	507
Tennessee	793	4,599,100	33,485	790	177,221,588	1,346	4,390,778	38,953
Texas	936	13,244,638	16,958	934	291,849,180	1,014	8,049,504	13,719
Utah	100	103,102	640	100	(D)	93	126,820	542
Vermont	110	54,210	437	110	5,268,772	76	3,406	318
Virginia	392	5,711,566	11,955	388	96,564,870	524	2,986,186	11,062
Washington	585	6,289,714	7,086	585	106,107,571	805	9,366,789	9,940
West Virginia	110	106,280	709	106	(D)	143	(D)	698
Wisconsin	637	288,909	12,177	635	81,692,285	624	855,033	14,334
Wyoming	19	15,300	131	19	1,274,767	21	(D)	(D)
OTHER NURSERY CROPS (SEE TEXT)								
United States Total								
United States	707	1,431,170	3,628	693	48,475,835	(NA)	(NA)	(NA)
States								
Alabama	12	6,000	(D)	12	2,159,202	(NA)	(NA)	(NA)
Arizona	9	117,000	7	9	381,598	(NA)	(NA)	(NA)
Arkansas	5	(D)	47	5	611,470	(NA)	(NA)	(NA)
California	79	154,166	294	78	7,207,180	(NA)	(NA)	(NA)
Colorado	8	5,828	18	7	583,670	(NA)	(NA)	(NA)
Connecticut	6	(D)	55	6	(D)	(NA)	(NA)	(NA)
Delaware	8	(D)	4	8	42,726	(NA)	(NA)	(NA)
Florida	67	89,750	269	67	3,386,154	(NA)	(NA)	(NA)
Georgia	14	36,822	91	14	1,603,260	(NA)	(NA)	(NA)
Hawaii	44	39,140	59	41	(D)	(NA)	(NA)	(NA)
Idaho	6	(D)	(D)	6	(D)	(NA)	(NA)	(NA)
Illinois	17	(D)	27	17	326,728	(NA)	(NA)	(NA)
Indiana	16	54,060	17	16	(D)	(NA)	(NA)	(NA)
Iowa	7	(D)	36	7	305,732	(NA)	(NA)	(NA)
Kansas	6	(D)	6	6	(D)	(NA)	(NA)	(NA)
Kentucky	18	24,000	128	18	1,126,574	(NA)	(NA)	(NA)
Louisiana	3	(D)	(D)	3	(D)	(NA)	(NA)	(NA)
Maine	10	(D)	14	10	147,525	(NA)	(NA)	(NA)
Maryland	5	(D)	2	5	29,750	(NA)	(NA)	(NA)
Massachusetts	9	1,950	(D)	9	85,978	(NA)	(NA)	(NA)
Michigan	15	9,140	20	13	118,780	(NA)	(NA)	(NA)
Minnesota	14	34,400	19	14	(D)	(NA)	(NA)	(NA)
Mississippi	8	-	53	8	691,500	(NA)	(NA)	(NA)
Missouri	12	10,733	7	12	196,764	(NA)	(NA)	(NA)
Montana	1	-	(D)	1	(D)	(NA)	(NA)	(NA)
New Hampshire	3	(D)	(D)	3	7,600	(NA)	(NA)	(NA)

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
OTHER NURSERY CROPS (SEE TEXT) - Con.								
States - Con.								
New Jersey	1	(D)	-	1	(D)	(NA)	(NA)	(NA)
New Mexico	5	(D)	4	5	14,618	(NA)	(NA)	(NA)
New York	35	109,506	149	35	3,562,384	(NA)	(NA)	(NA)
North Carolina	24	18,690	102	24	940,216	(NA)	(NA)	(NA)
Ohio	12	45,040	10	12	699,869	(NA)	(NA)	(NA)
Oklahoma	6	7,100	6	6	172,412	(NA)	(NA)	(NA)
Oregon	38	17,212	77	37	816,102	(NA)	(NA)	(NA)
Pennsylvania	27	(D)	65	27	(D)	(NA)	(NA)	(NA)
Rhode Island	2	(D)	-	2	(D)	(NA)	(NA)	(NA)
South Carolina	15	15,280	29	15	588,872	(NA)	(NA)	(NA)
Tennessee	29	74,830	129	24	435,485	(NA)	(NA)	(NA)
Texas	44	108,516	965	44	12,014,165	(NA)	(NA)	(NA)
Utah	8	2,600	3	8	50,852	(NA)	(NA)	(NA)
Vermont	5	6,288	(D)	5	(D)	(NA)	(NA)	(NA)
Virginia	17	100,269	33	16	(D)	(NA)	(NA)	(NA)
Washington	28	33,925	213	28	(D)	(NA)	(NA)	(NA)
West Virginia	2	-	(D)	2	(D)	(NA)	(NA)	(NA)
Wisconsin	5	(D)	2	5	32,505	(NA)	(NA)	(NA)
Wyoming	2	-	(D)	2	(D)	(NA)	(NA)	(NA)
SOD HARVESTED								
United States Total								
United States	1,881	(X)	409,440	1,878	1,353,422,529	2,124	(X)	386,504
States								
Alabama	97	(X)	23,722	97	58,129,093	96	(X)	25,805
Alaska	4	(X)	131	4	238,000	2	(X)	(D)
Arizona	9	(X)	3,147	9	29,467,837	13	(X)	3,187
Arkansas	46	(X)	8,276	46	16,392,078	58	(X)	8,998
California	55	(X)	19,087	55	252,476,652	62	(X)	15,909
Colorado	42	(X)	8,812	42	42,105,586	48	(X)	7,767
Connecticut	6	(X)	1,485	6	6,946,473	10	(X)	1,251
Delaware	3	(X)	1,289	3	(D)	6	(X)	2,305
Florida	193	(X)	84,430	193	175,945,432	235	(X)	67,370
Georgia	103	(X)	28,647	103	84,190,951	92	(X)	24,653
Hawaii	29	(X)	86	28	4,471,517	20	(X)	113
Idaho	38	(X)	4,211	38	20,305,973	38	(X)	4,704
Illinois	29	(X)	13,879	29	31,755,548	40	(X)	7,994
Indiana	30	(X)	5,358	30	9,479,731	38	(X)	5,076
Iowa	31	(X)	4,225	31	8,766,794	33	(X)	4,836
Kansas	33	(X)	5,812	33	13,415,171	49	(X)	4,971
Kentucky	39	(X)	3,229	39	8,622,341	54	(X)	4,692
Louisiana	17	(X)	2,552	17	4,107,329	23	(X)	2,747
Maine	8	(X)	930	8	(D)	10	(X)	1,151
Maryland	30	(X)	4,152	30	19,769,749	29	(X)	4,987
Massachusetts	9	(X)	(D)	9	3,535,052	6	(X)	(D)
Michigan	51	(X)	9,474	51	16,365,057	54	(X)	10,262
Minnesota	76	(X)	10,776	76	19,050,931	89	(X)	14,564
Mississippi	57	(X)	6,621	57	11,201,633	47	(X)	4,352
Missouri	42	(X)	6,288	42	20,041,742	53	(X)	6,002
Montana	13	(X)	1,195	13	3,952,930	16	(X)	1,232
Nebraska	32	(X)	3,202	32	7,491,791	38	(X)	3,015
Nevada	7	(X)	762	7	7,176,050	11	(X)	720
New Hampshire	1	(X)	(D)	1	(D)	2	(X)	(D)
New Jersey	40	(X)	9,425	40	38,083,541	53	(X)	12,485
New Mexico	13	(X)	1,487	13	5,020,128	5	(X)	1,186
New York	21	(X)	7,508	21	33,260,593	14	(X)	6,868
North Carolina	87	(X)	13,496	87	45,598,333	87	(X)	10,952
North Dakota	5	(X)	(D)	5	(D)	3	(X)	27
Ohio	40	(X)	3,777	40	14,557,594	62	(X)	9,434
Oklahoma	71	(X)	17,871	71	40,923,250	95	(X)	17,846
Oregon	14	(X)	2,298	14	16,177,429	14	(X)	2,608
Pennsylvania	13	(X)	961	13	(D)	24	(X)	2,100
Rhode Island	12	(X)	2,581	12	14,332,575	15	(X)	2,453
South Carolina	51	(X)	14,963	50	31,275,036	27	(X)	14,027
South Dakota	6	(X)	779	5	2,207,000	3	(X)	(D)
Tennessee	52	(X)	11,329	52	(D)	56	(X)	8,419
Texas	164	(X)	36,805	164	99,564,546	205	(X)	38,341
Utah	43	(X)	5,705	43	32,081,874	46	(X)	4,036
Vermont	1	(X)	(D)	1	(D)	3	(X)	3
Virginia	27	(X)	10,065	27	21,743,340	25	(X)	7,315
Washington	19	(X)	2,384	19	15,192,510	41	(X)	3,756
West Virginia	3	(X)	(D)	3	206,000	2	(X)	(D)
Wisconsin	63	(X)	4,852	63	25,705,454	63	(X)	4,399
Wyoming	6	(X)	277	6	1,146,600	9	(X)	610

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
TOBACCO PLANTS SOLD FOR TRANSPLANT (SEE TEXT)								
United States Total								
United States	442	3,964,653	3	442	9,289,259	(NA)	(NA)	(NA)
States								
Georgia	9	453,380	-	9	928,000	(NA)	(NA)	(NA)
Illinois	2	(D)	-	2	(D)	(NA)	(NA)	(NA)
Indiana	4	20,900	-	4	67,140	(NA)	(NA)	(NA)
Kentucky	176	1,383,750	(D)	176	3,715,364	(NA)	(NA)	(NA)
Maryland	3	3,880	-	3	8,390	(NA)	(NA)	(NA)
Massachusetts	3	7,000	-	3	9,000	(NA)	(NA)	(NA)
Missouri	10	20,925	-	10	44,075	(NA)	(NA)	(NA)
North Carolina	57	910,120	-	57	1,571,665	(NA)	(NA)	(NA)
Ohio	15	39,880	-	15	127,080	(NA)	(NA)	(NA)
Pennsylvania	49	190,156	-	49	541,380	(NA)	(NA)	(NA)
South Carolina	1	(D)	-	1	(D)	(NA)	(NA)	(NA)
Tennessee	51	426,028	-	51	1,131,019	(NA)	(NA)	(NA)
Virginia	54	444,858	(D)	54	1,029,895	(NA)	(NA)	(NA)
West Virginia	2	(D)	-	2	(D)	(NA)	(NA)	(NA)
Wisconsin	6	22,500	-	6	(D)	(NA)	(NA)	(NA)
VEGETABLE SEEDS								
United States Total								
United States	1,103	837,940	45,309	1,097	99,694,490	1,671	1,864,522	56,939
States								
Alabama	15	2,160	12	15	19,414	4	-	6
Alaska	1	(D)	-	1	(D)	2	(D)	-
Arizona	12	(D)	1,083	11	1,728,140	18	-	1,604
Arkansas	8	5,300	3	8	6,439	10	7,200	17
California	119	232,570	10,695	119	43,399,223	189	230,842	14,010
Colorado	29	7,589	453	29	834,503	27	(D)	922
Connecticut	5	(D)	3	5	12,526	7	1,007	(D)
Delaware	6	10,012	1	6	2,830	4	1,800	(D)
Florida	10	61,908	44	10	81,496	27	(D)	112
Georgia	6	(D)	80	6	133,000	25	13,413	87
Hawaii	21	19,425	7	21	19,710	6	(D)	(D)
Idaho	144	5,886	13,743	143	18,798,271	137	(D)	9,420
Illinois	17	25,176	137	17	300,777	12	(D)	157
Indiana	15	4,134	4	15	6,863	18	8,418	1
Iowa	17	28,733	29	16	47,610	24	22,668	85
Kansas	3	(D)	(D)	3	2,996	6	(D)	(D)
Kentucky	21	7,897	2	21	7,776	29	19,488	16
Louisiana	1	(D)	(D)	1	(D)	4	(D)	(D)
Maine	18	9,325	7	17	64,061	31	7,190	4
Maryland	8	2,400	10	8	10,750	30	104,335	30
Massachusetts	10	5,837	(D)	10	8,805	20	12,998	4
Michigan	33	92,406	14	33	(D)	48	(D)	285
Minnesota	7	(D)	31	7	57,626	28	(D)	601
Mississippi	11	1,525	45	11	74,929	18	23,248	85
Missouri	23	13,300	3	23	22,054	24	(D)	(D)
Montana	8	(D)	3	8	5,344	10	2,600	3
Nebraska	4	2,375	(D)	4	738	7	4,297	10
Nevada	3	350	-	3	53	4	450	(D)
New Hampshire	2	(D)	-	2	(D)	7	2,950	(D)
New Jersey	15	42,300	-	15	65,747	21	158,604	3
New Mexico	13	(D)	83	13	137,417	9	(D)	(D)
New York	37	19,628	186	37	323,756	71	31,240	359
North Carolina	19	24,900	11	19	29,390	53	73,440	(D)
North Dakota	2	(D)	(D)	2	(D)	-	-	-
Ohio	46	25,460	20	46	74,562	35	134,452	60
Oklahoma	13	(D)	9	13	16,461	12	(D)	6
Oregon	139	10,590	7,850	138	14,698,520	202	14,126	7,014
Pennsylvania	20	18,890	(D)	20	44,925	78	104,304	167
Rhode Island	6	4,002	(D)	6	(D)	5	8,150	-
South Carolina	5	3,258	1	5	1,319	24	(D)	20
South Dakota	3	-	1	3	4,500	5	-	(D)
Tennessee	21	9,984	(D)	21	8,442	34	15,821	20
Texas	20	16,110	4	20	6,635	12	4,529	(D)
Utah	3	(D)	(D)	3	(D)	16	8,481	5
Vermont	13	7,224	(D)	13	(D)	21	7,182	6
Virginia	11	(D)	8	11	18,734	26	40,930	44
Washington	136	8,062	10,596	135	17,659,900	238	398,267	21,467
West Virginia	1	(D)	-	1	(D)	12	1,495	8
Wisconsin	2	(D)	(D)	2	(D)	19	3,810	(D)
Wyoming	1	(D)	-	1	(D)	2	(D)	-

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Table 35. **Nursery, Greenhouse, Floriculture, Sod, Mushrooms, Vegetable Seeds, and Propagative Materials Grown for Sale: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002		
	Farms	Sq. ft. under glass or other protection	Acres in the open	Value of sales		Farms	Sq. ft. under glass or other protection	Acres in the open
				Farms	Dollars			
VEGETABLE TRANSPLANTS (SEE TEXT)								
United States Total								
United States	1,322	20,247,905	1,233	1,313	121,929,991	(NA)	(NA)	(NA)
States								
Alabama	7	118,366	(D)	7	(D)	(NA)	(NA)	(NA)
Alaska	3	1,650	-	3	4,000	(NA)	(NA)	(NA)
Arizona	5	(D)	(D)	5	(D)	(NA)	(NA)	(NA)
Arkansas	8	6,018	2	8	22,746	(NA)	(NA)	(NA)
California	68	14,291,522	193	68	90,985,384	(NA)	(NA)	(NA)
Colorado	31	30,914	4	31	92,585	(NA)	(NA)	(NA)
Connecticut	32	76,451	1	29	204,401	(NA)	(NA)	(NA)
Delaware	9	(D)	(D)	9	(D)	(NA)	(NA)	(NA)
Florida	11	909,840	(D)	11	4,097,738	(NA)	(NA)	(NA)
Georgia	17	863,496	11	17	2,905,290	(NA)	(NA)	(NA)
Hawaii	12	-	7	12	8,000	(NA)	(NA)	(NA)
Idaho	6	3,106	(D)	6	13,835	(NA)	(NA)	(NA)
Illinois	29	37,101	13	29	134,553	(NA)	(NA)	(NA)
Indiana	30	45,674	50	30	296,685	(NA)	(NA)	(NA)
Iowa	34	52,248	6	34	150,679	(NA)	(NA)	(NA)
Kansas	8	18,420	-	8	31,050	(NA)	(NA)	(NA)
Kentucky	46	125,526	6	46	(D)	(NA)	(NA)	(NA)
Louisiana	6	11,680	-	6	29,200	(NA)	(NA)	(NA)
Maine	37	45,354	13	37	192,188	(NA)	(NA)	(NA)
Maryland	37	79,489	8	37	613,342	(NA)	(NA)	(NA)
Massachusetts	44	110,384	19	44	423,205	(NA)	(NA)	(NA)
Michigan	47	898,284	9	47	(D)	(NA)	(NA)	(NA)
Minnesota	15	12,932	7	15	62,130	(NA)	(NA)	(NA)
Mississippi	14	31,760	1	14	86,500	(NA)	(NA)	(NA)
Missouri	30	62,470	4	30	149,330	(NA)	(NA)	(NA)
Montana	3	2,700	-	3	6,650	(NA)	(NA)	(NA)
Nebraska	10	(D)	-	10	77,105	(NA)	(NA)	(NA)
Nevada	3	(D)	(D)	3	(D)	(NA)	(NA)	(NA)
New Hampshire	30	40,366	2	30	107,440	(NA)	(NA)	(NA)
New Jersey	19	97,950	(D)	19	386,850	(NA)	(NA)	(NA)
New Mexico	11	41,572	(D)	11	107,930	(NA)	(NA)	(NA)
New York	106	469,420	14	105	1,365,155	(NA)	(NA)	(NA)
North Carolina	77	247,921	20	77	694,197	(NA)	(NA)	(NA)
North Dakota	4	(D)	9	4	41,500	(NA)	(NA)	(NA)
Ohio	61	215,252	10	61	905,125	(NA)	(NA)	(NA)
Oklahoma	7	7,470	(D)	7	26,050	(NA)	(NA)	(NA)
Oregon	49	243,828	(D)	47	(D)	(NA)	(NA)	(NA)
Pennsylvania	101	198,387	12	101	526,550	(NA)	(NA)	(NA)
Rhode Island	14	12,127	(Z)	14	30,013	(NA)	(NA)	(NA)
South Carolina	15	21,440	7	15	78,800	(NA)	(NA)	(NA)
South Dakota	1	(D)	-	-	-	(NA)	(NA)	(NA)
Tennessee	30	31,726	(D)	28	(D)	(NA)	(NA)	(NA)
Texas	32	269,932	(D)	32	2,003,530	(NA)	(NA)	(NA)
Utah	11	17,200	(D)	11	58,850	(NA)	(NA)	(NA)
Vermont	17	17,156	-	17	110,126	(NA)	(NA)	(NA)
Virginia	34	68,495	14	34	227,798	(NA)	(NA)	(NA)
Washington	45	75,322	33	45	316,905	(NA)	(NA)	(NA)
West Virginia	20	21,188	(D)	20	68,120	(NA)	(NA)	(NA)
Wisconsin	35	25,106	2	35	75,915	(NA)	(NA)	(NA)
Wyoming	1	(D)	-	1	(D)	(NA)	(NA)	(NA)

Table 36. **Cut Christmas Trees: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002			
	Acres in production			Trees cut		Acres in production		Trees cut	
	Farms	Acres	Acres irrigated	Farms	Number	Farms	Acres	Farms	Number
UNITED STATES TOTAL									
United States	17,367	343,374	13,912	12,255	17,415,971	21,904	446,996	13,849	20,808,065
STATES									
Alabama	71	738	81	54	31,183	99	1,020	57	35,670
Alaska	1	(D)	(D)	-	-	-	-	-	-
Arizona	10	39	33	7	289	6	118	4	(D)
Arkansas	59	562	20	31	10,636	65	562	44	18,146
California	400	4,033	1,487	279	119,855	543	7,708	340	383,940
Colorado	107	4,269	184	78	13,404	111	6,187	63	11,508
Connecticut	407	3,887	49	343	113,622	495	4,833	401	133,861
Delaware	49	385	30	41	10,819	64	713	55	16,183
Florida	95	747	99	51	13,776	87	726	46	15,320
Georgia	179	2,359	418	120	50,607	253	2,579	144	80,952
Hawaii	37	91	45	29	8,323	28	(D)	19	4,233
Idaho	112	972	196	51	46,145	104	1,485	53	55,083
Illinois	291	3,843	18	212	112,617	429	6,355	301	144,008
Indiana	231	3,175	113	177	198,899	373	5,630	272	186,303
Iowa	196	1,552	18	153	39,575	271	2,578	185	57,254
Kansas	83	1,293	64	66	15,731	168	3,415	101	29,094
Kentucky	139	988	41	87	23,724	230	2,076	123	56,473
Louisiana	67	590	32	50	17,227	120	1,387	82	43,742
Maine	307	4,349	18	235	126,908	335	4,761	228	164,406
Maryland	229	2,978	250	168	77,801	263	3,205	188	99,183
Massachusetts	420	3,164	218	284	75,914	408	2,947	321	72,522
Michigan	1,319	41,954	2,999	832	1,572,208	1,798	60,520	1,038	2,380,173
Minnesota	368	9,963	344	243	202,259	518	15,413	288	463,885
Mississippi	87	1,188	103	50	20,889	163	2,380	78	39,594
Missouri	134	1,596	25	92	27,344	310	3,775	204	92,483
Montana	84	3,707	92	55	32,104	73	3,496	56	43,793
Nebraska	75	567	149	63	15,160	103	1,068	76	24,215
Nevada	4	(D)	(D)	-	-	6	(D)	2	(D)
New Hampshire	235	2,356	6	189	82,124	234	2,534	187	107,725
New Jersey	1,150	6,314	278	879	78,791	1,167	7,628	917	132,458
New Mexico	28	212	19	14	314	22	3,632	15	2,935
New York	1,154	20,267	382	795	348,043	1,648	32,599	973	618,917
North Carolina	1,251	37,653	170	922	3,085,383	1,528	30,694	1,003	2,915,507
North Dakota	14	169	8	12	1,150	19	154	17	2,007
Ohio	746	8,005	37	528	272,981	1,105	16,625	711	372,957
Oklahoma	63	415	44	42	14,310	91	861	57	18,818
Oregon	1,852	66,816	3,024	1,282	6,850,841	2,024	67,804	1,085	6,466,551
Pennsylvania	1,599	34,789	232	1,201	1,179,733	2,164	44,905	1,249	1,724,419
Rhode Island	83	770	24	49	19,251	83	801	63	23,085
South Carolina	167	1,707	305	99	31,113	181	2,019	89	38,871
South Dakota	23	204	8	16	4,161	18	242	9	3,715
Tennessee	196	2,262	69	139	166,542	186	2,108	171	149,770
Texas	202	2,425	367	99	42,327	301	3,781	169	80,914
Utah	50	159	116	32	2,126	65	203	23	3,744
Vermont	318	3,600	36	259	168,206	359	4,658	271	151,249
Virginia	481	9,414	49	329	313,710	767	12,944	490	507,791
Washington	791	11,095	1,126	498	785,304	773	15,580	479	1,164,139
West Virginia	267	2,260	38	173	42,102	351	3,581	183	60,098
Wisconsin	1,136	33,458	433	847	950,440	1,387	47,699	916	1,605,981
Wyoming	-	-	-	-	-	8	785	3	3,030

Table 37. **Short Rotation Woody Crops: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007					2002			
	Acres in production			Acres harvested		Acres in production		Acres harvested	
	Farms	Acres	Acres irrigated	Farms	Acres	Farms	Acres	Farms	Acres
UNITED STATES TOTAL									
United States	4,717	228,335	(D)	1,769	31,007	6,285	288,686	1,940	31,920
STATES									
Alabama	13	99	-	2	(D)	145	1,635	38	428
Alaska	1	(D)	-	-	-	4	44	2	(D)
Arizona	14	213	48	7	11	21	710	12	(D)
Arkansas	62	1,749	-	29	511	-	-	-	-
California	97	2,086	631	53	420	173	4,247	87	166
Colorado	119	2,768	962	72	435	88	1,931	41	190
Delaware	-	-	-	-	-	9	181	5	9
Florida	-	-	-	-	-	198	6,562	38	395
Georgia	71	2,813	364	39	658	170	2,206	49	304
Hawaii	59	(D)	29	25	50	16	(D)	5	(D)
Idaho	91	1,670	377	42	161	91	1,268	8	29
Illinois	117	2,152	523	53	595	148	4,796	67	1,550
Indiana	116	3,103	127	45	394	-	-	-	-
Iowa	59	692	(D)	28	114	112	1,004	42	236
Kansas	-	-	-	-	-	26	(D)	11	23
Kentucky	83	1,222	45	46	301	54	1,260	37	304
Louisiana	203	16,329	65	46	3,356	183	20,350	35	1,495
Maryland	34	524	32	16	162	78	903	30	254
Michigan	311	7,934	431	127	1,234	422	10,966	147	1,482
Minnesota	225	(D)	116	83	672	274	10,060	86	762
Mississippi	527	44,638	231	128	4,866	387	33,892	89	4,421
Missouri	99	3,145	231	56	622	-	-	-	-
Nebraska	28	152	31	14	19	25	262	14	44
Nevada	2	(D)	(D)	2	(D)	2	(D)	-	-
New Mexico	13	49	27	4	6	15	121	8	46
New York	221	5,753	113	100	1,276	448	18,805	154	2,096
North Carolina	44	289	40	26	71	400	7,418	122	766
North Dakota	8	16	11	-	-	-	-	-	-
Ohio	307	5,433	42	121	1,267	346	8,663	122	1,123
Oklahoma	52	877	61	31	420	59	1,783	19	181
Oregon	211	26,787	(D)	65	2,918	367	26,330	91	2,467
Pennsylvania	23	414	(D)	13	59	510	11,358	180	2,823
South Carolina	351	17,493	1,129	100	3,348	395	17,047	76	1,496
South Dakota	1	(D)	-	1	(D)	15	193	6	34
Tennessee	72	1,178	43	48	309	59	(D)	35	295
Texas	731	29,635	1,380	215	4,265	599	37,763	157	3,599
Utah	2	(D)	(D)	1	(D)	13	32	3	4
Virginia	176	(D)	81	55	708	242	6,133	56	512
Washington	153	12,638	(D)	71	1,714	148	22,463	62	3,535
West Virginia	15	188	(D)	1	(D)	32	112	4	5
Wisconsin	4	86	-	2	(D)	1	(D)	1	(D)
Wyoming	2	(D)	(D)	2	(D)	10	307	1	(D)

Table 38. **Maple Syrup: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	2007			2002		
	Farms	Number of taps	Syrup produced (gallons)	Farms	Number of taps	Syrup produced (gallons)
UNITED STATES TOTAL						
United States	8,121	8,369,856	1,582,101	8,068	8,230,772	1,651,552
STATES						
Connecticut	173	73,922	11,732	219	77,559	12,747
Illinois	32	8,708	1,382	22	8,423	2,553
Indiana	154	41,454	8,178	128	45,927	8,048
Iowa	53	6,227	953	56	5,348	1,077
Kentucky	44	2,594	335	38	4,142	416
Maine	468	1,487,473	252,447	516	1,377,653	258,315
Maryland	16	19,319	2,467	21	26,981	4,206
Massachusetts	292	252,780	41,249	289	236,745	51,589
Michigan	691	384,796	66,313	560	404,174	85,560
Minnesota	256	81,426	13,875	214	128,241	16,355
Missouri	38	2,714	387	30	1,533	(D)
Nebraska	3	(D)	(D)	1	(D)	(D)
New Hampshire	477	400,956	71,122	503	393,609	83,980
New Jersey	40	3,149	522	24	2,710	416
New York	1,313	1,342,165	229,486	1,464	1,615,027	308,692
North Carolina	3	115	10	1	(D)	(D)
Ohio	600	317,243	62,141	594	403,759	75,374
Pennsylvania	530	445,694	61,138	501	361,411	63,187
Rhode Island	17	3,803	441	8	2,016	306
Tennessee	7	474	94	6	(D)	(D)
Utah	1	(D)	(D)	-	-	-
Vermont	1,310	2,770,392	644,962	1,723	2,475,691	560,200
Virginia	42	19,961	1,982	26	28,864	4,408
West Virginia	75	24,889	2,773	57	20,613	2,853
Wisconsin	1,486	679,586	108,108	1,067	609,756	110,856

Table 39. **Grain Storage Capacity: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Grain storage capacity (see text)			Farms with capacity by North American Industry Classification System	
	Farms	Bushels	Average bushels per farm	Crop production (111)	Animal production (112)
UNITED STATES TOTAL					
United States 2007	309,365	11,333,050,084	36,633	205,765	103,600
2002	346,977	9,889,959,099	28,503	213,605	133,372
STATES, 2007					
Alabama	1,943	25,261,703	13,001	888	1,055
Alaska	33	888,759	26,932	29	4
Arizona	94	3,023,063	32,160	36	58
Arkansas	2,172	183,723,450	84,587	1,890	282
California	873	29,952,296	34,310	363	510
Colorado	4,178	159,130,301	38,088	2,776	1,402
Connecticut	58	414,654	7,149	19	39
Delaware	225	9,352,286	41,566	112	113
Florida	535	5,233,003	9,781	245	290
Georgia	3,248	51,275,164	15,787	2,089	1,159
Idaho	3,345	114,132,833	34,120	2,108	1,237
Illinois	25,577	1,353,862,005	52,933	22,375	3,202
Indiana	15,189	736,406,123	48,483	12,153	3,036
Iowa	40,092	1,761,362,028	43,933	29,823	10,269
Kansas	14,330	360,629,075	25,166	10,256	4,074
Kentucky	6,655	164,801,545	24,764	3,217	3,438
Louisiana	858	59,576,114	69,436	689	169
Maine	157	2,445,449	15,576	89	68
Maryland	1,335	38,127,226	28,560	701	634
Massachusetts	58	518,580	8,941	23	35
Michigan	7,948	236,000,421	29,693	5,341	2,607
Minnesota	29,216	1,258,600,916	43,079	20,446	8,770
Mississippi	1,585	93,681,066	59,105	1,033	552
Missouri	14,726	429,257,978	29,150	9,649	5,077
Montana	8,123	323,558,720	39,832	4,868	3,255
Nebraska	19,544	997,984,438	51,063	14,721	4,823
Nevada	84	2,005,889	23,880	35	49
New Hampshire	26	68,956	2,652	16	10
New Jersey	440	9,443,789	21,463	342	98
New Mexico	344	12,648,402	36,769	161	183
New York	3,423	80,961,645	23,652	1,531	1,892
North Carolina	3,928	82,277,025	20,946	2,572	1,356
North Dakota	15,490	759,086,170	49,005	12,257	3,233
Ohio	15,534	446,335,442	28,733	11,177	4,357
Oklahoma	6,482	57,196,122	8,824	2,631	3,851
Oregon	1,210	35,271,213	29,150	857	353
Pennsylvania	10,683	112,479,557	10,529	4,412	6,271
Rhode Island	17	8,629	508	9	8
South Carolina	1,814	42,080,625	23,198	1,158	656
South Dakota	13,293	600,760,235	45,194	8,540	4,753
Tennessee	3,907	65,147,227	16,674	1,705	2,202
Texas	5,038	111,611,844	22,154	2,167	2,871
Utah	1,547	15,561,328	10,059	614	933
Vermont	100	933,911	9,339	28	72
Virginia	2,735	40,970,443	14,980	1,161	1,574
Washington	1,662	69,147,864	41,605	1,323	339
West Virginia	1,047	4,296,804	4,104	226	821
Wisconsin	16,932	364,806,553	21,545	6,314	10,618
Wyoming	1,532	20,751,215	13,545	590	942

Table 40. **Commodities Raised and Delivered Under Production Contracts: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	Farms	Number
BROILERS AND OTHER MEAT-TYPE CHICKENS		
United States Total		
United States	17,001	8,600,795,123
States		
Alabama	2,370	1,015,912,076
Arkansas	2,416	1,171,417,704
California	59	45,163,506
Connecticut	13	404,332
Delaware	713	246,098,746
Florida	123	73,183,463
Georgia	2,173	1,398,907,034
Hawaii	1	(D)
Illinois	4	(D)
Indiana	96	36,915,566
Iowa	33	9,679,335
Kentucky	462	309,722,752
Louisiana	279	187,524,217
Maryland	698	296,341,690
Michigan	11	3,676,000
Minnesota	141	47,163,577
Mississippi	1,404	822,957,432
Missouri	366	278,336,596
Nebraska	6	4,843,200
New York	5	541,800
North Carolina	1,838	769,746,946
Ohio	188	47,874,902
Oklahoma	496	240,818,895
Oregon	31	24,598,871
Pennsylvania	467	146,621,106
South Carolina	397	230,213,351
South Dakota	1	(D)
Tennessee	547	206,123,367
Texas	838	577,143,316
Virginia	523	245,168,464
Washington	38	28,041,742
West Virginia	161	88,772,648
Wisconsin	103	46,572,339
EGGS, CHICKEN (DOZENS)		
United States Total		
United States	3,331	1,823,376,451
States		
Alabama	443	127,790,446
Arkansas	531	150,943,108
California	6	6,943,750
Delaware	4	661,464
Florida	16	18,318,942
Georgia	517	286,792,413
Illinois	5	2,000,000
Indiana	58	96,618,998
Iowa	27	64,690,129
Kentucky	90	31,495,243
Louisiana	27	12,823,986
Maine	1	(D)
Maryland	9	17,663,878
Massachusetts	1	(D)
Michigan	4	10,490,290
Minnesota	27	56,638,129
Mississippi	205	67,340,999
Missouri	45	31,480,177
Nebraska	12	50,886,939
New Hampshire	1	(D)
New York	4	(D)
North Carolina	448	151,004,097
Ohio	93	251,336,050
Oklahoma	107	28,075,242
Pennsylvania	145	157,671,213
South Carolina	54	38,400,680
Tennessee	90	22,229,337
Texas	157	83,773,487
Virginia	76	21,269,485
West Virginia	102	18,313,750
Wisconsin	26	16,419,119
PULLETS FOR LAYING FLOCK REPLACEMENT		
United States Total		
United States	1,563	116,811,593
States		
Alabama	184	10,106,814
Arkansas	247	13,477,458
California	6	816,708
Connecticut	2	(D)
Delaware	2	(D)
Florida	26	1,982,130
Georgia	215	13,385,144
Indiana	34	5,698,348

Item	Farms	Number
PULLETS FOR LAYING FLOCK REPLACEMENT - Con.		
States - Con.		
Iowa	13	2,341,084
Kentucky	40	2,368,894
Louisiana	13	1,210,600
Maine	5	1,293,000
Maryland	5	575,000
Massachusetts	1	(D)
Michigan	10	2,095,232
Minnesota	19	5,072,117
Mississippi	69	4,938,821
Missouri	67	4,160,758
Nebraska	1	(D)
New Hampshire	1	(D)
New York	5	286,030
North Carolina	226	10,915,464
Ohio	46	8,787,511
Oklahoma	50	2,280,377
Oregon	1	(D)
Pennsylvania	97	10,989,362
South Carolina	24	3,224,569
Tennessee	40	1,895,639
Texas	55	4,895,549
Virginia	29	1,346,484
West Virginia	24	1,417,500
Wisconsin	6	239,000
TURKEYS		
United States Total		
United States	2,195	200,125,309
States		
Arkansas	257	28,163,684
California	31	6,260,019
Colorado	1	(D)
Illinois	32	1,746,118
Indiana	191	11,775,536
Iowa	30	3,045,540
Kansas	22	1,164,332
Kentucky	1	(D)
Maryland	7	682,250
Michigan	2	(D)
Minnesota	74	9,860,478
Missouri	329	19,164,686
New York	1	(D)
North Carolina	522	54,469,299
North Dakota	1	(D)
Ohio	102	5,355,190
Oklahoma	12	738,622
Pennsylvania	114	8,870,746
South Carolina	124	17,625,087
South Dakota	1	(D)
Texas	16	6,526,168
Utah	21	1,235,628
Virginia	218	16,760,460
West Virginia	51	3,643,307
Wisconsin	35	2,275,850
CUSTOM FED CATTLE SHIPPED DIRECTLY FOR SLAUGHTER (SEE TEXT)		
United States Total		
United States	1,485	8,826,814
States		
Arizona	7	348,871
California	7	256,562
Colorado	45	449,788
Idaho	12	88,023
Illinois	74	71,290
Indiana	18	9,298
Iowa	372	367,670
Kansas	110	2,615,076
Maryland	5	413
Michigan	16	7,566
Minnesota	128	74,692
Missouri	7	16,727
Montana	15	45,806
Nebraska	272	1,401,111
Nevada	2	(D)
New Mexico	4	1,019
New York	12	5,845
North Dakota	8	36,477
Ohio	59	36,134
Oklahoma	35	486,457
Oregon	8	(D)
Pennsylvania	60	7,873
South Carolina	4	(D)
South Dakota	84	166,770
Texas	77	2,099,344

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Table 40. **Commodities Raised and Delivered Under Production Contracts: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Farms	Number
CUSTOM FED CATTLE SHIPPED DIRECTLY FOR SLAUGHTER (SEE TEXT) - Con.		
States - Con.		
Utah	8	(D)
Virginia	9	2,461
Washington	11	(D)
Wisconsin	2	(D)
Wyoming	14	43,161
HOGS AND PIGS		
United States Total		
United States	8,991	89,601,632
States		
Alabama	34	702,866
Arkansas	119	1,254,851
Colorado	10	81,522
Delaware	2	(D)
Georgia	25	496,849
Illinois	424	3,819,982
Indiana	478	3,263,759
Iowa	2,946	20,710,440
Kansas	77	1,714,326
Kentucky	28	198,778
Maryland	8	50,705
Michigan	181	1,181,550
Minnesota	1,166	8,074,225
Mississippi	38	802,385
Missouri	256	4,740,640
Nebraska	437	1,628,809
New York	23	268,020
North Carolina	1,522	31,167,264
North Dakota	2	(D)
Ohio	476	2,642,091
Oklahoma	82	1,683,547
Pennsylvania	345	2,307,315
South Carolina	42	782,495
South Dakota	147	739,128
Tennessee	30	243,695
Texas	1	(D)
Utah	15	410,800
Virginia	37	318,052
West Virginia	1	(D)
Wisconsin	39	165,216
OTHER CATTLE, LIVESTOCK, POULTRY, OR AQUACULTURE (SEE TEXT)		
United States Total		
United States	4,641	(X)
States		
Alabama	10	(X)
Arizona	5	(X)
Arkansas	266	(X)
California	100	(X)
Colorado	101	(X)
Connecticut	2	(X)
Delaware	2	(X)
Florida	13	(X)
Georgia	9	(X)
Hawaii	1	(X)
Idaho	107	(X)
Illinois	59	(X)
Indiana	284	(X)
Iowa	202	(X)
Kansas	232	(X)
Kentucky	67	(X)
Louisiana	12	(X)
Maine	4	(X)
Maryland	22	(X)
Massachusetts	5	(X)
Michigan	111	(X)
Minnesota	236	(X)
Mississippi	46	(X)
Missouri	121	(X)
Montana	79	(X)
Nebraska	159	(X)
Nevada	4	(X)
New Hampshire	3	(X)
New Mexico	42	(X)
New York	222	(X)
North Carolina	68	(X)
North Dakota	15	(X)
Ohio	222	(X)
Oklahoma	192	(X)
Oregon	65	(X)
Pennsylvania	481	(X)
OTHER CATTLE, LIVESTOCK, POULTRY, OR AQUACULTURE (SEE TEXT) - Con.		
States - Con.		
South Carolina	5	(X)
South Dakota	123	(X)
Tennessee	22	(X)
Texas	149	(X)
Utah	44	(X)
Vermont	18	(X)
Virginia	84	(X)
Washington	34	(X)
West Virginia	55	(X)
Wisconsin	468	(X)
Wyoming	70	(X)
GRAINS AND OILSEEDS		
United States Total		
United States	506	(X)
States		
California	1	(X)
Illinois	133	(X)
Indiana	48	(X)
Iowa	153	(X)
Kansas	2	(X)
Michigan	33	(X)
Minnesota	13	(X)
Nebraska	62	(X)
New York	3	(X)
North Carolina	4	(X)
North Dakota	3	(X)
Ohio	2	(X)
Oregon	4	(X)
Pennsylvania	2	(X)
South Carolina	3	(X)
South Dakota	8	(X)
Texas	30	(X)
Virginia	1	(X)
Wisconsin	1	(X)
VEGETABLES, MELONS, AND POTATOES (SEE TEXT)		
United States Total		
United States	2,033	(X)
States		
Arizona	47	(X)
Arkansas	3	(X)
California	40	(X)
Colorado	3	(X)
Delaware	66	(X)
Illinois	61	(X)
Indiana	8	(X)
Iowa	15	(X)
Kansas	1	(X)
Maryland	21	(X)
Michigan	16	(X)
Minnesota	1,099	(X)
Missouri	5	(X)
Montana	1	(X)
New Jersey	3	(X)
New York	39	(X)
Oklahoma	1	(X)
Oregon	7	(X)
Pennsylvania	9	(X)
Tennessee	1	(X)
Texas	8	(X)
Washington	51	(X)
Wisconsin	527	(X)
Wyoming	1	(X)
OTHER CROPS (SEE TEXT)		
United States Total		
United States	14	(X)
States		
California	4	(X)
Indiana	1	(X)
Iowa	1	(X)
Michigan	2	(X)
Nebraska	1	(X)
Oregon	1	(X)
Texas	1	(X)
Washington	3	(X)

Table 41. **Machinery and Equipment on Operation: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
VALUE OF MACHINERY AND EQUIPMENT [1]						
Estimated market value of all machinery and equipment ..... farms, 2007	2,204,513	48,752	686	15,635	49,346	81,017
2002	2,052,348	43,135	583	6,946	46,056	77,209
$1,000, 2007	194,783,471	2,964,616	54,082	1,036,453	4,481,741	8,761,575
2002	136,624,880	1,842,080	41,853	615,767	3,007,394	6,325,990
Average per farm ..... dollars, 2007	88,357	60,810	78,837	66,291	90,823	108,145
2002	66,570	42,705	71,790	88,651	65,299	81,933
Farms by value group:						
$1 to $9,999 2007	413,280	7,907	106	5,660	7,847	17,863
2002	627,099	13,275	113	2,713	12,145	27,902
$10,000 to $19,999 2007	351,088	8,550	91	3,681	7,819	12,858
2002	347,224	8,538	80	1,402	8,676	12,207
$20,000 to $29,999 2007	279,609	7,486	87	1,716	6,607	10,053
2002	231,428	6,200	76	589	5,862	7,904
$30,000 to $49,999 2007	318,680	8,233	105	1,504	8,306	11,186
2002	234,070	5,557	94	552	6,312	7,304
$50,000 to $69,999 2007	215,497	5,440	93	982	5,291	7,705
2002	147,047	3,328	61	383	3,804	4,483
$70,000 to $99,999 2007	151,271	3,605	53	521	3,816	4,813
2002	112,297	1,957	49	203	2,465	3,573
$100,000 to $199,999 2007	232,001	4,641	88	728	4,889	7,413
2002	180,503	2,574	60	347	3,412	6,333
$200,000 to $499,999 2007	175,152	2,334	50	507	3,177	5,791
2002	132,284	1,420	45	464	2,349	5,023
$500,000 or more 2007	67,935	556	13	336	1,594	3,335
2002	40,396	286	5	293	1,031	2,480
SELECTED MACHINERY AND EQUIPMENT [1]						
Trucks, including pickups (see text) ..... farms, 2007	1,783,324	41,225	528	12,394	41,858	64,856
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
number, 2007	3,512,538	74,818	1,139	22,848	79,376	141,131
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Tractors ..... farms, 2007	1,844,647	42,799	460	5,656	42,786	58,415
2002	1,901,787	39,560	466	6,563	43,385	72,873
number, 2007	4,389,812	79,871	1,109	11,974	85,105	149,901
2002	4,592,545	74,357	1,091	15,585	86,705	184,981
Less than 40 horsepower (PTO) ..... farms, 2007	910,937	19,014	259	3,149	18,068	35,355
2002	983,294	17,063	314	4,052	20,006	45,744
number, 2007	1,280,039	23,622	383	4,035	21,795	53,949
2002	1,415,807	21,735	453	5,392	24,724	70,975
40 to 99 horsepower (PTO) ..... farms, 2007	1,238,101	30,991	303	2,760	29,882	32,186
2002	1,252,337	28,469	271	3,278	28,504	38,015
number, 2007	1,998,508	46,355	537	4,591	44,574	68,925
2002	2,066,720	42,734	457	6,383	41,963	82,879
100 horsepower (PTO) or more ..... farms, 2007	555,941	5,998	115	1,237	8,056	10,883
2002	564,066	5,581	114	1,506	8,519	12,345
number, 2007	1,111,265	9,894	189	3,348	18,736	27,027
2002	1,110,018	9,888	181	3,810	20,018	31,127
Grain and bean combines, self-propelled ..... farms, 2007	295,490	1,616	31	119	3,675	1,453
2002	353,539	1,675	32	187	4,400	1,690
number, 2007	346,935	1,931	42	153	4,785	2,188
2002	409,442	1,913	37	243	5,444	2,540
Cotton pickers and strippers, self-propelled ..... farms, 2007	12,500	586	-	181	704	404
2002	15,736	727	-	263	901	927
number, 2007	18,162	883	-	282	1,092	868
2002	23,336	1,095	-	464	1,471	1,964
Forage harvesters, self-propelled ..... farms, 2007	60,133	277	16	157	294	1,348
2002	60,613	454	13	230	72	1,231
number, 2007	64,191	290	18	216	313	1,633
2002	67,610	517	17	315	86	1,594
Hay balers ..... farms, 2007	593,543	11,716	225	584	13,836	3,432
2002	632,655	12,433	242	838	14,745	3,856
number, 2007	727,501	14,189	304	763	16,303	4,209
2002	766,457	15,231	304	1,200	17,344	4,836
2007 INVENTORY						
Manufactured 2003 to 2007:						
Trucks, including pickups ..... farms	586,671	13,113	140	6,043	15,623	24,711
number	731,562	15,926	179	8,615	19,973	39,698
Tractors ..... farms	385,317	10,692	82	1,447	12,023	15,578
number	530,102	13,777	97	3,040	16,588	29,136
Less than 40 horsepower (PTO) ..... farms	127,288	2,936	39	644	3,077	7,073
number	142,117	3,243	44	728	3,319	9,115
40 to 99 horsepower (PTO) ..... farms	212,259	7,636	40	624	8,051	8,248
number	250,743	8,936	45	1,057	9,344	14,043
100 horsepower (PTO) or more ..... farms	91,469	1,212	7	413	2,128	2,835
number	137,242	1,598	8	1,255	3,925	5,978
Grain and bean combines, self-propelled ..... farms	37,491	109	1	20	993	262
number	41,420	126	(D)	28	1,232	332
Cotton pickers and strippers, self-propelled ..... farms	3,346	113	-	62	305	68
number	4,238	151	-	76	416	123
Forage harvesters, self-propelled ..... farms	7,794	56	2	48	81	217
number	8,381	58	(D)	81	87	299
Hay balers ..... farms	82,405	2,202	18	135	3,094	473
number	87,948	2,324	(D)	193	3,229	622

See footnote(s) at end of table.

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Table 41. **Machinery and Equipment on Operation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
VALUE OF MACHINERY AND EQUIPMENT [1]						
Estimated market value of all machinery and equipment ....farms, 2007	37,052	4,915	2,546	47,461	47,846	7,500
2002	29,427	4,193	2,390	43,211	46,609	5,234
$1,000, 2007	3,680,884	315,000	304,801	2,591,541	3,681,670	304,997
2002	2,585,783	214,739	271,874	1,723,447	2,416,555	186,163
Average per farm ....dollars, 2007	99,344	64,090	119,718	54,604	76,948	40,666
2002	87,871	51,214	113,755	39,884	51,847	35,568
Farms by value group:						
$1 to $9,999 2007	5,491	1,015	362	13,403	9,306	2,598
2002	8,442	1,577	458	21,619	16,180	3,105
$10,000 to $19,999 2007	5,200	837	300	9,030	8,304	1,418
2002	4,499	671	426	7,455	8,761	834
$20,000 to $29,999 2007	4,882	672	302	6,514	6,261	1,036
2002	2,828	458	303	4,137	5,847	378
$30,000 to $49,999 2007	5,442	758	395	6,475	7,171	1,035
2002	3,408	356	275	3,052	5,448	361
$50,000 to $69,999 2007	3,802	514	250	3,782	4,816	607
2002	2,121	318	202	2,086	2,926	136
$70,000 to $99,999 2007	3,065	346	188	2,480	3,203	256
2002	1,701	216	121	1,242	2,040	137
$100,000 to $199,999 2007	4,639	441	319	3,179	4,542	306
2002	2,955	382	237	1,999	2,824	149
$200,000 to $499,999 2007	3,353	267	284	2,016	3,092	204
2002	2,503	153	226	1,107	1,888	89
$500,000 or more 2007	1,178	65	146	582	1,151	40
2002	970	62	142	514	695	45
SELECTED MACHINERY AND EQUIPMENT [1]						
Trucks, including pickups (see text) ....farms, 2007	30,749	3,808	2,096	34,751	39,230	5,791
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
number, 2007	73,350	7,711	5,767	55,403	73,950	9,047
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Tractors ....farms, 2007	28,836	4,037	2,109	36,034	41,813	3,386
2002	25,764	3,402	2,254	41,356	43,295	2,896
number, 2007	61,571	10,721	5,845	62,809	82,312	5,731
2002	60,736	9,687	6,108	70,471	81,932	5,220
Less than 40 horsepower (PTO) ....farms, 2007	12,803	2,897	1,296	20,467	19,119	2,475
2002	13,453	2,734	1,332	25,295	20,742	2,149
number, 2007	17,002	5,358	1,892	26,202	23,949	3,370
2002	19,429	5,243	1,907	34,093	26,700	3,111
40 to 99 horsepower (PTO) ....farms, 2007	17,688	2,353	1,375	19,811	28,643	1,207
2002	14,792	1,809	1,550	20,018	28,237	962
number, 2007	25,662	4,439	2,277	29,253	43,262	1,832
2002	23,471	3,725	2,538	29,602	41,525	1,715
100 horsepower (PTO) or more ....farms, 2007	10,049	560	773	4,064	7,914	308
2002	8,954	434	733	3,807	7,125	230
number, 2007	18,907	924	1,676	7,354	15,101	529
2002	17,836	719	1,663	6,776	13,707	394
Grain and bean combines, self-propelled ....farms, 2007	3,358	31	611	360	2,417	21
2002	3,803	49	695	442	2,637	6
number, 2007	4,322	32	730	436	2,771	27
2002	4,931	50	832	499	2,941	8
Cotton pickers and strippers, self-propelled ....farms, 2007	-	-	-	110	1,362	-
2002	-	-	-	161	1,625	-
number, 2007	-	-	-	130	1,773	-
2002	-	-	-	198	2,124	-
Forage harvesters, self-propelled ....farms, 2007	2,254	101	38	133	324	32
2002	2,586	156	44	305	445	4
number, 2007	2,437	107	38	144	332	32
2002	2,896	177	44	349	472	4
Hay balers ....farms, 2007	9,018	1,507	369	3,038	9,262	14
2002	9,725	1,247	443	2,827	9,805	14
number, 2007	11,282	1,740	458	3,646	11,283	14
2002	11,771	1,410	582	3,377	11,792	16
2007 INVENTORY						
Manufactured 2003 to 2007:						
Trucks, including pickups .... farms	11,835	1,270	845	13,929	13,653	1,842
number	14,564	1,714	1,136	18,740	17,321	2,417
Tractors .... farms	4,605	894	566	10,361	11,045	1,141
number	6,040	1,282	802	14,917	15,097	1,479
Less than 40 horsepower (PTO) .... farms	1,671	479	276	4,869	3,046	819
number	1,794	592	305	5,639	3,323	933
40 to 99 horsepower (PTO) .... farms	2,148	464	246	5,594	7,378	352
number	2,396	618	290	7,067	8,638	418
100 horsepower (PTO) or more .... farms	1,295	60	140	1,131	1,929	72
number	1,850	72	207	2,211	3,136	128
Grain and bean combines, self-propelled .... farms	317	2	68	30	196	5
number	384	(D)	78	34	217	(D)
Cotton pickers and strippers, self-propelled .... farms	-	-	-	26	335	-
number	-	-	-	32	384	-
Forage harvesters, self-propelled .... farms	248	7	3	37	56	13
number	274	7	3	38	57	(D)
Hay balers .... farms	1,178	148	52	633	1,897	2
number	1,297	154	58	701	2,068	(D)

See footnote(s) at end of table.

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Table 41. **Machinery and Equipment on Operation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
VALUE OF MACHINERY AND EQUIPMENT [1]							
Estimated market value of all machinery and equipment	farms, 2007	25,347	76,860	60,933	92,813	65,531	85,260
	2002	22,580	72,243	57,787	88,859	62,905	84,319
	$1,000, 2007	2,899,269	10,499,792	6,302,106	12,694,091	7,487,669	4,910,199
	2002	2,071,614	7,386,281	4,636,855	8,923,379	5,983,765	3,495,669
Average per farm	dollars, 2007	114,383	136,609	103,427	136,771	114,261	57,591
	2002	91,746	102,242	80,240	100,422	95,124	41,458
Farms by value group:							
$1 to $9,999	2007	5,499	12,048	13,072	13,333	12,081	14,975
	2002	7,632	14,974	16,163	20,917	17,964	24,852
$10,000 to $19,999	2007	4,004	10,378	9,703	11,378	9,388	15,581
	2002	3,324	9,032	8,585	9,377	8,120	18,148
$20,000 to $29,999	2007	3,022	7,824	7,244	9,155	7,211	12,438
	2002	2,041	6,347	6,447	7,835	5,649	11,853
$30,000 to $49,999	2007	3,308	9,234	7,733	10,540	8,413	14,545
	2002	2,250	8,190	6,811	9,920	6,630	11,408
$50,000 to $69,999	2007	2,335	6,566	5,019	8,061	6,045	9,406
	2002	1,640	6,011	3,721	7,190	4,532	6,317
$70,000 to $99,999	2007	1,441	5,233	3,512	6,653	4,294	6,044
	2002	1,100	5,489	3,327	6,898	3,883	4,059
$100,000 to $199,999	2007	2,493	9,543	6,318	13,936	7,542	7,769
	2002	2,036	10,415	6,202	12,846	7,527	4,624
$200,000 to $499,999	2007	2,034	10,878	5,589	14,057	7,340	3,601
	2002	1,720	9,436	4,939	11,024	6,474	2,503
$500,000 or more	2007	1,211	5,156	2,743	5,700	3,217	901
	2002	837	2,349	1,592	2,852	2,126	555
SELECTED MACHINERY AND EQUIPMENT [1]							
Trucks, including pickups (see text)	farms, 2007	21,301	61,916	46,867	76,220	55,574	69,478
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
	number, 2007	56,479	122,512	93,468	141,558	149,926	120,424
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Tractors	farms, 2007	19,922	66,632	50,541	79,320	54,229	75,637
	2002	20,085	68,024	53,425	83,313	57,651	79,213
	number, 2007	47,959	200,973	130,990	243,403	129,832	162,175
	2002	48,712	218,511	143,965	266,070	140,913	166,148
Less than 40 horsepower (PTO)	farms, 2007	9,447	32,036	25,039	33,167	20,402	39,640
	2002	10,216	33,142	26,923	37,582	21,168	46,560
	number, 2007	12,638	46,904	35,235	51,034	27,262	54,472
	2002	14,177	51,184	38,537	58,562	28,424	64,256
40 to 99 horsepower (PTO)	farms, 2007	12,307	45,868	33,606	54,921	33,306	57,155
	2002	12,079	47,647	36,869	60,593	36,669	57,371
	number, 2007	19,293	74,959	52,340	90,699	50,827	90,509
	2002	19,725	81,509	59,088	106,497	55,199	87,110
100 horsepower (PTO) or more	farms, 2007	7,065	35,087	20,759	47,544	26,399	11,059
	2002	6,409	38,923	22,171	49,844	29,886	9,722
	number, 2007	16,028	79,110	43,415	101,670	51,743	17,194
	2002	14,810	85,818	46,340	101,011	57,290	14,782
Grain and bean combines, self-propelled	farms, 2007	3,080	28,168	16,658	33,875	19,070	4,027
	2002	3,574	35,131	20,545	41,026	23,777	4,778
	number, 2007	4,142	31,841	18,792	37,034	23,799	4,724
	2002	4,692	39,782	22,958	44,901	28,843	5,557
Cotton pickers and strippers, self-propelled	farms, 2007	-	-	-	-	58	-
	2002	-	-	-	-	48	-
	number, 2007	-	-	-	-	86	-
	2002	-	-	-	-	55	-
Forage harvesters, self-propelled	farms, 2007	2,545	1,324	972	2,470	2,392	1,222
	2002	2,745	1,514	1,303	2,773	2,626	1,211
	number, 2007	2,785	1,340	986	2,503	2,507	1,269
	2002	3,054	1,617	1,398	2,912	2,821	1,327
Hay balers	farms, 2007	8,043	15,212	14,974	22,104	19,600	32,195
	2002	9,082	17,230	17,960	27,147	22,381	31,394
	number, 2007	9,341	18,658	18,425	25,965	23,888	40,749
	2002	10,355	20,844	21,409	31,293	27,900	38,626
2007 INVENTORY							
Manufactured 2003 to 2007:							
Trucks, including pickups	farms	6,351	21,851	13,597	26,477	16,173	19,713
	number	8,907	26,222	16,096	31,181	20,920	23,244
Tractors	farms	3,398	13,913	8,431	13,299	7,121	16,612
	number	5,564	20,889	11,831	19,850	9,668	21,477
Less than 40 horsepower (PTO)	farms	1,198	4,904	3,013	2,948	1,649	3,827
	number	1,373	5,431	3,252	3,301	1,807	4,266
40 to 99 horsepower (PTO)	farms	1,509	5,341	3,716	3,979	2,805	12,565
	number	1,846	6,065	4,147	4,549	3,112	14,567
100 horsepower (PTO) or more	farms	1,184	6,154	2,891	8,189	3,390	2,027
	number	2,345	9,393	4,432	12,000	4,749	2,644
Grain and bean combines, self-propelled	farms	329	5,497	2,569	5,767	1,644	573
	number	446	5,836	2,786	6,028	1,861	657
Cotton pickers and strippers, self-propelled	farms	-	-	-	-	18	-
	number	-	-	-	-	(D)	-
Forage harvesters, self-propelled	farms	289	143	96	236	284	229
	number	333	146	100	237	307	240
Hay balers	farms	987	1,510	1,498	2,554	2,701	4,754
	number	1,097	1,619	1,622	2,639	2,844	5,020

See footnote(s) at end of table.

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Table 41. **Machinery and Equipment on Operation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
VALUE OF MACHINERY AND EQUIPMENT [1]						
Estimated market value of all machinery and equipment ....farms, 2007	30,106	8,133	12,833	7,690	56,009	80,980
2002	26,327	7,000	11,683	5,980	50,891	77,179
$1,000, 2007	2,378,327	536,463	1,268,194	433,507	5,082,342	10,664,895
2002	1,694,916	380,209	870,708	300,455	3,761,334	6,665,874
Average per farm ....dollars, 2007	78,998	65,961	98,823	56,373	90,742	131,698
2002	64,379	54,316	74,528	50,243	73,910	86,369
Farms by value group:						
$1 to $9,999 2007	5,340	1,715	1,761	1,708	10,443	12,848
2002	7,091	2,289	2,978	1,992	14,606	22,606
$10,000 to $19,999 2007	5,064	1,430	1,761	1,298	8,727	10,770
2002	5,515	1,161	1,904	1,006	7,922	9,400
$20,000 to $29,999 2007	4,075	1,129	1,616	1,073	7,004	8,327
2002	3,193	959	1,446	729	6,070	6,483
$30,000 to $49,999 2007	4,807	1,347	1,951	1,094	8,273	9,984
2002	3,132	786	1,427	581	6,005	7,884
$50,000 to $69,999 2007	3,149	827	1,456	751	5,626	6,887
2002	2,114	545	870	479	3,783	5,936
$70,000 to $99,999 2007	2,062	480	963	482	3,889	5,711
2002	1,384	277	680	278	2,876	5,178
$100,000 to $199,999 2007	2,946	677	1,627	841	5,777	10,685
2002	2,032	535	1,222	517	4,515	9,694
$200,000 to $499,999 2007	1,912	406	1,238	374	4,412	10,820
2002	1,298	367	876	351	3,831	7,837
$500,000 or more 2007	751	122	460	69	1,858	4,948
2002	568	81	280	47	1,283	2,161
SELECTED MACHINERY AND EQUIPMENT [1]						
Trucks, including pickups (see text) ....farms, 2007	23,541	6,360	10,064	5,781	42,715	65,583
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
number, 2007	39,140	12,194	19,902	11,282	79,655	136,297
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Tractors ....farms, 2007	26,039	6,388	11,427	5,876	49,185	70,270
2002	24,298	5,816	10,925	4,797	47,627	68,387
number, 2007	54,236	14,205	31,247	13,534	138,372	230,041
2002	53,808	14,006	31,260	11,831	137,474	223,138
Less than 40 horsepower (PTO) ....farms, 2007	11,299	4,014	7,092	4,074	28,140	36,707
2002	11,072	4,109	7,197	3,606	27,941	37,816
number, 2007	13,925	5,706	11,317	6,639	44,020	60,410
2002	13,690	5,937	11,768	6,393	45,749	63,366
40 to 99 horsepower (PTO) ....farms, 2007	17,424	3,799	7,831	3,387	34,452	51,497
2002	16,263	3,284	7,399	2,645	32,722	50,796
number, 2007	25,778	6,533	14,023	5,963	61,860	90,711
2002	23,768	6,111	14,019	4,567	61,456	91,631
100 horsepower (PTO) or more ....farms, 2007	6,716	869	3,140	662	15,958	36,596
2002	6,915	837	2,813	572	15,011	33,310
number, 2007	14,533	1,966	5,907	932	32,492	78,920
2002	16,350	1,958	5,473	871	30,269	68,141
Grain and bean combines, self-propelled ....farms, 2007	1,986	203	1,783	25	10,954	25,201
2002	2,622	256	2,180	30	12,487	28,386
number, 2007	2,582	225	2,035	28	12,635	29,232
2002	3,217	268	2,456	30	14,308	32,771
Cotton pickers and strippers, self-propelled ....farms, 2007	663	-	4	-	-	-
2002	730	-	-	-	-	-
number, 2007	1,002	-	4	-	-	-
2002	1,172	-	-	-	-	-
Forage harvesters, self-propelled ....farms, 2007	213	139	374	95	1,940	3,604
2002	378	99	391	54	1,933	3,139
number, 2007	227	150	383	99	2,021	3,677
2002	392	115	432	62	2,240	3,772
Hay balers ....farms, 2007	5,886	2,346	4,195	1,838	18,012	27,761
2002	6,443	2,349	4,118	1,526	18,508	29,631
number, 2007	7,168	2,953	5,465	2,197	22,729	34,575
2002	7,817	2,862	5,261	1,838	23,012	36,465
2007 INVENTORY						
Manufactured 2003 to 2007:						
Trucks, including pickups .... farms	9,840	1,898	3,484	1,936	12,846	18,557
number	12,190	2,276	4,321	2,378	15,326	21,890
Tractors .... farms	7,741	1,515	3,102	1,360	8,778	10,495
number	10,813	1,832	4,219	1,741	12,313	16,059
Less than 40 horsepower (PTO) .... farms	2,281	722	1,359	668	3,631	2,757
number	2,457	762	1,571	741	3,967	3,132
40 to 99 horsepower (PTO) .... farms	4,851	771	1,674	721	4,428	3,709
number	5,656	888	1,918	839	5,447	4,310
100 horsepower (PTO) or more .... farms	1,534	119	529	128	1,879	5,639
number	2,700	182	730	161	2,899	8,617
Grain and bean combines, self-propelled .... farms	382	4	187	-	769	2,912
number	447	5	203	-	831	3,110
Cotton pickers and strippers, self-propelled .... farms	121	-	-	-	-	-
number	149	-	-	-	-	-
Forage harvesters, self-propelled .... farms	58	17	39	13	230	294
number	59	18	39	13	241	300
Hay balers .... farms	1,278	307	704	242	1,700	2,389
number	1,380	328	795	259	1,838	2,497

See footnote(s) at end of table.

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Table 41. **Machinery and Equipment on Operation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
VALUE OF MACHINERY AND EQUIPMENT [1]						
Estimated market value of all machinery and equipment ..... farms, 2007	41,959	107,821	29,505	47,709	3,130	4,166
2002	40,332	103,375	24,837	48,046	2,773	3,367
$1,000, 2007	3,086,429	7,350,255	3,053,603	7,510,697	349,932	243,349
2002	2,090,779	5,162,542	2,085,701	5,370,381	306,745	137,603
Average per farm ..... dollars, 2007	73,558	68,171	103,494	157,427	111,799	58,413
2002	51,839	49,940	83,976	111,776	110,619	40,868
Farms by value group:						
$1 to $9,999 2007	7,462	22,550	5,881	6,695	644	803
2002	14,433	35,934	6,476	10,236	712	1,109
$10,000 to $19,999 2007	7,565	18,832	4,228	5,169	446	649
2002	8,295	18,788	3,184	5,172	401	607
$20,000 to $29,999 2007	6,198	14,090	2,931	4,216	348	598
2002	5,017	12,038	2,269	3,545	312	496
$30,000 to $49,999 2007	6,763	16,082	3,522	5,254	355	697
2002	4,434	11,931	2,525	5,248	342	387
$50,000 to $69,999 2007	4,453	10,549	2,575	3,935	258	471
2002	2,500	6,801	2,152	4,207	138	234
$70,000 to $99,999 2007	2,900	7,428	1,893	3,590	211	306
2002	1,503	4,916	1,745	3,649	150	157
$100,000 to $199,999 2007	3,590	10,100	3,758	7,375	392	379
2002	2,044	7,252	3,235	7,737	274	258
$200,000 to $499,999 2007	2,113	6,193	3,606	7,844	328	228
2002	1,411	4,490	2,707	6,425	322	104
$500,000 or more 2007	915	1,997	1,111	3,631	148	35
2002	695	1,225	544	1,827	122	15
SELECTED MACHINERY AND EQUIPMENT [1]						
Trucks, including pickups (see text) ..... farms, 2007	34,146	90,476	24,297	41,252	2,697	3,268
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
number, 2007	59,520	165,690	72,729	111,969	7,170	5,518
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Tractors ..... farms, 2007	37,234	93,668	21,606	39,897	2,283	3,419
2002	37,508	97,192	21,234	42,917	2,272	2,761
number, 2007	72,609	197,104	53,064	125,465	5,510	7,539
2002	73,425	207,013	52,460	143,357	6,124	6,325
Less than 40 horsepower (PTO) ..... farms, 2007	15,648	39,258	9,753	15,612	1,228	2,396
2002	16,748	42,536	10,101	17,921	1,309	2,071
number, 2007	19,200	51,228	13,173	25,129	1,621	3,744
2002	20,949	55,738	13,897	31,041	1,965	3,191
40 to 99 horsepower (PTO) ..... farms, 2007	26,274	67,394	13,168	26,297	1,345	1,862
2002	24,308	69,098	13,569	30,155	1,292	1,496
number, 2007	38,544	101,782	19,551	45,358	2,288	3,267
2002	35,510	107,729	20,460	54,726	2,385	2,712
100 horsepower (PTO) or more ..... farms, 2007	7,707	25,170	10,429	25,448	725	327
2002	8,268	25,284	9,915	27,721	781	261
number, 2007	14,865	44,094	20,340	54,978	1,601	528
2002	16,966	43,546	18,103	57,590	1,774	422
Grain and bean combines, self-propelled ..... farms, 2007	2,229	14,602	5,340	17,480	61	8
2002	2,948	18,303	6,143	21,335	89	11
number, 2007	2,941	16,811	6,792	19,500	80	9
2002	3,684	20,976	7,569	24,094	116	13
Cotton pickers and strippers, self-propelled ..... farms, 2007	683	363	-	-	-	-
2002	1,104	492	-	-	-	-
number, 2007	1,110	522	-	-	-	-
2002	1,904	661	-	-	-	-
Forage harvesters, self-propelled ..... farms, 2007	245	1,328	3,303	2,253	420	49
2002	393	1,370	2,532	2,555	464	32
number, 2007	247	1,369	3,556	2,323	567	54
2002	416	1,454	2,811	2,750	654	34
Hay balers ..... farms, 2007	8,757	35,306	10,439	13,691	1,013	1,269
2002	7,316	38,742	11,348	15,905	1,095	1,207
number, 2007	10,489	42,575	12,489	15,817	1,348	1,534
2002	8,665	46,848	13,436	18,507	1,484	1,447
2007 INVENTORY						
Manufactured 2003 to 2007:						
Trucks, including pickups ..... farms	11,765	26,327	8,034	14,026	1,048	1,145
number	14,979	30,833	10,461	18,055	1,511	1,324
Tractors ..... farms	9,998	16,294	3,202	5,593	478	1,010
number	13,860	20,557	4,094	8,228	644	1,227
Less than 40 horsepower (PTO) ..... farms	2,591	3,994	916	928	185	542
number	2,840	4,269	953	1,067	187	584
40 to 99 horsepower (PTO) ..... farms	6,879	10,095	1,228	1,298	212	515
number	8,084	11,266	1,374	1,532	258	581
100 horsepower (PTO) or more ..... farms	1,610	3,656	1,384	3,982	139	48
number	2,936	5,022	1,767	5,629	199	62
Grain and bean combines, self-propelled ..... farms	485	1,551	406	3,144	-	-
number	666	1,673	495	3,299	-	-
Cotton pickers and strippers, self-propelled ..... farms	238	91	-	-	-	-
number	358	133	-	-	-	-
Forage harvesters, self-propelled ..... farms	50	198	390	278	77	13
number	50	198	411	283	96	13
Hay balers ..... farms	1,617	4,752	1,738	2,345	173	160
number	1,717	4,904	1,851	2,501	212	166

See footnote(s) at end of table.

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Table 41. **Machinery and Equipment on Operation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
VALUE OF MACHINERY AND EQUIPMENT [1]						
Estimated market value of all machinery and equipment ....farms, 2007	10,306	20,930	36,351	52,910	31,968	75,860
2002	9,539	13,725	34,991	52,070	29,729	75,445
$1,000, 2007	704,665	1,160,713	3,546,042	4,063,115	5,584,253	6,702,352
2002	514,666	799,643	3,367,939	3,327,385	3,695,269	5,139,223
Average per farm ....dollars, 2007	68,374	55,457	97,550	76,793	174,683	88,352
2002	53,954	58,262	96,252	63,902	124,298	68,119
Farms by value group:						
$1 to $9,999 2007	2,448	5,942	4,849	10,048	4,663	12,492
2002	3,132	4,979	8,296	16,005	7,061	19,537
$10,000 to $19,999 2007	1,841	3,971	4,877	8,907	3,663	11,898
2002	2,091	2,269	5,585	9,591	2,529	12,875
$20,000 to $29,999 2007	1,417	2,749	4,487	7,623	2,685	9,628
2002	985	1,491	4,234	6,457	2,031	8,771
$30,000 to $49,999 2007	1,406	2,699	5,491	8,068	3,337	11,227
2002	1,029	1,675	4,139	6,294	2,695	9,287
$50,000 to $69,999 2007	854	1,756	4,091	5,454	2,731	7,703
2002	669	783	2,806	3,532	2,374	6,082
$70,000 to $99,999 2007	606	1,088	3,120	3,524	2,028	5,548
2002	397	663	2,222	2,881	2,337	4,813
$100,000 to $199,999 2007	899	1,610	5,036	4,710	4,527	8,554
2002	583	1,036	3,971	3,429	4,747	7,291
$200,000 to $499,999 2007	605	848	3,291	3,300	5,230	6,516
2002	535	598	2,503	2,764	4,402	5,548
$500,000 or more 2007	230	267	1,109	1,276	3,104	2,294
2002	118	231	1,235	1,117	1,553	1,241
SELECTED MACHINERY AND EQUIPMENT [1]						
Trucks, including pickups (see text) ....farms, 2007	7,559	16,955	29,018	44,861	24,408	59,554
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
number, 2007	16,136	32,481	54,462	94,868	90,923	103,670
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Tractors ....farms, 2007	8,703	12,914	32,130	45,742	25,992	67,187
2002	8,725	10,859	33,145	48,830	25,025	70,776
number, 2007	23,261	22,853	100,095	106,347	89,578	179,839
2002	23,513	21,603	112,357	115,520	87,802	192,381
Less than 40 horsepower (PTO) ....farms, 2007	6,283	6,909	19,386	27,197	10,261	37,188
2002	6,783	6,008	21,410	30,440	10,784	39,950
number, 2007	11,454	8,538	32,351	38,859	16,194	55,679
2002	11,987	7,779	37,318	45,122	16,554	62,943
40 to 99 horsepower (PTO) ....farms, 2007	4,685	6,664	23,587	31,089	16,584	48,100
2002	4,442	5,687	24,335	32,513	17,066	49,523
number, 2007	9,096	9,373	49,601	51,919	26,802	81,062
2002	8,567	8,555	55,369	53,579	28,451	85,557
100 horsepower (PTO) or more ....farms, 2007	1,594	2,789	8,386	7,817	18,492	22,872
2002	1,556	2,768	9,102	8,359	18,064	23,526
number, 2007	2,711	4,942	18,143	15,569	46,582	43,098
2002	2,959	5,269	19,670	16,819	42,797	43,881
Grain and bean combines, self-propelled ....farms, 2007	497	458	2,751	4,918	12,686	18,387
2002	547	674	3,243	5,768	13,744	21,818
number, 2007	580	549	3,183	5,614	17,586	20,299
2002	612	747	3,769	6,535	18,131	24,251
Cotton pickers and strippers, self-propelled ....farms, 2007	-	123	-	1,014	-	11
2002	-	214	-	1,246	-	-
number, 2007	-	155	-	1,330	-	11
2002	-	298	-	1,712	-	-
Forage harvesters, self-propelled ....farms, 2007	147	666	2,059	733	1,569	1,763
2002	103	761	1,979	658	1,493	1,422
number, 2007	153	716	2,217	834	1,692	1,808
2002	107	917	2,198	724	1,678	1,586
Hay balers ....farms, 2007	1,823	3,566	16,447	13,873	10,571	27,042
2002	2,028	2,995	18,441	15,494	12,043	29,500
number, 2007	2,274	4,050	20,686	17,208	12,469	34,306
2002	2,449	3,597	23,075	18,383	14,186	36,194
2007 INVENTORY						
Manufactured 2003 to 2007:						
Trucks, including pickups .... farms	2,677	6,666	10,550	13,159	8,492	16,743
number	3,682	8,889	12,786	17,366	10,960	19,321
Tractors .... farms	2,159	2,498	7,441	10,126	3,804	11,396
number	3,186	3,446	10,362	14,273	6,210	15,217
Less than 40 horsepower (PTO) .... farms	1,244	1,099	3,030	3,468	707	4,535
number	1,527	1,237	3,359	3,962	830	5,053
40 to 99 horsepower (PTO) .... farms	977	1,207	4,091	6,406	832	5,608
number	1,345	1,427	4,967	7,634	958	6,385
100 horsepower (PTO) or more .... farms	247	475	1,375	1,687	2,779	2,787
number	314	782	2,036	2,677	4,422	3,779
Grain and bean combines, self-propelled .... farms	18	34	176	532	1,664	1,744
number	20	46	196	598	2,029	1,840
Cotton pickers and strippers, self-propelled .... farms	-	13	-	177	-	1
number	-	13	-	202	-	(D)
Forage harvesters, self-propelled .... farms	12	93	340	67	172	159
number	14	104	351	70	181	165
Hay balers .... farms	189	503	1,944	1,814	1,679	2,632
number	215	556	2,057	1,944	1,734	2,827

See footnote(s) at end of table.

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Table 41. **Machinery and Equipment on Operation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
VALUE OF MACHINERY AND EQUIPMENT [1]					
Estimated market value of all machinery and equipment ..... farms, 2007	86,548	38,553	63,158	1,216	25,866
2002	79,490	37,461	54,830	828	22,764
$1,000, 2007	5,508,048	3,052,449	4,609,776	79,457	1,680,701
2002	3,350,879	2,377,364	3,289,501	47,926	1,208,945
Average per farm ..... dollars, 2007	63,642	79,175	72,988	65,343	64,977
2002	42,155	63,462	59,995	57,882	53,108
Farms by value group:					
$1 to $9,999 2007	16,391	8,131	11,825	236	5,420
2002	27,402	12,868	13,475	216	6,796
$10,000 to $19,999 2007	13,960	6,355	9,603	207	4,533
2002	15,323	6,956	9,753	136	4,614
$20,000 to $29,999 2007	12,037	5,199	7,846	123	3,590
2002	10,058	4,078	6,899	98	2,981
$30,000 to $49,999 2007	14,021	5,631	9,269	189	4,096
2002	8,708	4,145	7,081	112	3,038
$50,000 to $69,999 2007	9,159	3,814	6,672	146	2,624
2002	6,031	2,315	4,653	84	1,649
$70,000 to $99,999 2007	6,479	2,371	4,982	79	1,756
2002	3,722	1,892	3,679	55	887
$100,000 to $199,999 2007	8,677	3,506	7,377	145	2,141
2002	4,900	2,515	5,518	77	1,586
$200,000 to $499,999 2007	4,762	2,552	4,473	82	1,285
2002	2,863	1,888	3,191	39	877
$500,000 or more 2007	1,062	994	1,111	9	421
2002	483	804	581	11	336
SELECTED MACHINERY AND EQUIPMENT [1]					
Trucks, including pickups (see text) ..... farms, 2007	77,440	31,808	42,506	917	20,544
2002	(NA)	(NA)	(NA)	(NA)	(NA)
number, 2007	155,645	68,850	73,954	1,725	36,700
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Tractors ..... farms, 2007	73,135	30,798	52,901	947	23,016
2002	72,178	32,546	50,432	704	21,085
number, 2007	131,140	65,208	147,025	2,214	48,315
2002	126,092	67,746	144,605	1,818	44,595
Less than 40 horsepower (PTO) ..... farms, 2007	29,667	20,170	31,917	623	12,456
2002	30,592	21,862	31,316	529	11,545
number, 2007	35,457	28,119	51,045	1,082	16,871
2002	36,320	31,134	52,327	946	15,614
40 to 99 horsepower (PTO) ..... farms, 2007	47,519	16,030	37,814	589	15,398
2002	43,860	15,990	36,285	407	14,034
number, 2007	64,700	26,648	72,109	997	24,558
2002	59,155	27,108	71,013	745	22,587
100 horsepower (PTO) or more ..... farms, 2007	19,753	5,363	14,034	99	4,059
2002	19,362	4,745	12,848	82	3,415
number, 2007	30,983	10,441	23,871	135	6,886
2002	30,617	9,504	21,265	127	6,394
Grain and bean combines, self-propelled ..... farms, 2007	6,353	1,971	6,969	6	1,887
2002	7,515	2,261	8,198	7	2,175
number, 2007	7,813	3,055	7,609	7	2,185
2002	9,120	3,138	8,803	8	2,531
Cotton pickers and strippers, self-propelled ..... farms, 2007	237	-	-	-	326
2002	281	-	-	-	320
number, 2007	318	-	-	-	450
2002	411	-	-	-	530
Forage harvesters, self-propelled ..... farms, 2007	1,638	1,552	2,978	9	247
2002	1,430	1,428	2,345	9	532
number, 2007	1,724	1,754	3,104	9	258
2002	1,557	1,659	2,533	11	562
Hay balers ..... farms, 2007	20,221	7,964	28,409	246	5,537
2002	19,406	8,055	30,256	187	5,267
number, 2007	24,271	9,277	35,006	273	6,900
2002	23,503	9,124	36,412	216	6,275
2007 INVENTORY					
Manufactured 2003 to 2007:					
Trucks, including pickups ..... farms	29,957	8,762	11,239	355	6,104
number	37,219	11,141	12,979	438	7,565
Tractors ..... farms	15,525	7,017	9,218	221	5,589
number	18,845	9,566	12,097	280	7,540
Less than 40 horsepower (PTO) ..... farms	4,681	3,891	4,288	121	1,853
number	4,920	4,574	4,816	134	2,119
40 to 99 horsepower (PTO) ..... farms	9,519	3,027	4,728	99	3,661
number	10,548	3,805	5,557	126	4,396
100 horsepower (PTO) or more ..... farms	2,705	875	1,388	17	744
number	3,377	1,187	1,724	20	1,025
Grain and bean combines, self-propelled ..... farms	361	173	245	-	171
number	419	236	257	-	204
Cotton pickers and strippers, self-propelled ..... farms	70	-	-	-	44
number	78	-	-	-	67
Forage harvesters, self-propelled ..... farms	293	186	264	4	38
number	309	226	279	4	38
Hay balers ..... farms	3,919	889	2,390	27	937
number	4,155	1,025	2,574	28	1,015

See footnote(s) at end of table.

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Table 41. **Machinery and Equipment on Operation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
VALUE OF MACHINERY AND EQUIPMENT [1]					
Estimated market value of all machinery and equipment ....farms, 2007	31,141	79,280	247,409	16,685	6,984
2002	31,106	84,947	227,303	13,993	6,349
$1,000, 2007	4,847,160	4,668,199	15,920,800	1,257,461	520,310
2002	3,340,044	3,844,998	9,217,812	875,958	419,630
Average per farm ....dollars, 2007	155,652	58,882	64,350	75,365	74,500
2002	107,376	45,263	40,553	62,600	66,094
Farms by value group:					
$1 to $9,999 2007	4,130	12,785	49,208	3,464	1,225
2002	5,932	24,949	84,184	4,461	1,612
$10,000 to $19,999 2007	3,361	13,906	43,700	2,566	1,016
2002	3,526	17,437	47,375	2,142	1,021
$20,000 to $29,999 2007	2,623	11,963	35,392	2,132	859
2002	2,556	12,601	27,592	1,474	653
$30,000 to $49,999 2007	3,379	13,972	39,152	2,245	1,121
2002	3,499	11,166	25,055	1,490	747
$50,000 to $69,999 2007	2,672	9,209	24,834	1,813	739
2002	2,636	5,915	13,328	1,353	642
$70,000 to $99,999 2007	2,252	5,908	16,595	1,189	547
2002	2,745	4,131	8,963	810	364
$100,000 to $199,999 2007	5,234	7,287	21,689	1,784	845
2002	4,986	5,316	11,539	1,160	725
$200,000 to $499,999 2007	5,194	3,500	13,057	1,151	489
2002	4,189	2,550	7,529	880	492
$500,000 or more 2007	2,296	750	3,782	341	143
2002	1,037	882	1,738	223	93
SELECTED MACHINERY AND EQUIPMENT [1]					
Trucks, including pickups (see text) ....farms, 2007	26,724	64,654	200,179	14,180	5,201
2002	(NA)	(NA)	(NA)	(NA)	(NA)
number, 2007	72,142	108,969	318,316	28,802	8,125
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Tractors ....farms, 2007	27,267	69,431	205,430	12,749	5,942
2002	29,229	79,581	224,544	11,950	5,357
number, 2007	89,306	135,534	359,384	25,712	15,047
2002	94,737	153,429	389,981	24,747	14,954
Less than 40 horsepower (PTO) ....farms, 2007	10,265	33,904	92,556	6,066	3,481
2002	12,101	40,165	103,263	6,337	3,193
number, 2007	16,309	44,048	111,717	7,839	5,053
2002	18,818	53,839	127,298	8,285	5,009
40 to 99 horsepower (PTO) ....farms, 2007	18,797	51,161	129,971	8,341	4,010
2002	20,486	54,857	135,391	7,404	3,562
number, 2007	32,491	76,782	173,442	12,534	7,668
2002	37,326	81,429	180,530	11,491	7,425
100 horsepower (PTO) or more ....farms, 2007	17,683	9,057	44,427	3,147	1,109
2002	17,843	10,563	48,015	2,801	1,372
number, 2007	40,506	14,704	74,225	5,339	2,326
2002	38,593	18,161	82,153	4,971	2,520
Grain and bean combines, self-propelled ....farms, 2007	10,269	3,117	7,454	809	61
2002	11,756	4,284	9,973	912	70
number, 2007	12,320	3,657	9,064	931	64
2002	13,813	4,939	11,330	1,077	77
Cotton pickers and strippers, self-propelled ....farms, 2007	-	474	5,086	-	-
2002	-	647	5,883	-	-
number, 2007	-	715	7,287	-	-
2002	-	968	8,129	-	-
Forage harvesters, self-propelled ....farms, 2007	2,245	847	2,334	1,935	238
2002	2,418	1,154	2,988	1,942	232
number, 2007	2,355	889	2,776	2,064	264
2002	2,573	1,252	3,302	2,105	249
Hay balers ....farms, 2007	13,651	27,387	35,553	6,342	2,699
2002	16,666	30,829	33,243	6,520	2,793
number, 2007	15,876	34,334	43,206	7,227	3,345
2002	19,444	38,055	40,750	7,623	3,357
2007 INVENTORY					
Manufactured 2003 to 2007:					
Trucks, including pickups ....farms	9,623	17,369	78,194	4,927	1,866
number	12,401	20,214	95,497	6,067	2,107
Tractors ....farms	4,861	14,258	53,638	2,576	1,562
number	7,350	17,767	67,442	3,323	1,943
Less than 40 horsepower (PTO) ....farms	713	3,900	17,325	814	626
number	847	4,325	18,701	888	668
40 to 99 horsepower (PTO) ....farms	1,291	10,410	32,912	1,405	875
number	1,502	11,650	36,680	1,567	995
100 horsepower (PTO) or more ....farms	3,552	1,406	8,642	638	219
number	5,001	1,792	12,061	868	280
Grain and bean combines, self-propelled ....farms	1,449	324	920	25	4
number	1,744	361	1,071	29	(D)
Cotton pickers and strippers, self-propelled ....farms	-	116	1,534	-	-
number	-	169	1,845	-	-
Forage harvesters, self-propelled ....farms	276	133	533	270	41
number	282	137	595	289	43
Hay balers ....farms	2,632	3,959	7,683	1,015	318
number	2,777	4,161	8,345	1,064	337

See footnote(s) at end of table.

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Table 41. **Machinery and Equipment on Operation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
VALUE OF MACHINERY AND EQUIPMENT [1]					
Estimated market value of all machinery and equipment ..... farms, 2007	47,380	39,283	23,612	78,463	11,069
2002	46,303	33,543	18,956	74,500	9,000
$1,000, 2007	3,120,923	3,278,858	917,826	7,554,247	1,077,635
2002	2,005,079	2,690,548	496,427	5,386,373	672,815
Average per farm ..... dollars, 2007	65,870	83,468	38,871	96,278	97,356
2002	43,303	80,212	26,188	72,300	74,757
Farms by value group:					
$1 to $9,999 2007	8,463	8,794	5,922	14,574	1,854
2002	13,985	10,691	7,388	21,803	1,834
$10,000 to $19,999 2007	7,573	6,735	4,586	12,103	1,268
2002	8,534	5,286	3,694	11,890	1,107
$20,000 to $29,999 2007	6,388	5,112	3,544	8,984	1,113
2002	6,190	3,571	2,909	7,386	1,102
$30,000 to $49,999 2007	7,800	5,732	3,663	10,222	1,448
2002	6,530	3,592	2,353	7,797	1,028
$50,000 to $69,999 2007	5,273	3,625	2,382	7,059	1,236
2002	3,396	2,403	1,068	5,496	814
$70,000 to $99,999 2007	3,653	2,328	1,432	5,335	1,013
2002	2,615	1,955	702	4,486	725
$100,000 to $199,999 2007	4,845	3,212	1,555	9,874	1,561
2002	3,208	2,797	646	8,686	1,550
$200,000 to $499,999 2007	2,735	2,643	467	7,666	1,258
2002	1,597	2,166	181	5,376	734
$500,000 or more 2007	650	1,102	61	2,646	318
2002	248	1,082	15	1,580	106
SELECTED MACHINERY AND EQUIPMENT [1]					
Trucks, including pickups (see text) ..... farms, 2007	39,128	32,299	17,599	59,773	9,195
2002	(NA)	(NA)	(NA)	(NA)	(NA)
number, 2007	74,156	72,330	26,160	99,726	24,425
2002	(NA)	(NA)	(NA)	(NA)	(NA)
Tractors ..... farms, 2007	42,670	31,130	20,516	67,602	8,541
2002	43,443	29,941	17,627	69,242	7,309
number, 2007	93,538	68,686	39,174	211,957	20,392
2002	92,928	70,993	32,300	219,442	19,589
Less than 40 horsepower (PTO) ..... farms, 2007	23,062	18,543	11,642	35,715	3,792
2002	24,988	18,300	10,808	38,652	3,366
number, 2007	31,792	25,319	15,438	56,431	5,230
2002	34,237	26,310	13,669	62,916	4,796
40 to 99 horsepower (PTO) ..... farms, 2007	30,694	16,669	14,175	51,506	5,626
2002	29,864	16,230	11,132	53,949	5,160
number, 2007	51,955	29,679	22,300	99,914	8,886
2002	49,724	31,074	17,183	110,026	8,632
100 horsepower (PTO) or more ..... farms, 2007	5,782	6,431	1,078	26,989	3,363
2002	5,580	6,181	1,026	25,652	3,215
number, 2007	9,791	13,688	1,436	55,612	6,276
2002	8,967	13,609	1,448	46,500	6,161
Grain and bean combines, self-propelled ..... farms, 2007	2,432	2,522	312	12,450	739
2002	2,926	3,414	276	13,709	1,032
number, 2007	2,870	3,839	334	13,815	942
2002	3,264	5,085	306	14,973	1,260
Cotton pickers and strippers, self-propelled ..... farms, 2007	111	-	-	-	-
2002	167	-	-	-	-
number, 2007	144	-	-	-	-
2002	180	-	-	-	-
Forage harvesters, self-propelled ..... farms, 2007	951	1,556	240	5,242	1,322
2002	988	1,642	280	4,401	1,356
number, 2007	1,001	1,711	246	5,529	1,464
2002	1,057	1,911	287	5,050	1,560
Hay balers ..... farms, 2007	20,067	7,281	12,367	32,666	4,189
2002	20,412	8,026	10,940	35,774	4,223
number, 2007	26,334	8,503	15,990	40,187	5,223
2002	26,047	9,164	13,947	43,390	5,334
2007 INVENTORY					
Manufactured 2003 to 2007:					
Trucks, including pickups ..... farms	9,948	8,232	4,615	15,548	3,573
number	11,459	10,967	5,119	18,040	4,948
Tractors ..... farms	10,406	6,429	4,706	9,630	1,483
number	13,202	9,659	5,444	13,777	2,052
Less than 40 horsepower (PTO) ..... farms	3,523	3,155	1,515	3,349	409
number	3,871	3,524	1,597	3,703	467
40 to 99 horsepower (PTO) ..... farms	6,897	2,920	3,321	4,315	681
number	7,912	4,463	3,708	5,002	825
100 horsepower (PTO) or more ..... farms	1,168	962	121	3,398	580
number	1,419	1,672	139	5,072	760
Grain and bean combines, self-propelled ..... farms	186	243	15	966	19
number	204	302	15	1,043	20
Cotton pickers and strippers, self-propelled ..... farms	14	-	-	-	-
number	14	-	-	-	-
Forage harvesters, self-propelled ..... farms	110	190	33	682	196
number	113	222	34	711	211
Hay balers ..... farms	3,111	756	1,497	2,534	736
number	3,277	856	1,577	2,669	797

See footnote(s) at end of table.

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Table 41. **Machinery and Equipment on Operation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
2007 INVENTORY - Con.						
Manufactured prior to 2003:						
Trucks, including pickups (see text) ..... farms	1,496,339	35,041	461	8,787	34,244	52,231
number	2,780,976	58,892	960	14,233	59,403	101,433
Tractors ..... farms	1,664,161	37,348	414	4,758	36,636	50,595
number	3,859,710	66,094	1,012	8,934	68,517	120,765
Less than 40 horsepower (PTO) ..... farms	807,659	16,595	231	2,592	15,400	29,701
number	1,137,922	20,379	339	3,307	18,476	44,834
40 to 99 horsepower (PTO) ..... farms	1,098,874	25,976	275	2,292	24,599	27,778
number	1,747,765	37,419	492	3,534	35,230	54,882
100 horsepower (PTO) or more ..... farms	516,702	5,219	113	1,019	7,012	9,550
number	974,023	8,296	181	2,093	14,811	21,049
Grain and bean combines, self-propelled ..... farms	262,538	1,527	30	107	2,872	1,261
number	305,515	1,805	(D)	125	3,553	1,856
Cotton pickers and strippers, self-propelled ..... farms	9,716	495	-	129	453	362
number	13,924	732	-	206	676	745
Forage harvesters, self-propelled ..... farms	52,926	222	15	117	215	1,166
number	55,810	232	(D)	135	226	1,334
Hay balers ..... farms	530,680	9,993	214	479	11,294	3,044
number	639,553	11,865	(D)	570	13,074	3,587

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
2007 INVENTORY - Con.						
Manufactured prior to 2003:						
Trucks, including pickups (see text) ..... farms	25,980	3,113	1,804	25,570	32,668	4,571
number	58,786	5,997	4,631	36,663	56,629	6,630
Tractors ..... farms	26,502	3,609	1,884	29,333	36,223	2,571
number	55,531	9,439	5,043	47,892	67,215	4,252
Less than 40 horsepower (PTO) ..... farms	11,396	2,564	1,084	16,362	16,588	1,800
number	15,208	4,766	1,587	20,563	20,626	2,437
40 to 99 horsepower (PTO) ..... farms	16,120	2,094	1,208	15,655	23,785	935
number	23,266	3,821	1,987	22,186	34,624	1,414
100 horsepower (PTO) or more ..... farms	9,568	520	718	3,335	6,917	255
number	17,057	852	1,469	5,143	11,965	401
Grain and bean combines, self-propelled ..... farms	3,103	29	557	334	2,244	16
number	3,938	(D)	652	402	2,554	(D)
Cotton pickers and strippers, self-propelled ..... farms	-	-	-	84	1,071	-
number	-	-	-	98	1,389	-
Forage harvesters, self-propelled ..... farms	2,034	95	35	97	269	19
number	2,163	100	35	106	275	(D)
Hay balers ..... farms	8,059	1,390	338	2,533	7,732	12
number	9,985	1,586	400	2,945	9,215	(D)

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
2007 INVENTORY - Con.						
Manufactured prior to 2003:						
Trucks, including pickups (see text) ..... farms	19,068	51,607	40,626	63,657	50,776	59,472
number	47,572	96,290	77,372	110,377	129,006	97,180
Tractors ..... farms	18,302	61,951	47,292	75,668	51,357	68,446
number	42,395	180,084	119,159	223,553	120,164	140,698
Less than 40 horsepower (PTO) ..... farms	8,451	28,175	22,582	30,786	18,979	36,601
number	11,265	41,473	31,983	47,733	25,455	50,206
40 to 99 horsepower (PTO) ..... farms	11,311	42,317	31,148	52,236	31,255	49,718
number	17,447	68,894	48,193	86,150	47,715	75,942
100 horsepower (PTO) or more ..... farms	6,623	33,026	19,829	44,892	25,057	9,753
number	13,683	69,717	38,983	89,670	46,994	14,550
Grain and bean combines, self-propelled ..... farms	2,817	23,154	14,360	28,528	17,687	3,530
number	3,696	26,005	16,006	31,006	21,938	4,067
Cotton pickers and strippers, self-propelled ..... farms	-	-	-	-	46	-
number	-	-	-	-	(D)	-
Forage harvesters, self-propelled ..... farms	2,290	1,184	878	2,237	2,121	1,009
number	2,452	1,194	886	2,266	2,200	1,029
Hay balers ..... farms	7,236	14,119	13,962	20,021	17,382	28,844
number	8,244	17,039	16,803	23,326	21,044	35,729

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
2007 INVENTORY - Con.						
Manufactured prior to 2003:						
Trucks, including pickups (see text) ..... farms	17,538	5,310	8,329	4,704	36,030	57,472
number	26,950	9,918	15,581	8,904	64,329	114,407
Tractors ..... farms	21,984	5,614	10,096	5,172	45,737	67,498
number	43,423	12,373	27,028	11,793	126,059	213,982
Less than 40 horsepower (PTO) ..... farms	9,406	3,461	6,079	3,571	25,356	34,587
number	11,468	4,944	9,746	5,898	40,053	57,278
40 to 99 horsepower (PTO) ..... farms	13,981	3,321	6,765	2,948	31,979	49,327
number	20,122	5,645	12,105	5,124	56,413	86,401
100 horsepower (PTO) or more ..... farms	5,958	818	2,927	574	15,259	34,948
number	11,833	1,784	5,177	771	29,593	70,303
Grain and bean combines, self-propelled ..... farms	1,666	199	1,630	25	10,283	22,627
number	2,135	220	1,832	28	11,804	26,122
Cotton pickers and strippers, self-propelled ..... farms	570	-	4	-	-	-
number	853	-	4	-	-	-
Forage harvesters, self-propelled ..... farms	160	124	336	82	1,724	3,318
number	168	132	344	86	1,780	3,377
Hay balers ..... farms	4,850	2,156	3,753	1,653	16,921	26,097
number	5,788	2,625	4,670	1,938	20,891	32,078

See footnote(s) at end of table.

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Table 41. **Machinery and Equipment on Operation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
2007 INVENTORY - Con.						
Manufactured prior to 2003:						
Trucks, including pickups (see text) ....farms	28,036	77,843	21,996	37,306	2,354	2,597
....number	44,541	134,857	62,268	93,914	5,659	4,194
Tractors ....farms	32,052	86,022	20,231	38,455	2,095	2,885
....number	58,749	176,547	48,970	117,237	4,866	6,312
Less than 40 horsepower (PTO) ....farms	13,439	35,910	8,972	14,841	1,075	1,970
....number	16,360	46,959	12,220	24,062	1,434	3,160
40 to 99 horsepower (PTO) ....farms	21,646	60,779	12,277	25,409	1,221	1,536
....number	30,460	90,516	18,177	43,826	2,030	2,686
100 horsepower (PTO) or more ....farms	6,810	23,421	9,900	24,147	673	296
....number	11,929	39,072	18,573	49,349	1,402	466
Grain and bean combines, self-propelled ....farms	1,817	13,237	5,005	14,528	61	8
....number	2,275	15,138	6,297	16,201	80	9
Cotton pickers and strippers, self-propelled ....farms	496	285	-	-	-	-
....number	752	389	-	-	-	-
Forage harvesters, self-propelled ....farms	196	1,140	2,946	1,982	369	38
....number	197	1,171	3,145	2,040	471	41
Hay balers ....farms	7,446	31,537	8,985	11,609	881	1,161
....number	8,772	37,671	10,638	13,316	1,136	1,368

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
2007 INVENTORY - Con.						
Manufactured prior to 2003:						
Trucks, including pickups (see text) ....farms	6,151	13,713	22,774	39,454	22,878	50,468
....number	12,454	23,592	41,676	77,502	79,963	84,349
Tractors ....farms	7,613	11,393	29,313	41,206	25,143	62,889
....number	20,075	19,407	89,733	92,074	83,368	164,622
Less than 40 horsepower (PTO) ....farms	5,408	6,008	17,159	24,497	9,717	33,692
....number	9,927	7,301	28,992	34,897	15,364	50,626
40 to 99 horsepower (PTO) ....farms	4,114	5,783	21,559	27,179	16,014	44,840
....number	7,751	7,946	44,634	44,285	25,844	74,677
100 horsepower (PTO) or more ....farms	1,455	2,520	7,855	7,077	17,795	21,786
....number	2,397	4,160	16,107	12,892	42,160	39,319
Grain and bean combines, self-propelled ....farms	490	429	2,609	4,463	11,493	16,785
....number	560	503	2,987	5,016	15,557	18,459
Cotton pickers and strippers, self-propelled ....farms	-	112	-	883	-	10
....number	-	142	-	1,128	-	(D)
Forage harvesters, self-propelled ....farms	136	583	1,737	669	1,407	1,607
....number	139	612	1,866	764	1,511	1,643
Hay balers ....farms	1,697	3,140	15,142	12,573	9,102	25,334
....number	2,059	3,494	18,629	15,264	10,735	31,479

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
2007 INVENTORY - Con.					
Manufactured prior to 2003:					
Trucks, including pickups (see text) ....farms	64,954	28,014	36,057	727	17,517
....number	118,426	57,709	60,975	1,287	29,135
Tractors ....farms	64,197	26,993	49,300	840	20,300
....number	112,295	55,642	134,928	1,934	40,775
Less than 40 horsepower (PTO) ....farms	25,569	17,129	28,873	537	11,041
....number	30,537	23,545	46,229	948	14,752
40 to 99 horsepower (PTO) ....farms	40,503	14,147	35,287	520	13,036
....number	54,152	22,843	66,552	871	20,162
100 horsepower (PTO) or more ....farms	18,082	4,968	13,402	85	3,648
....number	27,606	9,254	22,147	115	5,861
Grain and bean combines, self-propelled ....farms	6,039	1,851	6,751	6	1,748
....number	7,394	2,819	7,352	7	1,981
Cotton pickers and strippers, self-propelled ....farms	182	-	-	-	292
....number	240	-	-	-	383
Forage harvesters, self-propelled ....farms	1,369	1,389	2,726	5	212
....number	1,415	1,528	2,825	5	220
Hay balers ....farms	17,011	7,248	26,861	227	4,820
....number	20,116	8,252	32,432	245	5,885

Item	South Dakota	Tennessee	Texas	Utah	Vermont
2007 INVENTORY - Con.					
Manufactured prior to 2003:					
Trucks, including pickups (see text) ....farms	23,908	55,569	152,311	12,011	3,954
....number	59,741	88,755	222,819	22,735	6,018
Tractors ....farms	26,075	62,309	173,067	11,480	5,259
....number	81,956	117,767	291,942	22,389	13,104
Less than 40 horsepower (PTO) ....farms	9,685	30,705	77,496	5,382	2,983
....number	15,462	39,723	93,016	6,951	4,385
40 to 99 horsepower (PTO) ....farms	17,961	44,386	104,432	7,403	3,499
....number	30,989	65,132	136,762	10,967	6,673
100 horsepower (PTO) or more ....farms	16,586	8,183	39,212	2,822	1,026
....number	35,505	12,912	62,164	4,471	2,046
Grain and bean combines, self-propelled ....farms	9,023	2,842	6,664	789	58
....number	10,576	3,296	7,993	902	(D)
Cotton pickers and strippers, self-propelled ....farms	-	386	3,753	-	-
....number	-	546	5,442	-	-
Forage harvesters, self-propelled ....farms	1,986	719	1,865	1,691	203
....number	2,073	752	2,181	1,775	221
Hay balers ....farms	11,328	24,428	29,282	5,475	2,481
....number	13,099	30,173	34,861	6,163	3,008

See footnote(s) at end of table.

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Table 41. **Machinery and Equipment on Operation: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
2007 INVENTORY - Con.					
Manufactured prior to 2003:					
Trucks, including pickups (see text) .....farms	34,240	28,625	14,670	51,120	8,033
number	62,697	61,363	21,041	81,686	19,477
Tractors .....farms	37,931	27,568	18,383	64,275	7,897
number	80,336	59,027	33,730	198,180	18,340
Less than 40 horsepower (PTO) .....farms	20,326	15,895	10,501	33,064	3,438
number	27,921	21,795	13,841	52,728	4,763
40 to 99 horsepower (PTO) .....farms	26,702	14,885	12,271	49,285	5,177
number	44,043	25,216	18,592	94,912	8,061
100 horsepower (PTO) or more .....farms	5,082	5,974	1,000	25,941	3,066
number	8,372	12,016	1,297	50,540	5,516
Grain and bean combines, self-propelled .....farms	2,286	2,350	297	11,602	721
number	2,666	3,537	319	12,772	922
Cotton pickers and strippers, self-propelled .....farms	103	-	-	-	-
number	130	-	-	-	-
Forage harvesters, self-propelled .....farms	849	1,393	207	4,605	1,150
number	888	1,489	212	4,818	1,253
Hay balers .....farms	18,066	6,657	11,442	31,055	3,610
number	23,057	7,647	14,413	37,518	4,426

[1] 2002 data are based on a sample of farms.

Table 42. **Fertilizers and Chemicals Applied: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Commercial fertilizer, lime, and soil conditioners [1 2] ..... farms, 2007	1,022,036	22,575	329	2,723	19,607	43,321
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2007	265,995,497	2,236,223	28,155	758,296	6,275,628	6,728,011
2002	248,060,293	2,131,242	27,256	804,352	6,163,706	7,858,818
Cropland fertilized, except cropland pastured ..... farms, 2007	815,817	10,708	305	2,328	11,360	41,286
2002	894,260	10,323	276	2,423	13,990	45,321
acres treated, 2007	240,992,721	1,359,039	25,760	744,291	5,400,375	6,581,577
2002	224,080,451	1,329,319	25,097	796,477	5,215,080	7,728,457
Pastureland and rangeland fertilized ..... farms, 2007	336,863	15,277	71	458	10,699	2,600
2002	361,145	14,579	56	379	12,291	2,625
acres treated, 2007	25,002,776	877,184	2,395	14,005	875,253	146,434
2002	23,979,842	801,923	2,159	7,875	948,626	130,361
Manure [1] ..... farms, 2007	307,073	6,187	76	555	6,775	6,686
2002	347,585	5,574	70	745	7,218	7,436
acres treated, 2007	22,096,315	451,641	1,842	90,642	668,787	645,305
2002	22,749,251	403,936	1,547	91,978	610,094	725,529
Chemicals used to control- [1]						
Insects ..... farms, 2007	354,357	5,412	32	1,111	4,431	30,850
2002	357,274	4,597	28	1,540	4,770	33,340
acres treated, 2007	90,947,822	846,249	715	615,595	2,660,407	5,780,492
2002	65,697,023	695,992	495	589,093	2,073,357	5,522,671
Weeds, grass, or brush ..... farms, 2007	703,884	12,579	83	1,173	14,268	30,656
2002	708,252	11,122	64	1,416	13,710	33,139
acres treated, 2007	226,295,783	1,356,648	9,751	560,730	5,563,192	4,819,747
2002	193,968,317	1,257,946	6,294	513,462	5,172,219	5,343,823
Nematodes ..... farms, 2007	34,992	666	3	66	513	3,012
2002	35,877	776	2	89	432	3,479
acres treated, 2007	7,560,158	149,214	(D)	38,802	374,246	412,659
2002	5,936,346	185,072	(D)	28,776	223,251	365,616
Diseases in crops and orchards ..... farms, 2007	97,333	1,124	7	139	1,933	14,877
2002	92,334	1,455	1	290	1,504	17,349
acres treated, 2007	22,693,212	166,563	147	53,683	1,391,413	2,168,502
2002	12,392,352	157,800	(D)	57,063	610,344	2,163,639
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate [1] ..... farms, 2007	44,638	928	9	286	989	7,018
2002	44,725	896	2	307	1,121	6,043
acres treated, 2007	12,125,799	319,226	173	157,836	913,063	1,237,257
2002	10,874,350	374,503	(D)	162,112	869,072	995,403

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Commercial fertilizer, lime, and soil conditioners [1 2] ..... farms, 2007	10,533	2,246	1,268	23,433	22,585	4,785
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2007	4,727,645	80,872	350,990	2,867,359	3,421,133	116,530
2002	3,519,111	99,981	406,936	3,039,792	3,182,480	127,996
Cropland fertilized, except cropland pastured ..... farms, 2007	9,150	1,988	1,177	14,898	13,385	4,581
2002	9,136	1,820	1,202	17,128	14,056	3,941
acres treated, 2007	4,544,248	74,465	348,301	1,773,597	2,842,373	90,732
2002	3,451,201	93,310	403,595	2,118,739	2,583,641	116,609
Pastureland and rangeland fertilized ..... farms, 2007	2,208	497	153	10,088	12,145	250
2002	1,533	469	179	8,442	13,338	134
acres treated, 2007	183,397	6,407	2,689	1,093,762	578,760	25,798
2002	67,910	6,671	3,341	921,053	598,839	11,387
Manure [1] ..... farms, 2007	3,723	1,046	581	3,375	6,620	705
2002	3,626	1,141	695	2,477	6,524	730
acres treated, 2007	279,420	30,017	86,042	147,584	496,389	3,859
2002	220,736	42,632	84,903	175,125	408,857	3,812
Chemicals used to control- [1]						
Insects ..... farms, 2007	3,717	830	619	11,588	8,717	2,012
2002	3,766	734	530	13,203	9,056	1,840
acres treated, 2007	1,171,003	28,186	183,284	1,581,664	2,106,774	33,474
2002	851,005	28,080	149,622	1,784,261	1,830,739	41,616
Weeds, grass, or brush ..... farms, 2007	9,215	934	992	13,311	13,608	3,053
2002	7,355	856	1,076	14,906	13,513	2,820
acres treated, 2007	4,025,121	40,212	335,199	1,484,363	2,300,886	98,108
2002	2,721,058	45,128	333,103	2,007,623	2,196,073	101,258
Nematodes ..... farms, 2007	234	80	56	2,192	1,634	253
2002	230	64	32	2,948	1,972	275
acres treated, 2007	50,399	3,701	6,752	283,547	479,919	6,889
2002	48,968	2,076	(D)	341,080	451,632	8,169
Diseases in crops and orchards ..... farms, 2007	692	457	159	5,314	2,590	836
2002	684	415	188	8,215	2,825	800
acres treated, 2007	127,163	11,812	27,824	809,247	543,770	9,716
2002	108,349	15,221	20,608	1,181,175	499,949	30,824
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate [1] ..... farms, 2007	253	137	25	1,850	2,423	255
2002	270	89	34	1,287	1,991	216
acres treated, 2007	37,333	2,147	2,857	277,120	855,070	15,677
2002	53,911	1,468	3,632	205,921	729,171	26,378

See footnote(s) at end of table.

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Table 42. **Fertilizers and Chemicals Applied: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Commercial fertilizer, lime, and soil conditioners [1 2] ....farms, 2007	10,039	46,495	34,040	56,012	36,843	38,848
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2007	3,503,716	19,192,910	10,377,976	19,009,410	19,587,868	4,227,204
2002	3,549,336	16,782,432	9,117,243	16,295,095	18,108,114	3,995,943
Cropland fertilized, except cropland pastured ....farms, 2007	8,048	44,470	31,559	53,790	31,767	28,775
2002	8,562	47,209	32,332	55,204	33,682	41,923
acres treated, 2007	3,352,360	18,976,174	10,210,411	18,414,106	18,133,537	3,132,851
2002	3,429,696	16,545,246	8,960,114	15,667,911	16,781,674	2,986,164
Pastureland and rangeland fertilized ....farms, 2007	3,250	5,352	5,744	8,064	10,444	19,732
2002	2,933	5,812	6,332	8,953	9,712	21,797
acres treated, 2007	151,356	216,736	167,565	595,304	1,454,331	1,094,353
2002	119,640	237,186	157,129	627,184	1,326,440	1,009,779
Manure [1] ....farms, 2007	3,541	10,801	10,872	21,877	5,646	10,812
2002	3,902	13,187	14,236	26,512	5,881	10,769
acres treated, 2007	277,893	600,286	627,641	2,331,503	551,116	407,636
2002	281,135	755,625	696,485	2,333,984	540,838	364,471
Chemicals used to control- [1]						
Insects ....farms, 2007	3,281	24,734	12,308	29,357	8,980	9,751
2002	3,333	24,773	12,372	20,331	8,944	17,396
acres treated, 2007	1,063,684	8,263,478	3,763,538	7,703,762	3,228,032	1,148,425
2002	989,857	5,848,946	2,579,182	3,714,004	2,175,534	694,573
Weeds, grass, or brush ....farms, 2007	9,538	38,472	24,824	47,451	26,876	16,287
2002	9,078	40,212	25,540	46,334	24,597	19,179
acres treated, 2007	2,654,205	19,947,762	10,436,246	19,289,715	14,882,494	2,342,623
2002	2,539,472	18,112,970	8,632,117	16,716,673	10,303,445	1,957,109
Nematodes ....farms, 2007	422	2,303	1,452	3,546	399	577
2002	577	1,827	1,031	1,782	362	737
acres treated, 2007	188,043	489,338	322,965	671,571	125,357	62,975
2002	243,399	284,103	145,579	292,947	64,566	25,778
Diseases in crops and orchards ....farms, 2007	844	4,823	2,372	3,909	2,038	2,247
2002	978	1,425	1,113	834	548	4,011
acres treated, 2007	359,825	1,425,191	571,259	864,595	1,049,277	216,064
2002	387,232	126,617	95,256	113,930	71,114	89,983
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate [1] ....farms, 2007	493	445	395	279	92	1,575
2002	532	332	313	190	432	2,127
acres treated, 2007	160,401	41,275	23,531	19,087	26,069	27,602
2002	183,835	48,277	8,074	3,196	94,612	32,880

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Commercial fertilizer, lime, and soil conditioners [1 2] ....farms, 2007	12,644	2,753	6,466	3,330	26,431	41,674
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2007	3,043,239	221,766	1,085,396	98,188	5,711,776	14,802,681
2002	3,018,494	239,758	1,059,252	107,375	5,476,283	13,508,782
Cropland fertilized, except cropland pastured ....farms, 2007	6,891	2,462	5,634	2,921	25,082	40,418
2002	8,331	2,824	5,904	2,671	24,450	39,644
acres treated, 2007	2,593,371	215,203	1,038,607	89,165	5,651,519	14,645,173
2002	2,604,749	230,385	1,003,516	99,678	5,423,039	13,390,425
Pastureland and rangeland fertilized ....farms, 2007	6,932	502	1,944	668	2,968	3,613
2002	7,017	574	2,024	554	2,920	3,173
acres treated, 2007	449,868	6,563	46,789	9,023	60,257	157,508
2002	413,745	9,373	55,736	7,697	53,244	118,357
Manure [1] ....farms, 2007	1,592	1,596	3,150	1,301	10,876	18,970
2002	1,139	1,928	3,485	1,498	11,955	22,288
acres treated, 2007	100,902	81,517	241,641	32,236	806,350	1,663,594
2002	63,717	95,447	251,097	29,537	700,621	1,864,031
Chemicals used to control- [1]						
Insects ....farms, 2007	4,496	1,300	2,459	1,441	9,513	19,182
2002	5,217	1,356	2,391	1,464	8,314	8,694
acres treated, 2007	2,026,888	136,110	418,804	41,176	1,667,647	5,637,340
2002	2,143,485	132,866	297,784	42,128	990,827	1,634,613
Weeds, grass, or brush ....farms, 2007	8,246	1,164	4,501	1,326	18,681	34,775
2002	8,484	1,203	4,285	1,301	18,709	31,615
acres treated, 2007	2,590,672	129,544	881,282	41,313	4,834,758	14,085,409
2002	2,701,576	164,738	726,366	45,942	4,387,194	11,820,351
Nematodes ....farms, 2007	466	86	185	103	1,016	2,472
2002	531	114	220	186	971	861
acres treated, 2007	182,615	4,864	30,412	1,921	126,221	588,423
2002	165,910	7,754	21,509	4,664	86,159	166,242
Diseases in crops and orchards ....farms, 2007	1,401	596	724	720	3,670	3,005
2002	1,525	700	831	795	3,315	1,676
acres treated, 2007	690,588	52,143	64,518	16,675	415,925	1,209,321
2002	508,112	80,999	43,099	22,396	346,183	650,627
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate [1] ....farms, 2007	1,126	278	172	216	1,521	615
2002	1,563	354	248	154	1,062	400
acres treated, 2007	636,661	32,647	12,745	3,865	120,890	118,439
2002	818,911	45,735	11,133	2,004	86,216	107,195

See footnote(s) at end of table.

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Table 42. **Fertilizers and Chemicals Applied: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Commercial fertilizer, lime, and soil conditioners [1 2] ..... farms, 2007	17,267	51,995	10,218	28,916	824	1,482
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2007	3,593,572	11,615,587	7,088,355	15,463,589	259,118	51,029
2002	3,186,586	10,772,234	6,647,571	13,335,071	279,739	60,752
Cropland fertilized, except cropland pastured ..... farms, 2007	9,018	35,193	9,042	27,231	724	1,246
2002	9,317	42,172	10,061	29,995	754	1,200
acres treated, 2007	2,929,839	8,598,697	6,823,389	14,718,433	236,798	46,452
2002	2,630,833	7,665,904	6,463,919	12,847,411	258,157	55,538
Pastureland and rangeland fertilized ..... farms, 2007	10,575	29,627	2,088	5,281	164	400
2002	10,831	33,960	1,869	5,145	249	325
acres treated, 2007	663,733	3,016,890	264,966	745,156	22,320	4,577
2002	555,753	3,106,330	183,652	487,660	21,582	5,214
Manure [1] ..... farms, 2007	3,906	10,571	2,781	6,943	293	921
2002	2,953	11,476	3,123	8,703	334	955
acres treated, 2007	301,993	711,625	185,674	592,016	23,926	30,110
2002	201,513	650,193	220,702	614,740	34,514	36,826
Chemicals used to control- [1]						
Insects ..... farms, 2007	4,652	9,271	1,540	10,390	270	469
2002	4,389	9,503	1,383	13,276	277	410
acres treated, 2007	2,249,879	2,410,404	490,201	4,909,263	111,140	9,819
2002	1,897,524	1,723,042	445,226	4,108,341	111,182	8,301
Weeds, grass, or brush ..... farms, 2007	9,631	27,265	9,787	24,746	646	407
2002	8,952	26,014	9,166	25,223	609	433
acres treated, 2007	3,206,515	7,835,461	7,049,974	14,111,926	191,267	15,200
2002	2,798,802	6,442,157	5,780,062	11,351,476	166,320	17,911
Nematodes ..... farms, 2007	394	873	70	663	3	24
2002	414	711	133	884	11	69
acres treated, 2007	186,505	277,377	16,340	203,133	(D)	673
2002	255,983	154,950	15,858	215,190	10,681	869
Diseases in crops and orchards ..... farms, 2007	953	1,656	610	2,907	24	239
2002	785	1,028	521	615	36	243
acres treated, 2007	492,730	470,445	293,044	1,014,973	7,674	3,612
2002	290,956	71,721	248,554	101,408	14,083	4,042
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate [1] ..... farms, 2007	775	912	216	176	18	78
2002	1,814	694	251	261	17	60
acres treated, 2007	617,806	410,712	40,140	33,094	8,124	1,564
2002	1,170,098	291,349	64,684	55,176	2,445	1,061

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Commercial fertilizer, lime, and soil conditioners [1 2] ..... farms, 2007	5,265	5,290	15,055	29,003	15,393	39,330
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2007	342,149	811,504	2,161,648	3,897,736	18,419,224	8,144,573
2002	373,719	712,501	2,214,663	4,056,927	16,671,283	7,619,885
Cropland fertilized, except cropland pastured ..... farms, 2007	4,670	4,778	14,135	20,712	15,088	36,736
2002	4,512	3,978	15,159	26,809	15,445	40,427
acres treated, 2007	328,415	735,162	2,098,639	3,456,607	18,299,137	7,979,599
2002	357,700	664,096	2,132,029	3,616,451	16,601,444	7,430,881
Pastureland and rangeland fertilized ..... farms, 2007	892	785	2,223	13,421	696	6,451
2002	1,184	725	2,602	14,744	520	7,482
acres treated, 2007	13,734	76,342	63,009	441,129	120,087	164,974
2002	16,019	48,405	82,634	440,476	69,839	189,004
Manure [1] ..... farms, 2007	1,399	1,220	10,380	8,348	3,998	17,596
2002	1,717	1,583	12,921	9,106	4,662	21,471
acres treated, 2007	30,601	105,026	1,094,796	460,192	281,150	805,897
2002	42,626	121,175	1,196,388	465,132	268,782	845,582
Chemicals used to control- [1]						
Insects ..... farms, 2007	1,992	2,060	5,720	10,172	4,035	11,735
2002	1,961	2,202	5,539	13,981	3,670	11,530
acres treated, 2007	149,088	402,325	685,021	2,096,612	3,007,826	1,929,062
2002	127,982	285,680	579,898	2,336,809	1,601,682	1,121,876
Weeds, grass, or brush ..... farms, 2007	2,327	2,563	9,325	17,571	14,381	28,826
2002	2,414	2,109	9,911	20,422	13,871	31,767
acres treated, 2007	243,360	621,489	1,357,542	2,983,953	17,066,194	7,241,927
2002	263,337	384,455	1,233,452	3,193,582	14,112,382	6,678,161
Nematodes ..... farms, 2007	153	102	400	2,167	137	1,009
2002	168	92	503	3,735	108	633
acres treated, 2007	8,075	13,926	42,470	407,161	89,308	153,740
2002	12,767	13,033	49,162	516,565	53,245	72,532
Diseases in crops and orchards ..... farms, 2007	875	363	2,563	2,420	3,668	2,737
2002	931	426	2,634	3,723	1,681	2,401
acres treated, 2007	56,331	43,601	170,604	303,394	3,274,633	316,045
2002	58,916	26,884	154,506	364,392	1,208,071	91,796
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate [1] ..... farms, 2007	189	296	928	1,973	993	729
2002	191	223	860	2,690	628	947
acres treated, 2007	5,136	33,789	59,923	528,524	544,427	27,621
2002	8,177	31,724	58,140	737,735	284,337	39,835

See footnote(s) at end of table.

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Table 42. **Fertilizers and Chemicals Applied: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Commercial fertilizer, lime, and soil conditioners [1 2] ....farms, 2007	32,943	16,903	29,500	547	12,344
2002	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2007	8,437,103	2,701,415	2,689,081	13,482	1,547,684
2002	8,101,126	2,698,778	2,665,724	13,718	1,441,055
Cropland fertilized, except cropland pastured ....farms, 2007	20,040	12,707	27,198	497	7,975
2002	22,859	14,261	26,812	422	7,645
acres treated, 2007	5,777,772	2,419,221	2,547,105	12,623	1,251,314
2002	5,656,134	2,485,645	2,501,909	12,746	1,149,298
Pastureland and rangeland fertilized ....farms, 2007	18,479	5,944	7,338	85	6,287
2002	21,425	6,885	8,310	72	6,189
acres treated, 2007	2,659,331	282,194	141,976	859	296,370
2002	2,444,992	213,133	163,815	972	291,757
Manure [1] ....farms, 2007	3,797	4,531	20,449	193	3,088
2002	4,529	5,474	23,228	170	2,690
acres treated, 2007	357,293	172,658	1,230,558	2,934	254,269
2002	286,576	151,103	1,333,504	2,920	181,573
Chemicals used to control- [1]					
Insects ....farms, 2007	7,857	5,607	12,125	208	3,747
2002	7,290	6,004	11,882	203	3,582
acres treated, 2007	1,823,131	704,040	947,953	5,881	746,890
2002	1,225,276	585,754	791,004	6,246	613,177
Weeds, grass, or brush ....farms, 2007	25,246	13,386	20,940	198	6,618
2002	24,599	15,018	19,547	174	5,546
acres treated, 2007	5,947,938	2,222,673	1,965,712	7,121	1,087,492
2002	4,743,526	2,181,158	1,530,696	7,108	834,976
Nematodes ....farms, 2007	203	565	790	10	749
2002	183	762	907	13	929
acres treated, 2007	36,868	68,835	52,654	552	222,707
2002	17,885	71,185	55,013	601	177,530
Diseases in crops and orchards ....farms, 2007	1,183	3,648	3,470	87	789
2002	766	4,017	3,267	98	938
acres treated, 2007	267,894	463,280	116,591	2,736	175,644
2002	49,043	431,907	99,619	2,494	83,162
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate [1] ....farms, 2007	579	1,298	1,102	35	587
2002	374	1,213	1,073	28	586
acres treated, 2007	134,692	195,226	34,937	275	151,629
2002	72,721	99,297	37,076	206	168,692

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Commercial fertilizer, lime, and soil conditioners [1 2] ....farms, 2007	15,891	38,260	90,502	6,141	2,346
2002	(NA)	(NA)	(NA)	(NA)	(NA)
acres treated, 2007	11,629,410	4,221,902	19,305,532	629,728	228,040
2002	10,182,001	4,020,902	19,113,597	629,362	262,248
Cropland fertilized, except cropland pastured ....farms, 2007	15,185	23,721	54,161	5,142	2,135
2002	15,721	32,543	62,411	5,452	2,319
acres treated, 2007	11,190,577	3,011,244	14,337,221	521,843	214,009
2002	9,852,202	2,855,209	13,742,856	574,224	244,028
Pastureland and rangeland fertilized ....farms, 2007	2,780	24,076	48,595	1,846	518
2002	2,766	27,784	54,264	1,679	618
acres treated, 2007	438,833	1,210,658	4,968,311	107,885	14,031
2002	329,799	1,165,693	5,370,741	55,138	18,220
Manure [1] ....farms, 2007	5,959	6,971	9,715	2,765	1,941
2002	7,448	7,999	10,173	2,859	2,187
acres treated, 2007	539,372	184,901	885,395	124,051	216,025
2002	580,457	225,199	994,543	112,030	237,859
Chemicals used to control- [1]					
Insects ....farms, 2007	5,683	6,507	24,801	2,525	521
2002	4,128	9,093	27,709	2,641	562
acres treated, 2007	2,970,836	1,299,464	9,088,663	270,095	37,597
2002	1,255,724	1,032,685	7,230,112	264,684	25,951
Weeds, grass, or brush ....farms, 2007	15,563	18,289	59,964	4,469	871
2002	14,105	19,968	62,345	3,908	1,151
acres treated, 2007	11,638,706	2,396,492	14,866,848	441,491	86,442
2002	8,151,070	2,185,450	13,701,320	342,301	91,261
Nematodes ....farms, 2007	257	550	1,618	77	26
2002	1	760	1,668	61	31
acres treated, 2007	81,893	113,134	586,668	5,728	1,819
2002	(D)	91,759	530,679	3,956	2,108
Diseases in crops and orchards ....farms, 2007	1,603	1,664	3,561	308	219
2002	176	2,543	4,282	295	193
acres treated, 2007	789,228	378,723	850,576	8,858	4,096
2002	40,949	161,402	556,678	(D)	6,112
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate [1] ....farms, 2007	124	1,857	6,040	221	79
2002	9	2,907	4,587	138	43
acres treated, 2007	20,809	512,963	3,307,383	6,443	2,042
2002	(D)	542,879	1,881,805	2,886	1,031

See footnote(s) at end of table.

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Table 42. **Fertilizers and Chemicals Applied: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Virginia	Washington	West Virginia	Wisconsin	Wyoming
Commercial fertilizer, lime, and soil conditioners [1 2]	farms, 2007	22,563	14,769	8,278	39,267	2,764
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
	acres treated, 2007	2,264,507	3,984,358	346,385	6,988,477	707,337
	2002	2,328,792	4,346,053	374,774	6,473,456	857,999
Cropland fertilized, except cropland pastured	farms, 2007	16,694	12,078	6,570	37,826	2,332
	2002	20,626	14,180	6,775	37,335	2,718
	acres treated, 2007	1,704,169	3,838,654	230,835	6,830,248	617,484
	2002	1,742,799	4,214,559	265,360	6,344,416	730,581
Pastureland and rangeland fertilized	farms, 2007	11,602	3,587	3,556	5,107	801
	2002	12,991	3,620	3,392	4,953	735
	acres treated, 2007	560,338	145,704	115,550	158,229	89,853
	2002	585,993	131,494	109,414	129,040	127,418
Manure [1]	farms, 2007	7,009	4,665	4,188	24,890	1,193
	2002	7,317	5,446	4,225	30,491	1,329
	acres treated, 2007	388,988	226,588	134,856	2,011,176	120,402
	2002	382,194	231,497	130,068	2,316,691	138,727
Chemicals used to control- [1]						
Insects	farms, 2007	4,711	6,456	975	13,445	762
	2002	6,133	8,017	989	12,338	593
	acres treated, 2007	748,282	1,286,462	37,030	2,125,800	298,331
	2002	701,322	1,076,928	37,398	1,582,101	110,388
Weeds, grass, or brush	farms, 2007	10,790	12,114	2,788	30,527	2,633
	2002	12,199	13,084	2,223	30,561	2,419
	acres treated, 2007	1,242,555	3,816,454	108,454	5,227,166	605,451
	2002	1,211,547	3,602,017	98,296	4,595,578	463,976
Nematodes	farms, 2007	632	655	56	1,027	46
	2002	1,288	874	69	1,291	81
	acres treated, 2007	101,115	142,248	(D)	128,798	9,794
	2002	129,411	155,841	3,264	152,241	9,003
Diseases in crops and orchards	farms, 2007	1,366	3,403	366	2,124	50
	2002	2,280	4,902	432	1,605	39
	acres treated, 2007	128,557	543,911	9,659	251,421	9,731
	2002	155,107	594,650	13,602	168,150	8,112
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate [1]	farms, 2007	730	2,489	157	640	37
	2002	866	3,163	149	910	80
	acres treated, 2007	79,628	252,324	4,715	67,308	3,594
	2002	93,380	269,037	5,099	84,117	5,465

[1] 2002 data are based on a sample of farms.
[2] 2002 farm count data are not comparable due to calculation change.

Table 43. **Organic Agriculture: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
LAND USED FOR ORGANIC PRODUCTION						
Total acres used for organic production (see text) ..... farms	20,437	63	35	129	83	3,515
acres	2,577,418	1,766	320	16,907	5,865	368,934
Acres from which organic crops were harvested ..... farms	16,778	40	30	79	48	3,072
acres	1,288,088	540	(D)	12,237	3,367	150,809
Acres of organic pastureland ..... farms	7,268	20	4	38	38	475
acres	975,380	1,113	(D)	3,570	2,147	192,334
Acres being converted to organic production ..... farms	11,901	129	18	73	110	1,399
acres	616,358	1,681	222	8,047	3,186	60,051
VALUE OF SALES OF ORGANICALLY PRODUCED COMMODITIES						
Total organic product sales ..... farms	18,211	56	34	112	69	3,235
$1,000	1,709,111	632	687	48,363	2,334	656,821
By value of sales:						
$1 to $4,999 ..... farms	8,285	47	18	56	38	1,079
$1,000	12,665	59	28	77	69	1,898
$5,000 or more ..... farms	9,926	9	16	56	31	2,156
$1,000	1,696,446	573	660	48,286	2,265	654,923
Crops, including nursery and greenhouse ..... farms	14,968	36	30	75	43	3,017
$1,000	1,121,774	111	671	(D)	1,394	552,925
Livestock and poultry ..... farms	2,496	14	2	21	18	159
$1,000	109,943	513	(D)	(D)	140	35,915
Livestock and poultry products ..... farms	3,191	8	2	22	15	175
$1,000	477,394	7	(D)	(D)	800	67,982

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
LAND USED FOR ORGANIC PRODUCTION						
Total acres used for organic production (see text) ..... farms	425	186	14	280	157	594
acres	102,936	1,485	97	9,301	2,015	9,934
Acres from which organic crops were harvested ..... farms	307	163	12	208	116	518
acres	49,305	661	(D)	5,974	1,004	1,944
Acres of organic pastureland ..... farms	182	43	3	49	46	61
acres	41,553	(D)	(D)	731	718	7,236
Acres being converted to organic production ..... farms	227	61	14	215	146	212
acres	19,538	485	66	3,968	2,405	1,569
VALUE OF SALES OF ORGANICALLY PRODUCED COMMODITIES						
Total organic product sales ..... farms	347	167	14	234	136	536
$1,000	50,590	6,351	(D)	17,145	2,042	8,451
By value of sales:						
$1 to $4,999 ..... farms	160	83	12	139	85	324
$1,000	234	134	10	163	110	476
$5,000 or more ..... farms	187	84	2	95	51	212
$1,000	50,356	6,218	(D)	16,981	1,932	7,975
Crops, including nursery and greenhouse ..... farms	266	157	12	204	116	514
$1,000	18,911	5,894	(D)	16,240	(D)	(D)
Livestock and poultry ..... farms	77	15	2	26	16	23
$1,000	(D)	397	(D)	670	351	(D)
Livestock and poultry products ..... farms	49	20	1	17	14	18
$1,000	(D)	61	(D)	235	(D)	(D)

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
LAND USED FOR ORGANIC PRODUCTION						
Total acres used for organic production (see text) ..... farms	299	280	287	566	161	193
acres	111,781	18,514	14,143	72,394	37,845	9,280
Acres from which organic crops were harvested ..... farms	246	244	232	522	119	150
acres	75,472	15,476	9,273	58,458	22,098	3,688
Acres of organic pastureland ..... farms	130	98	129	204	60	93
acres	29,356	2,139	4,245	10,495	8,761	4,635
Acres being converted to organic production ..... farms	167	198	206	290	129	229
acres	23,210	8,904	7,973	14,740	9,877	7,044
VALUE OF SALES OF ORGANICALLY PRODUCED COMMODITIES						
Total organic product sales ..... farms	273	271	239	542	155	169
$1,000	48,102	8,332	8,687	33,736	7,496	2,360
By value of sales:						
$1 to $4,999 ..... farms	95	136	126	138	76	118
$1,000	144	167	173	284	109	107
$5,000 or more ..... farms	178	135	113	404	79	51
$1,000	47,958	8,165	8,513	33,452	7,387	2,253
Crops, including nursery and greenhouse ..... farms	225	234	177	467	111	131
$1,000	15,743	6,757	2,533	18,840	6,705	936
Livestock and poultry ..... farms	44	31	50	58	33	34
$1,000	(D)	349	726	3,301	658	815
Livestock and poultry products ..... farms	28	37	61	93	28	28
$1,000	(D)	1,226	5,428	11,596	133	609

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Table 43. **Organic Agriculture: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
LAND USED FOR ORGANIC PRODUCTION						
Total acres used for organic production (see text) ....farms	43	582	161	319	632	718
acres	1,822	38,767	6,678	7,326	50,208	96,342
Acres from which organic crops were harvested ....farms	28	478	134	270	539	609
acres	642	20,206	4,161	3,427	40,830	74,299
Acres of organic pastureland ....farms	13	246	62	95	230	323
acres	680	6,467	1,637	1,989	4,709	15,146
Acres being converted to organic production ....farms	88	168	107	116	477	342
acres	2,253	3,016	2,383	2,901	13,659	20,702
VALUE OF SALES OF ORGANICALLY PRODUCED COMMODITIES						
Total organic product sales ....farms	37	534	146	295	582	636
$1,000	(D)	23,315	5,402	17,515	31,921	39,976
By value of sales:						
$1 to $4,999 ....farms	26	268	71	155	290	234
$1,000	(D)	414	95	285	415	390
$5,000 or more ....farms	11	266	75	140	292	402
$1,000	(D)	22,901	5,307	17,230	31,505	39,586
Crops, including nursery and greenhouse ....farms	24	433	124	264	476	494
$1,000	105	11,035	4,378	12,026	17,765	17,604
Livestock and poultry ....farms	14	87	23	29	108	102
$1,000	61	973	117	(D)	3,611	2,921
Livestock and poultry products ....farms	4	144	39	56	114	162
$1,000	(D)	11,307	907	(D)	10,544	19,451

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
LAND USED FOR ORGANIC PRODUCTION						
Total acres used for organic production (see text) ....farms	83	273	229	190	41	173
acres	2,256	21,738	195,204	82,407	6,237	6,177
Acres from which organic crops were harvested ....farms	36	188	188	163	26	146
acres	462	10,827	58,868	43,407	2,838	3,357
Acres of organic pastureland ....farms	29	111	93	78	15	63
acres	1,386	8,550	75,807	28,510	2,694	1,420
Acres being converted to organic production ....farms	97	278	106	149	25	60
acres	1,892	14,098	37,260	23,007	1,603	1,164
VALUE OF SALES OF ORGANICALLY PRODUCED COMMODITIES						
Total organic product sales ....farms	54	223	207	178	26	148
$1,000	539	3,821	8,776	18,583	(D)	16,283
By value of sales:						
$1 to $4,999 ....farms	45	134	86	46	7	69
$1,000	(D)	174	145	97	9	96
$5,000 or more ....farms	9	89	121	132	19	79
$1,000	(D)	3,647	8,631	18,487	(D)	16,187
Crops, including nursery and greenhouse ....farms	31	168	176	151	21	133
$1,000	(D)	2,563	6,850	12,914	(D)	(D)
Livestock and poultry ....farms	18	46	26	34	2	16
$1,000	30	494	847	5,449	(D)	(D)
Livestock and poultry products ....farms	12	36	25	16	4	21
$1,000	(D)	764	1,078	220	(D)	(D)

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
LAND USED FOR ORGANIC PRODUCTION						
Total acres used for organic production (see text) ....farms	211	321	1,137	418	129	687
acres	3,449	71,607	131,796	7,711	102,204	55,086
Acres from which organic crops were harvested ....farms	173	265	1,018	310	113	579
acres	1,925	6,204	91,465	3,021	54,997	42,088
Acres of organic pastureland ....farms	73	73	601	127	60	323
acres	1,009	59,538	29,233	3,377	39,647	9,437
Acres being converted to organic production ....farms	102	133	562	376	51	426
acres	1,048	34,748	30,687	7,775	10,457	14,836
VALUE OF SALES OF ORGANICALLY PRODUCED COMMODITIES						
Total organic product sales ....farms	201	269	1,027	383	124	629
$1,000	4,250	11,262	54,164	7,295	8,736	25,676
By value of sales:						
$1 to $4,999 ....farms	148	156	411	251	17	306
$1,000	211	275	597	350	34	482
$5,000 or more ....farms	53	113	616	132	107	323
$1,000	4,038	10,987	53,567	6,945	8,702	25,194
Crops, including nursery and greenhouse ....farms	170	241	761	304	106	486
$1,000	3,850	4,877	18,173	4,931	6,617	12,208
Livestock and poultry ....farms	18	29	132	60	30	108
$1,000	190	(D)	2,043	733	1,761	1,449
Livestock and poultry products ....farms	41	17	330	62	11	178
$1,000	210	(D)	33,948	1,632	358	12,019

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Table 43. **Organic Agriculture: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
LAND USED FOR ORGANIC PRODUCTION					
Total acres used for organic production (see text) ....farms	158	933	775	51	89
acres	22,888	92,405	45,181	216	993
Acres from which organic crops were harvested ....farms	87	729	591	43	50
acres	8,887	45,834	28,846	153	230
Acres of organic pastureland ....farms	83	334	388	3	21
acres	12,823	41,844	11,895	(D)	593
Acres being converted to organic production ....farms	217	470	500	17	90
acres	16,538	16,175	14,346	54	1,904
VALUE OF SALES OF ORGANICALLY PRODUCED COMMODITIES					
Total organic product sales ....farms	131	799	680	50	63
$1,000	3,543	88,379	58,293	1,159	(D)
By value of sales:					
$1 to $4,999 ....farms	85	436	284	23	55
$1,000	112	620	449	49	(D)
$5,000 or more ....farms	46	363	396	27	8
$1,000	3,431	87,760	57,844	1,110	(D)
Crops, including nursery and greenhouse ....farms	79	665	450	43	46
$1,000	936	41,991	29,782	765	158
Livestock and poultry ....farms	48	95	141	7	13
$1,000	648	3,089	7,502	(D)	(D)
Livestock and poultry products ....farms	24	109	208	1	7
$1,000	1,959	43,299	21,009	(D)	2

Item	South Dakota	Tennessee	Texas	Utah	Vermont
LAND USED FOR ORGANIC PRODUCTION					
Total acres used for organic production (see text) .... farms	107	159	660	154	619
acres	105,299	2,020	169,638	86,084	67,315
Acres from which organic crops were harvested .... farms	86	96	423	124	534
acres	33,221	747	37,621	45,564	39,032
Acres of organic pastureland .... farms	56	61	287	64	339
acres	61,170	953	79,971	21,620	21,230
Acres being converted to organic production .... farms	78	148	906	118	178
acres	8,310	1,509	63,932	12,394	7,665
VALUE OF SALES OF ORGANICALLY PRODUCED COMMODITIES					
Total organic product sales .... farms	97	137	523	135	554
$1,000	6,650	1,126	51,741	7,316	38,372
By value of sales:					
$1 to $4,999 .... farms	26	116	338	68	184
$1,000	54	187	447	108	309
$5,000 or more .... farms	71	21	185	67	370
$1,000	6,597	940	51,294	7,208	38,063
Crops, including nursery and greenhouse .... farms	77	92	383	105	398
$1,000	4,244	976	21,167	5,850	(D)
Livestock and poultry .... farms	26	39	100	27	78
$1,000	1,160	82	1,814	792	(D)
Livestock and poultry products .... farms	10	18	73	12	205
$1,000	1,246	68	28,760	674	24,355

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
LAND USED FOR ORGANIC PRODUCTION					
Total acres used for organic production (see text) .... farms	311	1,207	84	1,443	73
acres	13,502	64,830	2,158	147,120	87,237
Acres from which organic crops were harvested .... farms	240	1,007	60	1,282	57
acres	6,907	43,153	783	101,903	21,740
Acres of organic pastureland .... farms	123	356	41	793	31
acres	5,042	15,840	804	35,140	65,497
Acres being converted to organic production .... farms	241	514	132	759	47
acres	6,585	21,628	3,805	33,896	11,162
VALUE OF SALES OF ORGANICALLY PRODUCED COMMODITIES					
Total organic product sales .... farms	266	1,075	62	1,281	70
$1,000	14,615	159,772	260	80,630	5,293
By value of sales:					
$1 to $4,999 .... farms	165	494	48	488	25
$1,000	246	802	61	728	48
$5,000 or more .... farms	101	581	14	793	45
$1,000	14,369	158,970	199	79,902	5,245
Crops, including nursery and greenhouse .... farms	212	950	52	988	50
$1,000	3,486	137,436	222	16,658	(D)
Livestock and poultry .... farms	40	104	11	236	26
$1,000	241	2,611	35	3,866	1,931
Livestock and poultry products .... farms	51	145	6	431	3
$1,000	10,888	19,725	3	60,106	(D)

Table 44. **Selected Practices: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Received irrigation water from the U.S. Bureau of Reclamation (farms)	Generated energy or electricity on the farm (farms)	Used conservation methods (farms)	Practiced rotational or management intensive grazing (farms)	Grazed livestock on a per-head or AUM basis (farms)
UNITED STATES TOTAL					
United States	46,177	23,451	503,917	388,912	42,936
STATES					
Alabama	-	322	5,567	8,372	115
Alaska	-	35	131	95	6
Arizona	893	479	1,080	1,281	815
Arkansas	-	299	6,292	8,543	181
California	9,500	3,230	17,975	8,106	1,366
Colorado	4,003	969	7,043	8,511	3,234
Connecticut	-	55	829	774	6
Delaware	-	22	865	228	-
Florida	-	414	5,618	8,497	113
Georgia	-	360	8,179	8,357	-
Hawaii	-	804	1,265	838	44
Idaho	6,946	337	5,745	5,410	2,034
Illinois	-	393	32,338	7,165	393
Indiana	-	538	21,556	7,055	442
Iowa	-	539	41,350	10,267	732
Kansas	196	529	20,550	11,004	2,424
Kentucky	-	512	15,495	20,478	517
Louisiana	-	177	3,467	5,050	81
Maine	-	184	1,537	1,517	28
Maryland	-	131	5,211	2,749	38
Massachusetts	-	152	1,320	1,207	14
Michigan	-	417	15,220	7,151	149
Minnesota	-	514	22,944	8,855	775
Mississippi	-	243	4,606	5,632	-
Missouri	-	568	24,040	22,517	1,503
Montana	2,830	514	7,115	7,707	4,981
Nebraska	1,604	426	21,190	10,323	3,863
Nevada	510	102	481	551	446
New Hampshire	-	78	888	848	8
New Jersey	-	204	1,905	1,461	-
New Mexico	3,076	556	2,177	3,230	1,919
New York	-	454	7,806	7,076	206
North Carolina	-	467	12,540	9,576	-
North Dakota	109	197	9,393	5,221	1,303
Ohio	-	569	27,166	11,335	506
Oklahoma	91	822	9,642	16,727	1,091
Oregon	3,799	631	9,327	9,694	1,753
Pennsylvania	-	592	17,860	10,871	43
Rhode Island	-	21	207	167	-
South Carolina	-	179	4,305	4,412	49
South Dakota	364	208	10,816	7,473	2,734
Tennessee	-	452	12,472	16,694	172
Texas	1,187	2,300	22,765	50,225	2,545
Utah	3,439	299	2,436	3,413	1,891
Vermont	-	185	1,568	1,748	40
Virginia	-	392	10,883	11,618	323
Washington	5,639	499	8,917	8,582	840
West Virginia	-	163	2,625	5,455	316
Wisconsin	-	545	27,081	11,469	767
Wyoming	1,991	373	2,129	3,377	2,130

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Table 44. **Selected Practices: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Produced and sold value-added commodities (farms)	Marketed products through Community Supported Agriculture (CSA) (farms)	Raised or sold veal calves (farms)	Raised or sold hair sheep or wool-hair crosses (farms)	Had a barn built prior to 1960 (farms)
UNITED STATES TOTAL					
United States	78,418	12,549	17,840	14,398	664,264
STATES					
Alabama	1,637	260	447	183	10,574
Alaska	48	20	5	13	61
Arizona	326	63	52	73	920
Arkansas	1,558	187	413	163	10,704
California	2,733	953	301	770	14,472
Colorado	1,709	214	156	266	8,331
Connecticut	408	102	90	57	1,885
Delaware	67	19	9	4	570
Florida	1,257	193	407	211	4,597
Georgia	1,315	339	438	192	9,541
Hawaii	513	135	17	139	140
Idaho	1,335	136	66	182	6,085
Illinois	1,704	302	303	342	25,767
Indiana	1,645	273	433	337	22,439
Iowa	2,246	487	752	436	34,224
Kansas	1,683	173	276	231	21,046
Kentucky	3,368	544	1,241	502	35,224
Louisiana	890	111	443	115	5,138
Maine	724	159	59	121	2,552
Maryland	683	161	91	172	5,219
Massachusetts	613	221	61	104	2,565
Michigan	2,194	463	227	396	21,368
Minnesota	2,212	368	241	314	27,165
Mississippi	1,163	191	367	118	7,597
Missouri	3,505	450	1,249	692	36,007
Montana	1,224	148	-	163	8,274
Nebraska	1,303	161	129	191	17,592
Nevada	166	28	27	29	506
New Hampshire	403	87	33	63	1,521
New Jersey	565	81	25	173	3,019
New Mexico	865	139	229	193	3,372
New York	2,192	364	436	281	17,506
North Carolina	1,429	413	-	416	15,684
North Dakota	673	46	144	-	8,737
Ohio	2,899	424	451	479	33,762
Oklahoma	2,891	286	1,036	449	22,125
Oregon	2,807	311	148	570	11,444
Pennsylvania	2,766	379	876	627	29,321
Rhode Island	89	33	5	8	351
South Carolina	774	193	295	96	5,719
South Dakota	959	102	167	205	12,379
Tennessee	2,719	251	371	246	27,555
Texas	7,865	883	3,617	1,844	51,236
Utah	962	110	166	161	3,169
Vermont	635	164	83	96	2,727
Virginia	2,058	335	569	681	17,363
Washington	2,214	437	104	590	9,744
West Virginia	1,011	163	248	184	8,470
Wisconsin	2,821	437	437	408	35,386
Wyoming	592	50	100	112	3,111

Table 45. **Farms by North American Industry Classification System: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
Total farms	2,204,792	48,753	686	15,637	49,346	81,033
Oilseed and grain farming (1111)	338,237	954	9	77	4,546	2,063
Vegetable and melon farming (1112)	40,589	1,118	64	2,008	597	2,638
Fruit and tree nut farming (1113)	98,281	1,447	10	850	461	37,500
Greenhouse, nursery, and floriculture production (1114)	54,889	647	111	258	362	3,549
Other crop farming (1119)	519,893	12,191	209	1,209	9,865	5,527
Tobacco farming (11191)	9,626	-	-	-	-	-
Cotton farming (11192)	9,968	409	-	173	527	285
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	500,299	11,782	209	1,036	9,338	5,242
Beef cattle ranching and farming (112111)	656,475	20,314	41	4,901	22,854	11,153
Cattle feedlots (112112)	31,065	16	4	65	65	404
Dairy cattle and milk production (11212)	57,318	116	6	146	291	1,839
Hog and pig farming (1122)	30,546	287	14	86	396	425
Poultry and egg production (1123)	64,570	3,818	32	468	4,212	1,798
Sheep and goat farming (1124)	67,254	1,626	19	2,513	775	3,041
Animal aquaculture and other animal production (1125,1129)	245,675	6,219	167	3,056	4,922	11,096

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
Total farms	37,054	4,916	2,546	47,463	47,846	7,521
Oilseed and grain farming (1111)	3,394	37	701	217	1,749	12
Vegetable and melon farming (1112)	429	385	117	1,081	946	574
Fruit and tree nut farming (1113)	644	333	19	8,404	2,952	3,528
Greenhouse, nursery, and floriculture production (1114)	562	762	155	4,492	1,062	1,393
Other crop farming (1119)	11,399	1,305	237	4,430	12,452	346
Tobacco farming (11191)	-	70	-	14	96	-
Cotton farming (11192)	-	-	-	81	1,142	-
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	11,399	1,235	237	4,335	11,214	346
Beef cattle ranching and farming (112111)	9,598	490	155	16,819	15,796	860
Cattle feedlots (112112)	615	32	21	240	313	30
Dairy cattle and milk production (11212)	267	212	63	210	487	6
Hog and pig farming (1122)	453	69	13	594	384	116
Poultry and egg production (1123)	742	273	777	1,185	3,860	107
Sheep and goat farming (1124)	1,010	198	77	1,260	1,544	190
Animal aquaculture and other animal production (1125,1129)	7,941	820	211	8,531	6,301	359

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
Total farms	25,349	76,860	60,938	92,856	65,531	85,260
Oilseed and grain farming (1111)	2,186	39,081	25,150	42,687	21,890	4,592
Vegetable and melon farming (1112)	679	642	665	368	287	1,162
Fruit and tree nut farming (1113)	358	539	541	457	276	567
Greenhouse, nursery, and floriculture production (1114)	546	1,150	877	485	358	870
Other crop farming (1119)	7,854	18,658	11,889	21,894	17,011	28,053
Tobacco farming (11191)	-	5	153	-	-	5,034
Cotton farming (11192)	-	-	-	-	16	-
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	7,854	18,653	11,736	21,894	16,995	23,019
Beef cattle ranching and farming (112111)	7,712	7,296	8,676	10,673	18,708	33,966
Cattle feedlots (112112)	517	1,133	1,114	3,119	894	1,073
Dairy cattle and milk production (11212)	677	900	1,462	1,686	523	1,641
Hog and pig farming (1122)	250	1,259	1,959	4,970	618	354
Poultry and egg production (1123)	267	938	1,442	775	691	1,593
Sheep and goat farming (1124)	835	1,078	1,547	1,434	782	2,038
Animal aquaculture and other animal production (1125,1129)	3,468	4,186	5,616	4,308	3,493	9,351

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
Total farms	30,106	8,136	12,834	7,691	56,014	80,992
Oilseed and grain farming (1111)	2,579	34	2,049	22	12,300	26,654
Vegetable and melon farming (1112)	540	650	518	662	1,534	972
Fruit and tree nut farming (1113)	763	961	390	893	2,873	690
Greenhouse, nursery, and floriculture production (1114)	661	682	673	865	2,723	1,054
Other crop farming (1119)	7,149	2,598	3,094	1,570	17,157	24,375
Tobacco farming (11191)	-	-	39	46	-	-
Cotton farming (11192)	291	-	-	-	-	-
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	6,858	2,598	3,055	1,524	17,157	24,375
Beef cattle ranching and farming (112111)	11,775	765	1,582	751	5,253	9,921
Cattle feedlots (112112)	-	119	189	53	1,481	2,421
Dairy cattle and milk production (11212)	282	396	565	258	1,971	4,385
Hog and pig farming (1122)	232	97	109	82	1,017	2,462
Poultry and egg production (1123)	808	323	1,001	480	1,635	1,643
Sheep and goat farming (1124)	627	364	594	279	1,241	1,310
Animal aquaculture and other animal production (1125,1129)	4,690	1,147	2,070	1,776	6,829	5,105

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Table 45. **Farms by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
Total farms	41,959	107,825	29,524	47,712	3,131	4,166
Oilseed and grain farming (1111)	2,833	17,067	4,197	21,475	9	10
Vegetable and melon farming (1112)	949	649	170	188	31	251
Fruit and tree nut farming (1113)	828	559	344	214	38	277
Greenhouse, nursery, and floriculture production (1114)	861	747	344	356	41	408
Other crop farming (1119)	12,788	27,350	7,867	8,431	910	1,265
Tobacco farming (11191)	-	51	-	-	-	-
Cotton farming (11192)	528	283	-	-	-	-
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	12,260	27,016	7,867	8,431	910	1,265
Beef cattle ranching and farming (112111)	15,018	44,336	9,804	10,775	1,067	328
Cattle feedlots (112112)	-	1,300	244	1,534	20	3
Dairy cattle and milk production (11212)	187	1,705	138	267	35	194
Hog and pig farming (1122)	228	1,056	118	936	15	62
Poultry and egg production (1123)	2,449	2,245	398	489	64	247
Sheep and goat farming (1124)	704	1,595	606	558	184	257
Animal aquaculture and other animal production (1125,1129)	5,114	9,216	5,294	2,489	717	864

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
Total farms	10,327	20,930	36,352	52,913	31,970	75,861
Oilseed and grain farming (1111)	639	419	1,714	5,147	12,705	24,492
Vegetable and melon farming (1112)	953	1,190	1,876	2,470	140	1,525
Fruit and tree nut farming (1113)	706	2,060	2,339	1,370	46	1,147
Greenhouse, nursery, and floriculture production (1114)	2,123	179	2,193	2,942	72	2,115
Other crop farming (1119)	1,873	4,319	10,621	11,745	10,687	16,774
Tobacco farming (11191)	-	-	-	1,844	-	241
Cotton farming (11192)	-	61	-	457	-	-
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	1,873	4,258	10,621	9,444	10,687	16,533
Beef cattle ranching and farming (112111)	704	7,219	4,302	14,413	5,961	12,297
Cattle feedlots (112112)	75	102	501	3	252	1,890
Dairy cattle and milk production (11212)	123	196	5,237	381	212	2,955
Hog and pig farming (1122)	95	125	385	1,619	74	1,594
Poultry and egg production (1123)	405	396	1,005	4,096	130	1,650
Sheep and goat farming (1124)	669	1,634	1,068	2,437	276	2,227
Animal aquaculture and other animal production (1125,1129)	1,962	3,091	5,111	6,290	1,415	7,195

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Total farms	86,565	38,553	63,163	1,219	25,867
Oilseed and grain farming (1111)	4,890	811	5,859	2	2,120
Vegetable and melon farming (1112)	533	794	1,881	141	1,056
Fruit and tree nut farming (1113)	1,328	3,766	2,147	92	855
Greenhouse, nursery, and floriculture production (1114)	431	3,662	3,027	252	846
Other crop farming (1119)	17,532	7,417	19,019	218	7,657
Tobacco farming (11191)	-	-	134	-	171
Cotton farming (11192)	167	-	-	-	124
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	17,365	7,417	18,885	218	7,362
Beef cattle ranching and farming (112111)	45,871	12,071	8,350	102	6,931
Cattle feedlots (112112)	956	778	1,611	8	168
Dairy cattle and milk production (11212)	721	432	7,434	34	102
Hog and pig farming (1122)	986	425	1,072	31	300
Poultry and egg production (1123)	2,358	891	2,691	49	1,226
Sheep and goat farming (1124)	2,446	2,103	2,010	53	859
Animal aquaculture and other animal production (1125,1129)	8,513	5,403	8,062	237	3,747

Item	South Dakota	Tennessee	Texas	Utah	Vermont
Total farms	31,169	79,280	247,437	16,700	6,984
Oilseed and grain farming (1111)	10,752	3,510	8,063	489	55
Vegetable and melon farming (1112)	74	801	1,672	300	252
Fruit and tree nut farming (1113)	65	467	5,508	544	352
Greenhouse, nursery, and floriculture production (1114)	123	1,431	2,298	244	492
Other crop farming (1119)	6,595	17,024	52,193	4,918	2,476
Tobacco farming (11191)	-	975	-	-	-
Cotton farming (11192)	-	420	4,928	-	-
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	6,595	15,629	47,265	4,918	2,476
Beef cattle ranching and farming (112111)	9,031	41,886	124,992	5,183	668
Cattle feedlots (112112)	794	37	2,229	415	61
Dairy cattle and milk production (11212)	348	893	1,027	335	1,141
Hog and pig farming (1122)	313	504	1,732	205	26
Poultry and egg production (1123)	274	1,694	5,829	359	235
Sheep and goat farming (1124)	706	2,023	13,272	895	371
Animal aquaculture and other animal production (1125,1129)	2,094	9,010	28,622	2,813	855

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Table 45. **Farms by North American Industry Classification System: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
Total farms	47,383	39,284	23,618	78,463	11,069
Oilseed and grain farming (1111)	1,761	2,256	175	13,508	296
Vegetable and melon farming (1112)	923	1,126	339	1,645	24
Fruit and tree nut farming (1113)	995	5,185	258	1,320	15
Greenhouse, nursery, and floriculture production (1114)	1,085	1,721	403	2,147	49
Other crop farming (1119)	10,326	8,107	6,449	22,081	2,779
Tobacco farming (11191)	637	-	44	72	-
Cotton farming (11192)	76	-	-	-	-
Sugarcane farming, hay farming, and all other crop farming (11193,11194,11199)	9,613	8,107	6,405	22,009	2,779
Beef cattle ranching and farming (112111)	20,923	8,200	10,481	11,593	3,910
Cattle feedlots (112112)	778	498	297	2,485	108
Dairy cattle and milk production (11212)	934	626	165	13,081	26
Hog and pig farming (1122)	375	567	335	989	133
Poultry and egg production (1123)	1,798	1,231	1,113	2,297	83
Sheep and goat farming (1124)	1,512	1,556	968	1,501	382
Animal aquaculture and other animal production (1125,1129)	5,973	8,211	2,635	5,816	3,264

Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002**

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
FARMS						
Land in farms ....farms, 2007	2,204,792	48,753	686	15,637	49,346	81,033
2002	2,128,982	45,126	609	7,294	47,483	79,631
acres, 2007	922,095,840	9,033,537	881,585	26,117,899	13,872,862	25,364,695
2002	938,279,056	8,904,387	900,715	26,586,577	14,502,793	27,589,027
Harvested cropland ....farms, 2007	1,328,004	23,336	424	4,993	29,050	53,000
2002	1,362,608	23,327	393	3,139	29,466	54,115
acres, 2007	309,607,601	1,994,743	30,772	832,406	7,367,068	7,633,173
2002	302,697,252	1,995,139	31,824	887,966	7,457,599	8,466,321
TENURE						
Full owners ....farms, 2007	1,522,033	35,069	492	13,989	34,736	63,777
2002	1,428,136	32,157	431	5,723	31,523	60,894
acres, 2007	343,952,327	5,053,998	195,755	23,861,031	5,161,325	10,082,984
2002	356,767,305	5,035,168	193,920	25,273,587	5,609,225	10,899,151
Harvested cropland ....farms, 2007	776,806	13,920	307	4,168	17,659	41,451
2002	794,090	14,003	286	2,245	17,051	41,163
acres, 2007	62,191,104	498,344	17,254	156,642	1,290,283	3,032,616
2002	73,054,950	600,845	16,538	273,788	1,617,898	3,522,071
Part owners ....farms, 2007	542,192	11,454	110	913	11,287	9,843
2002	551,004	10,906	92	904	12,291	10,636
acres, 2007	496,344,290	3,550,745	86,370	1,091,864	6,165,011	11,480,879
2002	495,012,197	3,457,064	153,649	850,797	6,493,882	12,244,863
Owned land in farms ....acres, 2007	227,351,160	1,640,411	21,995	387,881	2,338,109	4,312,543
2002	228,196,318	1,627,452	21,624	388,937	2,477,481	4,644,212
Rented land in farms ....acres, 2007	268,993,130	1,910,334	64,375	703,983	3,826,902	7,168,336
2002	266,815,879	1,829,612	132,025	461,860	4,016,401	7,600,651
Harvested cropland ....farms, 2007	453,901	8,323	89	402	8,901	6,676
2002	461,474	8,155	83	487	9,688	7,441
acres, 2007	210,295,715	1,307,441	12,061	255,660	3,801,887	3,216,666
2002	193,427,322	1,194,469	12,684	292,565	3,807,464	3,422,788
Tenants ....farms, 2007	140,567	2,230	84	735	3,323	7,413
2002	149,842	2,063	86	667	3,669	8,101
acres, 2007	81,799,223	428,794	599,460	1,165,004	2,546,526	3,800,832
2002	86,499,554	412,155	553,146	462,193	2,399,686	4,445,013
Harvested cropland ....farms, 2007	97,297	1,093	28	423	2,490	4,873
2002	107,044	1,169	24	407	2,727	5,511
acres, 2007	37,120,782	188,958	1,457	420,104	2,274,898	1,383,891
2002	36,214,980	199,825	2,602	321,613	2,032,237	1,521,462
2007 NUMBER OF ALL OPERATORS						
Total operators .... number	3,337,450	70,959	1,146	26,183	75,308	130,756
Farms by number of operators:						
1 operator	1,273,122	30,182	337	7,715	27,307	41,998
2 operators	786,598	15,790	286	6,076	19,197	31,976
3 operators	112,285	2,220	39	1,479	2,184	5,248
4 operators	22,529	395	15	185	449	1,137
5 or more operators	10,258	166	9	182	209	674
Total women operators .... number	1,008,943	20,692	444	11,553	24,065	43,239
Farms by number of women operators:						
1 operator	894,347	18,631	357	9,062	21,911	37,150
2 operators	45,408	838	32	925	857	2,357
3 operators	5,439	105	5	157	115	324
4 operators	1,017	15	2	19	12	36
5 or more operators	546	2	-	18	7	45
2002 NUMBER OF ALL OPERATORS						
Total operators .... number	3,115,172	62,572	912	12,259	69,504	125,095
Farms by number of operators:						
1 operator	1,325,855	30,485	373	3,580	28,926	44,967
2 operators	681,435	12,717	200	2,962	16,233	28,058
3 operators	84,917	1,390	21	501	1,651	4,385
4 operators	24,819	355	6	149	479	1,335
5 or more operators	11,956	179	9	102	194	886
Total women operators .... number	847,832	16,060	312	4,302	19,856	36,991
Farms by number of women operators:						
1 operator	745,369	14,411	249	3,475	17,860	31,404
2 operators	40,423	608	22	324	831	2,197
3 operators	5,125	108	5	47	79	289
4 operators	944	15	1	7	14	46
5 or more operators	393	6	-	2	6	26
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male ....farms, 2007	1,898,583	42,309	518	9,617	43,015	66,068
2002	1,891,163	40,305	492	5,774	42,644	67,016
acres, 2007	857,831,274	8,215,222	(D)	22,765,861	12,942,204	23,305,862
2002	878,895,499	8,157,718	882,488	20,883,136	13,655,850	25,555,557
Female ....farms, 2007	306,209	6,444	168	6,020	6,331	14,965
2002	237,819	4,821	117	1,520	4,839	12,615
acres, 2007	64,264,566	818,315	(D)	3,352,038	930,658	2,058,833
2002	59,383,557	746,669	18,227	5,703,441	846,943	2,033,470
Primary occupation:						
Farming 2007	993,881	19,416	365	9,553	21,960	40,910
2002	1,224,246	23,950	370	4,296	27,411	49,132
Other 2007	1,210,911	29,337	321	6,084	27,386	40,123
2002	904,736	21,176	239	2,998	20,072	30,499

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
FARMS							
Land in farms	farms, 2007	37,054	4,916	2,546	47,463	47,846	7,521
	2002	31,369	4,191	2,391	44,081	49,311	5,398
	acres, 2007	31,604,911	405,616	510,253	9,231,570	10,150,539	1,121,329
	2002	31,093,336	357,154	540,080	10,414,877	10,744,239	1,300,499
Harvested cropland	farms, 2007	17,899	3,517	1,615	20,486	23,179	6,044
	2002	14,655	3,000	1,548	20,495	24,424	4,522
	acres, 2007	5,888,926	136,833	409,468	2,112,129	3,390,437	103,120
	2002	4,346,955	131,248	433,105	2,313,537	3,245,784	109,461
TENURE							
Full owners	farms, 2007	26,486	3,490	1,661	39,746	36,526	5,061
	2002	20,809	2,886	1,597	36,593	37,393	3,202
	acres, 2007	12,681,773	182,185	(D)	5,534,084	5,676,052	300,237
	2002	11,261,149	166,173	108,717	6,612,521	6,237,613	246,865
Harvested cropland	farms, 2007	10,975	2,338	801	16,683	14,714	4,185
	2002	8,489	1,953	813	17,007	15,594	2,814
	acres, 2007	1,807,121	38,281	48,025	1,052,536	913,274	49,630
	2002	1,470,950	34,778	51,800	1,401,387	961,958	18,459
Part owners	farms, 2007	8,174	1,097	630	6,050	9,299	775
	2002	8,131	955	618	5,510	9,589	589
	acres, 2007	16,743,142	169,417	342,275	3,158,512	3,994,899	637,776
	2002	17,636,916	163,086	365,802	3,181,840	4,020,298	(D)
Owned land in farms	acres, 2007	9,234,859	82,211	129,030	1,476,022	1,953,891	294,309
	2002	9,094,645	88,155	149,426	1,377,204	1,995,132	426,293
Rented land in farms	acres, 2007	7,508,283	87,206	213,245	1,682,490	2,041,008	343,467
	2002	8,542,271	74,931	216,376	1,804,636	2,025,166	(D)
Harvested cropland	farms, 2007	5,679	947	589	3,004	7,171	518
	2002	4,906	814	583	2,602	7,450	414
	acres, 2007	3,472,240	85,801	304,466	927,310	2,152,976	37,716
	2002	2,429,064	83,943	318,070	784,559	1,970,019	36,053
Tenants	farms, 2007	2,394	329	255	1,667	2,021	1,685
	2002	2,429	350	176	1,978	2,329	1,607
	acres, 2007	2,179,996	54,014	(D)	538,974	479,588	183,316
	2002	2,195,271	27,895	65,561	620,516	486,328	(D)
Harvested cropland	farms, 2007	1,245	232	225	799	1,294	1,341
	2002	1,260	233	152	886	1,380	1,294
	acres, 2007	609,565	12,751	56,977	132,283	324,187	15,774
	2002	446,941	12,527	63,235	127,591	313,807	54,949
2007 NUMBER OF ALL OPERATORS							
Total operators	number	60,684	7,913	3,928	73,146	69,060	11,412
Farms by number of operators:							
1 operator		17,452	2,520	1,451	26,435	30,138	4,326
2 operators		16,779	1,982	877	17,804	15,030	2,721
3 operators		2,097	299	173	2,454	2,129	375
4 operators		511	72	29	536	402	58
5 or more operators		215	43	16	234	147	41
Total women operators	number	22,082	2,928	1,160	26,292	20,189	4,185
Farms by number of women operators:							
1 operator		18,993	2,366	1,020	22,942	18,053	3,607
2 operators		1,311	203	55	1,327	855	239
3 operators		106	35	4	158	107	15
4 operators		25	10	2	29	18	6
5 or more operators		6	2	2	13	5	5
2002 NUMBER OF ALL OPERATORS							
Total operators	number	50,187	6,626	3,685	64,363	67,229	8,009
Farms by number of operators:							
1 operator		16,055	2,278	1,351	27,649	34,598	3,306
2 operators		12,895	1,537	855	13,960	12,590	1,767
3 operators		1,668	274	139	1,683	1,523	237
4 operators		560	73	32	534	377	45
5 or more operators		191	29	14	255	223	43
Total women operators	number	17,382	2,255	1,080	20,537	17,067	2,652
Farms by number of women operators:							
1 operator		14,879	1,819	915	17,642	14,894	2,273
2 operators		986	177	78	1,157	812	148
3 operators		126	26	3	125	120	16
4 operators		26	1	-	27	35	2
5 or more operators		8	-	-	14	8	3
PRINCIPAL OPERATOR CHARACTERISTICS							
Sex of operator:							
Male	farms, 2007	30,112	3,755	2,137	37,034	40,314	5,715
	2002	26,152	3,323	2,062	35,965	42,856	4,338
	acres, 2007	28,446,637	347,687	(D)	8,461,769	9,282,258	1,057,194
	2002	28,620,194	316,978	516,292	9,598,440	9,855,722	1,189,541
Female	farms, 2007	6,942	1,161	409	10,429	7,532	1,806
	2002	5,217	868	329	8,116	6,455	1,060
	acres, 2007	3,158,274	57,929	(D)	769,801	868,281	64,135
	2002	2,473,142	40,176	23,788	816,437	888,517	110,958
Primary occupation:							
Farming	2007	14,958	2,273	1,504	20,904	20,106	3,861
	2002	18,331	2,077	1,659	22,998	25,076	3,125
Other	2007	22,096	2,643	1,042	26,559	27,740	3,660
	2002	13,038	2,114	732	21,083	24,235	2,273

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
FARMS						
Land in farms ....farms, 2007	25,349	76,860	60,938	92,856	65,531	85,260
2002	25,017	73,027	60,296	90,655	64,414	86,541
acres, 2007	11,497,383	26,775,100	14,773,184	30,747,550	46,345,827	13,993,121
2002	11,767,294	27,310,833	15,058,670	31,729,490	47,227,944	13,843,706
Harvested cropland ....farms, 2007	13,975	54,185	41,743	63,672	43,553	57,528
2002	13,444	56,083	44,298	67,338	44,073	65,815
acres, 2007	4,225,786	22,611,443	12,108,940	23,799,380	19,886,655	5,057,883
2002	4,313,288	22,562,904	11,937,370	23,994,343	18,976,719	4,978,994
TENURE						
Full owners ....farms, 2007	18,324	45,136	40,550	53,492	38,452	65,445
2002	17,848	39,565	39,082	49,889	36,925	66,456
acres, 2007	5,274,991	4,733,190	3,123,539	7,619,098	10,867,445	7,689,488
2002	4,958,174	5,908,357	3,516,806	8,626,697	13,715,110	7,861,435
Harvested cropland ....farms, 2007	8,721	24,030	22,652	26,540	20,079	40,507
2002	8,016	23,781	24,244	28,352	20,110	47,877
acres, 2007	1,144,267	2,491,442	1,514,901	3,690,076	3,316,851	1,764,340
2002	1,096,645	3,531,440	1,742,786	4,664,209	4,752,174	1,869,012
Part owners ....farms, 2007	5,472	23,512	16,180	28,937	22,030	16,534
2002	5,557	25,334	17,580	30,265	22,300	15,937
acres, 2007	5,388,009	18,439,334	10,341,144	19,529,558	30,964,176	5,767,074
2002	5,880,398	17,942,767	10,270,502	19,260,548	29,308,334	5,375,117
Owned land in farms ....acres, 2007	2,762,545	5,534,667	3,619,954	6,957,334	12,200,036	2,606,703
2002	3,105,063	5,661,124	3,659,939	7,019,775	11,508,859	2,405,130
Rented land in farms ....acres, 2007	2,625,464	12,904,667	6,721,190	12,572,224	18,764,140	3,160,371
2002	2,775,335	12,281,643	6,610,563	12,240,773	17,799,475	2,969,987
Harvested cropland ....farms, 2007	4,241	22,715	15,418	27,908	19,789	14,628
2002	4,407	24,712	16,852	29,342	20,116	14,506
acres, 2007	2,560,724	16,736,100	9,367,908	16,850,476	14,338,885	3,029,828
2002	2,724,212	15,862,361	9,039,992	15,973,117	12,363,925	2,830,869
Tenants ....farms, 2007	1,553	8,212	4,208	10,427	5,049	3,281
2002	1,612	8,128	3,634	10,501	5,189	4,148
acres, 2007	834,383	3,602,576	1,308,501	3,598,894	4,514,206	536,559
2002	928,722	3,459,709	1,271,362	3,842,245	4,204,500	607,154
Harvested cropland ....farms, 2007	1,013	7,440	3,673	9,224	3,685	2,393
2002	1,021	7,590	3,202	9,644	3,847	3,432
acres, 2007	520,795	3,383,901	1,226,131	3,258,828	2,230,919	263,715
2002	492,431	3,169,103	1,154,592	3,357,017	1,860,620	279,113
2007 NUMBER OF ALL OPERATORS						
Total operators .... number	40,427	111,089	91,590	136,068	97,150	123,971
Farms by number of operators:						
1 operator	12,967	49,356	36,059	57,549	39,263	52,524
2 operators	10,583	22,595	20,708	29,474	22,249	28,085
3 operators	1,304	3,878	3,193	4,638	3,165	3,724
4 operators	316	668	699	820	610	681
5 or more operators	179	363	279	375	244	246
Total women operators .... number	13,020	25,593	24,443	33,763	27,416	33,292
Farms by number of women operators:						
1 operator	11,679	23,047	21,802	31,016	24,827	30,037
2 operators	516	956	1,015	1,054	977	1,333
3 operators	52	127	129	141	144	151
4 operators	21	21	18	34	38	28
5 or more operators	11	26	21	15	9	4
2002 NUMBER OF ALL OPERATORS						
Total operators .... number	38,862	101,574	86,493	127,166	90,392	123,214
Farms by number of operators:						
1 operator	13,843	50,203	38,367	60,439	43,156	56,203
2 operators	9,496	18,908	18,721	25,841	18,133	26,092
3 operators	1,141	2,816	2,404	3,175	2,184	3,035
4 operators	340	740	636	833	627	825
5 or more operators	197	360	168	367	314	386
Total women operators .... number	11,682	19,840	20,246	28,143	21,632	30,194
Farms by number of women operators:						
1 operator	10,487	17,641	18,590	25,714	19,322	27,029
2 operators	471	918	756	946	857	1,269
3 operators	63	75	38	133	130	161
4 operators	8	28	5	14	39	26
5 or more operators	5	4	2	15	10	7
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male ....farms, 2007	22,198	69,196	54,561	84,404	57,588	76,150
2002	22,174	67,774	55,776	84,451	58,754	78,267
acres, 2007	10,831,026	25,951,006	14,252,747	29,656,571	43,947,714	13,038,633
2002	11,181,730	26,584,534	14,656,587	30,747,237	45,499,446	12,939,516
Female ....farms, 2007	3,151	7,664	6,377	8,452	7,943	9,110
2002	2,843	5,253	4,520	6,204	5,660	8,274
acres, 2007	666,357	824,094	520,437	1,090,979	2,398,113	954,488
2002	585,564	726,299	402,083	982,253	1,728,498	904,190
Primary occupation:						
Farming 2007	11,579	37,223	25,510	48,637	30,873	33,935
2002	13,857	46,822	33,612	61,935	40,645	46,939
Other 2007	13,770	39,637	35,428	44,219	34,658	51,325
2002	11,160	26,205	26,684	28,720	23,769	39,602

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
FARMS						
Land in farms ..... farms, 2007	30,106	8,136	12,834	7,691	56,014	80,992
2002	27,413	7,196	12,198	6,075	53,315	80,839
acres, 2007	8,109,975	1,347,566	2,051,756	517,879	10,031,807	26,917,962
2002	7,830,664	1,369,768	2,077,630	518,570	10,142,958	27,512,270
Harvested cropland ..... farms, 2007	13,783	5,189	8,278	4,792	37,868	53,943
2002	14,017	4,869	8,335	4,210	38,244	57,323
acres, 2007	3,342,048	393,738	1,246,603	153,993	6,859,081	19,267,018
2002	3,332,146	394,121	1,282,004	159,253	6,827,903	19,398,309
TENURE						
Full owners ..... farms, 2007	20,472	6,074	9,035	5,647	39,311	51,425
2002	17,184	5,242	8,479	4,355	37,089	51,312
acres, 2007	2,903,412	737,642	760,358	298,591	3,067,814	8,484,843
2002	2,431,580	715,764	758,901	283,922	3,325,819	9,926,985
Harvested cropland ..... farms, 2007	7,378	3,497	4,917	3,293	22,440	25,940
2002	6,948	3,239	5,035	2,900	23,050	29,436
acres, 2007	565,186	105,159	231,546	54,765	1,088,425	3,556,088
2002	535,372	100,051	271,769	52,934	1,270,011	4,967,619
Part owners ..... farms, 2007	7,024	1,681	2,763	1,373	14,703	24,394
2002	7,358	1,604	2,704	1,221	14,199	24,073
acres, 2007	3,581,719	569,648	1,053,640	193,496	6,443,769	16,421,535
2002	3,799,254	596,358	1,067,489	210,371	6,317,989	15,479,719
Owned land in farms ..... acres, 2007	1,130,211	373,539	425,706	115,070	2,988,256	7,028,913
2002	1,135,867	413,610	449,016	127,708	2,946,525	6,682,274
Rented land in farms ..... acres, 2007	2,451,508	196,109	627,934	78,426	3,455,513	9,392,622
2002	2,663,387	182,748	618,473	82,663	3,371,464	8,797,445
Harvested cropland ..... farms, 2007	4,893	1,492	2,505	1,146	13,811	23,349
2002	5,182	1,424	2,462	1,019	13,479	22,978
acres, 2007	1,737,644	274,473	815,461	88,146	5,313,290	13,883,848
2002	1,781,224	262,766	804,855	95,023	5,114,775	12,549,071
Tenants ..... farms, 2007	2,610	381	1,036	671	2,000	5,173
2002	2,871	350	1,015	499	2,027	5,454
acres, 2007	1,624,844	40,276	237,758	25,792	520,224	2,011,584
2002	1,599,830	57,646	251,240	24,277	499,150	2,105,566
Harvested cropland ..... farms, 2007	1,512	200	856	353	1,617	4,654
2002	1,887	206	838	291	1,715	4,909
acres, 2007	1,039,218	14,106	199,596	11,082	457,366	1,827,082
2002	1,015,550	31,304	205,380	11,296	443,117	1,881,619
2007 NUMBER OF ALL OPERATORS						
Total operators ..... number	43,774	13,063	20,241	12,265	85,339	119,650
Farms by number of operators:						
1 operator	18,946	3,995	7,010	4,075	31,730	49,377
2 operators	9,299	3,575	4,709	2,940	20,644	26,670
3 operators	1,467	431	843	480	2,799	3,765
4 operators	278	88	185	158	576	788
5 or more operators	116	47	87	38	265	392
Total women operators ..... number	12,414	5,153	6,471	4,834	26,539	31,033
Farms by number of women operators:						
1 operator	10,913	4,398	5,387	3,888	23,374	28,080
2 operators	536	303	401	378	1,291	1,143
3 operators	94	40	66	41	135	143
4 operators	25	3	12	13	23	39
5 or more operators	7	3	6	2	14	14
2002 NUMBER OF ALL OPERATORS						
Total operators ..... number	38,507	11,346	18,596	9,768	79,883	114,218
Farms by number of operators:						
1 operator	18,438	3,726	7,115	3,199	31,833	53,372
2 operators	7,545	2,993	4,145	2,298	18,086	23,568
3 operators	1,016	335	679	407	2,376	2,666
4 operators	281	106	186	121	693	804
5 or more operators	133	36	73	50	327	429
Total women operators ..... number	9,465	4,233	5,530	3,469	22,560	26,526
Farms by number of women operators:						
1 operator	8,323	3,616	4,616	2,742	19,397	23,917
2 operators	425	240	353	307	1,238	1,017
3 operators	53	39	47	31	152	141
4 operators	13	5	11	5	28	21
5 or more operators	10	-	3	-	16	12
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male ..... farms, 2007	26,248	6,093	10,618	5,465	47,739	73,631
2002	24,866	5,637	10,281	4,770	47,411	74,469
acres, 2007	7,649,475	1,195,735	1,916,758	432,956	9,479,732	25,842,724
2002	7,462,912	1,243,921	1,944,528	447,510	9,704,219	26,555,759
Female ..... farms, 2007	3,858	2,043	2,216	2,226	8,275	7,361
2002	2,547	1,559	1,917	1,305	5,904	6,370
acres, 2007	460,500	151,831	134,998	84,923	552,075	1,075,238
2002	367,752	125,847	133,102	71,060	438,739	956,511
Primary occupation:						
Farming 2007	12,591	3,540	6,269	3,688	24,795	39,628
2002	14,805	3,409	6,977	3,283	29,071	50,808
Other 2007	17,515	4,596	6,565	4,003	31,219	41,364
2002	12,608	3,787	5,221	2,792	24,244	30,031

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
FARMS						
Land in farms ....farms, 2007	41,959	107,825	29,524	47,712	3,131	4,166
2002	42,186	106,797	27,870	49,355	2,989	3,363
acres, 2007	11,456,241	29,026,573	61,388,462	45,480,358	5,865,392	471,911
2002	11,097,543	29,946,035	59,612,403	45,903,116	6,330,622	444,879
Harvested cropland ....farms, 2007	18,773	69,585	16,441	34,715	1,572	2,494
2002	19,405	71,698	16,543	37,143	1,521	2,043
acres, 2007	4,223,708	12,980,113	9,163,867	18,169,876	504,311	99,520
2002	4,139,341	13,137,184	8,742,111	17,336,624	549,076	95,983
TENURE						
Full owners ....farms, 2007	30,932	77,385	18,812	23,989	2,490	3,164
2002	31,248	75,511	17,013	24,191	2,354	2,474
acres, 2007	5,777,656	12,618,001	19,813,476	11,495,017	3,803,488	285,030
2002	6,082,694	14,073,372	18,003,093	13,765,932	4,280,416	256,630
Harvested cropland ....farms, 2007	10,924	44,244	8,387	13,383	1,163	1,723
2002	11,783	45,745	8,127	14,539	1,124	1,356
acres, 2007	703,486	3,486,270	2,138,357	2,994,391	286,280	28,963
2002	1,231,785	4,420,043	1,830,747	4,138,475	370,739	27,222
Part owners ....farms, 2007	8,572	25,147	8,480	17,958	465	804
2002	8,474	25,795	8,674	18,646	458	767
acres, 2007	3,973,310	14,705,982	36,633,471	29,625,265	1,968,715	160,767
2002	3,498,701	14,058,625	37,157,914	27,308,269	(D)	(D)
Owned land in farms ....acres, 2007	1,854,805	6,560,713	21,557,255	14,095,143	1,093,122	107,234
2002	1,575,373	6,335,568	22,957,136	13,037,817	478,389	119,579
Rented land in farms ....acres, 2007	2,118,505	8,145,269	15,076,216	15,530,122	875,593	53,533
2002	1,923,328	7,723,057	14,200,778	14,270,452	(D)	(D)
Harvested cropland ....farms, 2007	6,313	21,700	6,825	16,893	335	662
2002	6,079	21,939	7,065	17,458	320	609
acres, 2007	2,089,596	8,343,291	6,118,248	12,969,384	199,137	64,824
2002	1,723,126	7,511,358	6,046,127	11,010,265	143,102	64,745
Tenants ....farms, 2007	2,455	5,293	2,232	5,765	176	198
2002	2,464	5,491	2,183	6,518	177	122
acres, 2007	1,705,275	1,702,590	4,941,515	4,360,076	93,189	26,114
2002	1,516,148	1,814,038	4,451,396	4,828,915	(D)	(D)
Harvested cropland ....farms, 2007	1,536	3,641	1,229	4,439	74	109
2002	1,543	4,014	1,351	5,146	77	78
acres, 2007	1,430,626	1,150,552	907,262	2,206,101	18,894	5,733
2002	1,184,430	1,205,783	865,237	2,187,884	35,235	4,016
2007 NUMBER OF ALL OPERATORS						
Total operators .... number	60,669	163,553	46,903	71,924	5,117	7,022
Farms by number of operators:						
1 operator	26,787	61,062	15,521	28,004	1,543	1,837
2 operators	12,571	40,191	11,605	16,438	1,338	1,985
3 operators	2,082	5,134	1,805	2,511	181	234
4 operators	344	1,006	399	528	42	66
5 or more operators	175	432	194	231	27	44
Total women operators .... number	17,547	49,611	15,795	18,720	1,781	2,966
Farms by number of women operators:						
1 operator	15,555	45,035	13,817	17,025	1,562	2,450
2 operators	729	1,857	765	682	95	201
3 operators	130	202	104	73	4	24
4 operators	22	35	22	8	3	3
5 or more operators	9	20	8	6	1	6
2002 NUMBER OF ALL OPERATORS						
Total operators .... number	57,778	157,863	43,342	70,668	5,005	5,540
Farms by number of operators:						
1 operator	29,578	64,172	15,690	31,951	1,438	1,571
2 operators	10,843	37,102	10,106	14,589	1,266	1,533
3 operators	1,217	3,894	1,391	2,047	191	176
4 operators	350	1,067	461	568	61	55
5 or more operators	198	562	222	200	33	28
Total women operators .... number	14,840	44,730	13,361	15,877	1,735	2,171
Farms by number of women operators:						
1 operator	13,078	40,407	11,518	14,400	1,507	1,831
2 operators	655	1,724	712	623	97	142
3 operators	76	209	90	66	8	13
4 operators	39	34	20	7	-	3
5 or more operators	12	19	8	1	2	1
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male ....farms, 2007	35,829	95,071	24,938	43,687	2,530	2,929
2002	36,945	95,979	24,203	46,350	2,472	2,525
acres, 2007	10,363,301	27,072,936	57,521,013	43,248,525	5,700,187	401,302
2002	10,263,424	28,144,343	55,807,532	43,952,598	6,094,426	384,047
Female ....farms, 2007	6,130	12,754	4,586	4,025	601	1,237
2002	5,241	10,818	3,667	3,005	517	838
acres, 2007	1,092,940	1,953,637	3,867,449	2,231,833	165,205	70,609
2002	834,119	1,801,692	3,804,871	1,950,518	236,196	60,832
Primary occupation:						
Farming 2007	15,935	45,031	14,957	28,854	1,650	1,930
2002	20,582	61,035	17,710	36,031	1,754	1,636
Other 2007	26,024	62,794	14,567	18,858	1,481	2,236
2002	21,604	45,762	10,160	13,324	1,235	1,727

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
FARMS						
Land in farms ..... farms, 2007	10,327	20,930	36,352	52,913	31,970	75,861
2002	9,924	15,170	37,255	53,930	30,619	77,797
acres, 2007	733,450	43,238,049	7,174,743	8,474,671	39,674,586	13,956,563
2002	805,682	44,810,083	7,660,969	9,079,001	39,294,879	14,583,435
Harvested cropland ..... farms, 2007	7,180	9,311	26,814	32,803	20,408	54,790
2002	7,230	7,204	29,162	36,622	20,789	58,577
acres, 2007	415,542	1,009,683	3,651,278	4,188,658	22,035,717	9,991,007
2002	444,670	856,166	3,846,368	4,308,209	19,908,697	10,041,416
TENURE						
Full owners ..... farms, 2007	8,351	15,850	24,565	34,526	16,303	51,174
2002	7,990	10,666	24,722	34,489	14,499	52,168
acres, 2007	310,100	17,016,596	2,861,014	3,038,234	7,702,479	4,206,870
2002	372,321	16,098,011	3,164,333	3,132,551	8,058,659	4,763,213
Harvested cropland ..... farms, 2007	5,560	7,033	16,195	17,723	5,951	31,797
2002	5,526	5,317	17,680	19,767	5,943	34,696
acres, 2007	109,758	446,270	891,785	701,397	2,145,721	1,768,965
2002	127,422	349,695	1,084,270	703,538	2,499,532	2,022,154
Part owners ..... farms, 2007	1,366	4,007	10,424	15,181	12,796	20,629
2002	1,345	3,612	11,040	16,030	13,070	20,863
acres, 2007	350,079	23,307,711	4,117,747	4,867,388	28,623,222	8,826,308
2002	350,350	25,824,417	4,239,548	5,287,508	27,582,773	8,742,151
Owned land in farms ..... acres, 2007	138,501	12,179,404	2,467,708	1,878,712	12,275,126	3,423,881
2002	143,429	13,671,703	2,586,934	1,979,225	11,803,679	3,354,793
Rented land in farms ..... acres, 2007	211,578	11,128,307	1,650,039	2,988,676	16,348,096	5,402,427
2002	206,921	12,152,714	1,652,614	3,308,283	15,779,094	5,387,358
Harvested cropland ..... farms, 2007	1,214	1,920	9,662	12,860	12,117	19,539
2002	1,231	1,593	10,349	14,153	12,290	19,751
acres, 2007	256,995	473,553	2,641,935	3,056,344	17,810,862	7,413,492
2002	253,171	437,315	2,607,378	3,121,377	15,458,616	7,135,988
Tenants ..... farms, 2007	610	1,073	1,363	3,206	2,871	4,058
2002	589	892	1,493	3,411	3,050	4,766
acres, 2007	73,271	2,913,742	195,982	569,049	3,348,885	923,385
2002	83,011	2,887,655	257,088	658,942	3,653,447	1,078,071
Harvested cropland ..... farms, 2007	406	358	957	2,220	2,340	3,454
2002	473	294	1,133	2,702	2,556	4,130
acres, 2007	48,789	89,860	117,558	430,917	2,079,134	808,550
2002	64,077	69,156	154,720	483,294	1,950,549	883,274
2007 NUMBER OF ALL OPERATORS						
Total operators ..... number	16,182	32,109	57,984	76,832	45,114	114,172
Farms by number of operators:						
1 operator	5,509	12,263	18,840	33,351	21,082	45,153
2 operators	4,027	7,063	14,511	16,372	9,124	25,360
3 operators	653	1,214	2,284	2,523	1,420	4,166
4 operators	91	251	485	491	245	749
5 or more operators	47	139	232	176	99	433
Total women operators ..... number	5,713	11,032	19,333	20,609	11,281	31,277
Farms by number of women operators:						
1 operator	4,877	9,266	16,663	18,094	10,414	27,519
2 operators	355	706	1,078	1,071	302	1,440
3 operators	22	77	125	83	60	184
4 operators	8	18	31	18	11	41
5 or more operators	5	8	3	10	7	23
2002 NUMBER OF ALL OPERATORS						
Total operators ..... number	15,339	22,786	57,980	75,684	41,629	113,698
Farms by number of operators:						
1 operator	5,583	9,219	21,006	36,503	21,475	49,102
2 operators	3,594	4,973	13,337	14,555	7,817	23,770
3 operators	543	636	1,999	2,039	978	3,471
4 operators	136	193	594	540	236	993
5 or more operators	68	149	319	293	113	461
Total women operators ..... number	5,138	6,946	17,796	17,498	8,725	28,890
Farms by number of women operators:						
1 operator	4,352	5,825	15,197	15,273	8,069	24,863
2 operators	314	413	987	884	237	1,551
3 operators	40	71	135	114	47	228
4 operators	4	7	31	18	9	41
5 or more operators	3	9	15	8	1	14
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male ..... farms, 2007	8,066	16,284	29,664	45,897	28,314	66,734
2002	8,002	13,002	31,583	48,574	28,125	70,137
acres, 2007	666,864	39,139,878	6,581,956	7,960,548	37,880,004	13,234,712
2002	739,430	41,315,201	7,130,044	8,623,491	38,077,761	13,962,956
Female ..... farms, 2007	2,261	4,646	6,688	7,016	3,656	9,127
2002	1,922	2,168	5,672	5,356	2,494	7,660
acres, 2007	66,586	4,098,171	592,787	514,123	1,794,582	721,851
2002	66,252	3,494,882	530,925	455,510	1,217,118	620,479
Primary occupation:						
Farming 2007	4,626	10,040	19,624	24,244	18,525	32,676
2002	5,193	8,482	22,664	31,669	21,644	43,488
Other 2007	5,701	10,890	16,728	28,669	13,445	43,185
2002	4,731	6,688	14,591	22,261	8,975	34,309

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
FARMS					
Land in farms ....farms, 2007	86,565	38,553	63,163	1,219	25,867
2002	83,300	40,033	58,105	858	24,541
acres, 2007	35,087,269	16,399,647	7,809,244	67,819	4,889,339
2002	33,661,826	17,080,422	7,745,336	61,223	4,845,923
Harvested cropland ....farms, 2007	46,224	22,131	44,269	823	12,962
2002	43,930	23,013	45,374	628	13,321
acres, 2007	7,650,080	3,037,261	3,942,079	19,325	1,551,670
2002	7,705,860	3,119,384	4,079,276	17,820	1,374,617
TENURE					
Full owners ....farms, 2007	56,948	30,160	44,616	897	19,440
2002	52,817	31,277	39,742	610	18,476
acres, 2007	12,637,776	7,449,003	3,570,352	43,062	2,672,689
2002	11,377,696	7,833,522	3,642,502	38,991	2,803,484
Harvested cropland ....farms, 2007	26,711	16,153	27,309	568	8,066
2002	24,449	16,762	28,427	422	8,646
acres, 2007	2,276,184	862,003	993,603	7,103	350,709
2002	2,143,075	890,195	1,315,367	5,481	452,414
Part owners ....farms, 2007	24,270	6,168	14,333	198	5,384
2002	24,497	6,494	13,976	170	5,059
acres, 2007	20,166,877	7,445,870	3,764,432	19,253	1,999,087
2002	19,835,231	7,702,880	3,600,669	(D)	1,826,379
Owned land in farms ....acres, 2007	9,060,328	3,853,658	1,901,252	10,554	921,991
2002	8,689,233	3,810,710	1,882,962	9,609	846,043
Rented land in farms ....acres, 2007	11,106,549	3,592,212	1,863,180	8,699	1,077,096
2002	11,145,998	3,892,170	1,717,707	(D)	980,336
Harvested cropland ....farms, 2007	17,092	4,626	13,524	173	4,244
2002	16,762	4,765	13,250	151	4,022
acres, 2007	4,846,417	1,720,872	2,601,170	10,132	1,055,190
2002	4,938,742	1,775,191	2,409,116	10,051	796,662
Tenants ....farms, 2007	5,347	2,225	4,214	124	1,043
2002	5,986	2,262	4,387	78	1,006
acres, 2007	2,282,616	1,504,774	474,460	5,504	217,563
2002	2,448,899	1,544,020	502,165	(D)	216,060
Harvested cropland ....farms, 2007	2,421	1,352	3,436	82	652
2002	2,719	1,486	3,697	55	653
acres, 2007	527,479	454,386	347,306	2,090	145,771
2002	624,043	453,998	354,793	2,288	125,541
2007 NUMBER OF ALL OPERATORS					
Total operators .... number	131,232	64,503	94,500	1,912	37,082
Farms by number of operators:					
1 operator	48,253	16,870	37,997	670	16,701
2 operators	33,587	18,809	20,705	445	7,636
3 operators	3,700	2,090	3,418	84	1,251
4 operators	724	541	727	12	186
5 or more operators	301	243	316	8	93
Total women operators .... number	42,820	25,577	27,139	683	10,626
Farms by number of women operators:					
1 operator	38,848	22,210	23,648	562	9,231
2 operators	1,615	1,386	1,422	52	547
3 operators	175	138	161	1	73
4 operators	23	26	26	2	8
5 or more operators	24	14	10	1	8
2002 NUMBER OF ALL OPERATORS					
Total operators .... number	121,266	65,555	87,351	1,296	33,610
Farms by number of operators:					
1 operator	51,025	18,667	35,431	505	17,429
2 operators	28,341	18,596	18,396	294	5,937
3 operators	2,723	1,921	2,917	37	789
4 operators	879	584	905	18	241
5 or more operators	332	265	456	4	145
Total women operators .... number	35,704	24,604	23,639	402	8,693
Farms by number of women operators:					
1 operator	32,074	21,415	20,121	354	7,485
2 operators	1,436	1,290	1,344	24	474
3 operators	193	153	180	-	63
4 operators	31	21	44	-	11
5 or more operators	10	10	16	-	5
PRINCIPAL OPERATOR CHARACTERISTICS					
Sex of operator:					
Male ....farms, 2007	75,716	30,298	54,613	922	21,782
2002	74,580	32,941	52,026	716	21,030
acres, 2007	32,477,705	14,971,894	7,224,026	57,574	4,425,718
2002	31,411,761	16,065,769	7,308,572	53,764	4,425,430
Female ....farms, 2007	10,849	8,255	8,550	297	4,085
2002	8,720	7,092	6,079	142	3,511
acres, 2007	2,609,564	1,427,753	585,218	10,245	463,621
2002	2,250,065	1,014,653	436,764	7,459	420,493
Primary occupation:					
Farming 2007	36,052	17,825	28,751	621	9,739
2002	46,053	21,580	32,939	442	11,377
Other 2007	50,513	20,728	34,412	598	16,128
2002	37,247	18,453	25,166	416	13,164

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		South Dakota	Tennessee	Texas	Utah	Vermont
FARMS						
Land in farms	farms, 2007	31,169	79,280	247,437	16,700	6,984
	2002	31,736	87,595	228,926	15,282	6,571
	acres, 2007	43,666,403	10,969,798	130,398,753	11,094,700	1,233,313
	2002	43,785,079	11,681,533	129,877,666	11,731,228	1,244,909
Harvested cropland	farms, 2007	21,902	48,292	111,671	10,259	4,707
	2002	22,931	56,316	106,827	9,661	4,373
	acres, 2007	15,278,709	4,226,440	19,174,301	964,702	433,074
	2002	13,492,286	4,365,360	17,750,938	961,037	454,699
TENURE						
Full owners	farms, 2007	15,626	57,951	177,147	11,797	4,502
	2002	15,886	64,279	155,053	10,504	4,011
	acres, 2007	11,646,998	(D)	53,364,871	7,221,482	548,954
	2002	14,101,000	5,628,032	50,500,966	7,259,134	538,160
Harvested cropland	farms, 2007	8,169	30,968	70,071	6,589	2,764
	2002	9,110	37,390	64,211	6,131	2,408
	acres, 2007	2,576,102	1,149,797	5,047,316	366,318	106,116
	2002	3,397,516	1,223,022	4,737,968	382,774	104,930
Part owners	farms, 2007	12,754	18,733	54,773	3,971	2,116
	2002	12,781	19,844	55,703	3,930	2,162
	acres, 2007	28,889,546	5,439,691	60,245,492	3,587,185	642,296
	2002	26,266,242	5,520,428	61,246,178	4,161,976	645,263
Owned land in farms	acres, 2007	14,871,080	2,199,749	24,334,883	1,895,572	406,686
	2002	13,388,690	2,369,072	25,077,274	2,378,361	411,667
Rented land in farms	acres, 2007	14,018,466	3,239,942	35,910,609	1,691,613	235,610
	2002	12,877,552	3,151,356	36,168,904	1,783,615	233,596
Harvested cropland	farms, 2007	11,797	15,611	34,653	3,097	1,712
	2002	11,557	16,524	34,159	3,056	1,713
	acres, 2007	11,492,480	2,805,539	11,002,276	533,113	308,642
	2002	9,014,428	2,841,173	9,811,607	517,176	321,353
Tenants	farms, 2007	2,789	2,596	15,517	932	366
	2002	3,069	3,472	18,170	848	398
	acres, 2007	3,129,859	(D)	16,788,390	286,033	42,063
	2002	3,417,837	533,073	18,130,522	310,118	61,486
Harvested cropland	farms, 2007	1,936	1,713	6,947	573	231
	2002	2,264	2,402	8,457	474	252
	acres, 2007	1,210,127	271,104	3,124,709	65,271	18,316
	2002	1,080,342	301,165	3,201,363	61,087	28,416
2007 NUMBER OF ALL OPERATORS						
Total operators	number	46,710	117,044	372,563	26,424	11,392
Farms by number of operators:						
1 operator		18,743	47,849	142,175	9,214	3,357
2 operators		10,157	26,678	90,580	5,946	3,062
3 operators		1,704	3,798	11,487	1,137	413
4 operators		397	684	2,306	261	116
5 or more operators		168	271	889	142	36
Total women operators	number	11,499	33,707	118,431	7,145	4,210
Farms by number of women operators:						
1 operator		10,454	30,043	105,930	6,132	3,637
2 operators		436	1,478	4,974	367	232
3 operators		47	147	624	66	23
4 operators		8	26	118	14	10
5 or more operators		-	28	36	5	-
2002 NUMBER OF ALL OPERATORS						
Total operators	number	45,810	123,277	335,326	23,788	10,784
Farms by number of operators:						
1 operator		20,505	58,156	140,610	8,720	3,200
2 operators		9,344	25,386	76,231	5,272	2,834
3 operators		1,293	2,806	8,327	884	365
4 operators		408	823	2,589	268	115
5 or more operators		186	424	1,169	138	57
Total women operators	number	10,494	31,880	97,624	5,986	3,586
Farms by number of women operators:						
1 operator		9,398	28,215	85,790	5,170	3,154
2 operators		430	1,467	4,613	317	170
3 operators		55	163	642	41	16
4 operators		11	24	100	10	11
5 or more operators		4	22	47	3	-
PRINCIPAL OPERATOR CHARACTERISTICS						
Sex of operator:						
Male	farms, 2007	28,775	69,320	212,426	14,903	5,518
	2002	29,552	78,182	201,734	14,054	5,604
	acres, 2007	41,768,446	10,178,300	118,123,569	10,747,399	1,088,439
	2002	41,959,275	10,906,287	118,699,139	11,552,969	1,150,559
Female	farms, 2007	2,394	9,960	35,011	1,797	1,466
	2002	2,184	9,413	27,192	1,228	967
	acres, 2007	1,897,957	791,498	12,275,184	347,301	144,874
	2002	1,825,804	775,246	11,178,527	178,259	94,350
Primary occupation:						
Farming	2007	18,775	30,849	98,692	6,340	3,461
	2002	23,049	44,100	122,719	7,447	3,486
Other	2007	12,394	48,431	148,745	10,360	3,523
	2002	8,687	43,495	106,207	7,835	3,085

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
FARMS					
Land in farms ....farms, 2007	47,383	39,284	23,618	78,463	11,069
2002	47,606	35,939	20,812	77,131	9,422
acres, 2007	8,103,925	14,972,789	3,697,606	15,190,804	30,169,526
2002	8,624,829	15,318,008	3,584,668	15,741,552	34,402,726
Harvested cropland ....farms, 2007	30,563	20,091	17,494	54,105	5,573
2002	33,791	21,802	15,827	54,741	5,003
acres, 2007	2,544,997	4,387,169	692,003	8,884,628	1,536,240
2002	2,623,776	4,894,634	648,635	8,928,083	1,298,709
TENURE					
Full owners ....farms, 2007	32,143	30,268	17,694	53,783	7,124
2002	31,814	26,244	15,534	52,370	5,560
acres, 2007	3,504,581	6,316,566	2,050,782	5,825,339	8,711,896
2002	3,800,477	6,292,601	1,975,005	6,390,508	8,860,363
Harvested cropland ....farms, 2007	18,116	13,646	12,438	30,889	3,071
2002	20,425	14,412	11,218	31,367	2,703
acres, 2007	670,604	975,131	320,449	1,841,135	519,839
2002	746,320	1,175,645	296,993	2,121,110	432,024
Part owners ....farms, 2007	12,799	6,593	5,259	21,501	3,276
2002	13,138	7,199	4,637	21,205	3,082
acres, 2007	4,084,578	6,651,624	1,540,110	8,756,260	19,838,032
2002	4,316,919	6,968,685	1,493,503	8,633,835	22,824,896
Owned land in farms ....acres, 2007	1,828,985	2,961,738	754,351	4,865,557	12,238,977
2002	1,966,391	3,041,215	739,337	4,975,293	13,161,385
Rented land in farms ....acres, 2007	2,255,593	3,689,886	785,759	3,890,703	7,599,055
2002	2,350,528	3,927,470	754,166	3,658,542	9,663,511
Harvested cropland ....farms, 2007	10,884	4,842	4,610	20,622	2,180
2002	11,456	5,583	4,155	20,415	1,967
acres, 2007	1,613,435	2,473,630	343,834	6,551,145	929,172
2002	1,625,662	2,735,407	326,336	6,271,188	766,794
Tenants ....farms, 2007	2,441	2,423	665	3,179	669
2002	2,654	2,496	641	3,556	780
acres, 2007	514,766	2,004,599	106,714	609,205	1,619,598
2002	507,433	2,056,722	116,160	717,209	2,717,467
Harvested cropland ....farms, 2007	1,563	1,603	446	2,594	322
2002	1,910	1,807	454	2,959	333
acres, 2007	260,958	938,408	27,720	492,348	87,229
2002	251,794	983,582	25,306	535,785	99,891
2007 NUMBER OF ALL OPERATORS					
Total operators .... number	71,281	63,645	34,720	123,217	18,522
Farms by number of operators:					
1 operator	27,754	19,049	14,341	41,387	5,098
2 operators	16,528	17,387	7,857	31,681	4,906
3 operators	2,446	2,115	1,158	4,142	751
4 operators	466	486	186	830	254
5 or more operators	189	247	76	423	60
Total women operators .... number	21,946	23,678	10,217	38,263	6,537
Farms by number of women operators:					
1 operator	19,090	20,589	9,115	34,412	5,629
2 operators	1,143	1,254	462	1,494	363
3 operators	114	125	49	164	50
4 operators	17	24	6	37	3
5 or more operators	21	20	1	31	4
2002 NUMBER OF ALL OPERATORS					
Total operators .... number	69,577	56,386	29,573	118,065	15,736
Farms by number of operators:					
1 operator	29,651	19,531	13,617	43,522	4,536
2 operators	15,166	13,874	6,064	28,659	3,956
3 operators	2,052	1,717	826	3,365	607
4 operators	511	520	232	1,121	214
5 or more operators	226	297	73	464	109
Total women operators .... number	19,490	18,465	7,859	34,211	5,474
Farms by number of women operators:					
1 operator	16,883	15,878	6,915	30,408	4,574
2 operators	1,088	1,023	403	1,525	343
3 operators	120	124	39	182	50
4 operators	14	19	4	43	11
5 or more operators	3	12	1	6	4
PRINCIPAL OPERATOR CHARACTERISTICS					
Sex of operator:					
Male ....farms, 2007	39,537	31,194	20,399	69,287	9,465
2002	40,825	30,307	18,490	69,778	7,890
acres, 2007	7,355,146	14,091,177	3,319,015	14,330,674	27,760,155
2002	7,900,068	14,711,431	3,295,238	14,926,583	31,833,586
Female ....farms, 2007	7,846	8,090	3,219	9,176	1,604
2002	6,781	5,632	2,322	7,353	1,532
acres, 2007	748,779	881,612	378,591	860,130	2,409,371
2002	724,761	606,577	289,430	814,969	2,569,140
Primary occupation:					
Farming 2007	20,294	18,021	9,799	37,047	5,445
2002	25,500	21,013	10,507	45,798	5,760
Other 2007	27,089	21,263	13,819	41,416	5,624
2002	22,106	14,926	10,305	31,333	3,662

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		United States	Alabama	Alaska	Arizona	Arkansas	California
PRINCIPAL OPERATOR CHARACTERISTICS - Con.							
Place of residence:							
On farm operated	2007	1,693,362	37,966	564	12,384	38,103	59,464
	2002	1,680,160	36,076	462	5,426	38,030	57,739
Not on farm operated	2007	511,430	10,787	122	3,253	11,243	21,569
	2002	448,822	9,050	147	1,868	9,453	21,892
Days worked off farm:							
None	2007	777,747	17,262	223	6,646	18,241	26,322
	2002	962,200	20,519	272	3,579	21,312	40,223
Any	2007	1,427,045	31,491	463	8,991	31,105	54,711
	2002	1,166,782	24,607	337	3,715	26,171	39,408
1 to 49 days	2007	238,479	4,666	92	1,627	3,995	10,663
	2002	122,248	2,120	48	431	1,960	5,037
50 to 99 days	2007	115,578	2,613	57	1,063	2,256	5,353
	2002	66,306	1,224	38	249	1,220	2,813
100 to 199 days	2007	196,687	4,464	95	1,391	4,099	8,185
	2002	145,880	2,820	79	456	2,947	5,521
200 days or more	2007	876,301	19,748	219	4,910	20,755	30,510
	2002	832,348	18,443	172	2,579	20,044	26,037
Years on present farm:							
2 years or less	2007	84,883	2,230	29	523	2,452	3,793
	2002	74,754	1,440	17	420	1,746	3,239
3 or 4 years	2007	138,858	3,423	46	1,029	4,066	6,780
	2002	143,599	3,015	46	754	3,335	6,278
5 to 9 years	2007	359,545	8,093	130	2,677	8,686	16,286
	2002	374,756	8,379	112	1,673	9,346	14,711
10 years or more	2007	1,621,506	35,007	481	11,408	34,142	54,174
	2002	1,535,873	32,292	434	4,447	33,056	55,403
Average years on present farm	2007	21.6	20.5	18.4	22.3	19.8	18.6
	2002	20.7	20.0	18.2	16.5	19.5	18.4
Age group:							
Under 25 years	2007	11,878	240	1	80	222	292
	2002	16,962	252	1	37	384	364
25 to 34 years	2007	106,735	2,259	25	679	2,736	2,466
	2002	106,097	1,927	13	361	2,599	2,299
35 to 44 years	2007	268,818	5,959	77	1,732	6,695	8,279
	2002	366,306	6,564	86	1,180	8,031	11,470
45 to 54 years	2007	565,401	11,251	223	3,677	11,960	20,672
	2002	572,664	11,250	218	2,217	12,602	22,904
55 to 59 years	2007	312,577	6,947	120	2,015	7,051	12,442
	2002	268,712	6,462	84	939	6,303	10,870
60 to 64 years	2007	283,729	6,818	83	1,960	6,455	11,752
	2002	240,411	5,701	76	858	5,841	9,528
65 to 69 years	2007	235,152	5,661	63	1,791	5,571	9,264
	2002	197,476	4,896	48	671	4,522	7,219
70 years and over	2007	420,502	9,618	94	3,703	8,656	15,866
	2002	360,354	8,074	83	1,031	7,201	14,977
Average age	2007	57.1	57.6	56.2	58.5	56.5	58.4
	2002	55.3	56.6	55.2	54.9	54.9	56.8
INTERNET ACCESS							
Farms with-							
Internet access	2007	1,246,723	24,457	505	6,266	25,667	53,738
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
High-speed internet access	2007	726,700	13,524	325	4,208	14,631	35,276
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
FARM TYPOLOGY (SEE TEXT)							
Small family farms:							
Limited-resource	farms, 2007	308,837	7,377	108	5,692	7,581	8,752
	acres, 2007	42,419,764	805,190	121,302	214,774	840,333	767,803
Retirement	farms, 2007	456,093	12,350	122	2,161	9,932	17,209
	acres, 2007	89,580,775	2,105,944	94,431	446,786	1,667,905	1,861,627
Residential/lifestyle	farms, 2007	801,844	18,948	210	3,639	18,434	24,566
	acres, 2007	121,143,585	2,496,095	38,925	456,668	2,294,701	2,249,975
Farming occupation/lower sales	farms, 2007	258,899	4,675	143	2,558	4,797	10,129
	acres, 2007	87,190,445	901,047	66,169	572,469	1,033,069	2,167,692
Farming occupation/higher sales	farms, 2007	100,126	577	17	151	953	2,949
	acres, 2007	104,081,344	452,017	(D)	225,779	594,455	2,346,296
Large family farms	farms, 2007	86,551	1,313	13	161	1,727	3,197
	acres, 2007	123,024,138	561,015	3,980	303,662	1,117,691	2,418,733
Very large family farms	farms, 2007	101,265	2,153	4	414	4,135	6,293
	acres, 2007	211,224,012	1,053,688	(D)	812,187	4,954,308	8,128,107
Nonfamily farms	farms, 2007	91,177	1,360	69	861	1,787	7,938
	acres, 2007	143,431,777	658,541	522,605	23,085,574	1,370,400	5,424,462
TYPE OF ORGANIZATION							
Family or individual	farms, 2007	1,906,335	45,014	550	13,721	42,470	64,001
	2002	1,909,598	42,359	497	5,695	43,458	64,442
	acres, 2007	574,150,050	7,085,414	(D)	1,597,797	8,338,563	12,828,975
	2002	621,800,072	7,199,848	275,099	2,322,529	10,260,591	14,779,799
Partnership	farms, 2007	174,247	2,377	42	962	4,667	9,552
	2002	129,593	1,882	30	841	2,626	8,953
	acres, 2007	161,416,999	1,278,960	46,654	1,378,550	4,141,737	7,085,500
	2002	146,461,777	1,180,055	34,647	1,482,031	3,177,056	7,542,134

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
PRINCIPAL OPERATOR CHARACTERISTICS - Con.						
Place of residence:						
On farm operated 2007	28,158	4,062	2,039	35,822	37,776	5,355
2002	25,444	3,380	2,030	33,160	39,766	3,538
Not on farm operated 2007	8,896	854	507	11,641	10,070	2,166
2002	5,925	811	361	10,921	9,545	1,860
Days worked off farm:						
None 2007	11,079	1,561	1,126	16,063	17,549	1,903
2002	13,568	1,919	1,296	22,094	22,903	2,786
Any 2007	25,975	3,355	1,420	31,400	30,297	5,618
2002	17,801	2,272	1,095	21,987	26,408	2,612
1 to 49 days 2007	5,516	492	236	5,397	4,585	1,015
2002	2,187	205	152	2,111	2,324	332
50 to 99 days 2007	1,949	222	112	2,946	2,522	857
2002	1,108	105	83	1,160	1,430	226
100 to 199 days 2007	3,798	548	154	4,314	4,103	919
2002	2,425	343	170	2,613	3,048	393
200 days or more 2007	14,712	2,093	918	18,743	19,087	2,827
2002	12,081	1,619	690	16,103	19,606	1,661
Years on present farm:						
2 years or less 2007	1,468	144	102	2,199	1,998	406
2002	1,318	138	56	1,718	1,778	322
3 or 4 years 2007	2,755	322	143	4,026	3,686	672
2002	2,720	253	102	3,770	3,596	547
5 to 9 years 2007	6,615	840	418	10,153	8,551	1,642
2002	6,661	751	345	9,364	9,529	1,194
10 years or more 2007	26,216	3,610	1,883	31,085	33,611	4,801
2002	20,670	3,049	1,888	29,229	34,408	3,335
Average years on present farm 2007	19.6	22.3	21.9	17.9	20.1	16.4
2002	18.6	20.7	21.8	17.7	19.7	15.5
Age group:						
Under 25 years 2007	170	24	31	89	176	14
2002	266	24	7	203	290	14
25 to 34 years 2007	1,636	161	101	1,540	2,062	198
2002	1,413	119	77	1,660	1,930	154
35 to 44 years 2007	4,156	537	355	5,278	5,510	626
2002	6,033	806	487	6,999	7,261	720
45 to 54 years 2007	10,449	1,409	718	11,993	11,304	1,886
2002	9,048	1,169	645	10,648	13,021	1,772
55 to 59 years 2007	5,284	706	384	6,633	6,914	1,522
2002	3,951	542	309	5,889	6,630	796
60 to 64 years 2007	4,435	620	325	6,657	6,906	1,181
2002	3,281	463	334	5,242	6,298	504
65 to 69 years 2007	3,434	547	301	5,449	5,693	715
2002	2,697	335	188	4,397	4,983	426
70 years and over 2007	7,490	912	331	9,824	9,281	1,379
2002	4,680	733	344	9,043	8,898	1,012
Average age 2007	57.0	57.6	55.4	58.4	57.8	58.6
2002	54.5	55.4	54.8	57.0	56.5	56.5
INTERNET ACCESS						
Farms with-						
Internet access 2007	25,841	3,170	1,499	26,471	25,290	4,197
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
High-speed internet access 2007	17,765	2,579	713	17,414	17,240	3,158
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
FARM TYPOLOGY (SEE TEXT)						
Small family farms:						
Limited-resource ..... farms, 2007	4,573	738	332	7,798	7,112	1,450
acres, 2007	1,439,154	37,717	19,539	420,083	697,835	21,214
Retirement ..... farms, 2007	6,389	960	331	11,144	11,367	1,744
acres, 2007	2,697,586	61,667	25,207	1,115,614	1,774,369	112,340
Residential/lifestyle ..... farms, 2007	15,498	1,795	551	16,561	17,514	2,240
acres, 2007	5,057,079	76,303	29,021	1,173,395	2,123,546	100,721
Farming occupation/lower sales ..... farms, 2007	4,692	801	303	6,019	4,611	1,214
acres, 2007	3,700,672	65,443	30,013	724,596	802,620	65,681
Farming occupation/higher sales ..... farms, 2007	1,507	137	93	877	1,401	149
acres, 2007	3,521,294	22,051	36,230	382,104	833,510	(D)
Large family farms ..... farms, 2007	1,127	83	128	821	1,134	72
acres, 2007	4,009,910	14,395	55,411	668,014	758,187	89,953
Very large family farms ..... farms, 2007	1,233	145	630	1,455	3,030	60
acres, 2007	6,044,747	83,089	242,815	1,875,670	2,202,275	(D)
Nonfamily farms ..... farms, 2007	2,035	257	178	2,788	1,677	592
acres, 2007	5,134,469	44,951	72,017	2,872,094	958,197	570,950
TYPE OF ORGANIZATION						
Family or individual ..... farms, 2007	30,164	3,967	2,006	39,792	41,703	6,363
2002	27,280	3,436	2,015	37,119	45,050	4,629
acres, 2007	19,125,603	267,555	275,087	4,300,146	7,161,244	279,190
2002	20,505,316	236,889	321,555	5,163,088	8,046,717	329,179
Partnership ..... farms, 2007	3,762	485	210	2,417	3,850	437
2002	2,109	341	136	2,429	2,490	225
acres, 2007	6,527,619	60,415	80,861	1,177,990	1,750,488	137,319
2002	5,165,587	63,369	75,704	1,355,278	1,546,812	116,737

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
PRINCIPAL OPERATOR CHARACTERISTICS - Con.							
Place of residence:							
On farm operated	2007	20,946	54,591	48,870	65,736	44,116	67,854
	2002	21,229	54,949	51,031	69,329	46,076	69,556
Not on farm operated	2007	4,403	22,269	12,068	27,120	21,415	17,406
	2002	3,788	18,078	9,265	21,326	18,338	16,985
Days worked off farm:							
None	2007	8,170	28,398	20,161	35,689	24,419	29,156
	2002	10,348	33,260	23,945	41,409	30,423	37,365
Any	2007	17,179	48,462	40,777	57,167	41,112	56,104
	2002	14,669	39,767	36,351	49,246	33,991	49,176
1 to 49 days	2007	3,015	9,344	6,244	9,827	7,004	8,671
	2002	1,528	5,263	3,438	6,380	3,974	4,410
50 to 99 days	2007	1,372	3,671	2,485	4,306	2,753	4,483
	2002	812	2,750	1,690	3,131	1,973	2,529
100 to 199 days	2007	2,460	5,934	4,817	7,065	4,602	7,802
	2002	1,862	5,195	4,159	6,084	3,751	5,705
200 days or more	2007	10,332	29,513	27,231	35,969	26,753	35,148
	2002	10,467	26,559	27,064	33,651	24,293	36,532
Years on present farm:							
2 years or less	2007	1,169	2,304	1,971	2,947	2,180	3,509
	2002	1,073	1,834	1,794	2,314	1,805	3,231
3 or 4 years	2007	1,903	3,828	3,327	4,325	3,316	5,500
	2002	2,065	3,649	3,386	4,493	3,666	5,779
5 to 9 years	2007	4,237	10,326	8,912	11,480	9,167	13,689
	2002	4,946	9,355	9,380	12,038	9,586	15,288
10 years or more	2007	18,040	60,402	46,728	74,104	50,868	62,562
	2002	16,933	58,189	45,736	71,810	49,357	62,243
Average years on present farm	2007	20.3	24.0	22.8	24.9	24.4	21.1
	2002	18.7	23.9	22.2	23.9	23.6	20.2
Age group:							
Under 25 years	2007	112	594	396	686	417	421
	2002	162	607	537	869	561	664
25 to 34 years	2007	1,326	4,102	4,136	5,592	3,909	4,420
	2002	1,261	3,539	4,001	5,282	3,688	4,418
35 to 44 years	2007	2,929	9,657	9,217	12,358	7,141	11,239
	2002	4,773	12,594	11,729	17,331	10,535	14,965
45 to 54 years	2007	7,043	20,938	16,832	25,023	16,770	21,526
	2002	7,401	19,960	16,260	24,555	16,543	22,352
55 to 59 years	2007	3,717	11,091	7,999	12,556	8,638	12,157
	2002	3,327	9,183	7,424	10,582	7,061	11,336
60 to 64 years	2007	3,374	9,241	7,004	10,645	7,594	11,158
	2002	2,618	8,644	6,667	9,645	6,440	10,383
65 to 69 years	2007	2,658	7,761	5,820	8,835	6,350	9,498
	2002	2,030	6,645	5,268	8,075	6,324	8,238
70 years and over	2007	4,190	13,476	9,534	17,161	14,712	14,841
	2002	3,445	11,855	8,410	14,316	13,262	14,185
Average age	2007	56.5	56.2	55.0	56.1	57.7	56.5
	2002	54.1	55.1	53.7	54.3	56.0	55.2
INTERNET ACCESS							
Farms with-							
Internet access	2007	16,703	46,069	34,489	58,087	37,413	43,127
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
High-speed internet access	2007	10,108	26,967	17,114	36,194	24,457	24,824
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
FARM TYPOLOGY (SEE TEXT)							
Small family farms:							
Limited-resource	farms, 2007	3,508	6,859	6,693	7,246	7,284	14,960
	acres, 2007	480,600	466,924	394,539	655,246	1,651,641	1,536,404
Retirement	farms, 2007	4,644	13,359	10,599	13,513	11,690	19,921
	acres, 2007	816,358	1,463,284	1,052,061	1,893,515	3,643,317	2,785,584
Residential/lifestyle	farms, 2007	9,494	26,001	24,744	29,045	23,056	33,938
	acres, 2007	1,175,001	2,481,394	1,718,641	3,292,800	5,250,730	3,497,193
Farming occupation/lower sales	farms, 2007	3,035	8,163	6,661	10,674	8,393	9,992
	acres, 2007	926,923	1,085,543	749,040	1,739,117	4,183,487	1,758,188
Farming occupation/higher sales	farms, 2007	1,140	5,599	3,205	9,491	4,594	1,911
	acres, 2007	1,219,363	2,575,136	1,307,104	3,994,014	6,207,175	880,105
Large family farms	farms, 2007	911	6,797	3,198	8,799	3,519	1,310
	acres, 2007	1,172,567	5,570,971	2,456,569	6,412,545	7,669,621	953,324
Very large family farms	farms, 2007	1,368	6,560	3,636	8,404	3,471	1,460
	acres, 2007	3,442,415	11,560,425	6,182,149	10,343,954	13,572,432	1,980,987
Nonfamily farms	farms, 2007	1,249	3,522	2,202	5,684	3,524	1,768
	acres, 2007	2,264,156	1,571,423	913,081	2,416,359	4,167,424	601,336
TYPE OF ORGANIZATION							
Family or individual	farms, 2007	21,308	65,748	52,553	77,452	55,706	76,140
	2002	22,041	64,468	53,864	78,699	57,238	79,297
	acres, 2007	5,874,172	19,684,044	9,925,524	22,445,574	32,564,351	10,999,037
	2002	6,242,277	21,147,869	10,887,357	24,657,577	35,725,661	11,235,033
Partnership	farms, 2007	2,124	6,509	4,614	6,990	5,549	7,334
	2002	1,543	5,296	3,463	5,792	4,062	5,764
	acres, 2007	2,343,151	4,112,831	2,508,988	3,324,382	7,611,693	2,338,456
	2002	2,199,877	3,710,047	2,212,185	3,011,172	6,587,582	2,032,036

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
PRINCIPAL OPERATOR CHARACTERISTICS - Con.							
Place of residence:							
On farm operated	2007	21,339	6,924	10,589	6,093	47,084	63,563
	2002	20,218	6,304	10,225	4,855	46,192	66,996
Not on farm operated	2007	8,767	1,212	2,245	1,598	8,930	17,429
	2002	7,195	892	1,973	1,220	7,123	13,843
Days worked off farm:							
None	2007	10,413	2,525	4,548	2,418	20,533	29,612
	2002	13,095	2,839	5,861	2,841	23,109	35,659
Any	2007	19,693	5,611	8,286	5,273	35,481	51,380
	2002	14,318	4,357	6,337	3,234	30,206	45,180
1 to 49 days	2007	2,858	991	1,399	799	6,085	9,065
	2002	1,233	427	750	387	2,751	5,360
50 to 99 days	2007	1,753	518	684	437	2,507	3,684
	2002	744	273	385	189	1,598	2,818
100 to 199 days	2007	3,216	880	1,151	780	4,476	7,106
	2002	2,249	709	868	499	3,510	6,275
200 days or more	2007	11,866	3,222	5,052	3,257	22,413	31,525
	2002	10,092	2,948	4,334	2,159	22,347	30,727
Years on present farm:							
2 years or less	2007	1,397	250	372	326	1,691	2,022
	2002	1,152	330	531	172	1,537	2,100
3 or 4 years	2007	2,119	684	695	442	3,022	3,312
	2002	2,242	679	813	388	3,154	4,167
5 to 9 years	2007	5,507	1,480	2,254	1,249	8,258	10,006
	2002	5,467	1,339	1,810	1,073	8,777	11,490
10 years or more	2007	21,083	5,722	9,513	5,674	43,043	65,652
	2002	18,552	4,848	9,044	4,442	39,847	63,082
Average years on present farm	2007	20.2	20.5	22.1	21.2	22.9	24.5
	2002	19.0	18.6	21.2	20.1	21.5	22.6
Age group:							
Under 25 years	2007	171	46	65	49	244	600
	2002	193	48	94	29	435	908
25 to 34 years	2007	1,234	350	556	292	2,687	4,517
	2002	1,585	275	490	181	2,532	4,968
35 to 44 years	2007	3,916	991	1,484	972	7,334	11,521
	2002	4,658	1,473	1,998	1,171	10,489	17,651
45 to 54 years	2007	7,552	2,277	3,376	2,237	15,509	23,488
	2002	7,163	2,300	3,127	1,844	15,227	22,558
55 to 59 years	2007	4,214	1,303	1,828	1,164	8,057	11,307
	2002	3,453	917	1,701	857	6,666	9,345
60 to 64 years	2007	3,826	1,048	1,691	1,063	6,962	9,306
	2002	3,319	685	1,549	624	6,014	8,638
65 to 69 years	2007	3,405	794	1,484	767	5,925	7,608
	2002	2,641	598	1,146	446	4,407	6,587
70 years and over	2007	5,788	1,327	2,350	1,147	9,296	12,645
	2002	4,401	900	2,093	923	7,545	10,184
Average age	2007	57.3	56.4	57.3	56.3	56.3	55.3
	2002	55.1	53.7	55.9	54.9	54.2	52.9
INTERNET ACCESS							
Farms with-							
Internet access	2007	14,746	5,335	7,869	5,162	32,969	49,972
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
High-speed internet access	2007	8,783	3,093	4,337	3,834	14,879	30,030
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
FARM TYPOLOGY (SEE TEXT)							
Small family farms:							
Limited-resource	farms, 2007	4,515	1,881	1,652	1,390	8,427	9,345
	acres, 2007	368,353	181,795	119,879	60,155	637,637	1,244,982
Retirement	farms, 2007	6,923	1,354	2,566	1,301	12,410	11,548
	acres, 2007	1,104,762	178,585	222,234	80,976	1,268,113	1,890,329
Residential/lifestyle	farms, 2007	11,473	2,884	4,341	2,606	20,279	27,722
	acres, 2007	1,367,602	304,680	309,126	114,147	1,542,208	3,550,245
Farming occupation/lower sales	farms, 2007	3,538	1,132	1,717	1,325	6,578	9,478
	acres, 2007	629,892	138,424	199,828	85,790	765,071	1,944,833
Farming occupation/higher sales	farms, 2007	650	251	514	259	2,354	7,196
	acres, 2007	466,192	79,444	180,441	35,801	934,012	3,367,565
Large family farms	farms, 2007	723	173	498	171	1,932	5,955
	acres, 2007	821,720	91,266	265,386	34,098	1,370,747	4,615,029
Very large family farms	farms, 2007	1,233	164	855	136	2,173	5,845
	acres, 2007	2,285,560	252,953	546,163	39,583	2,955,055	8,829,778
Nonfamily farms	farms, 2007	1,051	297	691	503	1,861	3,903
	acres, 2007	1,065,894	120,419	208,699	67,329	558,964	1,475,201
TYPE OF ORGANIZATION							
Family or individual	farms, 2007	25,716	6,956	10,609	6,318	48,687	70,055
	2002	24,915	6,377	10,577	5,020	48,070	73,018
	acres, 2007	4,999,169	887,469	(D)	349,617	6,943,275	20,278,942
	2002	5,433,839	954,562	1,493,644	351,800	7,430,707	21,535,902
Partnership	farms, 2007	2,395	544	1,038	574	4,260	6,227
	2002	1,323	321	763	376	3,172	5,056
	acres, 2007	1,636,954	165,957	314,514	69,149	1,887,719	4,136,851
	2002	1,390,860	131,218	275,994	63,415	1,737,310	3,793,850

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
PRINCIPAL OPERATOR CHARACTERISTICS - Con.							
Place of residence:							
On farm operated	2007	29,551	84,097	22,624	34,601	2,658	3,756
	2002	31,596	86,651	22,328	37,589	2,622	3,000
Not on farm operated	2007	12,408	23,728	6,900	13,111	473	410
	2002	10,590	20,146	5,542	11,766	367	363
Days worked off farm:							
None	2007	15,138	37,445	11,746	19,947	1,134	1,257
	2002	19,440	46,248	13,824	25,133	1,345	1,380
Any	2007	26,821	70,380	17,778	27,765	1,997	2,909
	2002	22,746	60,549	14,046	24,222	1,644	1,983
1 to 49 days	2007	4,405	11,341	3,453	5,285	301	397
	2002	1,991	5,386	2,086	3,785	185	235
50 to 99 days	2007	2,269	4,951	1,488	2,052	179	268
	2002	1,119	2,837	1,058	1,723	117	152
100 to 199 days	2007	3,813	8,467	2,687	3,269	350	538
	2002	2,727	7,031	2,002	2,910	268	297
200 days or more	2007	16,334	45,621	10,150	17,159	1,167	1,706
	2002	16,909	45,295	8,900	15,804	1,074	1,299
Years on present farm:							
2 years or less	2007	2,011	4,757	1,071	1,287	115	154
	2002	1,492	3,796	1,105	1,148	114	137
3 or 4 years	2007	2,746	7,087	1,663	2,082	250	274
	2002	3,020	6,774	1,771	2,331	248	272
5 to 9 years	2007	7,072	17,114	4,448	5,716	566	800
	2002	8,539	18,305	4,562	6,351	691	588
10 years or more	2007	30,130	78,867	22,342	38,627	2,200	2,938
	2002	29,135	77,922	20,432	39,525	1,936	2,366
Average years on present farm	2007	20.9	21.9	22.4	25.7	19.0	20.2
	2002	20.2	21.6	21.2	24.5	17.8	18.7
Age group:							
Under 25 years	2007	178	704	119	378	15	24
	2002	368	671	170	403	11	25
25 to 34 years	2007	1,729	5,622	1,177	2,975	119	142
	2002	1,525	6,284	1,221	3,370	93	109
35 to 44 years	2007	4,741	14,034	3,078	6,168	379	542
	2002	6,058	17,159	4,560	9,713	490	683
45 to 54 years	2007	9,437	26,342	7,904	13,227	755	1,205
	2002	10,498	26,122	8,218	13,633	857	1,045
55 to 59 years	2007	6,048	14,729	4,525	6,663	476	669
	2002	5,459	13,171	3,629	5,314	411	425
60 to 64 years	2007	5,627	13,207	3,884	5,239	401	545
	2002	5,112	12,530	3,026	4,797	361	358
65 to 69 years	2007	4,717	11,566	3,045	4,349	415	419
	2002	4,548	10,745	2,290	4,148	276	285
70 years and over	2007	9,482	21,621	5,792	8,713	571	620
	2002	8,618	20,115	4,756	7,977	490	433
Average age	2007	58.6	57.1	57.8	55.9	57.5	56.2
	2002	57.2	56.0	55.4	53.9	55.9	54.1
INTERNET ACCESS							
Farms with-							
Internet access	2007	18,405	55,844	18,484	30,073	2,128	3,063
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
High-speed internet access	2007	8,608	25,692	11,084	19,975	1,352	1,941
	2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
FARM TYPOLOGY (SEE TEXT)							
Small family farms:							
Limited-resource	farms, 2007	6,715	15,785	4,042	4,243	402	758
	acres, 2007	831,323	2,206,045	1,997,140	1,089,515	86,680	56,297
Retirement	farms, 2007	10,357	23,491	5,312	5,352	580	795
	acres, 2007	2,119,792	4,528,807	3,808,354	1,841,587	201,689	89,161
Residential/lifestyle	farms, 2007	15,960	42,987	9,016	12,927	1,074	1,472
	acres, 2007	2,702,756	6,077,955	4,320,616	2,976,232	205,152	118,079
Farming occupation/lower sales	farms, 2007	3,699	12,252	4,539	5,858	417	726
	acres, 2007	782,767	3,217,223	6,579,051	3,032,160	146,309	74,047
Farming occupation/higher sales	farms, 2007	586	3,931	2,797	5,792	160	88
	acres, 2007	383,022	2,926,572	12,558,503	6,698,728	276,308	19,730
Large family farms	farms, 2007	782	2,810	1,717	5,325	137	71
	acres, 2007	672,790	3,375,111	12,110,045	9,217,930	473,969	24,718
Very large family farms	farms, 2007	2,411	2,861	995	5,240	142	53
	acres, 2007	2,894,218	5,083,514	11,491,987	15,629,364	1,194,440	26,812
Nonfamily farms	farms, 2007	1,449	3,708	1,106	2,975	219	203
	acres, 2007	1,069,573	1,611,346	8,522,766	4,994,842	3,280,845	63,067
TYPE OF ORGANIZATION							
Family or individual	farms, 2007	36,353	94,818	22,625	39,848	2,542	3,551
	2002	39,035	98,435	22,448	42,835	2,499	2,917
	acres, 2007	7,208,578	22,450,935	29,645,852	30,456,388	1,416,997	347,611
	2002	7,715,805	24,563,254	31,388,078	32,254,161	1,648,034	327,652
Partnership	farms, 2007	3,769	8,202	2,839	3,616	284	299
	2002	2,166	5,563	2,192	3,080	205	206
	acres, 2007	3,200,365	3,731,684	10,263,436	6,177,822	616,765	52,530
	2002	2,595,126	3,301,108	9,197,773	5,895,833	810,804	49,315

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
PRINCIPAL OPERATOR CHARACTERISTICS - Con.						
Place of residence:						
On farm operated 2007	8,440	15,991	31,588	41,587	20,467	63,535
2002	8,263	11,805	32,986	43,755	21,123	66,152
Not on farm operated 2007	1,887	4,939	4,764	11,326	11,503	12,326
2002	1,661	3,365	4,269	10,175	9,496	11,645
Days worked off farm:						
None 2007	3,208	7,481	14,282	19,602	15,291	24,974
2002	4,364	6,998	18,492	26,420	17,030	30,999
Any 2007	7,119	13,449	22,070	33,311	16,679	50,887
2002	5,560	8,172	18,763	27,510	13,589	46,798
1 to 49 days 2007	1,286	2,648	3,164	5,279	3,430	7,496
2002	533	995	2,102	2,934	2,486	4,243
50 to 99 days 2007	607	1,532	1,735	2,749	1,279	3,450
2002	343	574	1,097	1,450	1,180	2,383
100 to 199 days 2007	1,119	2,039	3,531	4,572	2,258	6,493
2002	822	1,052	2,816	3,318	2,055	5,534
200 days or more 2007	4,107	7,230	13,640	20,711	9,712	33,448
2002	3,862	5,551	12,748	19,808	7,868	34,638
Years on present farm:						
2 years or less 2007	252	919	1,229	2,153	808	2,411
2002	301	685	1,073	1,744	725	2,410
3 or 4 years 2007	535	1,075	2,132	3,453	1,368	4,168
2002	610	1,185	2,264	3,185	1,298	4,959
5 to 9 years 2007	1,866	3,102	5,638	8,385	3,533	11,087
2002	1,738	2,811	5,749	8,827	3,758	12,848
10 years or more 2007	7,674	15,834	27,353	38,922	26,261	58,195
2002	7,275	10,489	28,169	40,174	24,838	57,580
Average years on present farm 2007	20.6	22.6	22.6	21.9	26.8	22.8
2002	19.5	19.1	21.4	21.6	25.3	21.3
Age group:						
Under 25 years 2007	27	131	159	307	350	417
2002	43	124	228	298	299	746
25 to 34 years 2007	262	687	1,720	2,056	2,065	4,312
2002	295	577	1,628	2,287	2,077	4,624
35 to 44 years 2007	1,350	1,937	4,756	6,521	3,961	10,367
2002	1,879	2,308	7,020	8,288	5,657	15,545
45 to 54 years 2007	2,957	4,652	10,060	13,035	8,289	21,368
2002	2,903	4,334	11,443	14,545	8,307	21,449
55 to 59 years 2007	1,501	3,002	5,396	7,751	4,418	10,473
2002	1,314	1,749	4,895	7,391	3,499	9,259
60 to 64 years 2007	1,383	2,777	4,818	7,518	3,650	8,934
2002	1,134	1,666	3,948	6,312	2,935	8,524
65 to 69 years 2007	1,061	2,568	3,693	5,992	2,729	7,438
2002	827	1,482	2,943	5,428	2,569	6,579
70 years and over 2007	1,786	5,176	5,750	9,733	6,508	12,552
2002	1,529	2,930	5,150	9,381	5,276	11,071
Average age 2007	57.1	59.6	56.2	57.3	56.5	55.7
2002	55.1	56.4	54.1	56.1	54.4	53.8
INTERNET ACCESS						
Farms with-						
Internet access 2007	6,495	10,020	22,738	28,313	19,526	43,852
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
High-speed internet access 2007	5,026	6,178	13,172	18,243	13,465	23,785
2002	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
FARM TYPOLOGY (SEE TEXT)						
Small family farms:						
Limited-resource ..... farms, 2007	1,241	5,264	5,691	8,622	2,999	9,670
acres, 2007	36,604	2,003,998	626,034	577,644	1,063,728	753,927
Retirement ..... farms, 2007	2,124	4,732	6,795	11,712	5,001	15,071
acres, 2007	84,773	3,318,179	841,731	1,155,686	2,191,299	1,642,199
Residential/lifestyle ..... farms, 2007	3,987	5,914	11,249	17,917	8,104	30,434
acres, 2007	123,131	3,971,524	1,128,215	1,297,549	2,741,305	2,500,385
Farming occupation/lower sales ..... farms, 2007	1,609	2,554	5,530	5,704	4,475	8,989
acres, 2007	95,019	5,677,434	808,622	718,630	3,387,202	1,062,083
Farming occupation/higher sales ..... farms, 2007	299	474	2,569	1,236	3,627	3,556
acres, 2007	66,685	4,116,307	784,877	551,524	6,208,712	1,492,958
Large family farms ..... farms, 2007	249	295	1,659	1,751	3,529	3,087
acres, 2007	94,477	3,711,198	819,117	868,227	8,172,541	2,172,985
Very large family farms ..... farms, 2007	337	439	1,541	4,114	3,589	2,781
acres, 2007	154,815	4,652,386	1,644,347	2,701,703	14,642,897	3,634,830
Nonfamily farms ..... farms, 2007	481	1,258	1,318	1,857	646	2,273
acres, 2007	77,946	15,787,023	521,800	603,708	1,266,902	697,196
TYPE OF ORGANIZATION						
Family or individual ..... farms, 2007	8,679	18,185	30,621	45,766	28,079	66,382
2002	8,578	13,455	32,654	48,672	27,578	70,890
acres, 2007	470,034	20,116,491	4,860,853	5,768,298	31,187,986	10,503,211
2002	527,218	22,655,872	5,596,089	6,608,168	31,901,516	11,553,861
Partnership ..... farms, 2007	726	1,456	3,347	4,246	2,834	5,737
2002	576	885	2,846	3,209	2,289	4,549
acres, 2007	103,592	7,274,300	1,435,598	1,508,528	6,103,401	2,200,216
2002	117,722	7,447,770	1,357,841	1,449,165	5,213,615	2,011,507

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
PRINCIPAL OPERATOR CHARACTERISTICS - Con.						
Place of residence:						
On farm operated	2007	65,968	34,088	54,020	972	19,429
	2002	63,969	36,077	51,095	698	19,071
Not on farm operated	2007	20,597	4,465	9,143	247	6,438
	2002	19,331	3,956	7,010	160	5,470
Days worked off farm:						
None	2007	29,750	13,194	22,933	396	9,066
	2002	34,931	17,600	26,797	392	10,917
Any	2007	56,815	25,359	40,230	823	16,801
	2002	48,369	22,433	31,308	466	13,624
1 to 49 days	2007	7,407	4,641	7,072	88	2,861
	2002	3,670	2,373	3,800	36	1,337
50 to 99 days	2007	4,246	2,125	2,888	76	1,434
	2002	2,371	1,431	1,825	26	728
100 to 199 days	2007	7,995	3,938	5,390	159	2,267
	2002	5,657	3,195	3,922	80	1,484
200 days or more	2007	37,167	14,655	24,880	500	10,239
	2002	36,671	15,434	21,761	324	10,075
Years on present farm:						
2 years or less	2007	3,783	1,533	2,361	56	994
	2002	3,900	1,487	2,287	35	861
3 or 4 years	2007	6,185	2,767	3,657	73	1,493
	2002	6,516	3,163	4,190	60	1,874
5 to 9 years	2007	15,718	6,807	10,039	172	4,411
	2002	16,464	8,216	9,630	120	4,802
10 years or more	2007	60,879	27,446	47,106	918	18,969
	2002	56,420	27,167	41,998	643	17,004
Average years on present farm	2007	20.8	19.5	22.0	21.4	21.0
	2002	19.8	17.6	20.8	20.4	20.0
Age group:						
Under 25 years	2007	642	109	520	5	83
	2002	782	176	688	4	184
25 to 34 years	2007	4,972	1,495	4,558	52	996
	2002	4,223	1,670	4,498	32	960
35 to 44 years	2007	10,173	4,085	8,763	173	2,754
	2002	13,418	6,418	11,376	176	3,546
45 to 54 years	2007	19,759	10,145	16,781	336	6,010
	2002	20,551	12,332	16,186	245	6,257
55 to 59 years	2007	11,310	6,138	8,730	164	3,751
	2002	10,468	5,684	6,693	102	3,471
60 to 64 years	2007	11,023	5,527	7,463	146	3,983
	2002	9,713	4,752	5,848	118	2,966
65 to 69 years	2007	9,983	4,319	6,193	156	2,966
	2002	8,718	3,496	4,675	64	2,338
70 years and over	2007	18,703	6,735	10,155	187	5,324
	2002	15,427	5,505	8,141	117	4,819
Average age	2007	57.6	57.5	55.2	56.3	58.5
	2002	56.0	54.9	53.1	54.3	56.9
INTERNET ACCESS						
Farms with-						
Internet access	2007	45,923	27,623	32,239	798	12,344
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
High-speed internet access	2007	25,168	16,634	18,252	606	7,326
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
FARM TYPOLOGY (SEE TEXT)						
Small family farms:						
Limited-resource	farms, 2007	11,997	5,503	10,230	209	4,596
	acres, 2007	2,127,449	653,019	818,348	8,954	479,695
Retirement	farms, 2007	20,447	9,126	11,755	217	6,561
	acres, 2007	5,514,970	1,509,949	1,158,308	10,565	1,003,823
Residential/lifestyle	farms, 2007	35,061	13,807	22,563	390	9,824
	acres, 2007	7,262,122	1,592,308	1,672,568	18,046	1,148,377
Farming occupation/lower sales	farms, 2007	10,762	4,824	7,533	221	2,535
	acres, 2007	5,171,539	1,552,893	842,882	9,678	459,017
Farming occupation/higher sales	farms, 2007	2,200	1,181	4,644	36	329
	acres, 2007	3,827,046	1,814,858	951,075	4,094	266,139
Large family farms	farms, 2007	1,558	899	2,589	27	305
	acres, 2007	3,725,256	2,143,179	895,990	3,629	280,699
Very large family farms	farms, 2007	1,655	1,246	2,003	21	865
	acres, 2007	4,833,169	3,519,222	1,039,408	4,123	748,665
Nonfamily farms	farms, 2007	2,885	1,967	1,846	98	852
	acres, 2007	2,625,718	3,614,219	430,665	8,730	502,924
TYPE OF ORGANIZATION						
Family or individual	farms, 2007	77,412	32,793	57,749	918	22,989
	2002	78,197	35,375	53,201	699	22,755
	acres, 2007	27,490,238	8,598,464	6,298,139	45,629	3,561,969
	2002	27,938,071	9,272,179	6,351,160	40,046	3,694,570
Partnership	farms, 2007	5,905	2,907	3,265	110	1,827
	2002	3,392	2,284	3,428	52	1,050
	acres, 2007	4,518,888	3,289,940	951,261	8,465	810,596
	2002	3,686,707	3,737,077	1,016,312	5,402	721,706

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	South Dakota	Tennessee	Texas	Utah	Vermont
PRINCIPAL OPERATOR CHARACTERISTICS - Con.					
Place of residence:					
On farm operated 2007	23,556	64,427	169,451	11,721	6,106
2002	25,544	72,332	154,024	10,933	5,718
Not on farm operated 2007	7,613	14,853	77,986	4,979	878
2002	6,192	15,263	74,902	4,349	853
Days worked off farm:					
None 2007	13,679	26,299	77,115	4,969	2,323
2002	16,736	36,807	100,495	5,894	3,029
Any 2007	17,490	52,981	170,322	11,731	4,661
2002	15,000	50,788	128,431	9,388	3,542
1 to 49 days 2007	3,592	7,951	29,887	2,079	861
2002	2,299	4,144	13,279	808	392
50 to 99 days 2007	1,270	4,535	17,120	960	425
2002	1,133	2,280	7,437	479	246
100 to 199 days 2007	2,293	7,661	25,792	1,504	788
2002	1,997	5,593	16,243	943	530
200 days or more 2007	10,335	32,834	97,523	7,188	2,587
2002	9,571	38,771	91,472	7,158	2,374
Years on present farm:					
2 years or less 2007	775	3,538	10,907	650	214
2002	956	2,964	10,246	619	221
3 or 4 years 2007	1,178	5,216	17,970	975	407
2002	1,564	6,008	19,306	1,107	421
5 to 9 years 2007	3,845	12,724	49,603	2,681	1,193
2002	4,498	15,922	50,455	3,014	1,077
10 years or more 2007	25,371	57,802	168,957	12,394	5,170
2002	24,718	62,701	148,919	10,542	4,852
Average years on present farm 2007	25.7	21.1	19.2	21.9	21.7
2002	23.8	20.1	18.2	19.9	19.9
Age group:					
Under 25 years 2007	242	366	914	54	49
2002	414	996	2,004	133	44
25 to 34 years 2007	2,113	3,081	9,246	964	325
2002	2,249	3,677	10,243	791	271
35 to 44 years 2007	4,045	9,698	25,765	1,771	856
2002	6,307	14,212	33,629	2,645	1,265
45 to 54 years 2007	8,700	18,665	57,195	4,310	1,859
2002	9,097	22,203	56,498	4,202	2,072
55 to 59 years 2007	4,420	11,244	33,990	2,370	1,109
2002	3,386	11,688	29,091	1,772	853
60 to 64 years 2007	3,415	11,031	34,004	1,976	957
2002	2,931	10,386	26,446	1,710	672
65 to 69 years 2007	2,655	9,386	29,096	1,798	669
2002	2,507	8,473	23,646	1,499	521
70 years and over 2007	5,579	15,809	57,227	3,457	1,160
2002	4,845	15,960	47,369	2,530	873
Average age 2007	55.7	57.8	58.9	57.4	56.5
2002	53.3	56.0	56.9	55.2	53.9
INTERNET ACCESS					
Farms with-					
Internet access 2007	19,907	39,426	129,805	9,798	4,627
2002	(NA)	(NA)	(NA)	(NA)	(NA)
High-speed internet access 2007	12,828	21,508	73,538	6,841	2,521
2002	(NA)	(NA)	(NA)	(NA)	(NA)
FARM TYPOLOGY (SEE TEXT)					
Small family farms:					
Limited-resource ....farms, 2007	2,781	13,945	34,613	2,409	1,277
acres, 2007	1,117,199	1,137,752	7,306,030	369,376	144,690
Retirement ....farms, 2007	3,515	19,385	64,462	3,536	1,162
acres, 2007	1,753,590	2,233,687	17,885,234	898,003	150,810
Residential/lifestyle ....farms, 2007	8,565	32,824	99,316	6,986	2,340
acres, 2007	2,779,815	2,941,370	24,305,522	1,177,653	218,486
Farming occupation/lower sales ....farms, 2007	4,425	8,542	27,014	1,701	974
acres, 2007	3,917,134	1,315,658	16,350,373	661,902	137,774
Farming occupation/higher sales ....farms, 2007	4,461	1,095	4,309	450	375
acres, 2007	8,703,656	645,823	12,303,497	776,411	111,039
Large family farms ....farms, 2007	3,459	908	3,891	345	289
acres, 2007	9,030,901	807,769	12,652,868	877,616	125,232
Very large family farms ....farms, 2007	2,560	1,143	5,246	326	247
acres, 2007	11,082,543	1,529,568	22,461,300	821,292	233,105
Nonfamily farms ....farms, 2007	1,403	1,438	8,586	947	320
acres, 2007	5,281,565	358,171	17,133,929	5,512,447	112,177
TYPE OF ORGANIZATION					
Family or individual ....farms, 2007	26,633	72,675	218,126	13,614	5,848
2002	28,189	82,866	210,409	13,108	5,716
acres, 2007	29,348,956	8,929,363	83,744,156	3,429,156	872,145
2002	31,509,607	9,876,453	90,294,491	3,808,024	932,490
Partnership ....farms, 2007	2,658	5,568	20,657	1,645	608
2002	2,163	3,996	12,720	1,315	483
acres, 2007	7,247,814	1,724,510	31,767,135	1,810,957	184,498
2002	6,141,716	1,523,635	26,487,602	1,610,244	178,897

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Virginia	Washington	West Virginia	Wisconsin	Wyoming
PRINCIPAL OPERATOR CHARACTERISTICS - Con.						
Place of residence:						
On farm operated	2007	38,654	32,472	20,209	64,911	9,085
	2002	39,014	30,453	17,985	65,351	8,015
Not on farm operated	2007	8,729	6,812	3,409	13,552	1,984
	2002	8,592	5,486	2,827	11,780	1,407
Days worked off farm:						
None	2007	16,385	13,701	8,074	30,492	3,849
	2002	21,530	16,798	8,910	34,899	4,167
Any	2007	30,998	25,583	15,544	47,971	7,220
	2002	26,076	19,141	11,902	42,232	5,255
1 to 49 days	2007	4,843	4,242	2,428	7,312	1,144
	2002	2,558	2,076	848	4,247	612
50 to 99 days	2007	2,555	2,019	1,149	3,062	552
	2002	1,487	1,205	538	2,202	337
100 to 199 days	2007	4,364	3,926	2,019	5,943	1,153
	2002	3,284	2,912	1,409	5,288	830
200 days or more	2007	19,236	15,396	9,948	31,654	4,371
	2002	18,747	12,948	9,107	30,495	3,476
Years on present farm:						
2 years or less	2007	1,778	1,684	738	2,677	546
	2002	1,637	1,201	690	2,370	485
3 or 4 years	2007	3,260	3,058	1,407	4,151	807
	2002	3,145	2,586	1,307	4,763	775
5 to 9 years	2007	7,988	7,311	3,761	11,395	1,914
	2002	8,174	6,601	3,628	12,926	1,848
10 years or more	2007	34,357	27,231	17,712	60,240	7,802
	2002	34,650	25,551	15,187	57,072	6,314
Average years on present farm	2007	21.3	19.6	22.1	22.3	19.9
	2002	20.6	19.2	20.8	21.1	18.8
Age group:						
Under 25 years	2007	164	145	98	485	53
	2002	241	143	120	625	73
25 to 34 years	2007	1,802	1,535	903	4,281	562
	2002	1,954	1,129	770	4,380	388
35 to 44 years	2007	5,251	4,399	2,662	11,550	1,076
	2002	7,257	5,579	3,223	17,298	1,593
45 to 54 years	2007	11,616	10,780	5,618	23,359	2,924
	2002	12,106	11,300	5,673	22,410	3,394
55 to 59 years	2007	6,727	6,359	3,445	11,236	1,884
	2002	6,222	5,221	2,771	9,107	1,040
60 to 64 years	2007	6,550	5,512	3,287	9,377	1,391
	2002	5,762	4,185	2,468	7,476	923
65 to 69 years	2007	5,427	4,050	2,860	6,946	1,262
	2002	4,820	3,131	2,070	5,903	708
70 years and over	2007	9,846	6,504	4,745	11,229	1,917
	2002	9,244	5,251	3,717	9,932	1,303
Average age	2007	58.2	57.0	58.1	55.0	57.1
	2002	56.7	55.4	56.3	53.0	54.1
INTERNET ACCESS						
Farms with-						
Internet access	2007	25,493	27,265	11,024	45,179	7,289
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
High-speed internet access	2007	12,068	16,787	5,035	22,894	4,720
	2002	(NA)	(NA)	(NA)	(NA)	(NA)
FARM TYPOLOGY (SEE TEXT)						
Small family farms:						
Limited-resource	farms, 2007	7,767	5,440	4,925	11,040	1,400
	acres, 2007	773,829	483,441	617,097	1,073,555	797,296
Retirement	farms, 2007	11,967	8,571	6,420	12,300	1,810
	acres, 2007	1,712,972	1,356,415	1,010,937	1,520,584	1,675,077
Residential/lifestyle	farms, 2007	17,759	14,066	9,079	28,860	3,824
	acres, 2007	1,910,580	1,269,635	1,187,536	2,631,033	2,165,439
Farming occupation/lower sales	farms, 2007	5,504	4,566	2,343	9,283	1,692
	acres, 2007	1,027,758	1,038,818	452,346	1,345,612	2,990,907
Farming occupation/higher sales	farms, 2007	850	1,173	170	6,942	821
	acres, 2007	519,239	1,175,596	102,354	2,109,254	4,973,889
Large family farms	farms, 2007	838	1,305	153	4,346	465
	acres, 2007	596,186	1,781,727	90,009	2,136,089	4,729,086
Very large family farms	farms, 2007	1,185	1,866	231	3,009	302
	acres, 2007	961,557	3,430,246	154,495	3,360,975	5,763,408
Nonfamily farms	farms, 2007	1,513	2,297	297	2,683	755
	acres, 2007	601,804	4,436,911	82,832	1,013,702	7,074,424
TYPE OF ORGANIZATION						
Family or individual	farms, 2007	41,173	32,547	22,488	68,138	8,784
	2002	42,851	30,525	19,862	68,719	7,566
	acres, 2007	5,939,473	6,195,951	3,369,885	10,927,081	13,129,588
	2002	6,770,278	7,109,059	3,215,036	11,823,640	15,888,422
Partnership	farms, 2007	3,625	2,932	856	6,386	1,024
	2002	2,757	2,280	639	5,347	928
	acres, 2007	1,206,182	2,770,407	235,790	2,297,844	5,807,737
	2002	997,214	2,637,203	249,495	2,173,479	6,962,553

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	United States	Alabama	Alaska	Arizona	Arkansas	California
TYPE OF ORGANIZATION - Con.						
Corporation:						
Family-held ....farms, 2007	85,837	894	43	612	1,622	4,603
2002	66,667	549	27	518	1,054	4,269
acres, 2007	114,264,200	494,942	44,917	1,714,673	1,105,151	3,340,414
2002	99,019,750	381,877	(D)	1,012,669	843,362	3,605,651
Other than family held ....farms, 2007	10,237	123	9	117	232	1,147
2002	7,085	109	9	75	128	801
acres, 2007	11,055,610	34,428	(D)	146,596	117,599	1,168,852
2002	9,319,834	36,726	(D)	107,657	88,620	819,981
Other - cooperative, estate or trust, institutional, etc. ....farms, 2007	28,136	345	42	225	355	1,730
2002	16,039	227	46	165	217	1,166
acres, 2007	61,208,981	139,793	(D)	21,280,283	169,812	940,954
2002	61,677,623	105,881	312,014	21,661,691	133,164	841,462

Item	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii
TYPE OF ORGANIZATION - Con.						
Corporation:						
Family-held ....farms, 2007	2,103	350	244	4,178	1,691	491
2002	1,458	300	199	3,509	1,322	392
acres, 2007	3,751,760	58,209	130,845	2,605,781	967,468	413,945
2002	3,592,082	40,090	131,210	2,652,286	863,719	344,755
Other than family held ....farms, 2007	239	39	38	515	218	126
2002	171	38	13	567	162	80
acres, 2007	521,327	7,104	9,941	945,273	120,189	264,742
2002	475,043	6,334	3,887	1,018,953	126,550	368,784
Other - cooperative, estate or trust, institutional, etc. ....farms, 2007	786	75	48	561	384	104
2002	351	76	28	457	287	72
acres, 2007	1,678,602	12,333	13,519	202,380	151,150	26,133
2002	1,355,308	10,472	7,724	225,272	160,441	141,044

Item	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
TYPE OF ORGANIZATION - Con.						
Corporation:						
Family-held ....farms, 2007	1,434	3,055	2,769	6,029	2,531	1,273
2002	1,148	2,385	2,461	4,900	2,074	983
acres, 2007	2,196,738	2,635,534	2,109,693	4,399,004	5,201,010	503,740
2002	2,419,181	2,218,324	1,811,731	3,742,023	4,269,110	427,172
Other than family held ....farms, 2007	99	378	209	480	243	156
2002	70	199	171	379	168	136
acres, 2007	129,515	115,427	112,241	203,312	249,888	52,001
2002	81,260	78,685	74,367	120,225	201,627	49,800
Other - cooperative, estate or trust, institutional, etc. ....farms, 2007	384	1,170	793	1,905	1,502	357
2002	215	679	337	885	872	361
acres, 2007	953,807	227,264	116,738	375,278	718,885	99,887
2002	824,699	155,908	73,030	198,493	443,964	99,665

Item	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
TYPE OF ORGANIZATION - Con.						
Corporation:						
Family-held ....farms, 2007	1,639	506	846	566	2,245	2,522
2002	952	371	642	494	1,683	2,163
acres, 2007	1,026,510	259,305	(D)	68,774	1,050,255	2,049,368
2002	806,915	257,403	244,323	70,935	875,773	1,987,076
Other than family held ....farms, 2007	136	46	131	75	249	326
2002	89	51	84	65	134	179
acres, 2007	274,837	9,969	(D)	8,110	53,005	121,986
2002	112,383	3,962	19,064	7,953	35,576	42,582
Other - cooperative, estate or trust, institutional, etc. ....farms, 2007	220	84	210	158	573	1,862
2002	134	76	132	120	256	423
acres, 2007	172,505	24,866	(D)	22,229	97,553	330,815
2002	86,667	22,623	44,605	24,467	63,592	152,860

Item	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire
TYPE OF ORGANIZATION - Con.						
Corporation:						
Family-held ....farms, 2007	1,248	2,739	3,353	3,394	207	178
2002	608	1,973	2,607	2,950	174	142
acres, 2007	725,259	2,242,236	16,982,934	7,787,958	1,609,413	36,943
2002	537,636	1,746,804	13,935,753	6,929,362	2,044,726	33,893
Other than family held ....farms, 2007	219	324	156	177	23	42
2002	97	201	123	115	26	15
acres, 2007	126,144	139,301	585,392	383,629	956,143	2,614
2002	80,661	116,638	712,176	232,819	423,894	1,765
Other - cooperative, estate or trust, institutional, etc. ....farms, 2007	370	1,742	551	677	75	96
2002	280	625	500	375	85	83
acres, 2007	195,895	462,417	3,910,848	674,561	1,266,074	32,213
2002	168,315	218,231	4,378,623	590,941	1,403,164	32,254

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Table 46. **Selected Operation and Operator Characteristics: 2007 and 2002** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio
TYPE OF ORGANIZATION - Con.						
Corporation:						
Family-held ..... farms, 2007	726	780	1,885	2,241	519	2,749
2002	598	573	1,388	1,652	418	1,689
acres, 2007	125,996	7,345,325	739,348	1,043,198	1,272,423	1,066,686
2002	(D)	5,624,995	588,818	892,267	1,069,867	864,583
Other than family held ..... farms, 2007	103	59	225	384	41	207
2002	103	58	193	171	28	154
acres, 2007	16,999	178,657	49,521	93,040	63,094	51,298
2002	(D)	236,736	38,979	54,191	21,739	51,433
Other - cooperative, estate or trust, institutional, etc. ..... farms, 2007	93	450	274	276	497	786
2002	69	199	174	226	306	515
acres, 2007	16,829	8,323,276	89,423	61,607	1,047,682	135,152
2002	16,869	8,844,710	79,242	75,210	1,088,142	102,051

Item	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
TYPE OF ORGANIZATION - Con.					
Corporation:					
Family-held ..... farms, 2007	1,566	2,251	1,480	159	745
2002	978	1,895	1,077	86	477
acres, 2007	1,906,242	3,572,978	400,846	12,284	347,748
2002	1,312,382	2,932,785	293,938	12,693	267,074
Other than family held ..... farms, 2007	203	256	239	17	100
2002	138	169	172	4	79
acres, 2007	170,023	156,044	62,623	246	50,091
2002	90,748	115,513	35,522	70	66,065
Other - cooperative, estate or trust, institutional, etc. ..... farms, 2007	1,479	346	430	15	206
2002	595	310	227	17	180
acres, 2007	1,001,878	782,221	96,375	1,195	118,935
2002	633,918	1,022,868	48,404	3,012	96,508

Item	South Dakota	Tennessee	Texas	Utah	Vermont
TYPE OF ORGANIZATION - Con.					
Corporation:					
Family-held ..... farms, 2007	1,299	693	4,956	917	360
2002	983	392	3,842	562	261
acres, 2007	3,804,217	220,889	11,064,252	1,348,312	127,831
2002	3,230,464	190,354	9,625,105	1,278,929	101,264
Other than family held ..... farms, 2007	122	172	750	97	40
2002	83	60	456	68	20
acres, 2007	180,565	33,622	1,737,684	109,737	10,301
2002	126,140	13,120	1,189,425	417,915	8,416
Other - cooperative, estate or trust, institutional, etc. ..... farms, 2007	457	172	2,948	427	128
2002	318	281	1,499	229	91
acres, 2007	3,084,851	61,414	2,085,526	4,396,538	38,538
2002	2,777,152	77,971	2,281,043	4,616,116	23,842

Item	Virginia	Washington	West Virginia	Wisconsin	Wyoming
TYPE OF ORGANIZATION - Con.					
Corporation:					
Family-held ..... farms, 2007	2,027	2,969	182	3,036	932
2002	1,531	2,560	199	2,519	680
acres, 2007	787,626	3,177,316	(D)	1,717,850	8,288,379
2002	712,979	2,791,935	87,555	1,546,468	7,581,267
Other than family held ..... farms, 2007	242	297	27	297	87
2002	192	188	21	207	66
acres, 2007	72,523	292,992	5,080	107,833	518,051
2002	48,739	244,630	5,869	107,285	764,686
Other - cooperative, estate or trust, institutional, etc. ..... farms, 2007	316	539	65	606	242
2002	275	386	91	339	182
acres, 2007	98,121	2,536,123	(D)	140,196	2,425,771
2002	95,619	2,535,181	26,713	90,680	3,205,798

Table 47. **Women Principal Operators - Selected Farm Characteristics: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Land in farms		Harvested cropland		Market value of agricultural products sold ($1,000)	Farms by economic class (see text) and primary occupation					
						Farming			Other than farming		
	Farms	Acres	Farms	Acres		Less than $2,500	$2,500 to $9,999	$10,000 or more	Less than $2,500	$2,500 to $9,999	$10,000 or more
UNITED STATES TOTAL											
United States	306,209	64,264,566	126,499	9,521,303	11,158,210	52,752	27,486	41,561	99,467	50,146	34,797
STATES											
Alabama	6,444	818,315	2,075	90,570	405,220	1,040	556	948	2,197	1,100	603
Alaska	168	(D)	96	1,848	(D)	34	19	47	24	25	19
Arizona	6,020	3,352,038	1,755	23,643	78,235	2,869	772	319	1,539	369	152
Arkansas	6,331	930,658	2,966	279,428	522,738	755	570	1,291	1,943	1,026	746
California	14,965	2,058,833	6,639	282,548	1,246,761	2,926	1,277	2,803	3,849	1,733	2,377
Colorado	6,942	3,158,274	2,008	291,631	405,623	1,117	520	806	2,384	1,176	939
Connecticut	1,161	57,929	614	13,497	36,658	276	102	174	378	150	81
Delaware	409	(D)	168	13,341	100,917	61	26	128	104	42	48
Florida	10,429	769,801	3,271	110,893	615,218	2,413	856	1,499	3,238	1,131	1,292
Georgia	7,532	868,281	2,494	95,687	452,526	1,446	553	816	2,976	1,057	684
Hawaii	1,806	64,135	1,500	5,522	(D)	311	285	272	466	279	193
Idaho	3,151	666,357	1,222	98,269	109,928	490	268	466	1,042	523	362
Illinois	7,664	824,094	3,401	471,427	285,745	978	526	1,101	2,571	1,399	1,089
Indiana	6,377	520,437	3,037	269,027	184,701	874	425	707	2,393	1,158	820
Iowa	8,452	1,090,979	3,047	468,570	341,393	550	544	1,421	1,950	2,175	1,812
Kansas	7,943	2,398,113	3,193	577,894	233,536	599	531	1,131	2,130	2,143	1,409
Kentucky	9,110	954,488	4,819	197,695	213,932	1,259	902	1,054	3,199	1,729	967
Louisiana	3,858	460,500	1,324	91,410	143,318	429	580	508	863	1,035	443
Maine	2,043	151,831	1,066	33,484	34,878	438	188	269	716	291	141
Maryland	2,216	134,998	890	42,022	122,484	491	215	376	652	275	207
Massachusetts	2,226	84,923	973	15,486	40,180	638	202	324	683	219	160
Michigan	8,275	552,075	3,850	193,433	178,277	1,653	846	936	3,100	1,141	599
Minnesota	7,361	1,075,238	3,028	384,704	308,481	841	545	1,107	2,480	1,562	826
Mississippi	6,130	1,092,940	1,628	126,688	335,048	779	450	619	2,421	1,247	614
Missouri	12,754	1,953,637	6,205	522,051	323,877	1,527	1,186	1,877	3,745	2,575	1,844
Montana	4,586	3,867,449	1,638	416,004	124,893	527	300	843	1,447	687	782
Nebraska	4,025	2,231,833	1,808	420,975	259,388	363	240	936	768	837	881
Nevada	601	165,205	186	22,984	17,801	125	69	113	174	61	59
New Hampshire	1,237	70,609	552	8,891	15,891	372	125	176	343	138	83
New Jersey	2,261	66,586	1,106	20,412	50,127	659	210	246	746	228	172
New Mexico	4,646	4,098,171	1,486	66,087	112,020	1,254	498	470	1,518	564	342
New York	6,688	592,787	3,537	195,433	205,671	1,440	623	1,141	2,169	769	546
North Carolina	7,016	514,123	2,804	122,422	603,564	1,445	655	922	2,552	870	572
North Dakota	3,656	1,794,582	819	338,348	84,183	138	231	522	832	1,274	659
Ohio	9,127	721,851	4,763	316,071	187,623	1,562	838	1,118	2,881	1,602	1,126
Oklahoma	10,849	2,609,564	4,595	413,160	260,946	1,482	1,059	1,638	3,241	2,144	1,285
Oregon	8,255	1,427,753	3,646	183,897	207,236	1,683	963	1,125	2,761	1,031	692
Pennsylvania	8,550	585,218	4,228	156,151	212,493	1,631	667	1,116	3,408	1,066	662
Rhode Island	297	10,245	155	2,367	9,100	97	39	62	56	17	26
South Carolina	4,085	463,621	1,262	57,476	125,228	770	303	310	1,863	565	274
South Dakota	2,394	1,897,957	985	309,032	132,860	191	151	509	668	454	421
Tennessee	9,960	791,498	4,605	184,863	154,756	1,818	1,029	802	3,973	1,659	679
Texas	35,011	12,275,184	11,997	825,081	753,464	5,761	3,337	4,118	11,503	5,979	4,313
Utah	1,797	347,301	766	33,011	43,780	384	129	196	657	259	172
Vermont	1,466	144,874	747	29,542	35,075	309	176	243	460	159	119
Virginia	7,846	748,779	3,658	140,483	209,105	1,805	723	956	2,694	1,000	668
Washington	8,090	881,612	2,694	124,853	184,307	1,829	838	1,005	2,712	975	731
West Virginia	3,219	378,591	2,052	57,804	46,563	782	362	218	1,246	431	180
Wisconsin	9,176	860,130	4,585	281,102	287,523	1,319	855	1,419	3,256	1,588	739
Wyoming	1,604	2,409,371	556	94,086	67,102	212	122	358	496	229	187

Table 48. **Women Operators: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	All farms with a woman operator [1]			Farms with a woman principal operator	
	Farms	Women operators	Land in farms (acres)	Farms	Land in farms (acres)
UNITED STATES TOTAL					
United States	942,035	985,192	298,009,940	306,209	64,264,566
STATES					
Alabama	19,511	20,313	2,756,711	6,444	818,315
Alaska	390	426	395,210	168	(D)
Arizona	10,142	11,263	4,461,487	6,020	3,352,038
Arkansas	22,825	23,568	4,863,750	6,331	930,658
California	39,604	41,879	8,760,429	14,965	2,058,833
Colorado	20,343	21,526	13,028,400	6,942	3,158,274
Connecticut	2,597	2,839	180,845	1,161	57,929
Delaware	1,077	1,132	124,264	409	(D)
Florida	24,366	25,706	2,458,886	10,429	769,801
Georgia	18,970	19,831	2,431,125	7,532	868,281
Hawaii	3,860	4,094	203,058	1,806	64,135
Idaho	12,204	12,649	3,710,947	3,151	666,357
Illinois	24,007	24,901	6,031,705	7,664	824,094
Indiana	22,819	23,732	3,914,121	6,377	520,437
Iowa	32,026	32,924	9,086,100	8,452	1,090,979
Kansas	25,852	26,784	13,953,628	7,943	2,398,113
Kentucky	31,451	32,652	3,922,178	9,110	954,488
Louisiana	11,523	12,104	2,040,106	3,858	460,500
Maine	4,739	5,058	542,185	2,043	151,831
Maryland	5,838	6,256	611,264	2,216	134,998
Massachusetts	4,294	4,702	237,114	2,226	84,923
Michigan	24,712	25,936	3,022,280	8,275	552,075
Minnesota	29,231	30,218	7,700,872	7,361	1,075,238
Mississippi	16,392	17,169	3,318,672	6,130	1,092,940
Missouri	46,977	48,601	9,908,408	12,754	1,953,637
Montana	14,639	15,331	24,608,072	4,586	3,867,449
Nebraska	17,637	18,144	16,103,610	4,025	2,231,833
Nevada	1,658	1,747	1,504,812	601	165,205
New Hampshire	2,671	2,880	235,034	1,237	70,609
New Jersey	5,248	5,603	231,769	2,261	66,586
New Mexico	10,005	10,712	15,685,300	4,646	4,098,171
New York	17,787	18,872	2,672,000	6,688	592,787
North Carolina	19,167	20,146	1,901,733	7,016	514,123
North Dakota	10,747	11,071	12,207,074	3,656	1,794,582
Ohio	29,060	30,362	3,750,114	9,127	721,851
Oklahoma	40,576	42,062	12,040,242	10,849	2,609,564
Oregon	23,660	24,997	7,184,330	8,255	1,427,753
Pennsylvania	25,096	26,405	2,495,559	8,550	585,218
Rhode Island	614	659	25,140	297	10,245
South Carolina	9,834	10,436	1,270,801	4,085	463,621
South Dakota	10,823	11,144	14,035,075	2,394	1,897,957
Tennessee	31,604	33,041	3,168,017	9,960	791,498
Texas	111,283	116,165	43,394,737	35,011	12,275,184
Utah	6,523	6,860	1,525,038	1,797	347,301
Vermont	3,873	4,108	585,444	1,466	144,874
Virginia	20,293	21,427	2,436,411	7,846	748,779
Washington	21,919	23,149	4,688,189	8,090	881,612
West Virginia	9,603	10,013	1,243,033	3,219	378,591
Wisconsin	35,954	37,259	5,814,989	9,176	860,130
Wyoming	6,011	6,336	11,539,672	1,604	2,409,371

[1] Data were collected for a maximum of three operators per farm.

Table 49. **Women Principal Operators - Tenure: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Total farms	Full owners			Part owners			Tenants		
		Farms	Land in farms (acres)	Harvested cropland (acres)	Farms	Land in farms (acres)	Harvested cropland (acres)	Farms	Land in farms (acres)	Harvested cropland (acres)
UNITED STATES TOTAL										
United States	306,209	260,452	39,349,544	4,373,193	32,077	20,659,890	4,237,606	13,680	4,255,132	910,504
STATES										
Alabama	6,444	5,436	652,768	44,569	755	138,998	35,418	253	26,549	10,583
Alaska	168	142	(D)	1,307	15	2,051	(D)	11	(D)	(D)
Arizona	6,020	5,806	3,205,059	9,321	116	113,354	3,326	98	33,625	10,996
Arkansas	6,331	5,226	581,875	102,702	829	243,645	88,693	276	105,138	88,033
California	14,965	12,786	1,109,485	146,018	1,049	712,722	102,407	1,130	236,626	34,123
Colorado	6,942	5,813	2,063,908	159,045	785	971,023	120,900	344	123,343	11,686
Connecticut	1,161	949	41,808	6,885	131	7,822	3,774	81	8,299	2,838
Delaware	409	345	(D)	3,798	30	12,074	8,817	34	1,100	726
Florida	10,429	9,257	614,512	79,820	861	119,989	24,446	311	35,300	6,627
Georgia	7,532	6,684	739,170	56,587	630	111,788	32,836	218	17,323	6,264
Hawaii	1,806	1,374	28,530	3,557	142	22,604	(D)	290	13,001	(D)
Idaho	3,151	2,690	468,768	58,458	335	170,324	30,378	126	27,265	9,433
Illinois	7,664	6,605	484,323	184,261	673	278,274	233,078	386	61,497	54,088
Indiana	6,377	5,644	341,458	127,602	503	158,233	124,803	230	20,746	16,622
Iowa	8,452	7,391	742,972	186,321	592	278,614	223,864	469	69,393	58,385
Kansas	7,943	6,688	1,410,276	236,019	917	800,773	275,959	338	187,064	65,916
Kentucky	9,110	8,084	796,526	142,141	723	135,175	48,361	303	22,787	7,193
Louisiana	3,858	3,205	325,915	38,974	472	113,460	43,946	181	21,125	8,490
Maine	2,043	1,743	109,729	11,208	219	35,767	17,416	81	6,335	4,860
Maryland	2,216	1,915	97,931	20,659	196	29,508	17,773	105	7,559	3,590
Massachusetts	2,226	1,842	67,284	8,926	200	14,773	5,322	184	2,866	1,238
Michigan	8,275	7,104	387,888	81,487	923	147,261	101,043	248	16,926	10,903
Minnesota	7,361	6,327	744,300	146,682	767	276,424	193,286	267	54,514	44,736
Mississippi	6,130	5,333	892,944	51,013	553	131,693	32,346	244	68,303	43,329
Missouri	12,754	11,042	1,443,116	293,039	1,284	460,405	205,395	428	50,116	23,617
Montana	4,586	3,641	1,807,148	152,581	678	1,813,165	221,036	267	247,136	42,387
Nebraska	4,025	3,219	965,322	154,103	512	1,133,022	235,993	294	133,489	30,879
Nevada	601	528	90,569	18,944	46	65,115	3,134	27	9,521	906
New Hampshire	1,237	1,043	58,254	5,313	123	9,474	2,754	71	2,881	824
New Jersey	2,261	2,005	48,743	11,216	150	14,576	8,053	106	3,267	1,143
New Mexico	4,646	3,992	1,753,628	42,279	483	2,212,273	23,221	171	132,270	587
New York	6,688	5,453	386,642	85,722	917	189,563	103,926	318	16,582	5,785
North Carolina	7,016	5,785	345,514	35,845	901	131,470	66,967	330	37,139	19,610
North Dakota	3,656	3,191	1,004,372	90,533	328	598,068	216,899	137	192,142	30,916
Ohio	9,127	7,897	478,394	143,650	945	217,073	155,104	285	26,384	17,317
Oklahoma	10,849	8,557	1,480,408	214,738	1,730	1,021,882	183,102	562	107,274	15,320
Oregon	8,255	7,052	904,700	94,063	729	443,822	72,652	474	79,231	17,182
Pennsylvania	8,550	7,420	449,786	83,659	754	113,414	60,397	376	22,018	12,095
Rhode Island	297	232	7,285	920	32	1,687	517	33	1,273	930
South Carolina	4,085	3,580	385,777	24,885	353	65,090	27,413	152	12,754	5,178
South Dakota	2,394	1,808	722,576	87,008	410	1,027,923	192,141	176	147,458	29,883
Tennessee	9,960	8,706	(D)	114,231	1,003	150,755	57,780	251	(D)	12,852
Texas	35,011	29,213	7,322,137	445,310	4,251	3,578,904	286,282	1,547	1,374,143	93,489
Utah	1,797	1,546	249,361	19,279	186	87,593	12,655	65	10,347	1,077
Vermont	1,466	1,113	99,969	13,113	267	41,455	16,056	86	3,450	373
Virginia	7,846	6,377	536,988	78,727	1,075	186,124	55,042	394	25,667	6,714
Washington	8,090	6,943	550,075	57,459	714	267,098	54,610	433	64,439	12,784
West Virginia	3,219	2,746	279,011	39,790	403	93,862	16,955	70	5,718	1,059
Wisconsin	9,176	7,807	605,911	116,959	1,039	225,130	142,305	330	29,089	21,838
Wyoming	1,604	1,167	823,407	42,467	348	1,484,598	48,019	89	101,366	3,600

Table 50. **Spanish, Hispanic, or Latino Origin Operators: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	All farms with a Spanish, Hispanic, or Latino operator [1]			Farms with a Spanish, Hispanic, or Latino principal operator	
	Farms	Spanish, Hispanic, or Latino operators	Land in farms (acres)	Farms	Land in farms (acres)
UNITED STATES TOTAL					
United States	66,671	82,462	24,600,997	55,570	17,054,007
STATES					
Alabama	368	407	57,595	260	42,988
Alaska	13	13	3,412	7	1,147
Arizona	1,006	1,293	345,803	806	243,326
Arkansas	567	651	120,255	395	87,057
California	11,294	14,199	2,325,047	9,118	1,444,764
Colorado	2,182	2,610	1,004,784	1,846	845,517
Connecticut	84	100	4,080	61	3,031
Delaware	34	35	1,643	28	1,483
Florida	3,662	4,869	438,041	3,161	352,184
Georgia	484	547	102,925	365	64,531
Hawaii	539	622	44,225	442	39,500
Idaho	788	929	263,444	610	118,874
Illinois	466	553	83,617	325	57,506
Indiana	320	362	51,684	217	35,333
Iowa	491	551	143,221	346	103,666
Kansas	680	780	435,086	555	335,823
Kentucky	525	594	78,357	408	59,705
Louisiana	492	570	82,162	394	63,035
Maine	68	75	6,483	43	3,610
Maryland	132	144	15,131	93	9,232
Massachusetts	155	198	7,699	120	5,514
Michigan	794	937	102,546	615	54,795
Minnesota	440	507	141,104	296	101,372
Mississippi	537	599	141,575	451	113,300
Missouri	691	736	140,170	444	76,492
Montana	297	345	502,722	201	312,576
Nebraska	254	288	234,044	166	157,066
Nevada	222	260	120,859	174	74,082
New Hampshire	29	35	2,923	21	2,361
New Jersey	182	207	5,177	109	3,048
New Mexico	6,861	8,904	6,232,408	6,475	5,237,978
New York	328	387	41,097	220	27,990
North Carolina	648	738	114,635	478	72,351
North Dakota	136	142	228,772	92	149,958
Ohio	420	468	69,642	302	44,549
Oklahoma	1,104	1,218	318,686	784	211,437
Oregon	1,182	1,330	476,530	789	116,117
Pennsylvania	454	526	35,962	332	24,504
Rhode Island	11	11	1,402	11	1,402
South Carolina	243	277	33,315	191	22,802
South Dakota	171	196	224,207	116	87,645
Tennessee	642	733	55,316	445	39,558
Texas	22,797	28,921	7,261,904	20,351	5,189,774
Utah	409	473	257,291	336	117,971
Vermont	84	94	13,769	55	9,334
Virginia	495	551	81,867	338	60,022
Washington	2,115	2,604	390,317	1,643	183,176
West Virginia	174	205	21,465	138	16,576
Wisconsin	379	412	56,423	245	29,732
Wyoming	222	256	1,680,175	152	598,213

[1] Data were collected for a maximum of three operators per farm.

Table 51. **American Indian or Alaska Native Operators: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	All farms with an American Indian or Alaska Native operator [1]			Farms with an American Indian or Alaska Native principal operator	
	Farms	American Indian or Alaska Native operators	Land in farms (acres)	Farms	Land in farms (acres)
UNITED STATES TOTAL					
United States	42,751	55,889	52,636,902	34,706	49,680,678
STATES					
Alabama	647	790	88,955	465	64,198
Alaska	35	41	314,214	25	314,141
Arizona	8,475	13,794	20,773,470	8,436	20,764,749
Arkansas	708	860	104,295	448	62,896
California	1,597	1,838	444,807	1,178	322,996
Colorado	520	619	989,161	382	916,216
Connecticut	32	53	1,124	29	1,025
Delaware	17	23	1,724	12	1,315
Florida	543	670	72,035	349	61,613
Georgia	451	572	50,432	334	39,875
Hawaii	57	63	2,982	41	840
Idaho	303	351	553,531	223	538,024
Illinois	253	311	65,078	168	45,520
Indiana	212	253	44,802	152	20,639
Iowa	135	146	43,122	44	9,692
Kansas	477	508	219,084	297	143,090
Kentucky	425	492	62,863	309	49,181
Louisiana	298	350	28,520	228	22,251
Maine	86	95	14,305	59	9,711
Maryland	71	90	3,757	41	2,045
Massachusetts	24	26	(D)	11	342
Michigan	511	613	64,351	341	42,157
Minnesota	349	413	116,285	203	78,802
Mississippi	249	320	57,301	175	25,338
Missouri	726	826	139,528	397	63,713
Montana	1,683	2,013	4,436,007	1,482	4,046,546
Nebraska	58	63	54,486	33	30,244
Nevada	409	488	1,083,341	390	1,075,375
New Hampshire	30	41	2,814	11	2,264
New Jersey	29	32	620	20	450
New Mexico	4,660	6,611	7,351,220	4,493	7,113,408
New York	222	260	40,014	139	26,792
North Carolina	729	887	85,352	603	74,630
North Dakota	430	503	565,273	364	500,397
Ohio	137	153	13,632	80	6,550
Oklahoma	9,269	11,059	2,086,445	7,054	1,566,596
Oregon	703	847	601,187	497	577,470
Pennsylvania	232	272	34,292	155	19,683
Rhode Island	2	3	(D)	-	-
South Carolina	181	217	19,095	126	12,389
South Dakota	890	1,150	3,750,015	748	3,357,973
Tennessee	518	595	58,806	296	32,866
Texas	3,129	3,604	988,477	2,155	547,854
Utah	687	1,166	3,844,484	660	3,834,541
Vermont	34	36	5,479	14	536
Virginia	286	316	34,093	186	21,315
Washington	768	912	2,518,026	480	2,465,950
West Virginia	48	62	7,155	38	6,547
Wisconsin	147	158	36,011	100	31,990
Wyoming	269	324	764,059	235	727,943

[1] Data were collected for a maximum of three operators per farm.

Table 52. **Asian Operators: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	All farms with an Asian operator [1]			Farms with an Asian principal operator	
	Farms	Asian operators	Land in farms (acres)	Farms	Land in farms (acres)
UNITED STATES TOTAL					
United States	13,707	18,289	1,997,479	11,214	1,389,766
STATES					
Alabama	98	118	7,828	54	(D)
Alaska	5	6	469	3	(D)
Arizona	71	99	18,921	64	18,477
Arkansas	344	546	25,152	315	(D)
California	4,177	5,780	478,705	3,684	423,116
Colorado	160	199	92,447	117	72,664
Connecticut	33	36	1,766	30	1,322
Delaware	28	36	1,237	25	1,193
Florida	708	964	50,177	612	25,404
Georgia	268	385	21,097	235	19,966
Hawaii	2,820	3,651	216,552	2,544	163,919
Idaho	106	137	81,085	76	69,729
Illinois	124	164	31,281	90	29,190
Indiana	81	95	13,384	48	8,382
Iowa	139	171	33,882	97	25,235
Kansas	48	55	17,177	35	14,509
Kentucky	104	121	14,607	64	9,208
Louisiana	59	70	4,699	38	3,828
Maine	23	23	1,716	12	(D)
Maryland	98	139	6,228	84	5,859
Massachusetts	64	71	1,429	56	1,158
Michigan	112	129	9,972	53	4,961
Minnesota	192	255	16,176	148	8,624
Mississippi	77	101	8,921	51	6,857
Missouri	295	413	40,544	228	27,195
Montana	68	80	148,476	37	27,024
Nebraska	21	23	7,659	13	2,845
Nevada	13	14	3,669	7	(D)
New Hampshire	11	16	(D)	8	(D)
New Jersey	104	147	6,561	89	5,816
New Mexico	34	43	21,188	26	20,994
New York	112	146	13,239	83	10,063
North Carolina	157	232	10,313	122	6,766
North Dakota	16	16	14,771	4	(D)
Ohio	114	134	15,742	78	11,930
Oklahoma	342	454	47,349	246	36,079
Oregon	364	454	49,167	267	31,202
Pennsylvania	86	100	7,029	55	4,770
Rhode Island	18	26	(D)	16	138
South Carolina	67	85	5,450	46	(D)
South Dakota	29	30	25,891	19	6,481
Tennessee	123	151	7,217	74	4,410
Texas	800	1,004	216,179	561	138,780
Utah	69	84	16,631	49	14,526
Vermont	16	17	919	1	(D)
Virginia	148	185	12,655	86	6,937
Washington	479	669	122,777	360	53,284
West Virginia	33	39	4,280	19	2,747
Wisconsin	224	350	11,718	168	7,953
Wyoming	25	26	29,762	17	19,882

[1] Data were collected for a maximum of three operators per farm.

Table 53. **Black or African American Operators: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	All farms with a Black or African American operator [1]			Farms with a Black or African American principal operator	
	Farms	Black or African American operators	Land in farms (acres)	Farms	Land in farms (acres)
UNITED STATES TOTAL					
United States	31,912	39,697	3,614,608	30,599	3,182,313
STATES					
Alabama	2,747	3,653	288,980	2,709	266,637
Arizona	48	51	1,775	40	1,616
Arkansas	1,174	1,433	177,566	1,152	155,491
California	383	434	79,150	320	26,304
Colorado	61	69	10,110	42	8,327
Connecticut	9	12	(D)	6	(D)
Delaware	23	27	(D)	20	792
Florida	1,377	1,772	105,788	1,269	79,826
Georgia	2,160	2,647	243,869	2,072	221,441
Hawaii	10	10	202	10	202
Idaho	12	12	4,986	8	(D)
Illinois	123	147	12,212	98	9,867
Indiana	61	66	6,458	49	(D)
Iowa	37	42	6,770	31	5,155
Kansas	167	205	42,180	147	34,507
Kentucky	530	646	46,566	505	43,271
Louisiana	1,997	2,487	207,706	1,914	160,574
Maine	25	27	1,067	17	451
Maryland	203	223	15,156	193	(D)
Massachusetts	39	52	647	32	610
Michigan	258	324	17,150	247	14,732
Minnesota	38	40	14,464	22	(D)
Mississippi	5,400	6,689	605,174	5,306	577,409
Missouri	200	226	24,867	179	19,865
Montana	14	14	6,130	10	(D)
Nebraska	11	11	1,786	9	(D)
Nevada	4	4	(D)	3	30
New Hampshire	6	7	(D)	5	(D)
New Jersey	73	92	5,493	62	(D)
New Mexico	63	66	15,288	50	(D)
New York	102	110	13,747	66	7,721
North Carolina	1,563	1,801	147,470	1,491	133,124
North Dakota	4	4	(D)	2	(D)
Ohio	194	238	15,142	181	14,673
Oklahoma	1,153	1,462	195,077	1,111	182,591
Oregon	48	51	3,119	36	2,738
Pennsylvania	72	101	6,502	63	4,682
Rhode Island	1	1	(D)	-	-
South Carolina	2,159	2,605	196,330	2,108	175,689
South Dakota	11	11	7,935	10	(D)
Tennessee	1,098	1,322	110,819	1,052	98,064
Texas	6,332	8,202	750,503	6,124	682,586
Utah	4	4	1,140	4	1,140
Vermont	14	14	1,751	10	(D)
Virginia	1,722	2,081	193,034	1,680	182,713
Washington	74	79	7,168	49	2,333
West Virginia	40	40	2,910	35	(D)
Wisconsin	62	76	5,559	44	2,745
Wyoming	6	7	431	6	431

[1] Data were collected for a maximum of three operators per farm.

Table 54. **Native Hawaiian or Other Pacific Islander Operators: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	All farms with a Native Hawaiian or Other Pacific Islander operator [1]			Farms with a Native Hawaiian or Other Pacific Islander principal operator	
	Farms	Native Hawaiian or Other Pacific Islander operators	Land in farms (acres)	Farms	Land in farms (acres)
UNITED STATES TOTAL					
United States	2,098	2,359	605,737	1,356	405,006
STATES					
Alabama	17	17	3,169	1	(D)
Alaska	2	2	(D)	-	-
Arizona	17	19	1,251	8	1,114
Arkansas	6	6	(D)	2	(D)
California	283	311	70,546	183	38,280
Colorado	49	58	43,701	38	41,454
Connecticut	7	7	(D)	7	(D)
Florida	84	101	3,636	69	3,409
Georgia	10	12	819	5	596
Hawaii	778	928	197,717	625	151,930
Idaho	26	26	(D)	14	(D)
Illinois	30	30	12,085	20	763
Indiana	10	10	383	5	(D)
Iowa	10	12	3,146	5	1,848
Kansas	8	9	6,331	5	3,911
Kentucky	16	17	1,973	11	1,719
Louisiana	18	20	1,761	14	521
Maine	5	6	400	3	(D)
Maryland	10	10	(D)	6	(D)
Massachusetts	3	3	50	3	50
Michigan	37	37	1,859	20	975
Minnesota	21	21	6,559	4	(D)
Mississippi	20	20	15,454	14	7,026
Missouri	44	45	5,229	28	3,014
Montana	13	15	3,992	6	(D)
Nebraska	4	4	72	2	(D)
Nevada	5	5	(D)	4	(D)
New Jersey	4	5	107	1	(D)
New Mexico	26	26	23,099	13	(D)
New York	8	8	1,030	-	-
North Carolina	12	12	1,733	9	759
North Dakota	2	2	(D)	2	(D)
Ohio	15	16	276	4	48
Oklahoma	51	54	13,572	13	5,700
Oregon	69	73	10,269	31	5,219
Pennsylvania	17	17	972	5	436
South Carolina	34	34	3,132	7	(D)
South Dakota	8	8	(D)	1	(D)
Tennessee	20	21	1,302	4	59
Texas	140	150	112,869	59	79,556
Utah	18	24	2,511	11	376
Vermont	1	1	(D)	1	(D)
Virginia	29	29	3,379	19	1,225
Washington	78	95	5,224	54	2,811
West Virginia	5	5	419	4	(D)
Wisconsin	18	18	2,429	8	269
Wyoming	10	10	7,108	8	6,900

[1] Data were collected for a maximum of three operators per farm.

Table 55. **White Operators: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	All farms with a White operator [1]			Farms with a White principal operator	
	Farms	White operators	Land in farms (acres)	Farms	Land in farms (acres)
UNITED STATES TOTAL					
United States	2,128,341	3,140,754	869,916,383	2,114,325	863,819,828
STATES					
Alabama	45,412	64,715	8,690,034	45,124	8,655,095
Alaska	660	1,041	567,359	656	567,038
Arizona	7,152	11,355	5,327,179	7,042	5,303,905
Arkansas	47,343	70,503	13,599,296	46,945	13,554,321
California	76,211	117,665	24,478,029	75,021	24,309,092
Colorado	36,519	58,004	31,356,398	36,222	30,449,533
Connecticut	4,862	7,579	402,976	4,830	402,040
Delaware	2,488	3,767	506,472	2,484	506,366
Florida	45,203	67,569	9,058,660	44,881	9,032,526
Georgia	45,369	64,084	9,884,695	45,014	9,846,049
Hawaii	3,981	5,445	623,373	3,627	593,034
Idaho	25,065	38,804	10,923,421	24,918	10,861,049
Illinois	76,410	108,345	26,671,675	76,295	26,654,519
Indiana	60,674	89,356	14,723,199	60,565	14,715,326
Iowa	92,691	133,506	30,703,559	92,636	30,698,802
Kansas	65,041	94,707	46,154,779	64,813	46,044,505
Kentucky	84,112	120,608	13,857,080	83,803	13,818,427
Louisiana	28,062	39,999	7,931,789	27,820	7,911,050
Maine	8,064	12,616	1,335,554	8,014	1,332,781
Maryland	12,532	19,190	2,032,116	12,466	2,024,497
Massachusetts	7,584	11,787	515,394	7,569	515,089
Michigan	55,291	82,180	9,938,307	55,017	9,908,085
Minnesota	80,571	116,149	26,800,831	80,460	26,773,187
Mississippi	36,769	52,218	10,882,133	36,352	10,822,766
Missouri	106,746	158,187	28,860,944	106,313	28,794,944
Montana	28,115	43,432	57,493,666	27,841	57,157,617
Nebraska	47,635	70,502	45,440,306	47,611	45,431,551
Nevada	2,754	4,420	5,380,200	2,709	4,785,381
New Hampshire	4,144	6,717	469,363	4,133	468,031
New Jersey	10,169	15,599	725,945	10,116	723,754
New Mexico	16,368	24,214	36,792,785	16,234	35,887,472
New York	36,057	56,127	7,132,522	35,987	7,121,609
North Carolina	50,779	72,262	8,272,825	50,503	8,240,516
North Dakota	31,606	43,990	39,182,481	31,540	39,128,669
Ohio	75,547	111,199	13,921,352	75,403	13,911,990
Oklahoma	79,048	113,236	33,251,539	76,058	32,644,862
Oregon	37,788	61,071	15,792,550	37,390	15,739,966
Pennsylvania	62,824	92,077	7,771,055	62,722	7,756,174
Rhode Island	1,198	1,834	67,640	1,198	67,640
South Carolina	23,560	33,261	4,691,625	23,393	4,676,240
South Dakota	30,453	44,507	40,624,207	30,299	40,034,883
Tennessee	77,753	112,248	10,813,132	77,384	10,782,990
Texas	238,436	350,456	128,702,181	236,568	128,296,711
Utah	16,024	24,369	7,243,497	15,949	7,235,992
Vermont	6,946	11,050	1,230,099	6,931	1,227,842
Virginia	45,425	66,911	7,878,628	45,150	7,855,065
Washington	38,366	59,947	12,444,778	38,036	12,386,769
West Virginia	23,529	34,089	3,684,378	23,463	3,678,006
Wisconsin	78,157	120,197	15,156,499	78,058	15,136,620
Wyoming	10,848	17,660	29,927,878	10,762	29,349,452

[1] Data were collected for a maximum of three operators per farm.

Table 56. **Operators Reporting More Than One Race: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	All farms with an operator reporting more than one race [1]			Farms with a principal operator reporting more than one race	
	Farms	Operators reporting more than one race	Land in farms (acres)	Farms	Land in farms (acres)
UNITED STATES TOTAL					
United States	21,637	24,546	6,206,131	12,592	3,618,249
STATES					
Alabama	696	812	91,262	400	43,127
Alaska	6	8	536	2	(D)
Arizona	72	87	40,003	47	28,038
Arkansas	733	879	115,132	484	77,816
California	989	1,099	312,672	647	244,907
Colorado	469	530	305,552	253	116,717
Connecticut	39	39	2,073	14	637
Delaware	6	6	611	5	587
Florida	584	639	50,952	283	28,792
Georgia	465	532	73,067	186	22,612
Hawaii	901	1,093	278,903	674	211,404
Idaho	175	200	40,396	110	17,870
Illinois	254	276	43,120	189	35,241
Indiana	179	208	34,316	119	22,668
Iowa	107	119	25,903	43	6,818
Kansas	294	334	128,352	234	105,305
Kentucky	652	763	85,855	568	71,315
Louisiana	172	201	22,098	92	11,751
Maine	70	76	12,576	31	3,814
Maryland	117	121	9,656	44	3,426
Massachusetts	41	44	1,741	20	630
Michigan	577	655	98,652	336	60,897
Minnesota	637	674	168,027	155	41,484
Mississippi	355	384	95,713	61	16,845
Missouri	1,322	1,463	230,556	680	117,842
Montana	340	371	398,355	148	150,346
Nebraska	76	87	22,401	44	15,144
Nevada	31	38	26,125	18	(D)
New Hampshire	51	58	6,748	9	1,017
New Jersey	57	61	2,146	39	1,816
New Mexico	223	241	381,625	114	188,443
New York	201	214	26,864	77	8,558
North Carolina	434	471	50,620	185	18,876
North Dakota	101	107	98,639	58	43,055
Ohio	154	177	13,951	115	11,372
Oklahoma	2,834	3,337	851,487	2,083	651,441
Oregon	545	614	69,068	332	43,052
Pennsylvania	198	223	27,011	163	23,499
Rhode Island	8	8	533	5	41
South Carolina	322	361	39,426	187	20,053
South Dakota	138	158	379,935	92	252,116
Tennessee	994	1,127	106,338	470	51,409
Texas	3,525	3,965	1,066,008	1,970	653,266
Utah	74	79	33,530	27	8,125
Vermont	54	58	9,268	27	2,894
Virginia	512	591	75,389	262	36,670
Washington	580	665	117,229	305	61,642
West Virginia	73	80	10,986	59	7,547
Wisconsin	127	135	19,351	85	11,227
Wyoming	73	78	105,374	41	64,918

[1] Data were collected for a maximum of three operators per farm.

Appendix A.
Census of Agriculture Methodology

THE CENSUS POPULATION

The Census Mail List

The National Agricultural Statistics Service (NASS) maintains a list of farmers and ranchers from which the Census Mail List (CML) is compiled. The goal is to build as complete a list as possible of agricultural places that meet the NASS farm definition, that is, an operation that produces, or would normally produce and sell, $1,000 or more of agricultural products per year. The CML compilation begins with the list used to define sampling populations for NASS surveys conducted for the agricultural estimates program. Each record on the list includes name, address, and telephone number plus additional information that are used to efficiently administer the census of agriculture and agricultural estimates programs.

NASS builds and improves the list on an ongoing basis by obtaining outside source lists. Sources include State and federal government lists, producer association lists, seed grower lists, pesticide applicator lists, veterinarian lists, marketing association lists, and a variety of other agriculture-related lists. NASS also obtains special commodity lists to address specific list deficiencies. These outside source lists are matched to the NASS list using record linkage programs. Most names on newly acquired lists are already on the NASS list. Records not on the NASS list are treated as potential farms until NASS can confirm their existence as a qualifying farm. Staff in NASS field offices routinely contact these potential farms to determine if they meet the NASS farm definition. For the 2007 Census of Agriculture, NASS made a concerted effort to work with Community-Based Organizations not only to improve list coverage for minorities but also to increase census awareness and participation.

List building activities for developing the 2007 CML started in 2004. Between 2004 and 2007, NASS conducted a series of Agricultural Identification Surveys (AIS) on approximately 1.7 million records, which included nonrespondents from the 2002 census and newly added records from outside list sources. The AIS report form collected information that was used to determine if an operation met the NASS farm definition. If the definition was met, the operation was added to the NASS list and subsequently to the CML. Addressees that were nonrespondents were also added to the CML and identified with a special status code.

Measures were taken to improve name and address quality. Additional record linkage programs were run to detect and remove duplicate records both within each State and across States. List addresses were processed through the National Change of Address Registry and the Locatable Address Conversion System to ensure they were correct and complete. Records on the list with missing or invalid phone numbers were matched against a nationally available telephone database to obtain as many phone numbers as possible.

The official CML was established on September 1, 2007. The list contained 3,194,373 records. There were 2,198,410 records that were thought to meet the NASS farm definition and 995,963 potential farm records, which included AIS nonrespondents, other records added to the CML by the NASS field offices, and late adds to the CML that were not included in any previous AIS or State screening survey.

Not on the Mail List

To account for farming operations not on the CML, NASS used its area frame. The NASS area frame covers all land in the U.S. and includes all farms. The land in the U.S. is stratified by characteristics of the land. Segments of approximately equal size are

delineated within each strata and designated on aerial photographs. A probability sample of segments is drawn within each strata for the NASS annual area frame survey, known as the June Agricultural Survey (JAS). The JAS sample of segments is allocated to strata to provide accurate measures of acres planted to widely grown crops and inventories of hogs and cattle. Sampled segments in the June Survey are personally enumerated. Each operation identified within a segment boundary is known as a tract.

The 2007 JAS sample was allocated to strata so that it would provide additional measures of small and minority owned farms. The 2007 JAS consisted of 10,912 regular sampled segments, supplemented with 3,692 Agricultural Coverage Evaluation Survey (ACES) segments – segments selected to provide measures of small and minority owned farms. These additional ACES segments targeted farming demographics that typically had lower coverage rates on the list.

The information from each tract (operation) within a segment is matched against operations on the NASS list to determine the amount of undercoverage that exists for a wide range of farming sectors and farmer demographics. The names and addresses collected in the 2007 JAS and 2007 ACES were matched to the CML and checked for duplication. Farms from the June 2007 survey that did not match were determined to be Not on the Mail List (NML) and sent a report form of a different color to be easily identified. Data from the NML operations provided a measure of the undercoverage of the CML operations. Instructions on the census report form guided the respondent to complete the CML form and mail back both CML and NML forms together if duplicate forms were received. Those who returned a CML census form and an NML census form had been erroneously classified as NML and were removed from the NML.

The percentage of farms not represented on the CML varied considerably by State. In general, farms not on the mail list tended to be small in acreage, production, and sales of agricultural products. Farm operations were missed for various reasons, including the possibility that the operation started after the mail list was developed, the operation was so small that it did not appear in any agriculture-related source lists, or the operation was erroneously classified as a nonfarm prior to mailout.

The NML consisted of 12,821 tracts. The CML was used with the NML in multiple frame estimation to represent all farming operations across all States, with the exception of Alaska. It is financially and logistically unfeasible to maintain an area frame in Alaska due to its vast land mass and relatively sparse agriculture.

DATA COLLECTION

Method of Enumeration

Mailout and mailback was the primary data collection method. It was supplemented with Electronic Data Reporting (EDR) on the Internet and non-response follow-ups by telephone and personal enumeration. The enumeration methods used in the 2007 census were similar to those used in the 2002 census.

Report Forms

A master report form was developed that included all data items to be collected in the census. From the master, two types of report forms were developed to be used in the 2007 census - a regionalized report form with 7 versions and a national report form. Each of the 24-page regionalized report forms (07-A0201, 07-A0202, 07-A0203, 07-A0204, 07-A0205, 07-A0206, 07-A0207) were designed to facilitate reporting crops most commonly grown within the report form region. The 12-page national report form (07-A0100) was designed for operations throughout the country with few commodities. The national report form collected the same information as the regional form, but it was formatted to fit on fewer pages. All of the forms allowed respondents to write in specific commodities that were not identified on their form. The national form was mailed to approximately 528,000 addresses on the CML (about 20 percent) and the regional form was mailed to 2.67 million addresses on the CML (about 80 percent).

Report Form Mailings and Respondent Follow-up

The initial mailout took place at the end of December 2007. Approximately 3.2 million packets

were mailed. Each packet contained a cover letter, instruction sheet, a labeled report form, and a return envelope. Mailout packet preparation, initial mailout, and two follow-up mailings to nonrespondents were handled by the Census Bureau's National Processing Center (NPC) in Jeffersonville, IN. The first follow-up was mailed during the last two weeks of February 2008 to approximately 1.3 million nonrespondents. The second follow-up was mailed the beginning of April 2008 to approximately 1.0 million nonrespondents. Additionally, NPC received, checked-in, scanned, and keyed (from image) returned report forms. NASS statisticians on site at NPC provided technical guidance and monitored NPC processing activities.

Select groups of census records were identified to receive special handling procedures. Report forms were labeled at NPC and shipped to the field offices for enumeration. These respondents were excluded from the initial and both follow-up mailings, and were referred to as "must" operations. Each "must" operation was enumerated by telephone or face-to-face. If a record was determined to be no longer in operation, their non-farm status was verified and documented. The field offices were responsible for enumerating or resolving all non-response "must" records in their State. Computer Assisted Telephone Interview (CATI) calling for nonrespondent "must" records was conducted between March 2008 and June 2008. Once enumerated, the report forms were either sent to NPC for check-in and data capture or the data were keyed directly from the form at the field office. The 169,000 "must" records fell into one of five groups.

The first "must" group consisted of 46,000 records "tagged" by the NASS field offices for personal enumeration rather than mailout and mailback enumeration. The second "must" group consisted of 4,000 "specialized" records including such operations as grazing associations, governmental units, research farms, college farms, etc.. The third "must" group was characterized by location. All 3,000 records in Alaska and Rhode Island were identified as "must" records because census statistics for these two States were based on responses to the CML because nonresponse was not permitted. The last two groups consisted of a total of 116,000 records expected to have either a large number of acres in farm land or a large value of sales. Threshold levels were identified for each State.

Advanced Follow-up was conducted between February 2008 and April 2008. It focused on three groups of nonrespondents that included: respondents least likely to respond because they were nonrespondents to the 1997 and 2002 Censuses of Agriculture, even though they may have responded to other NASS surveys; respondents viewed as easy and quick interviews based on expected sales of zero, including respondents who received Conservation Reserve Program (CRP) payments and respondents to the AIS with expected future sales; and new records whose farm status was uncertain due to unsuccessful earlier screening attempts. The field offices conducted CATI and field enumeration for operations in their State. This phase was followed by Low-Response County Follow-up to attempt to reach a minimum response rate of at least 75 percent in all counties. It was conducted by the field offices using CATI between March 2008 and June 2008.

DATA COLLECTION OUTREACH AND PROMOTIONAL EFFORTS

NASS engaged in an unprecedented level of public outreach for the 2007 Census of Agriculture, seeking to increase the level of awareness and response among U.S. agricultural producers and, in particular, minority and small farm operators. This was accomplished through an integrated marketing communications program that focused on four primary areas: partnership building, public relations, paid media, and the Internet. External support was provided by a private agricultural marketing communications agency.

The unifying force behind the 2007 marketing campaign was the theme "Your Voice, Your Future, Your Responsibility." This was accompanied by supporting messages and artwork that created a consistent look and feel for all census communications.

Partnership

At the national level, NASS officials met with leaders from dozens of key agricultural organizations and other USDA agencies, successfully securing

their support in promoting the census among their constituencies through publications, special mailings, speeches, and other communications. In addition, NASS made special efforts to reach out to minority and limited-resource farmers and ranchers by partnering with a number of community-based organizations. The national-level outreach was mirrored by field offices at the State and local levels. Among the features of these collective efforts was the production of State-specific radio public service announcements (PSAs) featuring State secretaries and commissioners of agriculture, as well as a national radio PSA featuring the U.S. Secretary of Agriculture.

Coverage of American Indian and Alaska Native Farm Operators

To maximize coverage of American Indian and Alaska Native farm operators, special procedures were followed in the census. A concerted effort was made to get individual reports from every American Indian and Alaska Native farm operator in the country. If this was not possible within some reservations, a single reservation-level census report was obtained from knowledgeable reservation officials. These reports covered agricultural activity on the entire reservation. NASS reviewed these data and removed duplication with any data reported by American Indian or Alaska Native farm operators who responded on an individual census report form. Additionally NASS obtained, from knowledgeable reservation officials, the count of American Indian and Alaska Native farm operators (on reservations) who were not counted through individual census report forms, but whose agricultural activity was included in the reservation-level report form.

This information is summarized in Table D, **American Indian and Alaska Native Operators: 2007** (Table A in the Alaska publication), providing the number of farm operators (for up to three operators per farm) reported as American Indian or Alaska Native in the race category, either as a single race or in combination with other races, on the individual census report forms, plus the total number of American Indian or Alaska Native operators farming on reservations as reported by reservation officials. The count from the individual report forms is summarized in the "Individually reported" column. It includes operators on or off reservations. The "Other" column provides counts of operators on reservations as reported by a reservation or tribal official. The "Total" column is simply a sum of the "Individually reported" and the "Other" columns. Tables in other parts of the publication count the reservation-level reports as single farms.

Public Relations

In the public relations arena, NASS and the contractor worked with the agriculture media at the national level and equipped NASS's 46 field offices with communications tools that enabled them to deliver the right message to producers in their States. From customizable press releases, to radio public service announcements, to a video news release, to newsletter articles and letters to the editor, the public relations strategy was designed to ensure NASS fields offices could easily and effectively deliver the census message to local media. As a result, in the print media alone, the public relations efforts generated 27 million media impressions.

Paid Media

Because there were certain constituencies that were difficult to reach through partnership or public relations, NASS also employed a paid media strategy that was narrowly targeted to reach previously under-represented populations. NASS purchased limited print and radio advertising in areas where there were high concentrations of minority farmers and where 2002 census response rates were low.

Internet

For the 2007 census, NASS created a dedicated website, www.agcensus.usda.gov. This became a repository for all types of census information, including basic background materials, previous years' census data, sample report forms, and news releases and other publicity materials. The website also enabled individuals to submit their contact information to ensure that they were on the mailing list to receive a census form. NASS also enhanced its online presence by purchasing banner ads and pay-per-click advertisements on key agricultural websites as well as major search engines.

REPORT FORM PROCESSING

Data Capture

All report forms returned to NPC were immediately checked in, using bar codes printed on the mailing label, and removed from follow up mailings. All forms with any data were scanned and an image was made of each page of a report form. Optical Mark Recognition (OMR) was used to capture categorical responses and to identify the other answer zones in which some type of mark was present.

Data entry operators keyed data from the scanned images using OMR results that highlighted the areas of the report forms with respondent entries. The keyer evaluated the contents and captured pertinent responses. Ten percent of the captured data were keyed a second time for quality control. If differences existed between the first keyed value and the second, an adjudicator handled resolution. The decision of the adjudicator was used to grade the performance of the keyers, who were required to maintain a certain accuracy level.

The images and the captured data were transferred to NASS's centralized network and became available to field offices and headquarters on a flow basis. The images were available for use in all stages of review. Images were computer generated for reports obtained from the telephone interviews and the Internet.

Editing Data

Captured data were processed through a format program. The program verified that record identifiers were valid and checked the basic integrity of the data fields. Rejected records were referred to analysts for correction. Accepted records were sent to a batch edit process. Each execution of the computer edit in batch mode consisted of records from only one State and flowed as the data were received from NPC.

All 2007 census records were passed through a complex computer edit. The edit determined whether a reporting operation met the minimum criteria to be counted as a qualifying farm (in-scope). Operations failing to meet the minimum criteria (out-of-scope) were referred to analysts for verification. The edit examined each in-scope record for reasonableness and completeness and determined whether to accept the recorded value for each data item or take corrective action. Actions included removing erroneously reported values, replacing an unreasonable value with one consistent with other reported data, or providing a value for an overlooked item. To the extent possible, the edit determined a replacement value. Strategies for determining replacement values are discussed in the next section.

The edit systematically checked reported data section-by-section with the overall objective of achieving an internally consistent and complete report. NASS subject-matter experts defined the criteria for acceptable data. Problems that could not be resolved within the edit were referred to an analyst for intervention. Analysts in the NASS field offices used additional information sources, examined the scanned image, and determined an appropriate action. Field office analysts used an interactive version of the edit program to submit corrected data and immediately re-edit the record to ensure a satisfactory solution.

Imputing for Missing Data

Missing data occurred whenever a respondent failed to report in a cell that should have a positive value or when the edit determined a value was not reasonable and should be changed. The edit performed a sequence of steps that determined the best value to impute for the missing item. If an item could not be calculated directly from other data reported on the current form, the edit checked for previously reported data. Acreage, production, and inventory items may have been reported on a recent NASS crop or livestock survey. Operator characteristics, such as race and gender, were brought forward from the previous census if the operator had not changed in five years. Administrative data from the Farm Service Agency was used for a few items, such as Conservation Reserve Program acreage. When these deterministic sources failed to produce a solution, the edit invoked an automated imputation system which searched for a reporting farm of similar type, size, and location to provide a value for the missing data item. If the imputation algorithm failed to provide a solution, the record was referred to an analyst for resolution.

The guiding principal for imputation was to find a close match to the farm with the missing item. The census imputation algorithm relied on pre-established donor pools, one for each State. A donor pool included a collection of completed reports that had successfully navigated the edit. Each pool was further divided into groups of similar type and size, referred to as profiles. When the edit determined the need to impute an item, it went to the appropriate profile and searched for the best fit. Best fit was determined by calculating "distance" between the incomplete report and each candidate donor using a set of match variables. Match variables were specific to each section of the report form and included the latitude and longitude of the principal county of operation. The distance was the sum of the squared differences between the reported values of the match variables. The donor with the smallest distance was considered the "nearest neighbor" and became the source for the imputation action. The value returned may have been a direct copy of the donor's value. In many cases, a relationship between two related variables on the donor record was applied to a reported value on the incomplete record. Using crop production as an example, the donor's production was divided by its harvested acres (yield) and multiplied by the recipient's harvested acres to obtain imputed production.

The imputation process was imbedded in the edit. When the edit determined an item required imputation, the edit program launched the algorithm, waited for a value to be returned, validated that the returned value was satisfactory, and resumed editing. Since imputation was conducted independently for each occurrence, reports requiring multiple imputations drew from multiple donors.

Initial donor pools were established before the first batch edits were run. These donor pools were "seeded" with 2002 census data that were "mapped" to look like 2007 data and passed through the 2007 edit to ensure they were consistent using the 2007 data relationships. In addition, data from the 2005 Census Content Test were similarly mapped and edited. As 2007 data were successfully processed, new records systematically replaced the older records in the donor pool. The older records disappeared entirely from the donor pool after the first few batch edits.

The donor pool for each State was refreshed weekly during the first couple of months of editing. As the flow of new data slowed, the donor pools were refreshed biweekly. During the early stages of editing, records that needed to impute production for field crops or hay were set aside. When the donor pool no longer contained old data, these records were brought back and passed through the edit, ensuring 2007 yields were imputed.

In some cases, nearest-neighbor imputation was not possible. The requirement of a positive imputed value could have ruled out all available donors, resulting in an imputation failure. An imputation failure could have occurred if there were no donors in the same profile as the report being edited. Records with imputation failures were either held until more records were available in the donor pool or referred to an analyst.

Data Analysis

The complex edit ensured the full internal consistency of the record. Successfully completing the edit did not provide insight as to whether the report was reasonable compared to other reports in the county. Analysts were provided an additional set of tools, in the form of listings and graphs, to review record-level data across farms. These examinations revealed extreme outliers, large and small, or unique data distribution patterns that were possibly a result of reporting, recording, or handling errors. Potential problems were researched and, when necessary, corrections were made and the record interactively edited again.

WHOLE FARM NONRESPONSE ESTIMATION

Whole farm nonresponse adjustments were necessary because some farm operators did not respond to the census, despite numerous attempts to contact them. Statistical estimation procedures were used to account for these CML nonrespondents. The objectives of the nonresponse adjustments included estimating the number of in-scope records (farms) included in the total number of nonrespondents of a similar size and type by increasing the weights of reporting farms of that size and type. This procedure

was intended to account for those farms that failed to return a report form. These procedures were applied in all States, except Alaska and Rhode Island where staff were required to submit data for every record on the CML due to the low level of farming operations in these States. Large or unique farms (Must records) for which a report was required (and thus given a nonresponse weight of one) were exempt from this weighting procedure. These farms received intensive follow-ups. Data were imputed for the record if all followup contacts failed (rather than using the nonresponse weighting procedure).

After census data collection was completed, all CML records in a State were put into mutually exclusive weighting groups based on a list of farm characteristics known at the time of mail-out and the census response status of the record. Data mining techniques systematically checked selected variables, identifying those groups with differences in response rates that were statistically significant. The algorithm would take one characteristic, divide all names into two groups, and check for statistical significance between the response rates of the two groups. If a significant difference was found, these groups became permanent and the next characteristic would be examined within those two groups. If the response rate between two groups was not statistically significant, the groups were rejoined and the next characteristic was tested. This stepwise process continued until all characteristics were checked and no further statistical significance could be found. Since the "path" taken by the algorithm was driven by an individual State's response pattern, the final breakout of weighting groups was customized for the State.

Within each weighting group, the percent of responding in-scope farms was computed. This rate was applied to the count of nonresponding farms to estimate the number of in-scope nonrespondents. The weights of the responding in-scope farms in each weighting group were scaled to account for nonresponding farms in that group.

This procedure was applied to all of the weighting groups except the one that consisted primarily of records who were included on the CML but had not responded to data collection efforts either during CML development activities or during the census data collection phase. The estimate of in-scope records (farms) within this group was not reliable. To get a more reliable estimate, NASS conducted a nonresponse follow-up activity. After scheduled census data collection efforts were completed, a target sample of 5,000 records was selected from across all States. These 5,000 records were personally interviewed by NASS staff to determine if they were indeed in-scope records (farm) or out-of-scope records (nonfarm). Each record fell into one of these two categories. The percent of in-scope records was used to form the weight for this group.

When NASS summarizes the census of agriculture, it assigns the data from an individual report to the "principal" county. The principal county is the one county in which the majority of agricultural products are produced from a respondent. This is a question on the census report form and is therefore determined by the respondent. Because some large operations have significant production in multiple counties, some reports were broken up into multiple source counties, to more accurately allocate the data. Similarly, large farms operating in more than one State were treated as distinct, state-specific operations. A separate report form was completed for each county or State and a separate record was added.

The percent of the total that came from the whole farm nonresponse estimate is shown for selected census data items in Tables A and C. The estimates provided in Tables A and C do not reflect the effect of item nonresponse on individual census data items. The effect of this item nonresponse is discussed in the section on "Item Nonresponse" in "Nonmeasured Census Error."

COVERAGE ADJUSTMENT

Although much effort was expended making the CML as complete as possible, the census did not count all U.S. farms. NASS's goal was to produce agricultural census totals for publication that were fully adjusted for list undercoverage at the county level. NASS used its area frame with the CML in a dual-frame estimation procedure to measure the number of farms in the population and key characteristics of those farms. Area frame segments were enumerated using field enumerators (as

described in the first section of this appendix) who personally visited the tract operators within a segment. Because field enumeration is significantly more expensive than other modes of data collection, NASS's area frame sample allocation is only designed to generate reliable estimates at the State, regional, and U.S. level. Therefore, in order to produce estimates that represented all farms at the county level, NASS used an allocation process known as "calibration" to distribute the dual-frame estimates across counties.

Once all CML and NML data were collected, NASS analysts went through an extensive process to generate adjusted estimates. The weights of the CML respondents had been previously adjusted to account for all of the CML nonrespondents, referred to as list plus nonresponse (CML+NR). Simultaneously, NASS summarized the NML tract records to generate state-level NML survey estimates. These two pieces were then combined in a dual-frame estimation procedure to form State estimates of totals that represented all farms. These estimates are annotated as [(CML+NR) +NML]. The state-level totals for these variables were summed to yield national totals.

The whole farm nonresponse and list undercoverage record weighting processes were initially applied at the State level to produce adjusted estimates of farm numbers and land in farms for 65 different categories of 8 characteristics of the farm operation or the farm operator -- value of agricultural sales (8); age (2); female; race (4); Hispanic origin of principal farm operator; total number of farms and land in farms (2); 4 sales categories for each of 10 major commodities (40); and 7 farm type groups. The national-level adjusted estimates were smoothed across States to get initial State farm operation coverage targets because state-level farm-count estimates based on this two-piece formula sometimes had unacceptably high state-level standard errors and apparent biases. This often occurs when estimating a rare item, such as female farm operators, using a general purpose survey.

The smoothing process examined the proportion of the total JAS estimate attributable to the NML, for each of the 65 variables in each State and the U.S. Since the CML was built using standard national methods, the NML percentages were expected to be uniform across States. The smoothed NML value for each of the 65 variables in a given State was calculated as the product of the state-level NML value and the weighted average of the ratios of the NML for a given variable in the State to the overall NML in the State and the NML for the given variable in the U.S. to the overall NML in the U.S. The weighting factor was chosen to minimize the mean square error under a random effects model with the control that the sum of the State smoothed NML values was equal to the total NML estimate for each of the 65 variables. This methodology effectively draws the state-level NML undercoverage proportions of the JAS toward the national estimate of undercoverage with the most extreme values adjusted the most. The smoothed NML values for each variable were added to the (CML + NR) totals to form calibration targets for each variable. Subject-matter experts in headquarters reviewed all targets.

However, these State estimates were general purpose in that they did not provide any control over expected levels of commodity production of the farm operation. As a result of this limitation, the procedures could have over adjusted or under adjusted for commodity production. To address this, a second set of variables were added to the calibration algorithm, known as commodity coverage targets. These targets were commodity totals from administrative sources or from NASS surveys of non-farm populations (e.g. USDA Farm Service Agency program data, Agricultural Marketing Service market orders, livestock slaughter data, cotton ginning data). The introduction of these commodity coverage targets strengthened the overall adjustment procedure by ensuring that major commodity totals remained within reasonable bounds of established benchmarks. Commodity coverage targets with acceptable ranges were established by subject-matter experts for each State with New England treated as a State.

The calibration algorithm addressed farm operation undercoverage and commodity coverage concurrently. The algorithm was controlled by the 65 State farm operation coverage targets and the State commodity coverage targets. In order to ensure that the calibration process converged with so many

constraints, it was desirable to provide some tolerance ranges for each target. Although full calibration to a single point estimate would assure that the weighted total among census respondents equaled its target for each calibration variable in either set, it was not always possible to calibrate to such a large number of target values while ensuring that farm weights were within a reasonable range and not less than one. Because of this and because calibration targets are estimates themselves subject to uncertainty, NASS allowed some tolerance in the determination of the adjusted weights. Rather than forcing the total for each calibration variable computed using the adjusted weights to equal a specific amount, NASS allowed the estimated total to fall within a tolerance range. This tolerance strategy sometimes made it possible for the calibration algorithm to produce a set of satisfactory, adjusted weights that it would not have otherwise.

Ranges for the list farm operation coverage targets were determined differently from the commodity targets. The State target for number of farms had no tolerance range. The tolerance range for the 64 other State farm operation coverage targets was the estimated smoothed State total for the variable [(CML+NR)+NML] plus or minus one-half of one estimated standard error of NML estimate. This choice limited the cumulative deviation from the estimated total for a variable when State totals were summed to a U.S. level total. The commodity target tolerance ranges were determined by subject-matter experts, based on the amount of confidence in the source, and usually were less than plus or minus two percent of the target. Ranges were not necessarily symmetric around the target value.

Adjusted weights were obtained using truncated linear calibration which forced the final census record weights to fall in the interval [1,6]. Adjustments began with the nonresponse-adjusted weights and added a second stage weight to simultaneously satisfy all farm operation coverage and commodity coverage calibration targets. If a value within the tolerance range of any variable could not be achieved in a given State, the variable was removed as a target and the calibration algorithm was rerun. Additionally, the CML was assumed to be complete for very large and unique farms with their weight being controlled to 1 during the calibration adjustment process.

Weight computations in the nonresponse and final coverage calibration algorithms were performed to several decimals. Thus, the fully-adjusted weights were non-integer numbers. To insure that all subdomains for which NASS publishes summed to their grand total, fully-adjusted weights were integerized. This eliminated the need for rounding individual cell values and insured that marginal totals always added correctly to the grand total. As an example of how the integerization process worked, assume there were five census records in a county with final noninteger coverage weights of 2.2, for a total of 11. The integerization process randomly selected four of these records and rounded their final weight down to 2.0 and rounded the fifth record up to 3.0, for a total of 11.

The proportions of selected census data items that are due to coverage adjustments are displayed in Tables A and C. Some estimated coverage adjustments could be negative. The use of commodity targets in calibration indirectly exposed some duplication on the census list or over adjustment by the nonresponse algorithm resulting in negative coverage adjustments.

DISCLOSURE REVIEW

After tabulation and review of the aggregates, a comprehensive disclosure review was conducted. NASS is obligated to withhold, under Title 7, U.S. Code, any total that would reveal an individual's information or allow it to be closely estimated by the public. Cell suppression was used to protect the cells that were determined to be sensitive to a disclosure of information. Farm counts are not considered sensitive and are not subject to disclosure.

Based on agency standards, data cells were determined to be sensitive to a disclosure of information if they violated either of two criteria. First, the threshold rule was violated if the data cell contained less than three operations. For example, if only one farmer produced turkeys in a county, NASS could not publish the county total for turkey inventory without disclosing that individual's information. Second, a dominance rule was violated

if the distribution of the data within the cell allowed a data user to estimate any respondent's data too closely. For example, if there are many farmers producing turkeys in a county and some of them were large enough to dominate the cell total, NASS could not publish the county total for turkey inventory without risking disclosing an individual respondent's data. In both of these situations, the data were suppressed and a "(D)" was placed in the cell in the census publication table. These data cells were referred to as primary suppressions.

Since most items were summed to marginal totals, primary suppressions within these summation relationships were protected by ensuring that there were additional suppressions within the linear relationship that provided adequate protection for the primary. A detailed computer routine selected additional data cells for suppression to ensure all primary suppressions were properly protected in all linear relationships in all tables. These data cells were referred to as complementary suppressions. These cells were not themselves sensitive to a disclosure but were suppressed to protect other primary suppressions. A "(D)" was also placed in the cell of the census publication table to indicate a complementary suppression.

Field office analysts reviewed all complementary suppressions to ensure no cells had been withheld that were vital to the data users. In instances where complimentary suppressions were deemed critically important to a State or county, analysts requested an override and a different complement was chosen.

MEASURES OF CENSUS QUALITY

An important objective of the 2007 Census of Agriculture was to provide data with a high level of quality. However, every census or survey has the potential for error in its processes. These errors impact the quality of the data estimates. When feasible, measurements of those errors are provided with individual data items or used to make adjustments to the census or survey estimates. In conducting the 2007 Census of Agriculture, efforts were initiated to measure error associated with the adjustment for farm operations that were not respondents to the request to CML records, the coverage adjustment for farms not on the CML using the NML and calibration, and the integerization process. Other errors present in the census of agriculture include respondent or enumerator error, error in classification of farm operations, other types of processing errors, error associated with imputation for item nonresponse, and matching error associated with dual-frame estimation. These latter errors were not measured in the census of agriculture process. Information relating to these errors is provided in the sections that follow.

The 2007 Census of Agriculture process measured the error introduced by the nonresponse algorithm, the coverage algorithm, and integerization. The root mean squared error (RMSE) of an estimated data item from the census provides a measure of the error variation in the value of that estimated data item based on all possible outcomes of the census collection, including variants as to who was on the census list, who returned a census form, and which weights were chosen to be rounded up. The RMSE was used rather than the standard error because it could capture additional error arising from integerization and the potential for bias in the calibration targets. The RMSE is the square root of the sum of the weighted differences between the final recorded value and its expected value squared divided by the number of reports.

Table B presents the fully adjusted total with the root mean squared error for selected items. The relative root mean squared error is obtained by dividing the root mean squared error by the value of the estimate and then multiplying by 100. The table also includes the percent contribution to the mean squared error (the square of the root mean squared error) from nonresponse adjustment and from coverage adjustment.

NONMEASURED CENSUS ERROR

As noted in the previous section, sampling errors can be introduced from the nonresponse and coverage adjustment procedures. This error is measureable. However, nonsampling errors are imbedded in the census process which cannot be directly measured as part of the design of the census but must be contained to ensure an accurate count. Extensive efforts were made to compile a complete and accurate mail list for the census, to elicit response to

the census, to design an understandable report form with clear instructions, to minimize processing errors through the use of quality control measures, to reduce matching error associated with the dual frame estimation process, and to minimize error associated with identification of a respondent as a farm operation (referred to as classification error). The weight adjustment and tabulation processes recognize the presence of nonsampling errors, however, it is assumed that these errors are small and that, in total, the net effect is zero. In other words, the positive errors cancel the negative errors.

Census Response Rate

The response rate is an indicator of the quality of a data collection. It is generally assumed that if a response rate is close to a full participation level of 100 percent, the potential for nonresponse bias is small. The response rate for the 2007 Census of Agriculture is 85.2 percent as compared with a response rate of 88.0 for the 2002 Census of Agriculture and 86.2 percent for the 1997 Census of Agriculture. There was no effort to measure nonresponse bias for the census. However, the census will be used to measure nonresponse bias in NASS surveys.

The response rate for the 2007 Census of Agriculture was calculated as the ratio of the total respondents after data collection was completed to the number of CML records after those that were undeliverable-as-addressed were removed. The total respondents consisted of three groups – those respondents not eligible for the nonresponse survey, those in the universe for the nonresponse survey but who responded prior to the selection of the nonresponse survey sample, and an estimate of the potential respondents in the nonresponse survey sample universe from the response rate to the nonresponse survey. Additional details of the nonresponse study are found in the section on "Whole Farm Nonresponse Estimation."

Respondent and Enumerator Error

Incorrect or incomplete responses to the census report form or to the questions posed by an enumerator can introduce error into the census data. Steps were taken in the design and execution of the census of agriculture to reduce errors from respondent reporting. Poor instructions and ambiguous definitions lead to misreporting. Respondents may not remember accurately, may give rounded numbers, or may record an item in the wrong cell. To reduce reporting and recording errors, the report form was tested prior to the census using industry accepted cognitive testing procedures and detailed instructions for completing the report form were provided to each respondent. Questions were phrased as clearly as possible based on previous tests of the report form. Computer-assisted telephone interviewing software included immediate integrity checks of recorded responses so suspect data could be verified or corrected. In addition, each respondent's answers were checked for completeness and consistency by the complex edit and imputation system.

Processing Error

Processing of each census report form was another potential source of nonsampling error. All mail returns that included multiple reports, respondent remarks, or that were marked out of business and report forms with no reported data were sent to an analyst for verification and appropriate action. Integrity checks were performed by the imaging system and data transfer functions. Standard quality control procedures were in place that required that randomly selected batches of data keyed from image be re-entered by a different operator to verify the work and evaluate key entry operators. All systems and programs were thoroughly tested before going on-line and were monitored throughout the processing period.

Developing accurate processing methods is complicated by the complex structure of agriculture. Among the complexities are the many places to be included, the variety of arrangements under which farms are operated, the continuing changes in the relationship of operators to the farm operated, the expiration of leases and the initiation or renewal of leases, the problem of obtaining a complete list of agriculture operations, the difficulty of contacting and identifying some types of contractor/contractee relationships, the operator's absence from the farm during the data collection period, and the operator's opinion that part or all of the operation does not

qualify and should not be included in the census. During data collection and processing of the census, all operations underwent a number of quality control checks to ensure results were as accurate as possible.

Item Nonresponse

All item nonresponse actions provide another opportunity to introduce nonsampling errors. Regardless of whether it was previously reported data, administrative data, the nearest neighbor algorithm, or manually imputed by an analyst, some risk exists that the imputed value does not equal the actual value. Previously reported and administrative data were used only when they related to the census reference period. A new nearest neighbor was randomly selected for each incident to eliminate the chance of a consistent bias.

Matching Error

The process of building and expanding the CML involves finding new list sources and checking for names not on the list. An automated processing system compared each new name to the existing CML names and "linked" like records for the purpose of preventing duplication. New names with strong links to a CML name were discarded and those with no links were added as potential farms. Names with weak links, possible matches, were reviewed by staff to determine whether the new name should be added. Despite this thorough review, some new names may have been erroneously added or deleted. Additions could contribute to duplication (overcoverage) where as deletions could contribute to undercoverage. As a result, some names received more than one report form, and some farm operators did not receive a report form. Respondents were instructed to complete one form and return all forms so the duplication could be removed.

Another chance for error came when comparing June Area Survey tract operator names to the CML. Area operators whose names were not found on the CML were part of the measure of list incompleteness, or NML. Mistakes in determining overlap status resulted in overcounts (including a tract whose operator was on the CML) or undercounts (excluding a tract whose operator was not on the CML). All tracts determined to not be on the list were triple checked to eliminate, or at least minimize, any error. NML tract operators were mailed a report form printed in a different color. In order to attempt to identify duplication, all respondents who received multiple report forms were instructed to complete the CML version and return all forms so duplication could be removed.

Classification Error

Classification error results when a response to the census is misclassified – either as a farm operation if it does not meet the definition or not as a farm operation when it meets the definition. The definition of a farm operation in the 2007 Census of Agriculture is an operation that has $1,000 in agricultural sales or the potential for $1,000 in agricultural sales. A Classification Error Study (CES) has historically been conducted after the census of agriculture. The objectives of a CES are to examine the procedures used to determine farm status (in-scope or out-of-scope) to see if they are producing accurate decisions, document the sources of errors resulting in overcounts and undercounts, and recommend strategies to eliminate them from future censuses. Classification error is a component of census coverage error in addition to coverage error resulted from list incompleteness or duplication. Historically, measures have indicated that the error is small. There has not been any attempt to incorporate this error measure in the coverage adjustment procedure for the 2007 Census of Agriculture.

Prior to 1997 a list based re-interview sample of census respondents was used to measure classification error in the census – specifically the number of farms incorrectly classified as non-farms (undercount) and the number of duplicate farms (overcount). Additionally, an area frame survey was used separately to measure the largest component of census coverage error – incompleteness of the census list. Following the 1997 census, NASS conducted the CES for the 11 western States of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. The 1997 CES used information from the June Area Survey (JAS) enumeration in lieu of re-interviews; estimates were based on the JAS. The 1997 CES

results indicated a net undercount of 27,971 farms (non-farms incorrectly classified as farms minus duplicate farms and farms incorrectly classified as non-farms) in the eleven States. While the standard error of this estimate is not available to determine statistical significance, even if statistically significant, it represents a relatively small portion of the overall undercount.

Following the 2002 census, the CES similarly used an area-based approach that was conducted in all States. The 2002 CES matched census records to JAS records to identify the differences in farm status of an operation. The JAS area frame-based survey data were assumed to be truth and the estimates of misclassification (records which were incorrectly classified as farms or non-farms and duplicates) were based on this assumption. The 2002 CES results indicated a net overcount of 51,345 farms at the US level, with a standard error of 6,456. In this case, substantial resources were expended to estimate something relatively small. Estimates of overcount and undercount were computed but were not used to adjust totals. Results of the 2002 CES were documented in an internal NASS research report titled "Results from the 2002 Classification Error Study" dated April 2007.

For the 2007 Census of Agriculture, a classification error research study (CES) was conducted in five States -- Arizona, Georgia, Minnesota, New York, and Washington. Estimates of net error were not generated, as the CES was quality research and limited to the five States. Review of the 2002 CES indicated the assumption that the JAS was the truth was inappropriate and re-interviews were reinstated. The 2007 CES used data from the 2007 JAS and the 2007 census to examine farms incorrectly classified as nonfarms, nonfarms incorrectly classified as farms, and to examine records with significant discrepancies in reporting of land between the JAS and census reports. The overall objectives of the 2007 CES were to identify legitimate changes in operations and determine the source of potential errors in the data.

Records in the 2007 JAS were matched to the 2007 census using probabilistic record linkage. From the set of matched records, three groups of interest were identified: 1) in-scope JAS records that were out-of-scope on the census, 2) census in-scope and JAS non-agricultural records, and 3) in-scope census and JAS records with acreage differences of more than 25 percent. Farms whose farm status was in disagreement were interviewed to determine which source was correct; a reason for the change of status on the census was recorded. For records with a discrepancy between the data reported on the 2007 JAS and the 2007 census forms, respondents were re-contacted and asked to verify their data and resolve the difference.

Results of the 2007 CES showed that true changes in size of operations between the JAS and census were rare. Most discrepancies in farm status were the result of errors in reporting with respondents indicating most often that the census data rather than the JAS data were correct, challenging the previous assumption that the JAS data was the truth. Results of the 2007 CES will be used as input for redesign efforts for the JAS operational procedures and the 2012 census report form and instructions.

Table A. **Summary of U.S. Nonresponse and Coverage Adjustments: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item		Total	Percent from nonresponse adjustment	Percent from coverage adjustment
Farms	number	2,204,792	14.65	16.24
Land in farms	acres	922,095,840	10.32	3.33
Farms by size:				
1 to 9 acres	farms	232,849	13.35	31.34
	acres	1,080,019	13.09	31.96
10 to 49 acres	farms	620,283	13.43	24.94
	acres	15,918,542	13.53	23.41
50 to 69 acres	farms	153,862	13.99	18.51
	acres	8,930,361	13.99	18.43
70 to 99 acres	farms	192,043	14.55	15.85
	acres	15,783,304	14.57	15.76
100 to 139 acres	farms	175,146	15.32	13.35
	acres	20,313,722	15.34	13.23
140 to 179 acres	farms	139,479	15.87	11.47
	acres	21,954,090	15.87	11.45
180 to 219 acres	farms	87,502	16.43	8.65
	acres	17,283,570	16.45	8.61
220 to 259 acres	farms	68,313	16.77	7.45
	acres	16,258,454	16.77	7.44
260 to 499 acres	farms	212,553	17.51	5.67
	acres	75,892,077	17.56	5.52
500 to 999 acres	farms	149,713	17.50	3.07
	acres	104,140,461	17.48	2.88
1,000 to 1,999 acres	farms	92,656	14.61	1.71
	acres	127,595,277	14.46	1.61
2,000 acres or more	farms	80,393	9.16	1.44
	acres	496,945,963	5.47	1.07
Market value of agricultural products sold	$1,000	297,220,491	5.89	4.10
Farms by value of sales:				
Less than $1,000	farms	688,833	12.45	30.03
	$1,000	84,357	11.85	33.65
$1,000 to $2,499	farms	211,494	14.48	19.69
	$1,000	350,588	14.44	19.54
$2,500 to $4,999	farms	200,302	15.67	13.62
	$1,000	718,027	15.63	13.52
$5,000 to $9,999	farms	218,531	15.74	12.72
	$1,000	1,552,543	15.71	12.68
$10,000 to $19,999	farms	190,402	17.51	7.22
	$1,000	2,682,120	17.51	7.25
$20,000 to $24,999	farms	57,883	17.45	8.05
	1,000	1,277,703	17.43	8.11
$25,000 to $39,999	farms	107,046	17.41	9.85
	$1,000	3,367,661	17.39	9.97
$40,000 to $49,999	farms	47,686	17.25	11.99
	$1,000	2,112,835	17.24	12.03
$50,000 to $99,999	farms	125,456	18.52	6.70
	$1,000	8,961,255	18.43	7.11
$100,000 to $249,999	farms	147,500	18.38	4.51
	$1,000	24,212,940	18.06	5.65
$250,000 to $499,999	farms	93,373	15.63	2.33
	$1,000	33,409,883	15.14	3.41
$500,000 to $999,999	farms	60,777	7.93	-2.49
	$1,000	42,690,783	7.36	-1.78
$1,000,000 or more	farms	55,509	1.37	7.25
	$1,000	175,799,795	0.70	4.84
Farms by type of organization:				
Family or individual	farms	1,906,335	14.86	16.98
	acres	574,150,050	13.21	3.78
Partnership	farms	174,247	14.09	12.10
	acres	161,416,999	6.84	3.38
Corporation:				
Family held	farms	85,837	12.23	9.28
	acres	114,264,200	5.78	2.29
Other than family held	farms	10,237	11.79	12.15
	acres	11,055,610	4.37	2.17
Other - cooperative, estate or trust, institutional, etc.	farms	28,136	12.33	14.43
	acres	61,208,981	2.00	1.10
Tenure:				
Full owners	farms	1,522,033	14.24	19.21
	acres	343,952,327	10.30	5.64
Part owners	farms	542,192	15.65	7.76
	acres	496,344,290	10.37	1.53
Tenants	farms	140,567	15.23	16.71
	acres	81,799,223	10.13	4.54
Principal operator characteristics by-				
Sex of operator:				
Male	farms	1,898,583	14.76	14.98
	acres	857,831,274	10.23	3.05
Female	farms	306,209	13.99	24.02
	acres	64,264,566	11.60	7.02
Primary occupation:				
Farming	farms	993,881	14.81	12.04
Other	farms	1,210,911	14.52	19.68
Spanish, Hispanic, or Latino origin (see text)	farms	55,570	13.56	39.00
	acres	17,054,007	10.09	15.78
Race:				
American Indian or Alaska Native	farms	34,706	13.86	30.33
	acres	49,680,678	2.47	1.63
Asian	farms	11,214	14.28	20.94
	acres	1,389,766	7.67	8.68
Black or African American	farms	30,599	18.35	29.11
	acres	3,182,313	18.08	19.54
Native Hawaiian or Other Pacific Islander	farms	1,356	16.15	23.01
	acres	405,006	5.61	2.25
White	farms	2,114,325	14.60	15.77
	acres	863,819,828	10.74	3.36
More than one race reported	farms	12,592	15.97	18.94
	acres	3,618,249	12.36	2.75
Reporting primary occupation as farming by age group:				
Under 25 years	farms	5,988	13.86	32.87
25 to 34 years	farms	44,591	14.35	23.23
35 to 44 years	farms	97,508	14.50	12.91
45 to 54 years	farms	211,039	14.24	11.21
55 to 64 years	farms	260,056	14.70	11.37
65 years and over	farms	374,699	15.35	11.08
Reporting primary occupation as other than farming by age group:				
Under 25 years	farms	5,890	11.95	41.95
25 to 34 years	farms	62,144	13.67	32.66
35 to 44 years	farms	171,310	15.01	20.99
45 to 54 years	farms	354,362	14.66	19.55
55 to 64 years	farms	336,250	14.57	18.23
65 years and over	farms	280,955	14.23	17.44
All operators by age group [1]:				
Under 25 years	farms	54,197	14.56	23.62
25 to 34 years	farms	209,385	13.96	23.98
35 to 44 years	farms	468,740	14.52	17.92
45 to 54 years	farms	877,500	14.36	16.59
55 to 64 years	farms	848,277	14.54	15.52
65 to 74 years	farms	533,436	14.82	14.08
75 years and over	farms	289,999	14.98	13.08

[1] Data were collected for a maximum of three operators per farm.

Table B. **Reliability Estimates of U.S. Totals: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Item		Total	Root mean squared error (RMSE)	Relative RMSE (percent)	Nonresponse contribution to MSE (percent)	Coverage adjustment contribution to MSE (percent)
Farms	number	2,204,792	4,775	0.22	0.73	99.27
Land in farms	acres	922,095,840	2,271,194	0.25	7.17	92.83
Farms by size:						
1 to 9 acres	farms	232,849	1,129	0.48	6.56	93.44
	acres	1,080,019	5,348	0.50	8.73	91.27
10 to 49 acres	farms	620,283	1,869	0.30	4.74	95.26
	acres	15,918,542	47,536	0.30	5.97	94.03
50 to 69 acres	farms	153,862	603	0.39	13.33	86.67
	acres	8,930,361	35,122	0.39	13.33	86.67
70 to 99 acres	farms	192,043	705	0.37	11.46	88.54
	acres	15,783,304	58,019	0.37	11.51	88.49
100 to 139 acres	farms	175,146	653	0.37	12.17	87.83
	acres	20,313,722	75,838	0.37	12.17	87.83
140 to 179 acres	farms	139,479	560	0.40	13.00	87.00
	acres	21,954,090	88,353	0.40	13.00	87.00
180 to 219 acres	farms	87,502	402	0.46	16.05	83.95
	acres	17,283,570	79,431	0.46	16.06	83.94
220 to 259 acres	farms	68,313	345	0.50	16.87	83.13
	acres	16,258,454	82,147	0.51	16.87	83.13
260 to 499 acres	farms	212,553	748	0.35	10.01	89.99
	acres	75,892,077	270,193	0.36	10.15	89.85
500 to 999 acres	farms	149,713	567	0.38	11.83	88.17
	acres	104,140,461	398,675	0.38	11.93	88.07
1,000 to 1,999 acres	farms	92,656	386	0.42	13.10	86.90
	acres	127,595,277	533,334	0.42	13.21	86.79
2,000 acres or more	farms	80,393	340	0.42	9.31	90.69
	acres	496,945,963	1,692,942	0.34	12.48	87.52
Market value of agricultural products sold	$1,000	297,220,491	976,269	0.33	32.36	67.64
Farms by value of sales:						
Less than $1,000	farms	688,833	3,480	0.51	0.81	99.19
	$1,000	84,357	603	0.71	5.37	94.63
$1,000 to $2,499	farms	211,494	1,677	0.79	1.46	98.54
	$1,000	350,588	2,786	0.79	1.63	98.37
$2,500 to $4,999	farms	200,302	1,304	0.65	3.08	96.92
	$1,000	718,027	4,640	0.65	3.26	96.74
$5,000 to $9,999	farms	218,531	1,258	0.58	3.49	96.51
	$1,000	1,552,543	8,930	0.58	3.66	96.34
$10,000 to $19,999	farms	190,402	1,071	0.56	4.31	95.69
	$1,000	2,682,120	15,035	0.56	4.55	95.45
$20,000 to $24,999	farms	57,883	396	0.68	11.09	88.91
	1,000	1,277,703	8,739	0.68	11.17	88.83
$25,000 to $39,999	farms	107,046	620	0.58	8.22	91.78
	$1,000	3,367,661	19,574	0.58	8.36	91.64
$40,000 to $49,999	farms	47,686	343	0.72	13.67	86.33
	$1,000	2,112,835	15,203	0.72	13.70	86.30
$50,000 to $99,999	farms	125,456	803	0.64	4.45	95.55
	$1,000	8,961,255	58,044	0.65	4.60	95.40
$100,000 to $249,999	farms	147,500	843	0.57	4.44	95.56
	$1,000	24,212,940	140,278	0.58	4.75	95.25
$250,000 to $499,999	farms	93,373	420	0.45	10.31	89.69
	$1,000	33,409,883	155,009	0.46	9.99	90.01
$500,000 to $999,999	farms	60,777	287	0.47	9.61	90.39
	$1,000	42,690,783	199,042	0.47	9.85	90.15
$1,000,000 or more	farms	55,509	263	0.47	5.81	94.19
	$1,000	175,799,795	826,902	0.47	45.09	54.91
Farms by type of organization:						
Family or individual	farms	1,906,335	4,217	0.22	1.15	98.85
	acres	574,150,050	1,594,846	0.28	7.48	92.52
Partnership	farms	174,247	596	0.34	14.47	85.53
	acres	161,416,999	685,715	0.42	26.92	73.08
Corporation:						
Family held	farms	85,837	394	0.46	14.21	85.79
	acres	114,264,200	671,436	0.59	11.57	88.43
Other than family held	farms	10,237	113	1.10	24.45	75.55
	acres	11,055,610	193,979	1.75	43.78	56.22
Other - cooperative, estate or trust, institutional, etc.	farms	28,136	199	0.71	20.33	79.67
	acres	61,208,981	229,821	0.38	52.93	47.07
Tenure:						
Full owners	farms	1,522,033	3,579	0.24	1.73	98.27
	acres	343,952,327	933,786	0.27	11.77	88.23
Part owners	farms	542,192	1,465	0.27	5.52	94.48
	acres	496,344,290	1,526,580	0.31	10.77	89.23
Tenants	farms	140,567	627	0.45	12.83	87.17
	acres	81,799,223	510,600	0.62	23.92	76.08
Principal operator characteristics by-						
Sex of operator:						
Male	farms	1,898,583	4,420	0.23	0.97	99.03
	acres	857,831,274	2,137,545	0.25	7.67	92.33
Female	farms	306,209	1,883	0.61	2.12	97.88
	acres	64,264,566	476,765	0.74	12.39	87.61
Primary occupation:						
Farming	farms	993,881	2,351	0.24	3.46	96.54
Other	farms	1,210,911	2,914	0.24	2.70	97.30
Spanish, Hispanic, or Latino origin (see text)	farms	55,570	1,245	2.24	0.71	99.29
	acres	17,054,007	361,118	2.12	11.45	88.55

See footnote(s) at end of table.

--continued

Table B. **Reliability Estimates of U.S. Totals: 2007** - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item		Total	Root mean squared error (RMSE)	Relative RMSE (percent)	Nonresponse contribution to MSE (percent)	Coverage adjustment contribution to MSE (percent)
Principal operator characteristics by- Con.						
Race:						
American Indian or Alaska Native	farms	34,706	879	2.53	0.99	99.01
	acres	49,680,678	289,103	0.58	10.91	89.09
Asian	farms	11,214	343	3.06	2.54	97.46
	acres	1,389,766	51,651	3.72	18.08	81.92
Black or African American	farms	30,599	790	2.58	1.40	98.60
	acres	3,182,313	91,924	2.89	9.53	90.47
Native Hawaiian or Other Pacific Islander	farms	1,356	56	4.11	20.96	79.04
	acres	405,006	19,286	4.76	48.39	51.61
White	farms	2,114,325	4,705	0.22	0.77	99.23
	acres	863,819,828	2,243,157	0.26	7.16	92.84
More than one race reported	farms	12,592	146	1.16	23.15	76.85
	acres	3,618,249	83,371	2.30	37.35	62.65
Reporting primary occupation as farming by age group:						
Under 25 years	farms	5,988	214	3.57	5.59	94.41
25 to 34 years	farms	44,591	530	1.19	5.69	94.31
35 to 44 years	farms	97,508	438	0.45	16.85	83.15
45 to 54 years	farms	211,039	704	0.33	12.08	87.92
55 to 64 years	farms	260,056	810	0.31	11.09	88.91
65 years and over	farms	374,699	1,085	0.29	8.32	91.68
Reporting primary occupation as other than farming by age group:						
Under 25 years	farms	5,890	223	3.78	5.47	94.53
25 to 34 years	farms	62,144	796	1.28	3.24	96.76
35 to 44 years	farms	171,310	663	0.39	14.59	85.41
45 to 54 years	farms	354,362	1,083	0.31	9.52	90.48
55 to 64 years	farms	336,250	1,034	0.31	9.43	90.57
65 years and over	farms	280,955	957	0.34	8.71	91.29
All operators by age group [1]:						
Under 25 years	farms	54,197	543	1.00	7.83	92.17
25 to 34 years	farms	209,385	1,646	0.79	2.81	97.19
35 to 44 years	farms	468,740	1,444	0.31	10.17	89.83
45 to 54 years	farms	877,500	2,299	0.26	6.13	93.87
55 to 64 years	farms	848,277	2,202	0.26	6.03	93.97
65 to 74 years	farms	533,436	1,495	0.28	8.02	91.98
75 years and over	farms	289,999	958	0.33	10.02	89.98
Net cash farm income of operations (see text):						
Farms with gains of [2] -						
Less than $1,000	farms	102,871	489	0.48	12.83	87.17
	$1,000	48,868	258	0.53	14.32	85.68
$1,000 to $4,999	farms	221,477	859	0.39	8.20	91.80
	$1,000	597,359	2,392	0.40	9.21	90.79
$5,000 to $9,999	farms	128,828	568	0.44	11.57	88.43
	$1,000	931,210	4,168	0.45	11.69	88.31
$10,000 to $24,999	farms	170,636	726	0.43	9.21	90.79
	$1,000	2,784,542	12,001	0.43	9.77	90.23
$25,000 to $49,999	farms	119,233	536	0.45	12.11	87.89
	$1,000	4,277,334	19,526	0.46	12.22	87.78
$50,000 or more	farms	293,996	945	0.32	5.46	94.54
	$1,000	84,153,889	287,193	0.34	21.95	78.05
Farms with losses of -						
Less than $1,000	farms	134,307	565	0.42	13.89	86.11
	$1,000	68,177	313	0.46	15.94	84.06
$1,000 to $4,999	farms	426,570	1,388	0.33	6.69	93.31
	$1,000	1,186,542	3,998	0.34	7.72	92.28
$5,000 to $9,999	farms	247,156	928	0.38	10.22	89.78
	$1,000	1,771,484	6,723	0.38	10.49	89.51
$10,000 to $24,999	farms	225,863	889	0.39	10.40	89.60
	$1,000	3,508,974	14,100	0.40	10.77	89.23
$25,000 to $49,999	farms	76,927	427	0.55	16.51	83.49
	$1,000	2,642,891	14,865	0.56	16.67	83.33
$50,000 or more	farms	56,928	317	0.56	17.72	82.28
	$1,000	9,034,037	47,022	0.52	35.28	64.72

[1] Data were collected for a maximum of three operators per farm.
[2] Farms with zero net cash income are included as farms with gains of less than $1,000.

Table C. **Summary of Nonresponse and Coverage Adjustments by State: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	All farms			Land in farms			Sales		
	Total (number)	Nonresponse adjustment (percent)	Coverage adjustment (percent)	Total (acres)	Nonresponse adjustment (percent)	Coverage adjustment (percent)	Total ($1,000)	Nonresponse adjustment (percent)	Coverage adjustment (percent)
UNITED STATES TOTAL									
United States	2,204,792	14.65	16.24	922,095,840	10.32	3.33	297,220,491	5.89	4.10
STATES									
Alabama	48,753	16.09	15.11	9,033,537	14.16	4.25	4,415,550	3.87	5.44
Alaska	686	0.00	0.00	881,585	0.00	0.00	57,019	0.00	0.00
Arizona	15,637	9.83	21.33	26,117,899	0.89	0.48	3,234,552	0.99	1.07
Arkansas	49,346	14.12	11.11	13,872,862	9.26	3.32	7,508,806	2.67	11.91
California	81,033	15.51	20.26	25,364,695	7.06	3.12	33,885,064	3.01	1.54
Colorado	37,054	14.88	15.02	31,604,911	11.40	2.87	6,061,134	4.27	1.12
Connecticut	4,916	15.01	27.12	405,616	10.99	16.09	551,553	3.24	2.36
Delaware	2,546	12.92	18.03	510,253	5.70	3.67	1,083,035	4.50	18.38
Florida	47,463	15.63	20.04	9,231,570	6.27	5.76	7,785,228	3.04	2.27
Georgia	47,846	15.89	21.06	10,150,539	13.18	7.55	7,112,866	3.50	12.59
Hawaii	7,521	15.41	23.39	1,121,329	2.65	2.23	513,626	3.71	4.25
Idaho	25,349	11.95	20.45	11,497,383	7.75	2.67	5,688,765	2.74	3.12
Illinois	76,860	14.26	13.42	26,775,100	11.71	3.78	13,329,107	9.22	5.97
Indiana	60,938	12.14	16.34	14,773,184	9.53	2.82	8,271,291	6.19	5.08
Iowa	92,856	14.51	7.76	30,747,550	12.65	2.78	20,418,096	8.04	5.58
Kansas	65,531	14.98	14.58	46,345,827	12.96	1.34	14,413,182	5.40	3.67
Kentucky	85,260	15.80	15.47	13,993,121	14.25	7.28	4,824,561	7.17	3.69
Louisiana	30,106	14.69	21.40	8,109,975	10.64	6.68	2,617,981	5.68	5.26
Maine	8,136	14.25	28.00	1,347,566	11.87	7.68	617,190	4.62	2.10
Maryland	12,834	13.00	17.18	2,051,756	9.20	4.72	1,835,090	4.33	7.08
Massachusetts	7,691	16.28	25.90	517,879	13.69	15.01	489,820	9.93	2.03
Michigan	56,014	13.30	15.72	10,031,807	10.01	3.17	5,753,219	5.56	2.16
Minnesota	80,992	17.02	10.13	26,917,962	15.13	1.91	13,180,466	9.70	3.18
Mississippi	41,959	16.07	15.48	11,456,241	13.01	3.68	4,876,781	3.43	7.13
Missouri	107,825	16.02	11.68	29,026,573	14.31	3.67	7,512,926	8.39	5.23
Montana	29,524	16.22	8.05	61,388,462	10.53	0.78	2,803,062	11.24	2.02
Nebraska	47,712	15.77	7.33	45,480,358	11.60	2.35	15,506,035	8.07	4.83
Nevada	3,131	11.40	19.23	5,865,392	2.25	0.80	513,269	3.29	3.45
New Hampshire	4,166	13.37	28.92	471,911	11.73	15.81	199,051	4.34	3.23
New Jersey	10,327	13.17	13.48	733,450	8.53	4.70	986,885	3.43	1.82
New Mexico	20,930	15.50	21.85	43,238,049	5.41	1.34	2,175,080	2.55	3.05
New York	36,352	16.25	17.22	7,174,743	11.95	8.32	4,418,634	6.32	4.64
North Carolina	52,913	13.72	19.62	8,474,671	9.89	4.82	10,313,628	3.02	6.28
North Dakota	31,970	17.01	11.34	39,674,586	14.60	2.97	6,084,218	12.53	2.74
Ohio	75,861	13.84	13.13	13,956,563	10.61	3.74	7,070,212	6.89	3.36
Oklahoma	86,565	16.40	20.17	35,087,269	13.51	6.23	5,806,061	6.79	4.29
Oregon	38,553	13.18	18.01	16,399,647	8.01	4.27	4,386,143	4.59	2.85
Pennsylvania	63,163	12.13	23.42	7,809,244	12.67	9.29	5,808,803	7.90	3.41
Rhode Island	1,219	0.00	32.49	67,819	0.00	21.83	65,908	0.00	5.30
South Carolina	25,867	15.00	17.38	4,889,339	10.50	8.38	2,352,681	2.72	3.35
South Dakota	31,169	17.37	8.00	43,666,403	11.90	1.90	6,570,450	11.33	4.65
Tennessee	79,280	14.92	11.60	10,969,798	12.56	4.64	2,617,394	6.42	7.86
Texas	247,437	14.94	16.92	130,398,753	9.27	3.89	21,001,074	4.71	1.62
Utah	16,700	14.06	16.20	11,094,700	6.35	1.59	1,415,678	5.62	2.35
Vermont	6,984	14.69	27.41	1,233,313	12.06	14.67	673,713	6.72	3.54
Virginia	47,383	13.61	23.41	8,103,925	11.00	10.73	2,906,188	5.34	5.03
Washington	39,284	10.31	28.08	14,972,789	5.22	3.91	6,792,856	2.40	2.28
West Virginia	23,618	9.66	26.74	3,697,606	9.25	12.41	591,665	3.35	5.19
Wisconsin	78,463	12.61	20.16	15,190,804	12.25	6.01	8,967,358	9.16	2.11
Wyoming	11,069	12.59	16.71	30,169,526	4.67	2.05	1,157,535	5.02	3.23

Table D. **American Indian or Alaska Native Operators: 2007**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	American Indian or Alaska Native farm operators		
	Total	Individually reported [1]	Other [2]
UNITED STATES TOTAL			
United States	79,703	77,437	2,266
STATES			
Alabama	1,561	1,561	-
Alaska	47	47	-
Arizona	14,205	13,880	325
Arkansas	1,716	1,716	-
California	2,679	2,637	42
Colorado	1,090	1,090	-
Connecticut	92	92	-
Delaware	27	27	-
Florida	1,327	1,242	85
Georgia	1,067	1,067	-
Hawaii	232	232	-
Idaho	520	520	-
Illinois	550	550	-
Indiana	411	411	-
Iowa	253	253	-
Kansas	819	819	-
Kentucky	1,153	1,153	-
Louisiana	527	527	-
Maine	167	167	-
Maryland	199	199	-
Massachusetts	62	62	-
Michigan	1,221	1,221	-
Minnesota	1,069	1,069	-

Geographic area	American Indian or Alaska Native farm operators		
	Total	Individually reported [1]	Other [2]
STATES - Con.			
Mississippi	685	685	-
Missouri	2,160	2,160	-
Montana	2,359	2,359	-
Nebraska	147	147	-
Nevada	541	525	16
New Hampshire	89	89	-
New Jersey	85	85	-
New Mexico	8,400	6,829	1,571
New York	421	421	-
North Carolina	1,311	1,311	-
North Dakota	610	610	-
Ohio	293	293	-
Oklahoma	14,286	14,286	-
Oregon	1,391	1,391	-
Pennsylvania	462	462	-
Rhode Island	11	11	-
South Carolina	556	556	-
South Dakota	1,291	1,291	-
Tennessee	1,646	1,646	-
Texas	7,265	7,265	-
Utah	1,242	1,237	5
Vermont	92	92	-
Virginia	839	839	-
Washington	1,715	1,493	222
West Virginia	134	134	-
Wisconsin	279	279	-
Wyoming	399	399	-

[1] Data were collected for a maximum of three operators per farm.
[2] Data represent American Indian or Alaska Native farm or ranch operators on reservations who did not report individually. Data obtained from reservation officials.

Appendix B.
General Explanation and Census of Agriculture Report Form

DEVELOPMENT OF THE CENSUS REPORT FORMS

Prior to release of the results from the 2002 Census of Agriculture, NASS was preparing for the 2007 Census of Agriculture. The first team established was the 2007 Census Content Team. This team was tasked with content determination and report form development. They reviewed the 2002 report form content, solicited input from internal and external customers, developed criteria for determining acceptance and/or rejection of content for the 2007 Census of Agriculture report forms, tested the effectiveness of the report forms for various modes of data collection (mail, telephone, personal interview, and electronic data reporting), and made recommendations to NASS senior executives for final determination.

Throughout development NASS sought advice and input from the data user community. Integral partners included the Advisory Committee on Agriculture Statistics, State departments of agriculture and other State government officials, Federal agency officials, land grant universities, agricultural trade associations, media, and various Community Based Organizations.

NASS conducted the 2005 Census of Agriculture Content Test in early 2006. The test consisted of three phases: cognitive pretesting, national mail-out, and follow-up interviews. Results from the testing produced two final report form types -- a 24-page regionalized form with 7 versions (07-A0201 thru 07-A0207 regional forms and an 07-A0200 general version) and a 12-page national form version (07-A0100). The main difference between the form types is the format used to collect crop and livestock information. The regionalized report forms include crop sections designed to facilitate reporting crops most commonly grown within a report form region. Many items in these sections are either prelisted in the tables or listed below the tables. The national report form collected the same information as the regionalized forms, but it was formatted to fit on fewer pages. It includes an open table format to collect crop and livestock information. Respondents had to write in their crops and/or livestock information. A sample copy of the regionalized report form and instruction sheet is included in this appendix.

DATA CHANGES

Following are descriptions of the report form changes and their effect on the publication tables.

Crop Data Changes

Deleted items include:

- Other nursery and greenhouse category.
- Production and acres irrigated for potatoes.
- Production and acres irrigated for sweet potatoes.
- Production and acres irrigated for ginseng.

Added items include:

- Acres of individual vegetable crops harvested for fresh market.
- Acres harvested for fresh market and for processing for potatoes, sweetpotatoes, and ginseng.
- Acres irrigated for short rotation woody crops.
- Acres irrigated for cut Christmas trees.

- Acres on which berries were grown.

- Total acres grown and acres not harvested for individual berry crops.

- Sales of mushroom spawn.

Items listed separately on the 2007 report form that were reported in conjunction with similar crop items on the 2002 report form include:

- Horseradish was listed separately and is no longer included in Other vegetables.

- Total acres, acres harvested, and acres not harvested for boysenberries and currants were listed separately and no longer included in Other berries.

- Pluots were listed separately and are no longer included in Other noncitrus fruit.

- Chestnuts were listed separately and are no longer included in Other nuts.

- Pecans were divided into Pecans, improved and Pecans, native and seedling.

- Squash was divided into summer squash and winter squash.

- Cuttings, seedlings, liners, and plugs were listed as one item and are no longer included in Other nursery and greenhouse.

- Tobacco transplants were listed separately and are no longer included in Other nursery and greenhouse.

- Greenhouse vegetables were divided into greenhouse tomatoes and other greenhouse vegetables.

- Vegetable transplants were listed separately and are no longer included in Other nursery and greenhouse.

- Greenhouse fruits and berries were listed separately and are no longer included in Other nursery and greenhouse.

- Other floriculture and bedding plants were listed as an item and are no longer included in Other nursery and greenhouse.

Items combined with another item(s) on the 2007 report form that were reported individually on the 2002 report form include:

- Amaranth, foxtail millet seed, lotus root, mungbeans, redtop seed, salt hay, sweetclover seed, and sweet rice were included in other field crops.

- K-early citrus was included in Other citrus.

- Pimientos were included in Other vegetables.

- Mixed vegetables were included in Other vegetables.

Livestock and Poultry Data Changes

Deleted items include:

- Two hog and pig size groups within the 5,000 or more head category were deleted. In 2002 there were two additional sub-groups in the 5,000 or more category; 5,000 to 7,499 and 7,500 or more.

- Two broilers and other meat type chicken groups within the 500,000 or more category were deleted. In 2002 there were two sub-groups in the 500,000 or more category; 500,000 to 749,999 and 750,000 or more.

- Other fish.

Added items include:

- Horses and ponies owned by this operation.

- Alpaca inventory and number sold

Items listed individually in the 2007 report form that were reported in conjunction with similar livestock or poultry items on the 2002 report form include:

- Layers 20 weeks old and older for table and hatching eggs were divided into Table egg type layers, Hatching layers for meat-types, and hatching layers for table eggs.

- Turkeys were separated into Turkeys for slaughter and Turkey hens kept for breeding.

- Items combined with other item(s) on the 2007 report form that were reported individually on the 2002 report form include:

- Other fish were removed as a selection and the respondent must report in one of the fish categories listed.

Economic, Land Use, and Operator Characteristics Data Changes

Deleted items include:

- Acres of certified organically produced crops.

- Value of certified organically produced commodities sold.

- Whether the operator lives on an American Indian reservation.

- Computer use for the farm business.

Added items include:

- Acres used for organic production.

- Acres of organic crops harvested.

- Acres of organic pastureland.

- Total value of sales for crops produced and sold as organic.

- Total value of sales for livestock and poultry produced and sold as organic.

- Total value of sales for livestock and poultry products produced and sold as organic.

- Acres being converted to organic production.

- Sales of mushroom spawn.

- Whether the operator retired.

- Number of trucks, including pickups and the number manufactured in the last five years.

- Whether the operator is a hired manager for this operation.

- Household income of the principal operator.

- Practices relating to the operation: Whether the operation had high speed Internet access; Used 5,000 gallons of water any one day; Received irrigation water supplied by a U. S. Bureau of Reclamation project or facility; Generated energy or electricity on the farm; Used conservation farming methods; Practiced rotational or management intensive grazing; Rented grazing land on a per-head or animal unit per month (AUM) basis; Produced and sold value added crops, livestock, or products; Marketed products through a community supported agriculture (CSA) arrangement; Raised or sold veal calves; Raised or sold hair sheep or wool-hair crosses; or Had a barn that was built prior to 1960.

- Questions relating to use of American Indian Reservation land for production of crops and livestock, e.g. total acres used, acres of cropland harvested, and percent of operation's livestock on the reservation. In the 2002 census, these questions only appeared in the regional report form for 2002 census regions 8 and 10. Data are tabulated in the 2007 Census of Agriculture Specialty Products, Part 1, American Indian Reservations.

Items listed individually on the 2007 report form that were reported in conjunction with similar items on the 2002 report form include:

- Value of sales for grains, oilseeds, dry beans, and dry peas were divided into sales of Corn for grain, seed, or silage; Wheat; Soybeans; Sorghum for grain, seed, or silage; Barley; Rice; and Other crops.

- Other farm-related income was divided into Crop and livestock insurance payments received and other farm-related income.

- Other Federal farm program payments were divided into Direct payments, Counter-cyclical payments, Other Federal agricultural program payments, and State and local government agricultural program payments.

DEFINITIONS AND EXPLANATIONS

The following definitions and explanations provide a detailed description of specific terms and phrases used in this publication. Items in the publication tables which carry the note ''See text'' also are explained. Report form section number references refer to the regional version. Many of the definitions and explanations are the same as those used in earlier censuses.

Acres and quantity harvested. Crops were reported in whole acres, except for the following crops that were reported in tenths of acres: tobacco, nursery and greenhouse crops in the open, vegetables including potatoes and sweet potatoes, fruit and nut crops including land in orchards, and berries; in Hawaii, taro and ginger root. Totals for crops reported in tenths of acres were rounded to whole acres at the aggregate level during the tabulation process. Nursery and greenhouse crops grown under glass or other protection were reported in square feet and are published in square feet.

If two or more crops were harvested from the same land during the year (double cropping), the acres were counted for each crop. Therefore, the total acres of all crops harvested generally exceeded the acres of cropland harvested. An exception to this procedure was hay crops.

When more than one cutting of hay was taken from the same acres, the acres were counted only once for the harvesting method but the quantity harvested includes all cuttings. Acreage cut and tons harvested for both dry hay and haylage, silage, or greenchop was reported for each crop. For interplanted crops or ''skip-row'' crops, acres were reported according to the portion of the field occupied, whether by a crop or whether it was idle land. If a crop was interplanted in an orchard or vineyard and harvested, then the entire orchard or vineyard acreage was reported under the appropriate fruit crop and the interplanted estimated crop acreage was reported under the appropriate crop.

If a crop was planted but not harvested, the acres were not reported as harvested. These acres were reported in the ''land'' section on the report form under the appropriate cropland items – cropland on which all crops failed or were abandoned, cropland in cultivated summer fallow, cropland idle or used for cover crops or soil-improvement but not harvested and not pastured or grazed, or cropland used only for pasture or grazing. This does not include fruit and nut orchards, vineyards, berries, acres in production for cut Christmas trees, and acres in production for short rotation woody crops that were not harvested. Acreage in these commodities were included in cropland harvested whether the crop was harvested or not. Abandoned orchards were reported as cropland idle, not as harvested cropland, and the individual abandoned orchard crop acres were not reported.

Crops that were only hogged or grazed were reported as ''cropland used only for pasture or grazing.'' Crop residue left in fields after the 2007 harvest and later hogged or grazed was reported as cropland harvested and not as cropland used only for pasture or grazing.

Quantity harvested was not obtained for crops such as fruits and nuts, berries, vegetables and melons, and nursery and greenhouse crops.

Age of operator. See Farms by age and primary occupation of operator.

Agri-tourism and recreational services. See Total income from farm-related sources, gross before taxes and expenses.

Agricultural products sold directly to individuals for human consumption. See Value of agricultural products sold directly to individuals for human consumption.

All (multiple) operators. See Operator.

All haylage, grass silage, and greenchop (tons). See Haylage, grass silage, and greenchop, all.

All other production expenses. See Total farm production expenses.

Alpacas. This is a new item for 2007. In 2002 alpacas were reported as other livestock.

American Indian and Alaska Native farm operators, total. Data are reported in Chapter 1,

tables 54 through 57 and Chapter 2, table 51. In Chapter 1, table 54 data include farm characteristics for principal operator reporting one race only, table 55 data include farm characteristics reported for a maximum of three operators reporting American Indian or Alaska Native alone or in combination with other races, table 56 data are reported for principal operator only, table 57 include data for a maximum of three operators for those operators that reported only one race.

In Chapter 2, table 51 data are reported for a maximum of three operators reported in the operator characteristics section. The individual operators were added to the census mail list for most reservations. Those reservations that did not include all the individual operators on the census mail list were identified and the data for the entire reservation, including the data for the operators that would have met the definition of a farm, were collected on one report form. The count of reservations and the number of operators that were reported on these reservations are included in Appendix B, table D.

Amount from State and local government agricultural program payments. See Total income from farm-related sources, gross before taxes and expenses.

Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs. See Land enrolled in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP).

Any poultry sold. The number of farms with any poultry sold includes all farms with sales of poultry, poultry hatched, or eggs.

Aquaculture. In the 2007 census the value of sales was tabulated for each specified species. In the 2002 census only total aquaculture value of sales was asked. Aquaculture is defined as the farming of fish, crustaceans, mollusks, and other aquaculture products. The aquaculture production reported in the census requires some form of intervention in the rearing process and requires inputs such as seeding, stocking, feeding, protection from predators, etc. It also requires ownership of the stock being cultivated and harvesting that is conducted in a controlled environment by the operation. The pounds sold, number sold, and value of sales include all sizes and eggs by species. The number and pounds sold and value of sales include aquaculture distributed for restoration, conservation, or recreational purposes, such as State and Federal hatcheries. Values based on sales of farm-raised fish were assigned to distributed fish.

Aquaculture value. See Aquaculture.

Artichokes (excluding Jerusalem). For 2007 the wording was changed to clarify that Jerusalem artichokes should be excluded. Data are comparable to 2002 artichoke data.

Asparagus, bearing age. For 2007, bearing age was added to the description for clarity. Data are comparable.

Bees. See Colonies of bees and honey collected.

Breeding livestock. See Total farm production expenses.

By economic class. See Economic class of farms.

Cattle on feed. Cattle on feed is defined as cattle and calves that were fed a ration of grain or other concentrates that will be shipped directly from the feedlot to the slaughter market and are expected to produce a carcass that will grade select or better. This category excludes cattle that were pastured only, background feeder cattle, and veal calves.

Cattle on feed sold. Data are for cattle on feed sold that weighed 500 pounds or more and were shipped directly from the feedlot to the slaughter market. This category excludes cattle that were pastured only, owned cattle that were shipped from feedlots operated by others, background feeder cattle, and veal calves.

Chemicals applied. For each type of chemical used, the acres treated were reported only once even if the acres were treated more than once. If multi-purpose

chemicals were used, the acres treated for each purpose were reported. See Total farm production expenses; Chemicals.

Cherries. Cherries were reported as either sweet cherries or tart cherries. Combined crops or non-specified cherry acres were not options for the respondent. Total acres, bearing age acres, and nonbearing age acres were reported for each crop.

Chestnuts. This is a new item for 2007. In 2002 data were included in other nut trees. See Other nuts.

Christmas trees, cut. Data are for acres of Christmas trees - cut or to be cut - in production, acres irrigated, and number of trees cut. Sales data are included in the Cut Christmas trees and short rotation woody crops category. In 2002, acres irrigated were not collected.

Christmas trees, live. Data were reported as nursery stock and include Christmas trees sold live, generally balled and burlapped, from the operation.

Citrus enumeration. Reports for selected citrus caretakers in Arizona, Florida, and Texas were obtained by direct enumeration. A citrus caretaker is an organization or person caring for or managing citrus groves for others. This special enumeration has been conducted since 1969 because of the difficulty identifying and enumerating absentee grove owners who often do not know the information that is needed to adequately complete the report form.

Enumeration activities were completed after harvest to facilitate the accuracy of reported data. Grove owners were counted as operators for farm count purposes. Citrus caretakers were perceived as performing an agricultural service for grove owners and were not considered agricultural operators if they provided only services to grove owners. Caretakers were counted as agricultural operators if they made day-to-day decisions for their own operation in addition to providing services for grove owners. Data provided by caretakers were prorated to owners based on acreage and were transcribed onto the respective owner's census report form.

Coffee. Data were collected only in Hawaii. In 2007, data for total acres, bearing age acres, and nonbearing age acres were collected.

Colonies of bees. Colonies of bees were tabulated in the county where the largest value of all agricultural products were raised or produced. Colonies are often moved from farm-to-farm over a wide geographic area. Package bees are not included as separate colonies. In 2007 colonies of bees were collected in their own section to clarify to respondents that only "owned" colonies were to be reported versus any colonies on the operation.

Commodities raised and delivered under production contracts. A production contract is an agreement between a producer or grower and a contractor (integrator) setting terms, conditions, and fees to be paid by the contractor to the operation for the production of crops, livestock, or poultry. The grower receives a payment or fee from the contractor, generally after delivery, which is less than the full market price of the commodity. A production contract involves the shifting of some risk and control from the grower to the contractor. Marketing contracts, futures contracts, forward contracts, or other contracts based strictly on price are not considered production contracts. Commodities sold to a co-op where some of the input items were purchased from the same co-op at a discount price were also excluded. Many operations produce commodities only under production contracts or only independently. Some operations may produce a commodity under production contract and also produce more of the same commodity that they sell independently. Both types of production are combined as one value in the tables for total inventories and total sales.

Custom fed cattle shipped directly for slaughter. In 2002, data were collected for custom fed cattle. Many respondents reported cattle that were not shipped directly to slaughter such as veal or background feeder cattle. For 2007, the report form text was improved to specify custom fed cattle shipped directly for slaughter. Cattle not shipped directly to slaughter were reported in the Other cattle, livestock, poultry, or aquaculture category. Data are not comparable for custom fed cattle shipped directly to slaughter or Other cattle,

livestock, poultry, or aquaculture categories.

Other cattle, livestock, poultry, or aquaculture. The data for commodities raised and delivered under a production contract include cattle which were not custom fed and shipped directly to slaughter (backgrounding), livestock and poultry not listed separately, and aquaculture products. For 2007, the report text was improved to specify custom fed cattle shipped directly for slaughter. Cattle not shipped directly to slaughter are reported as Other cattle, livestock, poultry, or aquaculture. In 2002, some cattle not shipped directly to slaughter were reported as custom fed cattle. Data are not comparable with 2002 for Custom fed cattle shipped directly to slaughter or Other cattle, livestock, poultry, or aquaculture categories.

Vegetables, melons, and potatoes. This category is the number of farms that produced and delivered vegetables, melons, and potatoes grown under a production contract.

Other crops. Data are for the total number of farms that have production contracts for other crops. This category includes all crops except grains, oilseeds, vegetables, melons, and potatoes.

Commodity Credit Corporation loans. This category includes nonrecourse marketing loans for wheat, corn, sorghum, barley, oats, cotton, rice, soybeans, Austrian winter peas, honey, dry peas, lentils, small chickpeas, peanuts, sunflower seed, flaxseed, canola and other rapeseed, safflower, mustard seed, crambe and sesame seed, and mohair. These commodities differ from those included in the 2002 census due to changes created by the 2007 Farm Bill.

Crop and livestock insurance payments received. See Total income from farm-related sources, gross before taxes and expenses.

Crop units of measure. The regional report forms allowed the operator to report the quantity of field crops harvested in a unit of measure commonly used in the region. When the operator reported in units different than the unit of measure published, the quantity harvested was converted to the published unit of measure.

Crop year or season covered. Acres and quantity harvested are for the calendar year 2007 except for citrus crops and sugarcane for sugar; limes in region three States; avocados in Florida and California; olives in California and Arizona; and pineapples and coffee in Hawaii.

1. Avocados. The data for Florida relate to the quantity in the April 2007 through March 2008 harvest season; for California and Arizona, the November 2006 through November 2007 harvest season.
2. Citrus crops. The data for region three relate to the quantity harvested in the September 2006 through August 2007 harvest season, except limes in Florida that were harvested in the April 2007 through March 2008 harvest season. The data for California and Arizona relate to the 2006 through 2007 harvest season. The data for limes relate to the April 2007 through March 2008 harvest season.

3. Olives. The data for California and Arizona relate to the September 2006 through March 2007 harvest season.

4. Pineapples. The data for Hawaii relate to the quantity harvested in the year ending May 31, 2007.

5. Sugarcane for sugar. The data for Florida, Louisiana, and Texas relate to the cuttings from September 2007 through April 2008.

Cropland, harvested. See Harvested cropland.

Cropland, irrigated. See Irrigated land.

Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed. Cropland idle includes any other acreage which could have been used for crops without any additional improvement and which was not reported as cropland harvested, cropland on which all crops failed, cropland in summer fallow, or cropland used for pasture or grazing. This category includes:

1. Land used for cover crops or soil improvement but not harvested or grazed.

2. Land in Federal or State conservation programs that was not hayed or grazed in 2007.

3. Land in Federal or State conservation programs that were planted to trees for future harvest timber, pulp, or Christmas trees.

4. Land occupied with growing crops for harvest in 2008 or later years but not harvested or summer fallowed in 2007 (except fruit or nuts in an orchard, grove, or vineyard being maintained for production). Examples are acreage planted in winter wheat, strawberries, etc., for harvest in 2008 and no crop was harvested from these acres in 2007.

5. Land in "skipped" rows between rows of crops or field strips.

Cropland, other. See Other cropland.

Cropland, total. See Total cropland.

Cropland used only for pasture or grazing. This category includes land used only for pasture or grazing that could have been used for crops without additional improvement. Also included were acres of crops hogged or grazed but not harvested prior to grazing. However, cropland that was pastured before or after crops were harvested in 2007 was included as harvested cropland rather than cropland for pasture or grazing.

Crustaceans. These are invertebrate animals with jointed legs and a hard shelled segmented body. Examples include crawfish, lobster, prawns, shrimp, and softshell crabs.

Custom fed cattle shipped directly for slaughter. See Commodities raised and delivered under production contract.

Customwork and custom hauling. See Total farm production expenses.

Customwork and other agricultural services. See Total income from farm-related sources, gross before taxes and expenses.

Cuttings, seedlings, liners, and plugs. This is a new item for 2007. In 2002 data were included in other nursery and floriculture. See Nursery, greenhouse, floriculture, and sod.

Cut Christmas trees. See Christmas trees, cut.

Data are based on sample of farms. For censuses from 1978 through 2002, selected data items were collected from only a sample of farms. These data were subject to sampling error. For the 2007 census there was no sampling.

Depreciation expenses claimed. The calculation of total farm production expenses does not include depreciation because it is a capital expense. Depreciation allows the expensing of capital purchases over multiple years. It is not included in the calculation of Net cash farm income of the operation and operator.

Ducks, geese, and other poultry species. Data are the number of farms that had inventory of ducks, emus, geese, ostriches, pheasants, pigeons or squab, quail, and other poultry sold. Other poultry are those poultry not having a specific code on the report form. Data are comparable.

Ducks, geese, and other poultry species sold. Data are the number of farms that sold ducks, emus, geese, ostriches, pheasants, pigeons or squab, quail, and other poultry sold. Other poultry are those poultry not having a specific code on the report form. Data are comparable.

Expenses. See Total farm production expenses.

Economic class of farms. Economic class data are the classification of farms by the sum of market value of agricultural products sold and federal farm program payments. See Total market value of agricultural products sold and government payments.

Farm or ranch operator. See Operator characteristics.

Farm typology. The Economic Research Service (ERS), an agency of the United States Department of Agriculture, has established typology of farms to group farms by similar characteristics. This census is the first to include data cross-tabulated by the

eight farm typology categories. There are two major groupings of farms, small family farms with sales of less than $250,000, and other farms. The small family farm group is divided into 5 subcategories, described below:

1. Limited-resource farms have market value of agricultural products sold gross sales of less than $100,000, and total principal operator household income of less than $20,000.

2. Retirement farms have market value of agricultural products sold of less than $250,000, and a principal operator who reports being retired.

3. Residential/lifestyle farms have market value of agricultural products sold of less than $250,000, and a principal operator who reports his/her primary occupation as other than farming.

4. Farming occupation/lower-sales farms have market value of agricultural products sold of less than $100,000, and a principal operator who reports farming as his/her primary occupation.

5. Farming occupation/higher-sales farms have market value of agricultural products sold of between $100,000 and $249,999, and a principal operator who reports farming as his/her primary occupation.

Other farms are subdivided into three subcategories, described below:

1. Large family farms have market value of agricultural products sold between $250,000 and $499,999.

2. Very large family farms have market value of agricultural products sold of $500,000 or more.

3. Nonfamily farms are farms organized as nonfamily corporations, as well as farms operated by hired managers.

Farms by age and primary occupation of operator. Data on age and primary occupation were obtained from up to three operators per farm in 2007. When compared with 2002 results, the average age of farmers increased significantly. Older operators may be "retired" (with little if any sales) and still report farming as their primary occupation since they often have limited opportunity for off-farm jobs. See Primary occupation of the operator.

Farms by combined government payments and market value of agricultural products sold. This category represents the value of products sold plus government payments. Total value of products sold combines total sales not under production contract and total sales under production contract. Government payments consist of government payments received from the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP) plus government payments received from Federal, State, and local programs other than the CRP, WRP, FWP, and CREP, and Commodity Credit Corporation loans. See Total market value of agricultural products sold and government payments.

Farms by economic class. See Economic class of farms and Total market value of agricultural products sold and government payments

Farms by North American Industry Classification System (NAICS). The NAICS classifies economic activities. It was jointly developed by Mexico, Canada, and the U.S. NAICS makes it possible to produce comparable industrial statistics for Mexico, Canada, and the U.S. For the 2007 census, all agricultural production establishments (farms, ranches, nurseries, greenhouses, etc.) were classified by type of activity or activities using the NAICS code. The 2007 census is the third census to use NAICS. Censuses prior to the 1997 census used the old Standard Industrial Classification (SIC) system to classify farms.

NAICS was developed to provide a consistent framework for the collection, analysis, and dissemination of industrial statistics used by government policy analysts, academia and researchers, the business community, and the public. It is the first industry classification system developed in accordance with a single principle of aggregation that production units using similar production

processes should be grouped together. Though NAICS differs from other industry classification systems, statistics compiled on NAICS are comparable with statistics compiled according to the latest revision of the United Nations' International Standard Industrial Classification, Revision Three, (ISIC, Revision 3) for some sixty high level groupings. Following are explanations of the major classifications used in 2007.

Oilseed and grain farming (1111). Comprises establishments primarily engaged in (1) growing oilseed and/or grain crops and/or (2) producing oilseed and grain seeds. These crops have an annual life cycle and are typically grown in open fields. This category includes corn silage and grain silage. In the 2007 census, government-payment only farms were classified as "All other crop farming" (11199). In the 1997 census, government-payment only farms were coded as "All other grain farming (11119)."

Vegetable and melon farming (11121). Comprises establishments primarily engaged in one or more of the following: (1) growing vegetables and/or melon crops, (2) producing vegetable and melon seeds, and (3) growing vegetable and/or melon bedding plants.

Fruit and tree nut farming (1113). Comprises establishments primarily engaged in growing fruit and/or tree nut crops. These crops are generally not grown from seeds and have a perennial life cycle.

Greenhouse, nursery, and floriculture production (1114). Comprises establishments primarily engaged in growing crops of any kind under cover and/or growing nursery stock and flowers. ''Under cover'' is generally defined as greenhouses, cold frames, cloth houses, and lath houses. Crops grown are removed at various stages of maturity and have annual and perennial life cycles. The category includes short rotation woody crops and Christmas trees that have a growing and harvesting cycle of 10 years or less.

Other crop farming (1119). Comprises establishments primarily engaged in (1) growing crops such as tobacco, cotton, sugarcane, hay, sugarbeets, peanuts, agave, herbs and spices, and hay and grass seeds, or (2) growing a combination of the valid crops with no one crop or family of crops accounting for one-half of the establishment's agricultural production (value of crops for market). Crops not included in this category are oilseeds, grains, vegetables and melons, fruits, tree nuts, greenhouse, nursery and floriculture products.

All other crop farming (11199). Comprises establishments primarily engaged in (1) growing crops (except oilseeds and/or grains; vegetables and/or melons; fruits and/or tree nuts; greenhouse, nursery, and/or floriculture products; tobacco; cotton; sugarcane; or hay) or (2) growing a combination of crops (except a combination of oilseed(s) and grain(s)); and a combination of fruit(s) and tree nut(s) with no one crop or family of crops accounting for one-half of the establishment's agricultural production.

Beef cattle ranching and farming (112111). Comprises establishments primarily engaged in raising cattle (including cattle for dairy herd replacements). Pastureland-only farms, those with only 100 or more acres of pastureland, were classified as "All other animal production farming (11299)."

Cattle feedlots (112112). Comprises establishments primarily engaged in feeding cattle for fattening.

Dairy cattle and milk production (112120). This industry comprises establishments primarily engaged in milking dairy cattle.

Poultry and egg production (1123). This industry group comprises establishments primarily engaged in breeding, hatching, and raising poultry for meat or egg production.

Sheep and goat farming (1124). This industry group comprises establishments primarily engaged in raising sheep, lambs, and goats, or feeding lambs for fattening.

Animal aquaculture (1125). Comprises establishments primarily engaged in the farm raising of finfish, shellfish, or any other kind of animal aquaculture. These establishments use some form of intervention in the rearing process to enhance production, such as holding in captivity, regular stocking, feeding, and protecting from predators.

Other animal production (1129). Comprises establishments primarily engaged in raising animals and insects (except cattle, hogs and pigs, poultry, sheep and goats, and aquaculture) for sale or product production. These establishments are primarily engaged in one of the following: bees, horses and other equine, rabbits and other fur-bearing animals, etc, and producing products such as honey and other bee products. Establishments primarily engaged in raising a combination of animals with no one animal or family of animals accounting for one-half of the establishment's agricultural production are included in this industry group. Farms with only 100 acres or more of pastureland were classified as "All other animal production farming (11299)."

Farms by number of households sharing in net income of farm. Data were reported by the principal operator only. Households that received funds because they were only landlords, custom equipment operators, or provided other production services were not included. Published data can exceed the number of operators listed under Operators, all.

Farms by size. All farms were classified into size groups according to the total land area in the farm. The land area of a farm is an operating unit concept and includes land owned and operated as well as land rented from others. Land rented to or assigned to a tenant was considered part of the tenant's farm and not part of the owner's.

Farms by tenure of operator. All farms were classified by tenure of operators. The classifications used were:

- Full owners operated only land they owned.
- Part owners operated land they owned and also land they rented from others.
- Tenants operated only land they rented from others or worked on shares for others.

Farms with hired managers are classified according to the land ownership characteristics reported. For example, a corporation owns all the land used on the farm and hires a manager to run the farm. The hired manager is considered the farm operator, and the farm is classified with a tenure type of "full owner" even though the hired manager owns none of the land he/she operates.

Farms by value of sales. See Market value of agricultural products sold.

Farms by type of organization. All farms were classified by type of organization in the 2007 census. The classifications used were:

1. Family or individual (sole proprietorship), excluding partnership and corporation.
2. Partnership, including family partnership – in selected tables, partnership was further subclassified into:
   a. Registered under State law.
   b. Not registered under State law.
3. Corporation, including family corporations - in selected tables, partnership was further subclassified into:
   a. Family held or other than family held.
   b. More than 10 stockholders.
4. Other, cooperative, estate or trust, institutional, etc.

Farms or farms reporting. The terms ''farms'' and ''farms reporting'' in the presentation of data are equivalent. Both represent the number of farms reporting the item. For example, if there are 3,710 farms in a State and 842 of them had 28,594 cattle and calves, the data for those farms reporting cattle and calves would appear as:

Cattle and calves farms 842
number . . . 28,594

Farms with sales and government payments of less than $1,000. This category includes farms with combined sales and government payments of less than $1,000 but having the potential for sales of $1,000 or more. In this category, government payments were included in calculating that potential. It provides information on all items for farms that normally would be expected to sell agricultural products of $1,000 or more but had sales and government payments of less than $1,000.

Farms with sales of less than $1,000. This category includes farms with sales of less than $1,000 but having the potential for sales of $1,000 or more. Some of these farms had no sales in the census year. It provides information on all report form items for farms that normally would be expected to sell agricultural products of $1,000 or more.

Fertilizer. See Total farm production expenses; Fertilizer, lime, and soil conditioners.

Floriculture crops. Data represent total of bedding/garden plants, cut flowers and cut florist greens, foliage plants, potted flowering plants, and other floriculture and bedding plants.

Field and grass seed crops, all. Data are for all the field and grass seed crops not published as field crops and include other field crops which did not have a specific code on the 2007 report form.

Forage - land used for all hay and all haylage, grass silage, and greenchop. Data shown represent the area harvested with each acre counted only once if dry hay, haylage, grass silage, or greenchop were cut from the same acreage or if there were multiple cuttings of dry hay, haylage, grass silage, or greenchop. Data exclude corn silage and sorghum silage. Quantity produced is the sum of the quantity harvested of all hay including alfalfa, other tame, small grain, and wild hay and all haylage, grass silage and greenchop after converting the all haylage, grass silage, and greenchop quantity harvested to a dry equivalent basis (13-percent moisture). The green tons of all haylage, grass silage, and greenchop harvested were multiplied by a factor of 0.4943 to convert to a dry equivalent. This conversion factor is based on the assumption that one ton of dry hay is 0.87 ton of dry matter, one ton of haylage or grass silage is 0.45 ton dry matter, and one ton of greenchop is 0.25 ton dry matter. The all haylage, grass silage, and greenchop quantity harvested is assumed to be comprised of 90-percent haylage and grass silage and 10-percent greenchop. Therefore, the conversion factor used to adjust all haylage, grass silage, and greenchop quantity harvested to a dry equivalent basis =
$[(0.45*0.9)+(0.25*0.1)]/0.87 = 0.4943$.

Fruits and nuts. Total acres, bearing age acres, and nonbearing age acres were collected.

Ginseng. In 2007 ginseng acres are included in the vegetable acres. In 2002 ginseng harvested, irrigated harvested acres, and production were included in the acres for field crops. Total vegetable acres are not directly comparable.

Government payments. This category consists of direct payments as defined by the 2002 Farm Bill; payments from Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), and Conservation Reserve Enhancement Program (CREP); loan deficiency payments; disaster payments; other conservation programs; and all other federal farm programs under which payments were made directly to farm operators. Commodity Credit Corporation (CCC) proceeds, amount from State and local government agricultural program payments, and federal crop insurance payments were not tabulated in this category.

Grain and bean combines. In the 2007 and 2002 censuses, data were collected for self-propelled combines only.

Grain storage capacity. Data include the capacity of all storage structures on the operation normally used to store whole grains and oilseeds. These structures can be bins, silos, buildings, trailers, etc. The capacity or usage of any off-farm public or commercial storage facilities was excluded.

Grains, oilseeds, dry beans, and dry peas sales. Data are for the total market value of cash grains sold, including corn for grain, seed, or silage; wheat for grain; soybeans for beans; sorghum for grain, seed, or silage; barley for grain; rice; oats for grain; and other grains. Also included is the total market value of cash oilseeds sold, including sunflower seed (oil and non-oil), flaxseed, canola, rapeseed, safflower seed, mustard seed, dry beans, and dry peas.

Greenhouse fruits and berries. This is a new item for 2007. Data include strawberries, raspberries, etc. grown in greenhouses and high tunnels where the crops were always covered. In 2002, data were

included in Other nursery and greenhouse crops. See Nursery, greenhouse, floriculture, and sod.

Greenhouse tomatoes. This is a new item for 2007. In 2002, data were included in greenhouse produced vegetables. See Total greenhouse vegetables and fresh cut herbs.

Gross cash rent or share payments. See Total income from farm-related sources, gross before taxes and expenses.

Harvested cropland. This category includes land from which crops were harvested and hay was cut, land used to grow short-rotation woody crops and land in orchards, citrus groves, Christmas trees, vineyards, nurseries, and greenhouses. Land from which two or more crops were harvested was counted only once. Land in tapped maple trees was included in woodland not pastured. The 2007 census definition for harvested cropland is the same as the 2002 definition.

Hay - all hay including alfalfa, other tame, small grain, and wild. Data shown represent the acreage and quantity harvested of all types of dry hay. The quantity harvested was reported in dry tons (dry weight at the time the hay was removed from the field for storage or feeding). If two or more cuttings of dry hay were made from the same field, the acreage was reported only once as acres harvested of the appropriate dry hay category, but the production from all cuttings was combined in the corresponding quantity harvested. Straw acreage and production is excluded.

If dry hay was cut from the same land that haylage, grass silage, or greenchop was cut, the acreage and production for the dry hay was reported in the appropriate category of dry hay and the acreage and production for haylage, grass silage, or greenchop was reported in the appropriate haylage, grass silage, or greenchop category. For example, if 20 acres of alfalfa were cut for hay and then the same land was used to produce alfalfa haylage, 20 acres and the quantity harvested of hay were reported as Alfalfa and alfalfa mixtures for dry hay and 20 acres and the quantity harvested of alfalfa haylage were reported as Haylage or greenchop from alfalfa or alfalfa mixtures.

Hay, other tame dry hay. Data shown represent acreage and dry tons of hay harvested from clover, fescue, lespedeza, timothy, Bermuda grass, Sudangrass, sorghum hay, and other types of legumes (excluding alfalfa) and tame grasses (excluding small grains).

Hay, wild dry. Data shown represent acreage and dry tons of hay harvested that was predominately wild or native grasses, even if it had some fill-in seeding of other grasses.

Haylage, grass silage, and greenchop, all. Data shown represent the acreage and quantity harvested of all types (alfalfa and all other). The quantity harvested was reported in green tons. If two or more cuttings of haylage, grass silage, or greenchop were made from the same field, the acreage was reported as acres harvested in the appropriate haylage category only once, and the tonnage from all cuttings was combined in the corresponding quantity harvested. Straw acreage and production is excluded.

Hired farm labor. Data are for total hired farm workers, including paid family members, by number of days worked. Data exclude contract laborers.

Hogs and pigs by type of operation. In the 2007 census, hog and pig farms were classified by primary type of operation. Operation types were farrow to wean, farrow to feeder, farrow to finish, nursery, finish only, and other. Each description was accepted and the reported inventory and sales data were assigned to each reported type. In 2002 a respondent could select more than one operation type. Data are not comparable.

Hogs and pigs by type of producer. In the 2007 census, hog and pig farms were classified by one type of producer in 2007. Producer types were independent grower, contractor or integrator, and contract grower (contractee). Each description was accepted and the reported inventory and sales data were assigned to each reported type. In 2002 a respondent could select more than one producer type. Data are not comparable.

Honey collected. Data are for pounds of honey produced but not necessarily sold.

Horseradish. This is a new item for 2007. Data are for total acres harvested, acres harvested for fresh market, and acres harvested for processing. In 2002, horseradish was reported as other vegetables.

Income. Net cash farm income is published for the operation and operator. The difference between net cash income and net cash returns is that net cash returns does not include government payments and other farm-related income as income. See Net cash farm income of the operations and Net cash farm income of the operators.

Income from farm-related sources. See Total income from farm-related sources, gross before taxes and expenses.

Institutional, research, experimental, and American Indian Reservation farms. Data for these farms are combined into a single category. Research farms include farms operated by private companies as well as those operated by universities, colleges, and government organizations for the purpose of expanding agricultural knowledge.

Irrigated land. This category includes all land watered by any artificial or controlled means, such as sprinklers, flooding, furrows or ditches, sub-irrigation, and spreader dikes. Included are supplemental, partial, and preplant irrigation. Each acre was counted only once regardless of the number of times it was irrigated or harvested. Livestock lagoon waste water distributed by sprinkler or flood systems was also included.

Land area, approximate. The approximate land area represents the total land area as determined by records and calculations as of January 1, 2007. The 2007 area values differ from 2002 because of the improved accuracy of spatial data. The proportion of land area in farms may exceed 100-percent because some operations have land in two or more counties, but all acres are tabulated in the principal county of operation. The approximate land area data were supplied by the U.S. Department of Commerce, Bureau of the Census. See Land in two or more counties.

Land enrolled in crop insurance programs. The data are for all land enrolled in any Federal, private, or other crop insurance program. It includes acreage of pasture/rangeland enrolled in crop insurance programs in areas where it is provided. Data are comparable with 2002.

Land enrolled in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP). CRP is a program established by the USDA in 1985 that takes land prone to erosion out of production for 10 to 15 years and devotes it to conservation uses. In return, farmers receive an annual rental payment for carrying out approved conservation practices on the conservation acreage. The WRP, FWP, and CREP programs are included under the CRP program that offers landowners financial incentives for conservation practices.

For the 2007 census, operations with land enrolled in the CRP, WRP, FWP, or CREP were counted as farms, given they received $1,000 or more in government payments, even if they had no sales and otherwise lacked the potential to have $1,000 or more in sales. 2002 data may not include FWP or CREP acreage so data are not directly comparable.

Land in berries. This is a new item for 2007. Data are for total land in berries. Respondents also reported harvested acres and not harvested acres by individual berry crops. In 2002, only harvested acreage was collected.

Land in farms. The acreage designated as ‘‘land in farms’’ consists primarily of agricultural land used for crops, pasture, or grazing. It also includes woodland and wasteland not actually under cultivation or used for pasture or grazing, provided it was part of the farm operator’s total operation. Large acreages of woodland or wasteland held for nonagricultural purposes were deleted from individual reports during the edit process. Land in farms includes CRP, WRP, FWP, and CREP acres.

Land in farms is an operating unit concept and includes land owned and operated as well as land rented from others. Land used rent free was reported as land rented from others. All grazing land, except land used under government permits on a per-head basis, was included as ‘‘land in farms’’ provided it

was part of a farm or ranch. Land under the exclusive use of a grazing association was reported by the grazing association and included as land in farms. All land in American Indian reservations used for growing crops, grazing livestock, or the potential of grazing livestock was included as land in farms. Land in reservations not reported by reservation, individual American Indians or non-Native Americans was reported in the name of the cooperative group that used the land. In many instances, an entire American Indian reservation was reported as one farm.

Land in orchards. This category includes land in bearing age and nonbearing age fruit trees, citrus or other groves, vineyards, and nut trees of all ages, including land on which all fruit crops failed. Respondents also reported bearing age acres and nonbearing age acres by individual fruit and nut crops. Respondents were instructed not to report abandoned plantings and plantings of fewer than 20 total fruit, citrus, or nut trees or grapevines.

Land in two or more counties. With few exceptions, the land in each farm was tabulated as being in the operator's principal county. The principal county was defined as the one where the largest value of agricultural products was raised or produced. It was usually the county containing all or the largest proportion of the land in the farm or viewed by the respondent as his/her principal county. Reports received showing land in more than one county were separated into two or more reports if the data would substantially distort county totals.

Land in vegetables. Data are for the total land used for vegetable and melon crops. The acres were reported only once, even though two or more harvests of a vegetable or more than one vegetable were harvested from the same acres. In 2007, ginseng, potatoes, and sweet potatoes are included in land used for vegetables. In 2002, these acres were included in field crops. Data are not directly comparable.

Land used for organic production. See Total acres used for organic production.

Land used for vegetables. See Land in vegetables.

Landlord's share of the total sales. Data represent the share of the operation's total sales that went to landlord(s).

Layers. This category includes table-egg type layers, hatching layers for meat-types, and hatching layers for table egg types. In 2002, this category was referred to as Layers 20 weeks and older. This is a wording change only; data are comparable.

Layers inventory. See Layers.

Layers sold. See Layers.

Less than $1,000. See Farms with sales and government payments of less than $1,000.

Livestock and poultry purchased or leased. See Total farm production expenses; *Livestock and poultry purchased or leased*.

Maple syrup. Data are for the number of taps set and syrup produced.

Market value of agricultural products sold. This category represents the gross market value before taxes and production expenses of all agricultural products sold or removed from the place in 2007 regardless of who received the payment. It is equivalent to total sales and it includes sales by the operators as well as the value of any shares received by partners, landlords, contractors, or others associated with the operation. It includes value of direct sales and the value of commodities placed in the Commodity Credit Corporation (CCC) loan program. Market value of agricultural products sold does not include payments received for participation in other federal farm programs. Also, it does not include income from farm-related sources such as customwork and other agricultural services, or income from nonfarm sources.

The value of crops sold in 2007 does not necessarily represent the sales from crops harvested in 2007. Data may include sales from crops produced in earlier years and may exclude some crops produced in 2007 but held in storage and not sold. For commodities such as sugarbeets and wool sold through a co-op that made payments in several installments, respondents were requested to report the total value received in 2007.

The value of agricultural products sold was requested of all operators. If the operators failed to report this information, estimates were made based on the amount of crops harvested, livestock or poultry inventory, or number sold. Caution should be used when comparing sales in the 2007 census with sales reported in earlier censuses. Sales figures are expressed in current dollars and have not been adjusted for inflation or deflation. See Farms with sales and government payments of less than $1,000.

Market value of agricultural products sold and government payments. See Total market value of agricultural products sold and government payments.

Migrant farm labor on farms with hired labor. Operators were asked whether any hired or contract workers were migrant workers. A migrant farm worker is a farm worker whose employment required travel that prevented the worker from returning to his/her permanent place of residence the same day.

Migrant farm labor on farms reporting only contract labor. Data are for those operations that did not have hired farm workers but reported that they did have migrant contract workers on their operation in 2007.

Misreported or miscoded crops. In a few cases, data may have been reported on the wrong line, in the wrong section, or the wrong crop code may have been assigned to a write-in crop code. A few of these errors may not have been identified and corrected during processing which resulted in rare cases of inaccurately tabulated data. Reports with significant acres of unusual crops for the area were examined to minimize the possibility that they were in error.

Mollusks. These are invertebrate animals with a soft body covering and shells of 1-18 parts or sections. Examples include abalones, clams, mussels, oysters, and snails. See Aquaculture for more information on production reported on the census.

More than one race reported. This category represents those operators who chose to report more than one race on the census form.

Mushroom spawn. This is a new item for 2007. Respondents reported only sales; growing area was not summarized.

Mushrooms. All mushroom crops were considered grown under glass or other protection and no mushroom data were published as area in the open. Those reporting mushrooms grown in the open area were converted to an equivalent area of square feet under protection.

NAICS. See Farms by North American Industry Classification System (NAICS).

Net cash farm income of the operations. This concept is derived by subtracting total farm expenses from total sales, government payments, and other farm-related income. Depreciation is not used in the calculation of net cash farm income. Net cash farm income of the operation includes the value of commodities produced under production contract by the contract growers.

For publication purposes, farms are divided into two categories:

1. Farms with net gains (includes those operations that broke even).

2. Farms with net losses.

Net cash farm income of the operators. This value is the operators' total revenue (fees for producing under a production contract, total sales not under a production contract, government payments, and farm-related income) minus total expenses paid by the operators. Net cash farm income of the operator includes the payments received for producing under a production contract and does not include value of commodities produced under production contract by the contract growers. Depreciation is not used in the calculation of net cash farm income.

For publication purposes, farms are divided into two categories:

1. Farms with net gains (includes those operations that broke even).

2. Farms with net losses.

Noncitrus fruit, all. This is a summation of all acres reported in the commodities defined as noncitrus such as apples, grapes, and plums.

Noncitrus fruit, other. See other noncitrus fruit.

Nursery, greenhouse, floriculture and sod. In the 2007 census, individual data were collected for area under glass or other protection, area in the open, and sales of aquatic plants; bulbs, corms, rhizomes, and tubers; cuttings, seedlings, liners, and plugs; floriculture crops; flower seeds; greenhouse fruits and berries; total greenhouse vegetables and fresh cut herbs; mushrooms; mushroom spawn; nursery stock; other nursery crops; sod harvested; tobacco transplants; vegetable seeds; and vegetable transplants. Total sales data are the summation of all crops. In the 2002 census, mushroom spawn were not included so total sales data are not directly comparable. Also, in the 2002 census, individual crops sales data were not collected.

Nuts, all. Data include all nut trees. In 2002, the report form category Other fruit and nuts was used in some regions. Some nut trees were reported in this category. The data for all nut trees for 2002 cannot be summarized so data are not comparable.

Occupation. See Primary occupation of operator and/or Farms by age and primary occupation of operator.

Operator. The term operator designates a person who operates a farm, either doing the work or making day-to-day decisions about such things as planting, harvesting, feeding, and marketing. The operator may be the owner, a member of the owner's household, a hired manager, a tenant, a renter, or a sharecropper. If a person rents land to others or has land worked on shares by others, he/she is considered the operator only of the land which is retained for his/her own operation. The census collected information on the total number of operators, the total number of women operators, and demographic information for up to three operators per farm.

Operator characteristics. Operators (up to three operators per farm) were asked to report primary occupation, sex, age, race, place of residence, if retired, number of days worked off farm, year in which his/her operation of the farm began, hired manager, number of persons living in the operators' households, and Spanish, Hispanic, or Latino origin. Information on the total number of operators and total number of women operators was collected from each operation. In addition, the principal operator was asked to report the percentage of total household income that came from the farm operation.

Operators of Spanish, Hispanic, or Latino origin. See Spanish, Hispanic, or Latino origin.

Operators, number. Demographic and other information were collected for up to three operators per farm - the principal operator plus up to two additional operators. This may be fewer than the total operators on some farms. Demographic data for up to three operators reported are presented separately for women, by race categories, and for Spanish, Hispanic, or Latino origin.

Operators, total. The data represent the total reported number of operators for the operation.

Operators, total women. The data represent the total number of women operators reported for the operation.

Oranges, all. All oranges are a summation of Valencia oranges and Other oranges. Total acres, bearing acres, and nonbearing acres were collected by category.

Oranges, other. See Other oranges.

Organic agriculture. See Total acres used for organic production and Total organic product sales.

Ornamental fish. This category includes various fish raised for water gardens, aquariums, etc. Examples include angel fish, guppies, koi, ornamental goldfish, and tropical fish. In the 2007 census the value of sales was tabulated for each specified species. In the 2002 census only total aquaculture value of sales was asked.

Other animals and other animal products sold. This category includes the number of farms and value of all animals and animal products not having specific codes on the 2007 report form.

Other aquaculture products. In the 2007 census, examples include the production of alligators, frogs, leeches, eels, live rock, salamanders and turtles. Data are not comparable with the 2002 census since other fish were listed separately on the 2002 report form and in 2007 it is included in other aquaculture products.

Other cattle. In the 2007 census, data include heifers that have not calved, steers, calves, and bulls.

Other cattle, livestock, poultry, or aquaculture. See Commodities raised and delivered under production contract.

Other citrus. In the 2007 census, data relate to any citrus crop not having a specific code on the report form. For 2007 data includes K-early citrus which was published as its own category in 2002 therefore data are not comparable with 2002.

Other cropland. This includes all cropland other than harvested cropland or cropland used only for pasture or grazing.

Other crops and hay. For the 2007 census, data are for the total market value of all crops not categorized into one of the prelisted crop sales categories on the report form and hay sales. This category includes crops such as grass seed, hay and grass silage, haylage, greenchop, hops, maple syrup, mint for oil, peanuts, sugarcane, sugarbeets, etc.

Other crops. Data relate to any field crops not having a specified code on the 2007 census report form. Amaranth, foxtail millet seed, lotus root, mungbeans, redtop seed, salt hay, and sweet rice were included in other field crops in the 2007 report form but were reported individually on the 2002 report form. The 2002 data, where compared, were not adjusted for these crop acreages.

Other-farm related income sources. See Total income from farm-related sources, gross before taxes and expenses.

Other field and grass seed crops. Data relate to any field or grass seed crop not having a specified code on the 2007 census report form. Sweet clover seed was included in other seed crops in the 2007 report form but were reported individually on the 2002 report form. The 2002 data, where compared, were not adjusted for this crop acreage.

Other floriculture and bedding crops. This is a new item for 2007. In 2002, data were reported in other nursery and greenhouse.

Other food fish. Data are for fish, other than catfish and trout, raised on farms for food. Examples include hybrid striped bass, moi, perch, salmon, sturgeon, and tilapia.

Other greenhouse vegetables and fresh cut herbs. This is a new item for 2007. In 2002, these data were included with greenhouse produced vegetables.

Other land. This category includes land in house lots, barn lots, ponds, roads, ditches, wasteland, etc. It includes those acres in the farm operation not classified as cropland, pastureland, or woodland. See Land in farms.

Other livestock. This category includes all livestock not having specific codes on the 2007 report form. See Other animals and other animal products sold.

Other livestock and poultry purchased or leased. See Total farm production expenses.

Other livestock products. Data for this category include the number of farms that sold livestock products that did not have a specific code on the 2007 report form.

Other noncitrus fruit. Data relate to any noncitrus fruit not having a specific code on the census report form.

Other nursery crops. This is a new item in 2007. It includes nursery crops not having specific codes on the report form. In 2002, data were reported in other nursery and greenhouse.

Other nuts. This category includes any nut crop not having a specific code on the report form. In 2007, data were collected for chestnuts separately while in 2002 chestnuts were included in Other nuts. Data are not comparable.

Other oranges. Data are for Oranges other than Valencia oranges, including Navel oranges.

Other poultry. Data are for other poultry not having a specific code on the report form. Data are comparable.

Other tame hay. See Hay, other tame dry hay.

Other vegetables. Data shown for other vegetables relate to any vegetable not having a specific code on the census form. In the 2007 census, data were collected separately for horseradish while in 2002 horseradish was included in other vegetables. Data are not directly comparable.

Patronage dividends. See Total income from farm-related sources, gross before taxes and expenses.

Payments received by the contractee for commodities produced under contract. These data show the number of farms and the dollar amount the contractees received from contractors for commodities produced under contract. This is not the market value of the commodities delivered, but the payment or fee the operators received for commodities delivered. For market value of the commodities delivered see Commodities raised and delivered under production contracts.

Peaches, all. Data for all peaches were collected as a category in all States except for California and Arizona. Peach data in California and Arizona were collected separately for clingstone and freestone peaches. The data were later combined with all peaches for publication. Data for clingstone and freestone are found in the California and Arizona publications only.

Pears, all. Data for all pears were collected as a category in all States except for California, Arizona, Idaho, Oregon, Alaska, and Washington. These States collected data separately for Bartlett pears and Other pears which were later combined into the Pear, all category. Data for Bartlett and other pears are found only in the State publications where collected.

Pecans, all. All pecans is a summation of Pecans, improved and Pecans, native and seedling. Total acres, bearing acres, and nonbearing acres were collected by category in the 2007 census. In the 2002 census, total acres, bearing acres, and nonbearing acres were collected only as all pecans.

Pecans, improved. This is a new item for the 2007 census. Improved pecans are varieties that have been genetically altered through breeding and grafting techniques to produce more nuts, and nuts with a greater percentage of nut meat. See Pecans, all for further explanation.

Pecans, native and seedlings. This is a new item for the 2007 census. Native pecans are varieties that developed under natural conditions. Seedling pecans are produced from seed (the nut) and have not been budded or grafted. See Pecans, all for further explanation.

Peppers, Bell (excluding pimientos). The wording was improved to exclude pimientos which were reported as other vegetables.

Peppers, other than bell (including chile). The data includes all other peppers including chile. Pimientos were reported as other vegetables. In 2002 this category was referred to as Peppers, chile (all peppers, excluding bell). This is a wording change only; all data are comparable.

Permanent pasture and rangeland, other than cropland and woodland pastured. This land use category encompasses grazable land that does not qualify as woodland pasture or cropland pasture. It may be irrigated or dry land. In some areas, it can be a high quality pasture that could not be cropped without improvements. In other areas, it is barely able to be grazed and is only marginally better than wasteland. In 2002 this category was referred to as Pastureland and rangeland, other than cropland pastured. This is a wording change only; all data are comparable.

Plums. This was reported as an individual item only in California and Arizona. All other States reported plums in a combined plum and prune category.

Pluots. This is a new item for 2007. Pluots were reported as an individual item only in California, Arizona, Idaho, Oregon, Alaska, and Washington. In all other States pluots were reported in the Other non-citrus category.

Potatoes. In 2007 potato acres are included in the vegetable acres. Data are for total acres harvested, acres harvested for fresh market, and acres harvested for processing. Production was not collected. In 2002 potatoes acreage and production were included in the acres for field crops.

Poultry hatched. This category includes all poultry hatched on the operation during the year. The number of poultry hatched is under the Sold heading for both years.

Poultry, other. See Other poultry.

Primary occupation of operator. Data on age and primary occupation were obtained from up to three operators per farm. The primary occupation classifications used were:

1. *Farming or ranch work.* The operator spent 50-percent or more of his/her worktime during 2007 at farming or ranching.

2. *Other.* The operator spent less than 50-percent of his/her worktime during 2007 in farming or ranching operations.

Principal operator. The person primarily responsible for the on-site, day-to-day operation of the farm or ranch business. This person may be a hired manager or business manager. See Operators for further explanation.

Production contracts. See Commodities raised and delivered under production contracts.

Production expenses. See Total farm production expenses.

Prunes. This was reported as an individual item only in California and Arizona. All other States reported prunes in a combined plum and prune category.

Pullets for laying flock replacement. Data are for pullet inventory and the number sold or moved for laying flock replacement.

Race of operator. Data, except for Hawaii, were collected for American Indian (included Alaska Native), Asian, Black or African American, Native Hawaiian and Other Pacific Islander, and White. Respondents were asked to mark one or more of the race categories. In Hawaii operator race data were collected for American Indian (included Alaska Native), Chinese, Filipino, Japanese, Korean, Other Asian, Black or African American, Native Hawaiian, other Pacific Islander, and White. The combination of Native Hawaiian and Other Pacific Islander is equivalent to the Native Hawaiian or Other Pacific Islander category on the other forms. The combination of the Chinese, Filipino, Japanese, Korean, and Other Asian categories is equivalent to the Asian category on the other forms. The Volume 1, Geographic Area Series, U.S. Summary publication only displays counts for the categories of Native Hawaiian and Other Pacific Islander and Asian. Data for the 11 Hawaii race categories are published in chapter 2 of the Hawaii publication of the Volume 1 series.

Raspberries, all. In 2007, raspberries were reported as All raspberries except in Alaska, Idaho, Oregon, and Washington where they were reported as black raspberries or red raspberries. In these States, black raspberries and red raspberries data were combined as Raspberries, all for comparability with other States. In 2002, raspberries were reported as all raspberries except in Idaho, Oregon, and Washington.

Raspberries, black. See Raspberries.

Raspberries, red. See Raspberries.

Rental of farmland. See Total income from farm-related sources, gross before taxes and expenses; Gross cash rent or share payments.

Sales, total. See Market value of agricultural products sold.

Sheep and lambs inventory. Data are for sheep and lambs of all ages owned regardless of location. In 2007 sheep and lambs were collected in their own section to clarify to respondents that only "owned" sheep and lambs were to be reported versus any sheep and lambs on the operation.

Short-rotation woody crops. Data are for short-

rotation woody crops that grow from seed to a mature tree in 10 years or less. These are trees for use by the paper or pulp industry or as engineered wood. This does not include lumber. Acres in production were included in Cropland harvested in the "Land" section of the report form.

Size of farm. See Farms by size.

Sorghum for syrup (gallons). Data are for sorghum syrup produced. 2002 data were collected as pounds produced so the 2002 data were divided by 11.55 to convert the pounds to gallons.

Squash, all. All squash is a summation of summer squash and winter squash. Total acres, acres for fresh market, and acres for processing were collected by category in the 2007 census. In the 2002 census, total acres and acres for processing were collected as all squash.

Squash, summer. This is a new item for the 2007 census. See Squash, all.

Squash, winter. This is a new item for the 2007 census. See Squash, all.

Spanish, Hispanic, or Latino origin. Operators of Spanish, Hispanic, or Latino origin are found in all of the racial groups listed in the census and were tabulated according to the race reported, as well as on tables pertaining only to this group.

Sport or game fish. Data are for sport or game fish and it includes fish raised to restock public waters or for sale at fee fishing operations. Examples include bluegill, crappie, largemouth bass, smallmouth bass, sunfish, muskie, northern pike, walleye, and sunfish.

Sweet potatoes. In 2007 sweet potato acres are included in the vegetable acres. Data are for total acres harvested, acres harvested for fresh market, and acres harvested for processing. Production was not collected. In 2002 sweet potatoes acreage and production were included in the acres for field crops.

Tame hay. See Hay, other tame dry.

Tenure. See Farms by tenure of operator.

Tobacco transplants. This is a new item for 2007. Data are for tobacco transplants that were sold for transplant to farm fields. Transplants grown for transplanting to the same operation were not reported or removed during data review. In 2002, data were reported as Other nursery and greenhouse.

Tomatoes in the open. Data are for tomatoes grown in the open. In 2007 the wording "in the open" was added to clarify between tomatoes grown in open fields versus tomatoes grown under cover. Data are comparable.

Total acres used for organic production. This is a new item in the 2007 census. Respondents were instructed to report organic production as defined by the National Organic Standards while in 2002 only acreage of certified organically produced crops was collected. Organic acreage is divided into organic crops and organic pasture. The count of farms producing organic crops may differ from that found in other sources because this item is self reported by respondents. No attempt was made to verify reports with certifying organic organizations. The acres reported for organic crops must be less than or equal to the acres reported as cropland harvested for each operation.

In 2002, data were collected for the number of acres used to raise certified organically produced crops. This was replaced in 2007 with acreage and value of sales of organically produced commodities. For certified production, only a "Yes" or "No" response question was asked in the "Organic Agriculture" section. The 2007 data do not compare with 2002 Land used to raise certified organically produced crops. See Total organic product sales.

Total cropland. This category includes cropland harvested, cropland used only for pasture or grazing, cropland on which all crops failed or were abandoned, cropland in cultivated summer fallow, and cropland idle or used for cover crops or soil improvement but not harvested and not pastured or grazed.

Total farm production expenses. Includes the production expenses provided by the operators, partners, landlords (excluding property taxes), and production contractors for the farm business in 2007.

Tenant farmers reported expenses paid by landlords for the agricultural production on the operation, as well as their expenses. Farm or ranch operators who rented part of their land to others reported only the expenses for the land they actually used themselves and not expenses for land rented to others. The 2007 total farm production expenditure includes all farm-related expenses such as customwork, fuel costs, cost of cutting timber, services provided to hunters, cooperative membership fees, etc. However, if the income from these farm-related categories was not considered a part of the operation (i.e., if the income was regarded as derived from a separate business), then the associated expenses were not included. The contractor's portion of expenses was solely based on computer generated estimates for 2007.

This item excludes expenses relating to non-farm activities such as trading and speculation in the commodities market or livestock trading activities. Explanations of selected production expenses are listed below.

All other production expenses. This category includes all expenses not listed on the report form. Examples include animal health costs, storage and warehousing, marketing and ginning expenses, insurance, etc. Health expenses and payroll taxes were excluded.

Breeding livestock purchased or leased. These expenses include all breeding livestock and poultry purchased or leased during 2007 for production on the farm or ranch. The total includes amount spent for beef and dairy cows, heifers, bulls, sows, gilts, boars, rams, lambs, ewes, roosters, hens, layers, etc. Estimations of the value of livestock or poultry fed on a custom basis were to be made based on their value when they arrived on the farm or ranch. In 2002 data were only collected for purchased breeding livestock. Data are not directly comparable.

Cash rent paid in 2007 for land and buildings. These data include the cost of renting land and buildings that were part of the operation. Rent paid for the operator's dwelling or other non-farm property and the value of the shares of crops and livestock paid to landlords were excluded.

Chemicals. These 2007 expenses include insecticides, herbicides, fungicides, and other pesticides, including costs of custom application. Data exclude commercial fertilizer purchased.

Contract labor. These data include payments made to contractors, crew leaders, cooperatives, or any other organization hired to furnish a crew of laborers to do a job that may involve one or more agricultural operations. In some cases, a crew leader may furnish some equipment. Data exclude expenses made on a contractual basis for repair or maintenance or for capital improvements, such as construction of farm buildings, installation of fences or irrigation systems, and land leveling.

Customwork and custom hauling. These expenses include costs incurred for having customwork done on the place and for renting machines to perform agricultural operations. The cost of cotton ginning is excluded. The cost of labor involved in the customwork service is included in the customwork expense. Some examples of customwork are planting, spraying, harvesting, preparation of products for marketing, grinding and mixing feed, corn picking, grain drying, and silo filling. The cost of custom application of fertilizer and chemicals is included in expenditures for fertilizer and chemicals in 2007, just as it was in the 2002 census. The cost of hired labor for operating rented or hired machinery is included as a hired farm and ranch labor expense.

Feed purchased. These expenses include the cost of all feed for livestock and poultry including grain, hay, silage, mixed feeds, concentrates, etc. during 2007.

Fertilizer, lime, and soil conditioners. These 2007 expenses include fertilizer and lime including rock phosphate and gypsum, and the costs of custom application.

Gasolines, fuels, and oils. These expenses include the cost of all gasoline, diesel, natural gas, LP gas, motor oil, and grease products for the farm during 2007. Expenses exclude fuel for personal use of automobiles by the family and others, fuel used for cooking and heating the farmhouse, and any other use outside of farmwork on the operation.

Hired farm labor. These 2007 expenses include the total amount paid for farm or ranch labor including regular workers, part-time workers, and members of the operator's family if they received payments for labor. Expenses include social security taxes, State taxes, unemployment tax, payment for sick leave or vacation pay, workman's compensation, insurance premiums, and pension plans.

Interest paid on debts. These expenses include interest and finance charges paid in 2007 for debts secured by real estate and on debt not secured by real estate. Interest expenses excluded from this category are non-farm interest expenses and interest expenses originating from machinery and equipment used for a separate customwork business or for other operations. Interest expense for the operator's dwelling, where the amount is separate from interest on farm land and buildings on the operation, is excluded. Interest paid on debts was reported in one of two categories:

1. *Secured by real estate.* These data include all interest expenses paid in 2007 on debts secured by real estate for the farm.

2. *Not secured by real estate.* These data include all interest expenses paid in 2007 on debts secured by machinery, tractors, trucks, other equipment, livestock, poultry, breeding stock, money borrowed for use as working capital, and interest paid on CCC loans for the farm.

Livestock and poultry purchased or leased. These data include Breeding livestock purchased or leased and Other livestock and poultry purchased or leased.

Other livestock and poultry purchased or leased. These expenses include all non-breeding livestock and poultry purchased or leased during 2007 for production on the farm or ranch. The total includes amounts spent for cattle, calves, hogs, pigs, sheep, hatchery eggs, etc. In 2002 data were only collected for purchased livestock and poultry. Data are not directly comparable.

Property taxes paid. These data include property taxes paid by the operators for the farm share of land, machinery, buildings, and livestock, excluding taxes paid by this operator's landlords.

Rent and lease expenses for machinery, equipment, and farm share of vehicles. These data include the farm share cost of renting or leasing machinery, equipment, and vehicles during 2007. Rental and lease expenses of items used only for custom hire are excluded here.

Repairs, supplies, and maintenance. These expenses include all costs for the repair and upkeep of buildings, motor vehicles, fences, and farm equipment used for the farm business during 2007. Repairs to equipment used both for the farm business and for performing customwork are included.

Seeds, plants, vines, and trees. These expenses include the cost of all seeds, bulbs, plants, propagation materials, trees, seed treatments, seed cleaning costs, etc. purchased during 2007. Excluded were items purchased for immediate resale or the value of seed grown on this place.

Utilities. These data show the farm share cost of electricity, telephone charges, internet fees, and water purchased in 2007. Included in the water cost is water purchased for irrigation purposes, livestock watering, etc. Household utility costs were excluded from these items.

Total greenhouse vegetables and fresh cut herbs. This category includes greenhouse tomatoes and other greenhouse vegetables and fresh cut herbs. In 2002 this category was referred to as greenhouse vegetables. This is only a wording change; all data are comparable.

Total income from farm-related sources, gross before taxes and expenses. This includes gross income from farm-related sources received in 2007 before taxes and expenses from the sales of farm byproducts and other sales and services closely related to the principal functions of the farm business. The data exclude income from employment or business activities which were separate from the farm business. Categories that make up the farm-related income calculation changed between the 2002 and 2007 censuses. In the 2007 census, Crop and livestock insurance payments received and Amount from State and local government agricultural program payments are published separately. In the 2002 census, these

categories were combined with Other farm-related income sources.

Agri-tourism and recreational services. This income includes income from recreational services such as hunting, fishing, farm or wine tours, hay rides, etc. In the 2002 census, this category was referred to as Recreational Services. This is a wording change only; all data are comparable.

Amount from State and local government agricultural program payments. This is a new item for 2007. This income includes State and local government agricultural program payments. Respondents were to exclude the State and local portion of CREP payments if they were reported in the amount received for participation in CREP in section 4, item 1a of the report form. In 2002 this income was included with Other farm-related income sources.

Crop and livestock insurance payments received. This is a new item for 2007. This income includes insurance payments from crop and livestock losses. In 2002 this income was combined with Other farm-related income sources.

Customwork and other agricultural services. This income includes gross receipts received by the farm operators for providing services for others such as planting, plowing, spraying, and harvesting. Income from customwork and other agricultural services is generally included in the agriculture census if it is closely related to the farming operation. However, it is excluded if it constituted a separate business or was conducted from another location.

Gross cash rent or share payments. This income includes gross cash or share payments received from renting out farmland, payments received from the lease or sale of allotments, and payments received for livestock pastured on a per-head, per month, or per pound basis. It excludes rental income from nonfarm property.

Other-farm related income sources. This is other income which is closely related to the agricultural operation. This income includes animal boarding, breeding fees (horse breeding or stud fees received were reported in the Value of Sales section in the Other animals and other animal products category), tobacco quota buyouts, State fuel tax refunds, farm generated energy, etc. In the 2007 census, crop and livestock insurance payments received and amount from State and local government agricultural program payments were published separately. In the 2002 census, these categories were combined with other farm-related income sources. Data are not comparable.

Patronage dividends and refunds from cooperatives. This income includes payments to a farmer or rancher for business done with a cooperative to which he/she usually belongs. The payment is usually for goods sold through the co-op.

Sales of forest products. This income includes gross receipts from sales of standing timber, pulpwood, firewood, etc. from the farm or ranch operation. It excludes income from nonfarm timber tracts, sawmill businesses, cut Christmas trees, maple products, and short-rotation woody crops.

Total operators. See Operators, total.

Total organic product sales. This is a new item for the 2007 census. The data represent the value of organically produced agricultural commodities sold from operations during 2007. It was the intention of the question to collect the value of those products that were produced as organic according to the National Organic Standards. These sales may come from either crop or livestock production and are divided into three categories:

1. Sales for crops, including nursery and greenhouse crops.

2. Sales for livestock and poultry.

3. Sales for livestock and poultry products. Sales data are not comparable.

Total sales. See Market value of agricultural products sold.

Total market value of agricultural products sold and government payments. This category represents the value of products sold plus government payments. Total value of products sold

combines total sales not under production contract and total sales under production contract. Government payments consist of government payments received from the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP) plus government payments received from Federal, State, and local programs other than the CRP, WRP, FWP, and CREP, and Commodity Credit Corporation loans.

Trucks, including pickups. This is a new item for 2007. The data were last published in the 1997 census.

Turkeys. In the 2007 census, turkey data are a combination of turkeys for meat production and turkey hens kept for breeding tabulated from two questions. The number of turkeys sold includes turkeys sold for slaughter or moved to other farms, which may result in a turkey being sold more than once from different operations. In the 2002 census, turkey inventory and sales were tabulated in one question.

Type of organization. See Farms by type of organization.

Typology. See Farm typology.

Utilities. See Total farm production expense.

Value of agricultural products sold directly to individuals for human consumption. This item represents the value of agricultural products produced and sold directly to individuals for human consumption from roadside stands, farmers' markets, pick-your-own sites, etc. It excludes non-edible products such as nursery crops, cut flowers, and wool but includes livestock sales. Sales of agricultural products by vertically integrated operations through their own processing and marketing operations were excluded.

Value of commodities. Data show the number of farms and the market value of all commodities delivered under a production contract.

Value of landlord's share of total sales. Data include the value of agricultural sales received by the landlords.

Value of organically produced commodities. See Total organic product sales.

Value of sales. See Market value of agricultural products sold.

Vegetable transplants. This is a new item for 2007. Data are for vegetable transplants grown and sold from this operation for transplanting to fields on another operation. In 2002 vegetable transplants were reported as other nursery and greenhouse.

Vegetables harvested for fresh market. This is a new item for the 2007 census. Respondents reported the total vegetable acres harvested, harvested for processing, and harvested for fresh market.

Vegetables harvested for sale. The acres of vegetables harvested is the summation of the acres of individual vegetables harvested. All of the individual vegetable items may not be shown. When more than one vegetable crop was harvested from the same acreage, acres were counted for each crop. In 2007, ginseng, potatoes, and sweet potatoes are included in vegetables harvested. In 2002, these acres were included in field crops. The 2002 data, where compared, were not adjusted to include ginseng, potatoes, and sweet potatoes acreage.

Vegetables, melons, and potatoes. See Commodities raised and delivered under production contracts.

Vegetables, other. See Other vegetables.

Wheat for grain. Data were reported by type of wheat - Durum, winter, and spring other than Durum.

Woodland pastured. This category includes all woodland used for pasture or grazing during the census year. Woodland or forest land pastured under a per-head grazing permit was not counted as land in farms and, therefore, was not included in woodland pastured.

Woodland, total. This category includes natural or

planted woodlots or timber tracts, cutover and deforested land with young growth which has or will have value for wood products and woodland pastured. Land covered by sagebrush or mesquite was reported as Permanent pastureland and rangeland or other land. Land planted for Christmas tree production and short rotation woody crops was reported in Cropland harvested, and land in tapped maple trees was reported as Woodland not pastured.

Write-in crops. To reduce the length of the report form, only the major crops for each region were prelisted on the regional report forms. For other crops, the respondent was asked to look at a list of crops in each section and write in the crop name and its code. For crops that had no individual code listed on the report form, the respondent was to write in the crop name and code of the appropriate ''all other'' category for that section. Write-in crops coded as ''all other'' were reviewed and assigned a specific code when possible. Crops not assigned a specific code were left in the appropriate ''all other'' category. The national report form was an open table design so most of the commodities were reported as write-in commodities.

DUE FEBRUARY 4, 2008

OMB No. 0535-0226: Approval Expires 07/31/2009

UNITED STATES 2007 CENSUS OF AGRICULTURE

Form Number: 07-A0200
(11/27/06)

USDA

AGRICULTURE COUNTS NASS

National Agricultural Statistics Service

Please return your completed report to:

Census of Agriculture
1201 East 10th Street
Jeffersonville, IN 47132

OFFICE USE ONLY

0013		
0011	0012	
0014	0015	0016
0021	0022	0023

07-A0200

Please make corrections to name, address, and ZIP code if necessary.

- Everyone who receives a form must return one by mail or via the Internet at **www.agcensus.nass.usda.gov**
- Your report is due by **February 4, 2008.**
- To fill out the paper form, use a black or blue ballpoint pen.
- **Duplicate forms?** If you received extra census report forms for the SAME farming operation, return all report forms in the same envelope with this completed report.

THANK YOU FOR YOUR COOPERATION.

Questions? Call us toll free at 1-888-424-7828.

¿Preguntas? Llámenos libre de cargos al 1-888-424-7828.

PENALTY FOR FAILURE TO REPORT

NOTICE: Response to this inquiry is required by law (Title 7, U.S. Code). By the same law, YOUR REPORT IS CONFIDENTIAL and it will only be used for statistical purposes. Your report CANNOT be used for purposes of taxation, investigation, or regulation. The law also provides that copies retained in your files are immune from legal process.

07200017

SECTION 1 ACREAGE IN 2007

Report land owned, rented, or used by you, your spouse, or by the partnership, corporation, or organization named on the front of this form. Include ALL LAND, REGARDLESS OF LOCATION OR USE - cropland, Conservation Reserve Program (CRP) and Wetlands Reserve Program (WRP) land, pastureland, rangeland, woodland, idle land, farmsteads, etc.

		None	Number of Acres
1. All land owned. 0043		☐	
2. All land rented or leased **from others,** including land worked by you on shares, used rent free, in exchange for services, payment of taxes, etc. Include Federal, State, and railroad land leased on a per-acre basis. Exclude land (i.e. private, Federal, State, railroad, etc.) used on a per-head or animal unit month (AUM) basis under a grazing permit. . . . 0044		☐	
3. All land rented or leased **to others,** including land worked on shares by others and land subleased. 0045		☐	
4. **TOTAL ACRES** in this operation for this census - Add items 1 and 2, then subtract item 3. If the entry is zero, please refer to the enclosed Instruction Sheet, section 1. These acres are referred to as **THIS OPERATION** for the remainder of this report.	0046		

	None	Number of Acres
5. How many acres rented or leased **to others** (Item 3 above) did this operation **own**? 0053	☐	

6. Location of agricultural activity for this operation

a. In what county was the largest value of your agricultural products raised or produced?

0055 Principal County Name	0060 State	0056 Number of Acres

b. If you also had agricultural activity in any **other** county, enter the county name(s), etc.

Other County Name(s)	State		Number of Acres
		0057	
		0058	
		0059	
		0042	

07200025

SECTION 2 LAND

Report how the acres reported in SECTION 1, item 4 were used in 2007. Include land in CRP, WRP, and other State and Federal programs. **Exclude land rented to others.** Report land only once, in the first item that applies. For example: Land that was both pastured and had a crop harvested should be reported only in cropland harvested (item 1a).

		None	Number of Acres
1. Cropland - Exclude cropland pasture.			
a. Cropland harvested - Include all land from which crops were harvested or hay was cut, all land in orchards, citrus groves, vineyards, berries, and nursery and greenhouse crops, Christmas trees, and short rotation woody crops.	0787	☐	
b. Cropland on which all crops failed or were abandoned - Exclude land in orchards and vineyards.	0790	☐	
c. Cropland in cultivated summer fallow.	0791	☐	
d. Cropland idle or used for cover crops or soil-improvement but not harvested and not pastured or grazed.	1062	☐	
2. Pasture			
a. Permanent pasture and rangeland - Exclude cropland pasture.	0796	☐	
b. Woodland pastured.	0794	☐	
c. Cropland used **only** for pasture or grazing - Include rotation pasture and grazing land that could have been used for crops without additional improvements.	0788	☐	
3. Woodland not pastured - Include woodlots, timber tracts, and sugarbush.	0795	☐	
4. All other land - Include land in farmsteads, buildings, livestock facilities, ponds, roads, wasteland, etc.	0797	☐	
5. **TOTAL ACRES -** Add the acres reported in items 1 through 4 above. Should be the same acres as those reported in SECTION 1, Item 4.	0798	☐	

SECTION 3 IRRIGATION

1. Were any of the acres on this operation irrigated by sprinklers, flooding, ditches or furrows, drip or trickle irrigation, etc. in 2007?

1065 1 ☐ **Yes -** Complete this section 3 ☐ **No -** Go to SECTION 4 below

		None	Acres Irrigated
2. Harvested land irrigated - Include irrigated land from which crops were harvested or hay was cut and land in bearing and nonbearing fruit, nut, and berry crops.	0680	☐	
3. Pastureland, rangeland, abandoned cropland, and other land irrigated.	0681	☐	

SECTION 4 CONSERVATION RESERVE PROGRAM AND CROP INSURANCE

		None	Number of Acres
1. How many acres in this operation were enrolled in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP), on **September 30, 2007**?	0683	☐	
			Dollars
a. Amount received in 2007 for participation in these programs.	0685	☐	$ .00
			Number of Acres
2. How many acres in this operation were covered under a crop insurance policy in 2007?	1067	☐	

07200033

- DO NOT report crops grown on land rented TO OTHERS -

SECTION 5 FIELD CROPS

1. Were any field crops, such as corn, wheat, rice, etc., harvested from this operation in 2007? Include your landlord's share and crops grown under contract. Exclude crops grown on land rented to others.

1011 1 ☐ **Yes -** Complete this section 3 ☐ **No -** Go to SECTION 6

2. For those crops not printed in the following table, enter the crop name and code from the list below for any other field crop harvested in 2007. Report quantity harvested in the unit specified with the crop name.

Field Crop	Code	Acres Harvested		Total Quantity Harvested		Acres Irrigated	
		Acres	Tenths			Acres	Tenths
Tobacco - all types (tenth acres)	0094				Lbs.		

Field Crop	Code	Acres Harvested	Total Quantity Harvested		Acres Irrigated
Corn for grain or seed	0067			Bu.	
Corn for silage or greenchop	0070			Tons	
Oats for grain or seed	0076			Bu.	
Soybeans for beans	0088			Bu.	
Winter wheat for grain or seed harvested in 2007	0572			Bu.	

If more space is needed, use a separate sheet of paper.

FIELD CROPS	CODE
Alfalfa seed (pounds)	0542
Austrian winter peas (hundredweight)	0548
Bahia grass seed (pounds)	0551
Barley for grain or seed (bushels)	0079
Beans, dry edible excluding limas (hundredweight)	0554
Beans, dry lima (hundredweight)	0557
Bentgrass seed (pounds)	0560
Bermuda grass seed (pounds)	0563
Birdsfoot trefoil seed (pounds)	0566
Bromegrass seed (pounds)	0569
Buckwheat (bushels)	0575
Canola, edible (pounds)	0614
Clover, crimson clover seed (pounds)	0593
Clover, red clover seed (pounds)	0671
Cotton, Pima (bales)	0644
Cotton, Upland (bales)	0581
Emmer and spelt (bushels)	0599
Fescue seed (pounds)	0602
Flaxseed (bushels)	0605

FIELD CROPS	CODE
Hay - Report in SECTION 7.	
Herbs, dried (pounds)	0620
Jojoba harvested (pounds)	0626
Kentucky bluegrass seed (pounds)	0629
Lentils (hundredweight)	0635
Lespedeza seed (pounds)	0638
Mint, peppermint (pounds of oil)	0047
Mint, spearmint (pounds of oil)	0050
Mustard seed (pounds)	0650
Orchardgrass seed (pounds)	0653
Peanuts for nuts (pounds)	0656
Peas, dry edible (hundredweight)	0659
Peas, dry Southern/cowpeas (bushels)	0584
Popcorn (pounds shelled)	0662
Potatoes - Report in SECTION 10.	
Proso millet for grain or seed (bushels)	0665
Rice (hundredweight)	0677
Rye for grain or seed (bushels)	0686
Ryegrass seed (pounds)	0689
Safflower (pounds)	0692
Sorghum for grain or seed, including milo (bushels)	0082

FIELD CROPS	CODE
Sorghum for silage or greenchop (tons)	0085
Sorghum for syrup (gallons)	0704
Sorghum-Sudan crosses - Report in SECTION 7.	
Sudangrass seed (pounds)	0713
Sugarbeets for seed (pounds)	0716
Sugarbeets for sugar (tons)	0719
Sugarcane for seed (tons)	0725
Sugarcane for sugar (tons)	0722
Sunflower seed, non-oil variety (pounds)	0776
Sunflower seed, oil variety (pounds)	0773
Sweet corn for seed (pounds)	0740
Sweet potatoes - Report in SECTION 10.	
Timothy seed (pounds)	0746
Triticale for grain (bushels)	0749
Vetch seed (pounds)	0755
Wheat, Durum (bushels)	0578
Wheat, Spring (bushels)	0728
Other field crop, specify above	0752

07200041

SECTION 6 GRAIN STORAGE CAPACITY

1. Were any facilities to store whole grains or oilseeds on this operation on **December 31, 2007**?

1028 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 7 below

2. What was the total whole grains and oilseed storage capacity on this operation? Include capacity of all structures normally used for storing whole grains and oilseeds. 1029

Bushels

SECTION 7 HAY AND FORAGE CROPS

1. Were any hay and forage crops cut or harvested from this operation in 2007? Include your landlord's share and crops grown under contract. Exclude crops grown on land rented to others.

1152 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 8 below

TOTAL HAY AND FORAGE CROPS - Exclude straw, corn silage, and sorghum silage.

	None	Acres Harvested	Acres Irrigated
2. All land from which dry hay, haylage, grass silage, or greenchop was cut or forage was harvested. 1021	☐		

For items 3 through 8, when both dry hay and haylage were cut from the same acres, report acres for each type. If two or more cuttings were made from the same acres, report acres for that item only once, but report total quantity harvested from all cuttings.

ALFALFA HAY AND SILAGE	None	Acres Harvested	Total Tons Harvested	Acres Irrigated
3. Alfalfa and alfalfa mixtures for dry hay. . . 0103	☐		Tons, dry	
4. Haylage or greenchop from alfalfa or alfalfa mixtures. 1070	☐		Tons, green	
OTHER HAY AND SILAGE				
5. Small grain dry hay - barley, oats, rye, wheat, etc. 0106	☐		Tons, dry	
6. Other tame dry hay - clover, fescue, lespedeza, timothy, Bermuda grass, Sudangrass, etc. 0109	☐		Tons, dry	
7. Wild dry hay. 0112	☐		Tons, dry	
8. All other haylage, grass silage, and greenchop. 1073	☐		Tons, green	

SECTION 8 WOODLAND CROPS AND MAPLE SYRUP

1. Were any woodland crops grown, harvested, or tapped on this operation in 2007? Include your landlord's share and crops grown under contract. Exclude crops grown on land rented to others.

1153 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 9

	None	Acres in Production	Number of Trees Cut	Acres Irrigated
2. Cut Christmas trees - cut or to be cut. Report live trees sold in SECTION 9. 1023	☐			

		Acres in Production	Acres Harvested	Acres Irrigated
3. Short rotation woody crops - Trees with growth cycles of 10 years or less. Report nursery stock in SECTION 9. 1025	☐			

		Number of Taps	Syrup Produced
4. Maple syrup. 0800	☐		Gallons

07200058

SECTION 9 NURSERY, GREENHOUSE, FLORICULTURE, SOD, MUSHROOMS, VEGETABLE SEEDS, AND PROPAGATIVE MATERIALS

1. Were any nursery, floriculture, or greenhouse crops, including ornamental plants, flowers, mushrooms, aquatic plants, sod, food crops under protection, vegetable seeds, flower seeds, or other propagative materials, grown for sale on this operation in 2007? Include crops produced under contract and food crops grown in greenhouses, caves, and high tunnels where crops were always covered. Exclude personal or home use crops. Report food crops temporarily covered for early germination, frost protection, etc. in SECTION 10, 11, or 12.

1032 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 10

2. Nursery, greenhouse, floriculture, sod, mushrooms, and propagative materials irrigated. . . . . 0477 None ☐

Area Irrigated		
Square Feet	Acres in the Open	
	Acres	Tenths

3. Enter the crop type and code from the list below for all crops grown in 2007. Report area grown and value of sales in the table.

Crop Type	Code	Square Feet Under Glass or Other Protection	Acres in the Open		Value of Sales (Dollars)
			Acres	Tenths	
					$ .00
					$ .00
					$ .00
					$ .00
					$ .00
					$ .00
					$ .00
					$ .00

If more space is needed, use a separate sheet of paper.

FLORICULTURE AND BEDDING CROPS	CODE
Bedding/Garden plants - annuals, herbaceous perennials, vegetable plants.	0479
Cut flowers and cut florist greens.	0485
Foliage plants, indoor.	0707
Potted flowering plants.	0710
Other floriculture and bedding, specify above.	1015

NURSERY CROPS	CODE
Nursery stock - ornamentals, shrubs, shade trees, live Christmas trees, fruit and nut trees, vines, palms, ornamental grasses, etc.	0488
Aquatic plants.	0880
Other nursery, specify above.	1017

SOD	CODE
Sod harvested.	0497

PROPAGATIVE MATERIALS SOLD	CODE
Bulbs, corms, rhizomes, and tubers, dry.	0482
Cuttings, seedlings, liners, plugs.	1002
Flower seeds.	0882
Tobacco plants sold for transplant to farm fields.	1004
Vegetable seeds.	0884
Vegetable transplants to farm fields.	1006

FOOD CROPS GROWN UNDER GLASS OR OTHER PROTECTION	CODE
Tomatoes.	1019
Other vegetables and fresh cut herbs.	0503
Fruits and berries.	1008

MUSHROOM CROPS	CODE
Mushrooms - Report growing area and sales.	0494
Mushroom spawn - Report sales only.	2495

07200066

SECTION 10 VEGETABLES, POTATOES, AND MELONS

1. Were any vegetables, potatoes, sweet corn, or melons harvested from this operation in 2007? Include crops grown under contract. Exclude personal or home use crops. Report crops grown under glass or other protection in SECTION 9.

1101 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 11

2. Acres from which vegetables, potatoes, and melons were harvested in 2007. Report multiple cropped acreage only once. 0375

Acres Harvested		Acres Irrigated	
Acres	Tenths	Acres	Tenths

3. For those crops not printed in the following table, enter the crop name and code from the list below for any other vegetables harvested in 2007.
   - If more than one vegetable crop was harvested from the same acres, report acres for each crop.
   - For two or more pickings of the same crop, report the area harvested only once.
   - Processing refers to vegetables that have been altered by heat, pressure, or freezing.

Crop Name	Code	Total Acres Harvested		Acres Harvested for Fresh Market		Acres Harvested for Processing	
		Acres	Tenths	Acres	Tenths	Acres	Tenths
Potatoes	0097						
Sweet potatoes	0100						
Tomatoes in the open	0463						

If more space is needed, use a separate sheet of paper.

CROP NAME	CODE
Artichokes - Exclude Jerusalem	0377
Asparagus, bearing age	0418
Beans, Lima	0429
Beans, snap (bush and pole)	0381
Beets	0383
Broccoli	0385
Brussels sprouts	0387
Cabbage, Chinese	0389
Cabbage, head	0391
Cabbage, mustard	0393
Cantaloupes and muskmelons	0395
Carrots	0397
Cauliflower	0399
Celery	0401
Chicory	0403
Collards	0407
Cucumbers and pickles	0411
Daikon	0413
Eggplant	0415
Escarole and endive	0417
Garlic	0421
Ginseng	0446
Herbs, fresh cut	0455
Honeydew melons	0423
Horseradish	0424
Kale	0425
Lettuce, head	0428
Lettuce, leaf	0430
Lettuce, Romaine	0432
Mustard greens	0431
Okra	0437
Onions, dry	0433
Onions, green	0435
Parsley	0439
Peas, Chinese (sugar, snow)	0405
Peas, green	0441
Peas, Southern (cowpeas)	0409
Peppers, Bell - Exclude pimientos	0443
Peppers, other than Bell - Include chile	0445
Pumpkins	0449
Radishes	0451
Rhubarb	0453
Spinach	0457
Squash, summer	0468
Squash, winter	0470
Sweet corn	0461
Turnip greens	0467
Turnips	0465
Watercress	0471
Watermelons	0473
Vegetables, other, specify above	0475

07200074

SECTION 11 FRUIT AND NUTS

1. Was there a combined total of 20 or more fruit or nut trees, including grapevines, on this operation in 2007? Include crops grown under contract. Exclude abandoned acres. Report berries in SECTION 12.

1047 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 12

	Total Acres		Acres Irrigated	
	Acres	Tenths	Acres	Tenths
2. Acres in bearing and nonbearing fruit orchards, citrus groves, vineyards, and nut trees. 0121				

3. For those crops not printed in the following table, enter the crop name and code from the list below for any other fruit and nuts on this operation in 2007. Include acres even if not harvested because of low prices, damage from hail, frost, etc.

Crop Name	Code	Total Acres		Bearing Age Acres		Nonbearing Age Acres	
		Acres	Tenths	Acres	Tenths	Acres	Tenths
Apples	0123						
Grapes	0366						
Peaches, clingstone	0222						
Peaches, freestone	0216						
Oranges, Valencia	0150						
Oranges, other than Valencia	0174						

If more space is needed, use a separate sheet of paper.

NONCITRUS FRUIT	CODE
Apricots	0129
Avocados	0135
Bananas	0141
Cherries, sweet	0345
Cherries, tart	0587
Coffee	0153
Dates	0159
Figs	0165
Guavas	0183
Kiwifruit	0189
Mangos	0195
Nectarines	0201

NONCITRUS FRUIT	CODE
Olives	0207
Papayas	0213
Passion fruits	0219
Pears, Bartlett	0234
Pears, other than Bartlett	0240
Persimmons	0237
Plums	0243
Prunes	0249
Pluots	0264
Pomegranates	0255
Other noncitrus, specify above	0261

CITRUS FRUIT	CODE
Grapefruit	0267
Kumquats	0273
Lemons	0279
Limes	0285
Tangelos	0303
Tangerines	0309
Temples	0144
Other citrus fruit, specify above	0315

NUTS	CODE
Almonds	0321
Chestnuts	0324
English walnuts	0357
Hazelnuts (Filberts)	0327
Macadamia nuts	0333
Pecans, improved	0336
Pecans, native and seedling	0342
Pistachios	0351
Other nuts, specify above	0363

07200082

SECTION 12 BERRIES

1. Were any strawberries, cranberries, or other berries grown on this operation in 2007? Include crops grown under contract. Exclude personal or home use crops. Report crops grown under glass or other protection in SECTION 9.

1041 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 13

	Acres Grown		Acres Irrigated	
	Acres	Tenths	Acres	Tenths
2. Acres on which berries were grown in 2007. 1045				

3. Complete the following table for each berry crop grown on this operation in 2007. For two or more pickings of the same crop, report the acres only once.

Crop Name	Code	Total Acres		Acres Harvested		Acres not Harvested	
		Acres	Tenths	Acres	Tenths	Acres	Tenths
Blackberries and dewberries	0509						
Blueberries, tame	0512						
Blueberries, wild	0515						
Boysenberries	0518						
Cranberries	0521						
Currants	0524						
Loganberries	0530						
Raspberries, black	0490						
Raspberries, red	0491						
Strawberries	0536						
Other berries, specify below	0539						
Other berries, specify below	0539						
Other berries, specify below	0539						
Other berries, specify below	0539						

If more space is needed, use a separate sheet of paper.

07200090

SECTION 13 CATTLE AND CALVES

1. Did you or anyone else have any cattle or calves, including dairy cattle, on this operation in 2007?

Include • Cattle on public or industrial property under a grazing permit.
• Cattle on land used rent free by this operation.
• Cattle grown or fed on this operation for others on a custom or contract basis.
Exclude cattle grown or fed by someone else on a custom or contract basis.

1201 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 14 below

DECEMBER 31, 2007 INVENTORY

2. Of the total number of cattle and calves on hand, how many were -		None	Number on this operation **December 31, 2007**
a. Beef cows? Include beef heifers that had calved. Exclude heifers that had not calved, steers, calves, and bulls.	0804	☐	
b. Milk cows kept for production of milk? Include dry milk cows and milk heifers that had calved.	0805	☐	
c. Other cattle? Include heifers that had not calved, steers, calves, and bulls.	1206	☐	
3. **TOTAL** cattle and calves on hand December 31, 2007 - Add items 2a, 2b and 2c.	0803	☐	

CATTLE AND CALVES SOLD OR MOVED FROM THIS OPERATION

4. Of the cattle and calves sold or moved from this operation during 2007, how many were -		None	Number
a. Calves sold or moved in 2007 weighing less than 500 pounds?	0808	☐	
b. Cattle sold or moved in 2007, including calves weighing 500 pounds or more?	0810	☐	

CATTLE IN FEEDLOTS - Include animals for slaughter market fed a ration of grain or other concentrates that are expected to produce a carcass that will grade select or better. Exclude cattle that were pastured only.

		None	Number
5. How many of the cattle on hand reported in Item 3 above were on feed December 31, 2007, and were or will be shipped directly from your feedlot to slaughter market? Exclude cattle being backgrounded.	1207	☐	
6. How many of the cattle sold during 2007 reported in Item 4b above were shipped directly from your feedlot to slaughter market? Exclude any of your cattle being custom fed in feedlots operated by others. Exclude cattle sold as feeders.	0812	☐	

SECTION 14 SHEEP AND LAMBS

1. Did this operation **own** any sheep or lambs in 2007, regardless of location?

1103 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 15

		None	Number owned on **December 31, 2007**	Total number sold in 2007	Wool shorn in 2007 (pounds)
2. Sheep and lambs owned.	0824	☐			
a. Ewes 1 year old or older.	0826	☐			

07200108

SECTION 15 POULTRY

1. Did you or anyone else have any poultry, such as chickens, turkeys, ducks, emus, ostriches, etc., on this operation in 2007? Include poultry grown for others on a contract basis.

1217 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 16

		None	Number on this operation **December 31, 2007**	Total number sold or moved from this operation in 2007
2. Chickens -				
a. Layers -				
(i) Table egg types - Include layers for home use	1229	☐		
(ii) Hatching layers for meat-types - Include layers for broilers, roasters, and other meat-types	1231	☐		
(iii) Hatching layers for table eggs	1233	☐		
b. Pullets for laying flock replacement	1221	☐		
c. Broilers, fryers, and other chickens raised for meat production, including capons and roasters	0898	☐		
3. Turkeys -				
a. Turkeys for meat production - Exclude breeders	1225	☐		
b. Turkey hens kept for breeding	1227	☐		
4. Ducks	0904	☐		
5. Emus	0845	☐		
6. Geese	0906	☐		
7. Ostriches	0878	☐		
8. Pheasants	0910	☐		
9. Pigeons or squab	0908	☐		
10. Quail	0912	☐		
11. All other poultry - Include bantams, chukars, guineas, rheas, peacocks. Specify below ¬	0914	☐		

12. All poultry hatched on this operation's hatcheries in 2007. Include chicks, poults, ducklings, etc., and those custom hatched for others. Specify kind(s) of poultry below ¬

		None	Number
	0916	☐	

07200116

SECTION 16 HOGS AND PIGS

1. Did you or anyone else have any hogs or pigs on this operation in 2007? Include hogs grown for others on a contract basis. Contractors or integrators only report hogs on land you operate. Exclude hogs grown by someone else on a contract basis.

1211 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 17 below

DECEMBER 31, 2007 INVENTORY

2. Of the total number of hogs and pigs on hand, how many were -

		None	Number on this operation **December 31, 2007**
a. Hogs and pigs used or to be used for breeding?	0816	☐	
b. Other hogs and pigs, including market hogs?	0817	☐	
3. **TOTAL** hogs and pigs on hand December 31, 2007 - Add items 2a and 2b.	0815	☐	

			Number sold or moved
4. Number of hogs and pigs sold or moved from this operation in 2007, including feeder pigs.	0820	☐	

TYPE OF OPERATION AND PRODUCER

5. Mark the **one** item which best describes this operation -

1241 ☐ Farrow to wean 1242 ☐ Farrow to finish 1243 ☐ Finish only

1244 ☐ Farrow to feeder 1245 ☐ Nursery 1246 ☐ Other - specify → _____

6. Mark the **one** item which best describes this producer -

1214 ☐ Independent grower 1215 ☐ Contractor or integrator 1216 ☐ Contract grower (contractee)

SECTION 17 AQUACULTURE

1. Did you or anyone else have any aquaculture on this operation in 2007? Include production for others on a contract basis.

1157 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 18

2. Enter the aquaculture type and code from the list below for fish and other aquaculture products grown on this operation in 2007. Include all sizes for each type. For fish include food size, fingerlings, fry, and eggs. Report aquatic plants in SECTION 9.

Aquaculture Type	Code	Total pounds sold or moved		Total number sold or moved	Value of Sales (Dollars)
			OR		$ .00
			OR		$ .00
			OR		$ .00
			OR		$ .00

If more space is needed, use a separate sheet of paper.

AQUACULTURE TYPE	CODE	AQUACULTURE TYPE	CODE	AQUACULTURE TYPE	CODE
Catfish	0860	Baitfish	0900	Ornamental fish	0980
Trout	0863	Crustaceans (crayfish, shrimp, etc.)	0902	Sport or game fish	0984
Other food fish - specify above	0896	Mollusks (clams, oysters, etc.)	0978	Other aquaculture products - specify above	0869

07200124

SECTION 18 COLONIES OF BEES

1. Did this operation **own** any bees in 2007, regardless of location?

1104 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 19 below

	None	Number owned on **December 31, 2007**	Total colonies sold in 2007	Honey collected in 2007 (pounds)
2. Colonies of bees owned. 0839	☐			

SECTION 19 OTHER ANIMALS AND LIVESTOCK PRODUCTS

1. Did you or anyone else have any horses, goats, other livestock, or livestock products on this operation in 2007?

1237 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 20

	None	Number on **December 31, 2007**	Total number sold in 2007
2. Horses and ponies. 0830	☐		
a. How many of these were **owned** by this operation? 0872	☐		
3. Mules, burros, and donkeys. 0833	☐		
4. Milk goats. 0843	☐		
5. Angora goats. 0847	☐		
6. Meat goats and other goats. 0851	☐		
7. Alpacas. 0876	☐		
8. Llamas. 0874	☐		
9. Bison. 0886	☐		
10. Deer in captivity. 0888	☐		
11. Elk in captivity. 0890	☐		
12. Rabbits, including pelts. 0854	☐		
13. Mink, including pelts. 0836	☐		

		Number on **December 31, 2007**	Total number sold in 2007
14. Other livestock. Report emus and ostriches in section 15. Specify below ¬ _____ . . 0857	☐		

LIVESTOCK AND ANIMAL PRODUCTS

		Pounds clipped in 2007
15. Mohair. 0849	☐	

		Quantity produced in 2007	Unit reported
16. Other livestock products - Include semen, embryos, worm castings, manure sold, etc. Specify below ¬ _____ . . 0970	☐		

07200132

SECTION 20 PRODUCTION CONTRACTS AND CUSTOM FEEDING

1. During 2007, were you a production contract grower for a processor or contractor where you grew a crop, raised livestock or poultry, or custom fed any livestock that **you did not own**? A production contract is an agreement setting terms, conditions, and fees to be paid by the contractor to this operation for the production of crops, livestock, or poultry.

1301 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 21

2. Report number of head, bushels, etc. that were raised under production contracts and moved from this operation in 2007. Exclude commodities raised for marketing contracts.

		None	Total quantity moved from this operation in 2007	Unit
a. Broilers and other meat-type chickens	1304	☐		birds
b. Chicken eggs	1305	☐		dozen
c. Pullets for laying flock replacement	1306	☐		birds
d. Turkeys	1307	☐		birds
e. Custom fed cattle shipped directly for slaughter - Exclude cattle custom fed for you by others	1308	☐		head
f. Hogs and pigs	1309	☐		head
g. Other cattle, livestock, poultry, or aquaculture - specify type	1310	☐		
h. Grains and oilseeds	1311	☐		bushels
i. Vegetables, melons, and potatoes - specify type	1312	☐		
j. Other crops - specify type	1313	☐		

3. What was the total dollar amount received in 2007 for delivering commodities under production contracts? . . . 1314 — Total Dollars: $ _____ .00

4. Mark all inputs that were partially or completely paid or provided by contractor(s) -

1316	☐ Feeder livestock and poultry	1320	☐ Supplies	1323	☐ Veterinary Services
1317	☐ Feed	1325	☐ Seed	1324	☐ Breeding livestock
1318	☐ Fertilizer and lime	1321	☐ Fuels	1326	☐ Other - specify →
1319	☐ Chemicals	1322	☐ Utilities	1315	☐ None

5. Enter Contractor that provided inputs and owned the commodity

1327

07200140

SECTION 21 VALUE OF SALES

Report gross value of agricultural products sold from this operation in 2007. Include the value of your landlord's share, marketing charges, taxes, hauling, etc. Exclude dollars for items produced under production contracts.

		None	Dollars
1. Grains, oilseeds, dry beans, and dry peas -			
a. Corn for grain, seed, or silage	1391	☐	$ .00
b. Wheat	1392	☐	$ .00
c. Soybeans	1393	☐	$ .00
d. Sorghum for grain, seed, or silage	1394	☐	$ .00
e. Barley	1395	☐	$ .00
f. Rice	1398	☐	$ .00
g. Other - canola, dry edible beans, dry edible peas, flaxseed, oats, popcorn, rye, safflower, sunflower seed, etc.	1399	☐	$ .00
2. Tobacco	1332	☐	$ .00
3. Cotton and cottonseed	1333	☐	$ .00
4. Vegetables, melons, potatoes, and sweet potatoes, including beets, cabbage, cantaloupes, ginseng, pumpkins, sweet corn, tomatoes, watermelons, vegetable seeds and transplants, etc.	1334	☐	$ .00
5. Fruit, tree nuts, and berries, including almonds, apples, blueberries, cherries, grapefruit, grapes, hazelnuts, kiwifruit, oranges, pears, pecans, strawberries, walnuts, etc.	1335	☐	$ .00
6. Nursery, greenhouse, floriculture, and sod, including bedding plants, bulbs, cut flowers, flower seeds, foliage plants, mushrooms, nursery potted plants, shrubbery, etc.	1336	☐	$ .00
7. Cut Christmas trees and short rotation woody crops	1337	☐	$ .00
8. Other crops and hay, including grass seed, hay, grass silage, hops, maple syrup, mint, peanuts, sugarcane, sugarbeets, etc.	1338	☐	$ .00
9. Hogs and pigs	1341	☐	$ .00
10. Milk and other dairy products from cows	1340	☐	$ .00
11. Cattle and calves, including beef and dairy cattle for breeding stock, fed cattle, beef and dairy cull animals, stockers and feeders, veal calves, etc.	1339	☐	$ .00
12. Sheep, goats, and their products, including wool, mohair, milk, and cheese	1342	☐	$ .00
13. Horses, ponies, mules, burros, and donkeys	1343	☐	$ .00
14. Poultry and eggs, including broilers, chickens, turkeys, ducks, eggs, geese, hatchlings, pheasants, poultry products, etc.	1344	☐	$ .00
15. Aquaculture, including catfish, trout, ornamental and other fish, mollusks, crustaceans, etc.	1345	☐	$ .00
16. Other animals and other animal products, including bees, embryos, fur-bearing animals, honey, horns, manure, rabbits, semen, other animal specialties, etc.	1346	☐	$ .00
17. **TOTAL SALES -** Add items 1 through 16	1347	☐	$ .00

		None	Dollars
a. What was the value of your **landlord's share** of the total sales (item 17 above) produced by this operation? Exclude cash rent.	1349	☐	$ .00

07200157

DIRECT SALES FOR HUMAN CONSUMPTION

18. During 2007, did you produce, raise, or grow any crops, livestock, poultry, or agricultural products that were **sold directly to individual consumers for human consumption**? Include sales from roadside stands, farmers markets, pick your own, door to door, etc. Exclude craft items and processed products such as jellies, sausages, and hams.

1409 1 ☐ **Yes** - Gross value of these direct sales. . . . . 0920 — Dollars $ .00

1410 Specify product(s) →

3 ☐ **No** - Go to SECTION 22 below

SECTION 22 ORGANIC AGRICULTURE

1. Did this operation produce organic products (according to the National Organic Standards) for sale in 2007?

1248 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to item 7 below

2. Was this operation a certified organic operation?

1250 1 ☐ **Yes** - Specify agency or organization that certified the organic production below.

1252

3 ☐ **No** - Organic sales were exempt from certification.

	None	Number of Acres
3. How many acres were used for organic production? 1430	☐	
a. Acres from which organic crops were harvested? 1440	☐	
b. Acres of organic pastureland? 1450	☐	

		Dollars
4. What was the total value of sales for **crops produced and sold as organic** by this operation in 2007? Include hay, fruits, vegetables, greenhouse products, grains, and oilseeds. 1460	☐	$ .00
5. What was the total value of sales for **livestock and poultry produced and sold as organic** by this operation in 2007? 1470	☐	$ .00
6. What was the total value of sales for **livestock and poultry products produced and sold as organic** by this operation in 2007? Include eggs, milk, etc. 1480	☐	$ .00

		Number of Acres
7. In 2007, how many acres were being converted to organic production? 1490	☐	

07200165

SECTION 23 COMMODITY CREDIT CORPORATION LOANS (CCC)

1. Did this operation receive any CCC loans in 2007? Include all CCC loans taken out in 2007, even if repaid.

1035 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 24 below

2. Total amount received in 2007 from CCC loans for all commodities. Include Austrian winter peas, barley, canola and other rapeseed, corn, cotton, crambe, dry edible peas, flaxseed, honey, lentils, mohair, mustard seed, oats, peanuts, rice, safflower, sesame seed, small chickpeas, sorghum, soybeans, sunflower seed, and wheat. . . . . 1411 — None ☐ — Dollars $ .00

SECTION 24 FEDERAL AND STATE AGRICULTURAL PROGRAM PAYMENTS

1. Did this operation receive any Federal, State, or local agricultural program payments in 2007? Exclude CCC loan payments. Also exclude CRP, WRP, FWP, and CREP payments reported in SECTION 4.

1036 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 25 below

2. Amount received from - (None / Dollars)

a. Direct payments as defined under the 2002 Farm Bill. . . . . 1420 — ☐ — $ .00

b. Counter-cyclical payments, loan deficiency payments (LDPs), marketing loan gains, and net value of commodity certificates. Include payments received through cooperatives. . . . . 1421 — ☐ — $ .00

c. Other Federal agricultural program payments. Include disaster payments and market loss payments, national dairy market loss payments, non-insured assistance program, EQIP (Environmental Quality Incentives Program), CSP (Conservation Security Program), livestock programs, and any other Federal programs. Exclude any type of insurance payments received. . . . . 1422 — ☐ — $ .00

d. State and local government agricultural program payments. . . . . 1423 — ☐ — $ .00

SECTION 25 INCOME FROM FARM-RELATED SOURCES

Report amount received before taxes and expenses in 2007.

(None / Dollars)

1. Customwork and other agricultural services provided for farmers and others, such as plowing, planting, spraying, harvesting, preparation of products for market, etc. Exclude if customwork was an entirely separate business from your agricultural operation. . . . . 0992 — ☐ — $ .00
2. Payments received from **cash rent** or **share payments** from renting out farmland or payments from lease of allotments. Include payments for livestock pastured on a per-head basis, per-month basis, AUM basis, etc. . . . . 0993 — ☐ — $ .00
3. Sales of forest products. Include timber, firewood, etc. Exclude sales of Christmas trees, short rotation woody crops, and maple products. . . . 0994 — ☐ — $ .00
4. Agri-tourism and recreational services, such as farm or winery tours, hay rides, hunting, fishing, etc. . . . . 1401 — ☐ — $ .00
5. Patronage dividends and refunds from cooperatives. . . . . 1402 — ☐ — $ .00
6. Crop and livestock insurance payments received. Exclude payments received from casualty insurance, vehicle liability, blanket policies, and operator dwelling insurance. . . . . 1404 — ☐ — $ .00
7. Other income which is closely related to the agricultural operation. Include renting and leasing farm machinery and trucks, renting and leasing of livestock, animal boarding, tobacco quota buyouts and settlements, state fuel tax refunds, farm-generated energy, etc. Specify below. ↴

[ ] . . . 1403 — ☐ — $ .00

07200173

SECTION 26 PRODUCTION EXPENSES

Report total production expenses paid for this operation in 2007. Include expenses paid by your landlords and expenses connected with performing customwork for others. Exclude expenses not related to the farm business and any expenses paid by the contractor.

EXPENSES PAID BY THIS OPERATION AND ITS LANDLORD(S)

		None	Dollars
1. Fertilizer, lime, and soil conditioners purchased - Include cost of custom application and organic materials.	1501	☐	$ .00
2. Chemicals purchased such as insecticides, herbicides, fungicides, other pesticides, etc. - Include cost of custom application.	1502	☐	$ .00
3. Seeds, plants, vines, trees, etc. purchased - Include technology or other fees, seed treatments, and seed cleaning cost. Exclude items purchased for resale without additional growth.	1503	☐	$ .00
4. Breeding livestock purchased or leased, regardless of age - Include dairy cattle.	1504	☐	$ .00
5. All other livestock and poultry purchased or leased - Include stocker and feeder cattle, calves, sheep, lambs, feeder pigs, chicks, pullets, poults, horses, fish, goats, bee colonies, etc. Include livestock leasing expense.	1505	☐	$ .00
6. Feed purchased for livestock and poultry - Include grain, hay, silage, mixed feeds, concentrates, supplements, premixes, etc.	1506	☐	$ .00
7. Gasoline, fuels, and oils purchased for the farm business - Include diesel, natural gas, LP gas, motor oil and grease, etc.	1507	☐	$ .00
8. Utilities purchased for the farm business - Include electricity, farm share of telephone, water purchased, etc.	1508	☐	$ .00
9. Repairs, supplies, and maintenance costs for the farm business.	1509	☐	$ .00
10. Labor -			
a. Hired farm and ranch labor - Include employer's cost for social security, workman's compensation, insurance premiums, pension plans, etc.	1510	☐	$ .00
b. Contract labor - Include expenses for labor, such as harvesting of fruit, vegetables, berries, etc. performed on a contract basis by a contractor, crew leader, etc.	1511	☐	$ .00
11. Customwork and custom hauling, such as custom planting, harvesting, etc. and custom hauling of grain, livestock, milk, manure, etc.	1512	☐	$ .00
12. Rent -			
a. Cash rent paid in 2007 for land and buildings - Include grazing fees.	1513	☐	$ .00
b. Rent and lease expenses for machinery, equipment, and farm share of vehicles - Exclude custom hire.	1514	☐	$ .00
13. Interest paid on debts -			
a. Secured by real estate.	1515	☐	$ .00
b. Not secured by real estate.	1516	☐	$ .00
14. Property taxes paid in 2007 - Include farm real estate, machinery, livestock, etc. for the farm business. Exclude taxes paid by this operation's landlords.	1517	☐	$ .00
15. Other production expenses - Include animal health cost, storage and warehousing, marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes.	1518	☐	$ .00

07200181

EXPENSES PAID BY LANDLORD(S)

		None	Dollars
16. How much did your landlord(s) pay for the production expenses for this operation in 2007?	1519	☐	$ .00

DEPRECIATION

		None	Dollars
17. What was the total depreciation expense claimed by this operation in 2007 for all capital assets? Estimate 2007 from 2006 if necessary.	1520	☐	$ .00

SECTION 27 FARM LABOR

		None	Number of Hired Workers
1. How many hired farm or ranch workers, including paid family members and office workers -			
a. Worked less than 150 days on this operation in 2007? Exclude contract labor.	0941	☐	
b. Worked 150 days or more on this operation in 2007? Exclude contract labor.	0942	☐	

2. Were any migrant workers on this operation in 2007? Include hired and contract workers. A migrant worker is a farm worker whose employment required travel that prevented the migrant worker from returning to his/her permanent place of residence the same day. . . . . 1573 1 ☐ **Yes** 3 ☐ **No**

SECTION 28 FERTILIZERS AND CHEMICALS APPLIED

1. Were any fertilizers, manure, herbicides, insecticides, fungicides, nematicides, other pesticides, growth regulators, or other chemicals used on this operation during 2007? Include rock phosphate, lime, and gypsum as fertilizer.

1568 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 29

		None	Number of Acres
2. Commercial fertilizer and soil conditioners applied to -			
a. Cropland in 2007 - Exclude cropland used only for pasture.	0932	☐	
b. Pastureland and rangeland acres in 2007 - Include cropland used only for pasture or grazing.	0933	☐	
3. Acres of cropland and pastureland on which animal manure was applied.	1569	☐	

			Number of Acres
4. Acres treated with chemicals to control the items listed below. The same acres can be reported in more than one item below. However, report acres only once for each item regardless of the number of applications.			
a. Insects.	0936	☐	
b. Weeds, grass, or brush - Include both pre-emergence and post emergence.	0939	☐	
c. Nematodes.	0937	☐	
d. Diseases in crops and orchards such as blight, smut, rust, etc.	0938	☐	
5. Acres of crops treated to control growth, thin fruit, ripen, or defoliate.	0940	☐	

07200199

SECTION 29 MARKET VALUE OF LAND, BUILDINGS, MACHINERY, AND EQUIPMENT

1. Report your estimate of the **current market value** of land and buildings reported in SECTION 1, items 1, 2, and 3 on page 2 for -

	None	Estimated Market Value (Dollars)
a. All land and buildings owned. 0996	☐	$ .00
b. All land and buildings rented or leased from others. 0997	☐	$ .00
c. All land and buildings rented or leased to others. 0998	☐	$ .00

2. What is your estimate of the **current value of all machinery, equipment, and implements** used for farm-related activities on this operation, regardless of ownership, on **December 31, 2007**? Include cars, trucks, tractors, tools, combines, plows, disks, harrows, dryers, pumps, motors, irrigation equipment, dairy equipment, tanks, feeders, grinding and mixing equipment, computers, etc. that were kept on this operation and used for this farm or ranch business in 2007. . . . . 0943 ☐ Estimated Market Value (Dollars) $ .00

SECTION 30 MACHINERY AND EQUIPMENT

1. For the items listed below, report the number on this operation on **December 31, 2007.** Include machinery, equipment, and implements used for the farm or ranch business in 2006 or 2007, and usually kept on the operation.

	None	Number on this operation **December 31, 2007**	None	Of these, the number manufactured in the last 5 years (2003-2007)
a. Trucks, including pickups. 0944	☐		☐	
b. Tractors less than 40 horsepower (PTO) - Exclude garden tractors. 0946	☐		☐	
c. Tractors 40 - 99 horsepower (PTO). . . 0948	☐		☐	
d. Tractors 100 horsepower (PTO) or more. 0962	☐		☐	
e. Grain and bean combines, self-propelled. 0950	☐		☐	
f. Cotton pickers and strippers, self-propelled. 0956	☐		☐	
g. Forage harvesters, self-propelled. . . . 0953	☐		☐	
h. Hay balers. 0960	☐		☐	

07200207

SECTION 31 AGRICULTURAL ACTIVITY WITHIN THE BORDERS OF AMERICAN INDIAN RESERVATIONS, PUEBLOS, AND SERVICE AREAS

1. Did this operation use any land for livestock or cropland within the borders of an American Indian Reservation, Pueblo, or Service Area at any time during 2007?

   1050 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 32 below

2. Mark the type(s) of land this operation used within the American Indian Reservation, Pueblo, or Service Area.

   1058 ☐ owned or deeded 1059 ☐ trust (tribal or allotted) 1060 ☐ other, specify → _____

3. Enter the name and state of the American Indian Reservation, Pueblo, or Service Area where the agricultural activity occurred.

	Reservation, Pueblo, or Service Area Name		State
1051		1052	

4. How many total acres did this operation use for livestock or cropland within this Reservation, Pueblo, or Service Area in 2007? Exclude land used on a per-head or animal unit month (AUM) basis. 1053

   a. How many of these acres were harvested cropland? 1054

Number of Acres

5. In 2007, did this operation have any livestock within the borders of an American Indian Reservation, Pueblo, or Service Area? Include livestock on land used on a per-head or animal unit month (AUM) basis.

   1056 1 ☐ **Yes** - Continue 3 ☐ **No** - Go to SECTION 32 below

   a. On **December 31, 2007,** what percent of this operation's livestock was on this Reservation, Pueblo, or Service Area?

   1057 1 ☐ None 3 ☐ 26 - 50 percent 5 ☐ 76 - 99 percent
   2 ☐ 1 - 25 percent 4 ☐ 51 - 75 percent 6 ☐ 100 percent (all livestock)

SECTION 32 PRACTICES

1. At any time during 2007, did this operation -

a. Have Internet access?	1603	1 ☐ Yes	3 ☐ No
b. Have high speed Internet access?	1604	1 ☐ Yes	3 ☐ No
c. Use more than 5,000 gallons of water in any one day for any purpose? . . .	1721	1 ☐ Yes	3 ☐ No
d. Receive irrigation water supplied by a U. S. Bureau of Reclamation project or facility? Include reclamation water delivered by a local district.	1722	1 ☐ Yes	3 ☐ No
e. Generate energy or electricity on the farm using wind or solar technology, methane digester, etc.?	1723	1 ☐ Yes	3 ☐ No
f. Use conservation methods such as no-till or limited tilling, filtering runoff to remove chemicals, fencing animals from streams, etc.?	1724	1 ☐ Yes	3 ☐ No
g. Practice rotational or management intensive grazing?	1725	1 ☐ Yes	3 ☐ No
h. Pay on a per-head or animal unit month (AUM) basis for livestock to graze on any land (private, Federal, State, Indian Reservation, etc.)?	1720	1 ☐ Yes	3 ☐ No
i. Produce and sell value added crops, livestock, or products such as beef jerky, fruit jams, jelly, preserves, floral arrangements, etc.?	1726	1 ☐ Yes	3 ☐ No
j. Market products through a community supported agriculture (CSA) arrangement?	1727	1 ☐ Yes	3 ☐ No
k. Raise or sell veal calves?	1728	1 ☐ Yes	3 ☐ No
l. Raise or sell hair sheep or wool-hair crosses?	1729	1 ☐ Yes	3 ☐ No
m. Have a barn that was built prior to 1960?	1730	1 ☐ Yes	3 ☐ No

07200215

SECTION 33 TYPE OF ORGANIZATION

1. Mark the **one** item which best describes this operation in 2007.

1671
1 ☐ Family or individual operation - Exclude partnerships and corporations.

2 ☐ Partnership operation - Include family partnerships.
- Is this partnership registered under state law? 1567 1 ☐ Yes 3 ☐ No

3 ☐ Incorporated under state law -
- Is this a family-held corporation? 1681 1 ☐ Yes 3 ☐ No
- Are there more than 10 stockholders? 1683 1 ☐ Yes 3 ☐ No

4 ☐ Other, such as estate or trust, prison farm, grazing association, American Indian Reservation, etc. - specify type → _____

SECTION 34 OPERATOR CHARACTERISTICS

1. In 2007, how many operators (individuals) were involved in the day-to-day decisions for this operation? Enter the number of operators and the number of women operators. Exclude hired workers unless they were a hired manager or family member. 1575

Total Number of Operators	Women Operators

2. Answer the following questions for up to three primary operators of this operation as of **December 31, 2007**.

	Principal Operator or Senior Partner	Operator 2	Operator 3
a. Name →			
b. Sex of operator	0926 1 ☐ Male 2 ☐ Female	1586 1 ☐ Male 2 ☐ Female	1597 1 ☐ Male 2 ☐ Female
c. At which occupation did the operator spend the majority (50 percent or more) of his/her worktime in 2007?	0928 **Mark one answer only.** 1 ☐ Farm or ranch work 2 ☐ Other	1580 **Mark one answer only.** 1 ☐ Farm or ranch work 2 ☐ Other	1591 **Mark one answer only.** 1 ☐ Farm or ranch work 2 ☐ Other
d. Is this operator retired?. .	0924 1 ☐ Yes 3 ☐ No	1582 1 ☐ Yes 3 ☐ No	1593 1 ☐ Yes 3 ☐ No
e. How many days did the operator work off this operation in 2007? Include days in which the operator worked at least 4 hours per day in an off-farm job. Include work on someone else's farm for pay.	0929 **Mark one answer only.** 1 ☐ None 2 ☐ 1 - 49 days 3 ☐ 50 - 99 days 4 ☐ 100 - 199 days 5 ☐ 200 days or more	1831 **Mark one answer only.** 1 ☐ None 2 ☐ 1 - 49 days 3 ☐ 50 - 99 days 4 ☐ 100 - 199 days 5 ☐ 200 days or more	1931 **Mark one answer only.** 1 ☐ None 2 ☐ 1 - 49 days 3 ☐ 50 - 99 days 4 ☐ 100 - 199 days 5 ☐ 200 days or more
f. Did the operator live on this operation at any time in 2007?	0923 1 ☐ Yes 3 ☐ No	1581 1 ☐ Yes 3 ☐ No	1592 1 ☐ Yes 3 ☐ No

07200223

	Principal Operator or Senior Partner	Operator 2	Operator 3
g. In what year did the operator begin to operate any part of this operation?	0930	1584	1595
h. What was the operator's age on December 31, 2007?	0925 years	1585 years	1596 years
i. Is the operator of Spanish, Hispanic, or Latino origin or background, such as Mexican, Cuban, or Puerto Rican, regardless of race?	0927 Spanish, Hispanic, or Latino origin 1 ☐ Yes 3 ☐ No	1587 Spanish, Hispanic, or Latino origin 1 ☐ Yes 3 ☐ No	1598 Spanish, Hispanic, or Latino origin 1 ☐ Yes 3 ☐ No
j. What is the operator's race?	**Mark one or more.** 1703 ☐ American Indian or Alaska Native, specify tribe 1705 ☐ Asian 1702 ☐ Black or African American 1704 ☐ Native Hawaiian or Other Pacific Islander 1701 ☐ White	**Mark one or more.** 1803 ☐ American Indian or Alaska Native, specify tribe 1805 ☐ Asian 1802 ☐ Black or African American 1804 ☐ Native Hawaiian or Other Pacific Islander 1801 ☐ White	**Mark one or more.** 1903 ☐ American Indian or Alaska Native, specify tribe 1905 ☐ Asian 1902 ☐ Black or African American 1904 ☐ Native Hawaiian or Other Pacific Islander 1901 ☐ White
k. How many people lived in the operator's household in 2007?	Number of persons living in Principal Operator's household 1577 number	Number living in household of Operator 2. Enter "0" if this operator has been counted in the previous column. 1589 number	Number living in household of Operator 3. Enter "0" if this operator has been counted in the previous columns. 1600 number
l. Is this operator a hired manager for this operation?	1576 1 ☐ Yes 3 ☐ No	1588 1 ☐ Yes 3 ☐ No	1599 1 ☐ Yes 3 ☐ No

HOUSEHOLD INCOME

	Number
3. In 2007, how many households shared in the net farm income of this operation? 1608	

4. What was the total household income of the **principal** operator in 2007? Include net income from farming, wage or salary income from all sources, social security, and investment income.

1678
1 ☐ less than $20,000 3 ☐ $30,000 to $39,999 5 ☐ $50,000 or more
2 ☐ $20,000 to $29,999 4 ☐ $40,000 to $49,999

	Percent (%)
5. In 2007, what percent of the principal operator's total household income came from this operation? 1578	

07200231

SECTION 35 CONCLUSION

1. Is it possible the information on this form would be duplicated on a form with another name or address?

1080 1 ☐ **Yes** - Please provide the other name and address below 3 ☐ **No** - Go to Item 2

Name
1081

Address
1082

City
1083

State
1084

Zip
1085

2. Do you (the individual named on the label) make any day-to-day decisions for **another** farm or ranch? It is important that the Census of Agriculture accurately accounts for all of your farm or ranch operations.

1086 1 ☐ **Yes** - Continue 3 ☐ **No** - Go to Item 3

a. Did you receive a 2007 Census of Agriculture report form for this additional farm or ranch?

1087 1 ☐ **Yes** - Go to item 3 3 ☐ **No** - Enter the information of the additional farm or ranch below

Additional Farm or Ranch
1088

Area Code and Phone Number
1089 - -

b. Did you include all data from this additional farm or ranch on THIS REPORT? Do not make changes to the data in this report, regardless of your answer.

1091 1 ☐ **Yes** 3 ☐ **No**

3. Please print the information below for the person completing this form.

Name
1092

Area Code and Phone Number
1093 - -

Date (MM-DD-YYYY)
1094 - -

THANK YOU FOR YOUR COOPERATION.

Questions? Call us toll free at 1-888-424-7828.

A wide variety of agricultural statistics is available from the National Agricultural Statistics Service (NASS). Check out the NASS reports, data products, and services on the Internet at www.nass.usda.gov

According to Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB number. The time required to complete this information collection is estimated to average 50 minutes per response.

07200249

U.S. DEPARTMENT OF AGRICULTURE
NATIONAL AGRICULTURAL STATISTICS SERVICE
For additional help, call 1-888-424-7828
Para ayuda adicional, llamar al 1-888-424-7828

INSTRUCTION SHEET
UNITED STATES 2007 CENSUS OF AGRICULTURE

Who Should Report – A reply is needed from everyone who received a report form, including both persons who operated a farm, ranch or other agricultural operation in 2007 as well as those who were not involved in agriculture. Your report is due by February 4, 2008. More census information is on the Internet at www.nass.usda.gov/Census_of_Agriculture/

If you farmed in 2007, complete the enclosed report form and return it in the preaddressed envelope.

If you were a landlord only and rented out all of your land, complete sections 1 and 35 of the enclosed report form and return it in the preaddressed envelope. Even if you were a landlord but still operated any land yourself, you should complete the entire report form for that land which you operated.

If you had no land and no agricultural operations, return the report form with a note indicating your status on the front of the form below the address label.

Specialty Commodities - Horses, bees, elk, emus, fish, nursery, etc., are an important part of the agriculture industry. Report for all items, regardless of the amount of production or sales you had in 2007.

Land in Federal conservation programs in 2007 - If you had land in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP) and you made the decisions on the acres, include the conservation land on this report form in sections 1, 2, and 4.

If you owned farm or ranch land in 2007 that was idle and NOT rented out, you should complete and return the report form.

Partial Year Operations - If you stopped farming during 2007, complete the report form for the portion of the year that you did farm. Write "Stopped farming during 2007" and the date you stopped farming below the address area. Mail the completed report form in the return envelope.

Involved In More Than One Operation - If you made decisions for more than one operation, you should have received a report form for each operation. Provide information for each operation on a separate form. To obtain additional report forms, please call the toll-free help line at 1-888-424-7828.

Received More Than One Report Form For the Same Operation - If you received more than one report form for the same operation, complete only ONE form per operation. Write "Duplicate" below the address area of each extra form. Return all forms in the same return envelope with your completed form so that we can correct our records.

Have a Partnership Operation - Complete only ONE form for the entire partnership's agricultural operation and include ALL partners' shares on the one form. If you made decisions for more than one partnership operation, complete a report form for each separate operation. We have listed all the known partners below the address area to assist in defining the operation. Make any necessary corrections to these names. If you have questions, please call the toll-free help line, 1-888-424-7828.

Entering Your Responses - Use BLUE or BLACK INK only. Enter your replies in the unit requested, i.e., dollars, bushels, tons, etc. When reporting dollars, report in whole dollars only. Convert fractions to decimals. Please print clearly and keep numbers and letters within the white boxes. Mark all applicable Yes/No and None boxes with an "X".

INSTRUCTIONS FOR SPECIFIC SECTIONS

SECTION 1 – ACREAGE IN 2007

Your answers in this section will determine the land **(Acres in "THIS OPERATION")** referred to throughout the report form. Include land associated with your agricultural operation in 2007, whether in production or not. Include all land that you owned or rented during 2007, even if only for part of the year. Exclude residential or commercial land. Report in whole acres.

Item 1 - Report all land owned in 2007 whether held under deed, purchase contract or mortgage, homestead law, or as heir/heiress or trustee of an undivided estate. Include all land owned by you and/or your spouse, or by the partnership, corporation, or organization named on the front of the report form.

Item 2 - Report all land rented or leased by you or your operation. Exclude land used under Government grazing permits or on a per-head or animal unit (AUM) basis. Bureau of Land Management (BLM) section 15 land leased by your operation with a specified acreage tract should be included here even though your fees to BLM are paid on an AUM basis.

Item 3 - Include all land rented out for any purpose if it was part of the acreage reported in items 1 and 2. Your tenant(s) will receive a form to report production for the land they rent. Do not report land placed in conservation programs as acres rented to others.

Item 4 - This is all land you operated at any time in 2007. Land use should be reported for these acres.

Total acres equals zero (0) - After completing section 1, if the acres in item 4 equal zero and you did not raise or own any livestock, aquaculture, or poultry in 2007, skip to and complete section 35. Write "All land rented out" in the space below section 1 if all your land was operated by a renter or sharecropper. Mail the report form in the return envelope.

SECTION 2 - LAND

The sum (item 5) of the acres entered in items 1 - 4 should equal the total acres in section 1, item 4, which is "this operation" for this census report. Do not report any crops grown on land rented or leased to others or worked by others on shares during 2007.

Land used for more than one purpose - Do not report the same acreage in more than one of the listed categories. If part or all of your land was used for more than one listed purpose in 2007, report that land only in the first purpose listed. For example, if you planted and harvested a grain crop and grazed the crop residue in the fall, report the land in item 1a, cropland harvested. Do not report it again in item 2c, cropland used **only** for pasture or grazing.

CRP/WRP and other conservation programs - Report acres in items 1 through 3 that best describes these acres. For example, CRP land may be reported in cropland harvested, idle cropland, or woodland not pastured depending on its use.

Item 1a -

Double cropping or interplanted crops - If more than one crop was harvested from the same land in 2007, report that land only once as cropland harvested.

Christmas trees to be cut and short rotation woody crops - Report the acres for these types of crops that were cut in 2007 and will be cut in later years as cropland harvested.

Skip row planted crops - Report the acres that represent planted rows as cropland harvested, item 1a. Report the acres that represent the total non-planted or skipped rows as cropland idle in item 1d.

Item 1c - Include cropland left unseeded for the 2007 harvest and summer fallowed, cultivated by tillage, or treated with herbicides to control weeds and conserve moisture. Include cropland summer fallowed in 2007 even though it may have been planted to wheat, etc., for the 2008 harvest.

SECTION 3 - IRRIGATION
Include acres irrigated by all methods and from all water sources including those irrigated from lagoons through a sprinkler or flood system.

SECTION 4 – CONSERVATION RESERVE PROGRAM AND CROP INSURANCE
Item 2 - Report all acres covered by any crop insurance policy in 2007. Include land in pasture insurance programs and acres covered by guaranteed revenue policies.

SECTION 5 – FIELD CROPS
Acres harvested - Enter the acres harvested in 2007. Round fractions to whole acres except for tobacco where tenths should be reported.
Total quantity harvested - If your unit of measure is different than the unit requested on the report form, convert your figure for the quantity harvested to the unit requested. If the harvest was incomplete by December 31, 2007, estimate the total quantity to be harvested.
Acres irrigated - Report the irrigated harvested acres only once, even if the crop was irrigated multiple times during the growing season.
Double cropping - If two or more crops were harvested from the same land (double cropping), report the total acres and production of each harvested crop.
Interplanted crops - If two crops were grown at the same time in alternating strips in the same field, report the acreage of the field used for each crop.
Skip row planting - If a crop was planted in an alternating pattern of planted and non-planted rows, such as two rows planted and two rows skipped, report the acreage occupied by the crop and report the skipped portion as cropland idle in section 2, item 1d.

Sweet corn harvested for seed is reported as crop code 0740 and the value of sales is reported in section 21, item 4.

SECTION 6 – GRAIN STORAGE CAPACITY
Report total capacity of all structures normally used, even if they were not used in 2007. Do not report any capacity or usage of off-farm public storage or capacity of structures leased to others.

SECTION 7 – HAY AND FORAGE CROPS
Include hay and forage from alfalfa, wild or native grasses, small grains, soybeans, and peanuts. Report production in tons. Any pasture or conservation land that had hay cut from it should be reported as cropland harvested in section 2, item 1a.

SECTION 8 – WOODLAND CROPS AND MAPLE SYRUP
Cut Christmas trees - Acres in production of cut Christmas trees include both those to be harvested in future years as well as those harvested in 2007. Trees cut should include only those trees cut in 2007.
Short rotation woody crops - A short rotation woody crop is a tree that is harvested in 10 years or less. These are trees for use by the paper or pulp industry or as engineered wood. Exclude trees cut for timber. Acres harvested in 2007 should be reported as having been both in production and harvested. Acres not harvested in 2007 should be reported in production only.
Maple syrup - Producers should report number of taps and gallons of syrup. If sap was sold, estimate the number of gallons of syrup it would have produced. Report the acres of tapped maple trees in section 2, item 3, woodland not pastured.

SECTION 9 – NURSERY, GREENHOUSE, FLORICULTURE, SOD, MUSHROOMS, VEGETABLE SEEDS, AND PROPAGATIVE MATERIALS
Report Christmas trees grown on this operation and sold live as nursery stock, code 0488. Value of sales should be reported only for those items grown on the operation, not items bought for immediate resale. Report all acres of Christmas trees in production for cut Christmas trees and the number cut in 2007 in section 8.

SECTION 10 – VEGETABLES, POTATOES, AND MELONS
For crops planted more than once during the year, report the total acres harvested during 2007. For example, if 1 acre was planted to lettuce, harvested, and an additional acre was planted and harvested, report 2 acres of lettuce under total acres harvested.

SECTION 11 – FRUIT AND NUTS
Report fruit and nut trees only if there was a combined total of 20 or more trees and vines whose production was either for home use or for sale. Exclude abandoned acres of orchards or vineyards which should be reported in section 2, item 1d. Bearing age acres are the acres of trees or vines that produced any fruit or nut crop in 2007 or previous years. If fruit and nut trees and vines were interplanted with other crops, report only the total acres for the orchard in section 11, and the total acres of each interplanted crop in their appropriate section(s).

SECTION 12 - BERRIES
Do not include abandoned acres or acres harvested for home use.

SECTIONS 13, 15, AND 16 – CATTLE AND CALVES, POULTRY, AND HOGS AND PIGS
Include all animals on this operation on December 31, 2007 owned by you, raised by you under contract, or kept by you for others. Include animals on unfenced lands, National Forest land, Indian Reservation Land, cooperative grazing association land, or rangeland administered by the Bureau of Land Management on a per-head, animal unit month (AUM), or lease basis. Animals in transit on December 31, 2007, should be reported by the person who had control of the animals on that day. Report beefalo as cattle in section 13. Report buffalo as bison in section 19.
Contract and custom feeding operations – Report numbers of animals or poultry on this operation on December 31, 2007. Report as sold, animals and poultry kept on a contract or custom basis and moved or sold from this operation in 2007. Report in section 20 on the appropriate line the quantity delivered of custom fed livestock or production contract livestock and poultry and report the dollar amount received from the contractor in section 20, item 3.
Cattle, hogs, and poultry to exclude from the report form - Exclude animals or poultry kept on land rented to others or kept under a share arrangement on land rented to others. Exclude animals quartered in feedlots that were not located on this operation. Do not report the sales of animals bought and then resold within 30 days. Such purchases and sales are considered dealer transactions.
Number sold - Report all animals and poultry sold or moved from this operation in 2007, without regard to ownership or who shared in the receipts. Include animals sold for a landlord or given to a landlord or others in trade or in payment for goods or services. Do not report number sold of any hogs and pigs, cattle and calves, or poultry owned by you that were kept and sold from a location that you did not operate.
Animals moved from this operation - For animals moved from this operation to another, such as for further feeding, report them as "sold". Cattle moved are not considered sold if they were moved to another operation for a short term, such as winter wheat or corn stubble grazing, or during the winter to public grazing land.
Cattle in feedlots -
Do NOT include in cattle in feedlots:
- Cattle and calves sold or moved off the operation for further feeding
- Veal calves or any calves weighing less than 500 pounds
- Cull or dairy cows fed only the usual dairy ration before being sold

SECTION 14 – SHEEP AND LAMBS OWNED
Item 2 - Report sheep, lambs, and ewes owned by you regardless of their location. Include ewes owned in both item 2 and item 2a. Report pounds of wool shorn in 2007 only.

Contract and Custom Feeding Operations – Do not report inventory of sheep and lambs that were not owned by you. They are to be reported on the owner's report form.

SECTION 17 – AQUACULTURE
Include all sizes for each type. On a separate line, specify the sale of fish eggs, fry, or fingerlings for each type. Convert units such as bushels, bags, or gallons to number or pounds.

SECTION 18 – COLONIES OF BEES
Report the number of bee colonies for honey or pollination owned regardless of location. Report the total colonies of honey bees or pollination bees sold during 2007. Report the pounds of honey collected in 2007 whether sold or not sold. Report the value of sales of honey, bee colonies, beeswax, pollen, package bees, and leaf cutter bees in section 21, item 16. Report the quantity of package bees produced in section 19, item 16.

SECTION 19 – OTHER ANIMALS AND LIVESTOCK PRODUCTS
Item 2 - Report in item 2 the total number of horses on this operation regardless of ownership on December 31, 2007. In item 2a, report only those horses in item 2 that were owned and sold by this operation. Exclude horses owned by this operation but stabled elsewhere.
Items 4, 5, and 6 - Report goats based on utilization regardless of breed.
Items 12 and 13 - If mink pelts and rabbit pelts were sold in 2007, include in number sold. Retained pelts should be included in inventory. The value of pelt sales should be reported in section 21, item 16.
Item 16 - Include bees wax, bee pollen, package bees and feathers.

SECTION 20 – PRODUCTION CONTRACTS AND CUSTOM FEEDING
A production contract is an agreement between a grower and contractor (integrator) that specifies that the grower will raise an agricultural commodity and that the contractor will provide certain inputs such as feed, fertilizer, etc. The grower receives a payment or fee from the contractor, generally after delivery, which is usually less than the full market price of the commodity. The contractor takes possession of the raised commodity at the end of the growing period.

Report amount of the specified commodity that you raised and delivered under a production contract in the unit requested in item 2. If you had contracts with more than one integrator or contractor for a single commodity, combine the production of all contracts and report the total units produced for that commodity in the proper category. If you had multiple contracts to produce different commodities, report the appropriate amount of each commodity produced under each contract in the proper categories. Report the total amount the contractor paid you for producing the commodity(s) in item 3. Exclude marketing contracts, futures contracts, forward contracts, or other contracts based strictly on price.

SECTION 21 – VALUE OF SALES
Report the value of all crops and livestock sold from this operation in 2007 on the appropriate line(s) of section 21. Report the sales in 2007 regardless of the year crops were harvested or raised. Include the value of your landlord's share of the commodities harvested. Also, report as sold commodities, such as cattle, that you owned and moved to someone else's operation for further feeding. Report gross value before expenses and taxes. Include payments received in 2007 from cooperatives or marketing organizations for crops produced on this operation regardless of the year in which the crops were harvested. Also, include as sales your estimate of the value of any crop or livestock removed from this operation in trade of services, such as baled hay for labor or other services. Report the total value you received for animals and poultry sold from this operation in 2007, without deducting production or marketing expenses (cost of feed, cost of livestock purchased, cost of hauling and selling, etc.).

Do NOT include:
- Proceeds from CCC loans or other government payments.
- The value of sales of any livestock and poultry owned by you that were kept and sold from a location you did not operate.
- Commodities grown under a production contract.

Item 6 - Exclude crops bought for resale without additional growing, such as plugs and started plants or garden center items, such as pot liners, chemicals, and fertilizers.
Item 17a - If you rented land under a share arrangement, report your landlord's share of the crop and livestock sales included in item 17.
Item 18 - Include only those commodities sold directly for human consumption, such as vegetables, fruit, eggs, milk, cattle, chickens, hogs, turkeys, etc. Report only commodities grown or raised on this operation. Exclude crops, livestock, poultry, or other products that you bought and resold within 30 days. Exclude craft items such as bird houses, woodwork, etc.

SECTION 22 – ORGANIC AGRICULTURE
A farm produces organic products if it operates according to the practices outlined in the National Organic Standards. Farms exempt from certification because they sell less than $5,000 in organic products a year should also report in this section. Acres used for organic production include pastureland and acres where crops were harvested, as well as any acres not used in the census year because crops failed, land was in a cover rotation, or crops were not yet of bearing age. Total sales of organic products include all sales of the products, regardless of whether an organic premium was obtained.
Item 7 - Acres being converted to organic production apply to all acres in the farm operation that are in the three year transition period before land can be certified as organic. Acres reported in item 7 should not be reported in item 3.

SECTION 23 – COMMODITY CREDIT CORPORATION (CCC) LOANS
Report amount received for commodities placed under CCC loan during 2007. Include amount received even if commodity was redeemed or forfeited prior to December 31, 2007. Exclude CCC loans to build crop storage facilities.

SECTION 24 – FEDERAL AND STATE AGRICULTURAL PROGRAM PAYMENTS
For conservation program cost shares, include the government's share of the amount paid. Exclude any payments from loans or programs which must be repaid.

SECTION 25 – INCOME FROM FARM-RELATED SOURCES
Report only those income producing activities for which you used part of the land, machinery, equipment, labor, or capital normally used on this operation and which you do not consider as entirely separate from your farming activities. Include insurance payments for crop or livestock losses in item 6. Report gross amounts received before taxes and expenses.

Item 2 - Exclude rental income from nonfarm property.
Item 3 - Include only those forest products cut from this operation, not items cut from other nonfarm timber acreage. Exclude income from a sawmill business. Report sales of Christmas trees or maple syrup or sap products in section 21.

SECTION 26 – PRODUCTION EXPENSES
Include farm production expenses paid by you or your landlord(s) for crops, livestock, or poultry produced on this operation in 2007 in items 1 through 15. Include expenses associated with the generation of farm-related income reported in Section 25. Include expenses incurred in 2007 even if they were not paid in 2007. Estimate if exact figures are not known.

Contract growers or custom feeders - Do not report as production expenses, the value of inputs provided by the contractor or livestock owner. Identify the items that were contractor provided in section 20, item 4.

Item 2 - Include surfactants and oils and other products used to increase a chemicals effectiveness.
Item 6 - Report the purchase cost of all grains, silage, hay, commercially mixed and premixed feeds, ingredients, concentrates, etc., fed to livestock or poultry on this operation. Contract livestock and poultry growers should not report the value of feed that was provided by a contractor. Do not report the value of feed raised and fed on this operation as an expense.
Item 9 - Include the cost of repairs and upkeep of farm machinery, vehicles, buildings, fences, and other equipment used in the farm business. Include expenses for repairs to machinery and equipment used only for customwork if income from those machines is reported in section 25. Exclude repairs to vehicles not used in the farm business. Exclude expenditures for the construction of new buildings or the cost of additions to existing buildings.

Item 10a - Include labor expense for the farm business for gross salaries and wages, commissions, dismissal pay, vacation pay, and bonuses paid to hired workers, family members, hired managers, administrative and clerical employees, and salaried corporate officers. Include cost for benefits such as employer's social security contributions, unemployment compensation, workman's compensation insurance, employer paid life and medical insurance expense, pension plans, etc.
Item 10b - Include the labor costs of workers furnished on a contract basis by labor contractor, crew leader, or cooperative for harvesting vegetables or fruit, shearing sheep, or similar farm activities. Exclude costs for building or repair work done by a construction contractor. Report the cost of customwork or machine hire in item 11.
Item 12a - Exclude rent paid for operator dwelling or other nonfarm property. Exclude the value of shares of crops or livestock paid to landlords.
Item 13 - Report all interest expenses paid in 2007 for the farm business. Include interest paid on CCC loans in item 13b. Exclude interest associated with activities not related to production of crops or livestock on this operation, such as land or buildings rented to others, packing sheds, or feed mills that provided services to others. Exclude interest on owner/operator dwelling where the amount is separated from the interest on the land and buildings on this operation.
Item 14 - Include real estate property taxes you paid on the acres and buildings you owned and used in the farm business and property taxes on equipment or livestock. Exclude property taxes on land or buildings rented to someone else, property taxes paid on other property not associated with the farm business, income, social security, and excise taxes.

SECTION 27 – FARM LABOR
Report the number of paid farm or ranch workers who performed agricultural labor on this operation in 2007. Include paid family members. Include workers such as hired bookkeepers, office workers, maintenance workers, etc., if their work was primarily associated with agricultural production on this operation. Include in item 1a any short term or temporary workers who may have worked only a few days. Exclude contract labor in items 1a and 1b.

SECTION 28 – FERTILIZERS AND CHEMICALS APPLIED
Fertilizer - Report acres on this operation on which commercial fertilizer was applied during 2007 only once, even if multiple applications were made. Report fertilizer and manure expenditures in section 26, item 1.
Chemicals - Include acres on which custom application of chemicals was made. If multiple applications of chemicals for the same purpose (for example, herbicides) were made on the same acres, report acreage only once. If chemicals were applied for different purposes, report the acres for each purpose that the chemicals were used. Report agricultural chemical expenditures in section 26, item 2. Estimate the acreage for spot treatments.

SECTION 29 – MARKET VALUE OF LAND, BUILDINGS, MACHINERY, AND EQUIPMENT
Item 1 - Estimate the value of the land, houses, barns, and other buildings for each of the three listed categories if they were sold in the current market. The real estate tax assessment value should not be used unless that value represents a full market value assessment and the land, house, and buildings could reasonably be assumed to be sold at that price. Do not deduct real estate marketing charges from your estimate. Report the total value, not the value on a per-acre basis.
Item 2 - The estimated market value refers to all machinery and equipment kept primarily on this operation and used for the farm business. Report the value in its present condition, not the replacement or depreciated value. Include mobile implements, hand tools, and office supplies. Permanently installed equipment or equipment which is an integral part of a building should be included as a part of the value of land and buildings and reported in section 29, item 1.

SECTION 30 – MACHINERY AND EQUIPMENT
Report the total on this operation or normally on this operation and normally used on this operation in the first column. Do not report obsolete or abandoned equipment. In the second column, report only the number manufactured in the last five years.

SECTION 31 – AGRICULTURAL ACTIVITY WITHIN THE BORDERS OF AMERICAN INDIAN RESERVATIONS, PUEBLOS, AND SERVICE AREAS
Complete this section if any of your cropland or livestock was on an American Indian Reservation, Pueblos, or service area in 2007. Include trust acres used, as well as deeded land or land leased from others that was on the Reservation.

SECTION 32 - PRACTICES
Item 1c - Include water for any purpose – irrigation, cleaning, water for livestock, etc.
Item 1g - Rotational grazing is the practice of subdividing pasture into smaller sections and grazing different sections at different times.
Item 1m - Include any barn (used or not) on your operation that was built prior to 1960.

SECTION 33 – TYPE OF ORGANIZATION
Use the following definitions to determine the type of organization for this operation:
Family or individual operation - Farm or business organization controlled and operated by a family or an individual (sole proprietor). Include family operations that are not incorporated and not operated under a partnership agreement. Report family corporations under "Incorporated under state law."
Partnership operation - Two or more persons who conduct an operation together and share work and profits. Co-ownership of land by husband and wife or joint filing of income tax forms by husband and wife does not constitute a partnership unless a specific agreement to share contributions, decision making, profits, and liabilities exists. Production under contract or under a share rental agreement does not constitute a partnership.
Incorporated under state law - A corporation is a legal entity or artificial person created under the laws of a State to carry on a business, including family corporations. Exclude cooperatives, even if they are incorporated.
Other - Estate or trust, prison farm, grazing association, American Indian Reservation, university farm, institution run by a government or religious entity, cooperatives (an incorporated or unincorporated enterprise or an association created and formed jointly by the members), etc.

SECTION 34 – OPERATOR CHARACTERISTICS
This section collects information about the operator(s) of this operation. A farm may be a family operation and still have multiple operators. Complete one column for each operator, listing the principal operator or senior partner in the first column. The principal operator is the person in charge, such as a hired manager, business manager, or other person primarily responsible for the on-site, day-to-day operation of the farm or ranch business.

Item 1 - Enter the number of people who made day-to-day decisions for this operation. Do not report as operators minor-aged children who only worked on the farm.
Item 2 - Answer each question for up to three operators. If there were more than three, answer for three operators only.
Item 2c - The principal occupation of the operator(s) is the occupation at which an operator spent the majority of his/her worktime. If the operator spent the majority working for **another** agricultural operation for wages, it is considered hours devoted to other.
Item 2g - Report the first year the specified operator began to operate any part of this operation on a continuous basis. If the operator returned to a place previously operated, report the year operations were resumed.
Item 3 - The number of households that share in the net farm income are those households involved with the day-to-day decisions and not those households that received funds because they are landlords, custom equipment operators, or provide other supplies that are listed in section 26, Production Expenses. Your answer should not exceed the number of operators listed in item 1.

SECTION 35 - CONCLUSION
Item 1 - If your operation might be identified under a different name than printed on the front of the form (for example, a farm name or another partner), please provide these names.
Item 2a - All farms and ranches should receive their own forms to complete. If you operated another farm or ranch, indicate whether you received a form for that operation.

Index

Items located in the publications are organized in broad categories. Chapter 1 tables are denoted by I. Chapter 2 tables are denoted by II. Appendix A tables are denoted by letters A–D.

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A							
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Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
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Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
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Tart	-	**I**-35; **II**-32	-	-	-	-	-
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Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
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Cucumbers	-	**I**-34; **II**-30	-	-	-	-	-
Currants	-	**I**-36; **II**-34	-	-	-	-	-
Customwork and custom hauling, expense	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Customwork and other agricultural services, income	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Cut Christmas trees	-	**I**-38; **II**-36	-	-	-	-	-
Cut Christmas trees and short-rotation woody crops, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Cut flowers	-	**I**-37; **II**-35	-	-	-	-	-
Cuttings, seedlings, liners, and plugs	-	**I**-37; **II**-35	-	-	-	-	-
D							
Daikon	-	**I**-33,34; **II**-30	-	-	-	-	-
Dairy cows	-	-	**I**-11-12,17; **II**-11	-	-	**I**-11	-
Dairy products, sales value	**I**-58	-	**I**-17	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Dates	-	**I**-35; **II**-32	-	-	-	-	-
Days worked off farm	**I**-58	-	-	**I**-59,60	**I**-48, 49, 51, 53, 56,57,61, 63,65; **II**-46	-	**I**-62,64
Deer	-	-	**I**-31; **II**-24	-	-	-	-
Defoliation chemicals applied	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-45; **II**-42	**I**-62,64
Depreciation expense	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	-	**I**-62,64
Dill for oil	-	**II**-28	-	-	-	-	-
Direct payments	-	-	-	**I**-6; **II**-5	-	-	-
Direct sales to individuals	**I**-58	-	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Diseases, chemical control	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-45; **II**-42	**I**-62,64
Donkeys (see Mules, burros, and donkeys)							
Dry edible beans	**I**-58	**I**-1,32,33, **II**-1,25,26	-	**I**-2,59,60	**I**-61,63,65	-	**I**-62,64
Ducks	-	-	**I**-27; **II**-13,14	-	-	-	-
E							
Economic class of farms	**I**-58	-	-	**I**-3,59,60; **II**-2	**I**-50, 52, 54, 55, 61,63,65; **II**-47	-	**I**-62,64
Eggs, chicken	-	-	-	-	-	**I**-41; **II**-40	**I**-46
Eggplant	-	**I**-34; **II**-30	-	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Elk	-	-	**I**-31; **II**-24	-	-	-	-
Emmer and spelt	-	**II**-26	-	-	-	-	-
Emus	-	-	**I**-27; **II**-14	-	-	-	-
Equipment and machinery	**I**-58	-	-	**I**-1,4,43,44, 59, 60; **II**-1,41	**I**-61,63,65	**I**-11	**I**-46, 47, 62,64
Escarole and endive	-	**I**-34; **II**-30	-	-	-	-	-
Estimated market value of land and buildings	**I**-58; **II**-8	-	-	**I**-1,40,42,59, 60; **II**-1	**I**-61,63,65	**I**-11	**I**-46, 47, 62, 64
Estimated market value of machinery and equipment	-	-	-	**I**-40	-	**I**-11	**I**-1,47,62,64; **II**-1
Ewes 1 year and older	**I**-58	-	**I**-28-30; **II**-16	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Expenses paid by landlords	**I**-58	-	-	**I**-4,59,60	**I**-61,63,65	-	**I**-62,64
Expenses, total farm production	**I**-58	-	-	**I**-1,4,40,59,60; **II**-1,3	**I**-61,63,65	**I**-11	**I**-47,62,64;
F							
Family held corporations	**I**-58	-	-	**I**-59,60	**I**-61,63,65; **II**-46	-	**I**-62,64; **A,B**
Family operations	**I**-58	-	-	**I**-59,60	**I**-50,52,54,55, 61,63,65; **II**-46	-	**I**-1,62,64; **A,B**
Farm characteristics	-	-	-	-	**I**-50-52,54,55	-	**I**-46; **A,B**
Farm production expenses	**I**-58	-	-	**I**-1, 4,40,59,60; **II**-1, 3	**I**-61,63,65	**I**-11	**I**-1,47,62,64; **II**-1
Farm size	**I**-58	-	-	**I**-59,60	**I**-50,54,55, 61, 63, 65	-	**I**-1,47, 62,64; **A**,**B**
Farmer (see Operators)							
Farmland, rent income received	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Farms, number	**I**-8,9,58; **II**-8,9	**I**-32-39; **II**-25, 39	**I**-12-31; **II**-11-24	**I**-2-7, 40, 42-44, 59,60; **II**-2-7,41	**I**-49-56, 61, 63,65; **II**-46-56	**I**-10,11,41, 45,48; **II**-10, 40, 42-44	**I**-1, 46, 47, 62, 64; **II**-1; **A - D**
Feed purchased, expense	**I**-58	-	-	**I**-1, 4,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-1,62,64
Fertilizer and chemicals applied	**I**-58	**I**-45; **II**-42	-	**I**-59,60	**I**-61,63,65	**I**-11,45; **II**-42	**I**-62,64
Fertilizer, lime, and soil conditioners purchased, expense	**I**-58	**I**-45; **II**-42	-	**I**-1,4,40,59,60; **II**-3	**I**-61,63,65	**I**-11,45;	**I**-62,64
Fescue seed	-	**I**-33; **II**-27	-	-	-	-	-
Field and grass seed crops	**I**-58	**I**-33; **II**-26,27	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Figs	-	**I**-35; **II**-32	-	-	-	-	-
Filberts (hazelnuts)	-	**I**-35; **II**-32	-	-	-	-	-
Flaxseed	-	**I**-33; **II**-26	-	-	-	-	-
Floriculture crops	-	**I**-37; **II**-35	-	**I**-40,59; **II**-2	-	-	-
Flower seeds	-	**I**-37; **II**-35	-	-	-	-	-
Foliage plants	-	**I**-37; **II**-35	-	-	-	-	-
Forage, all, land used	**I**-58	**I**-1,32,33; **II**-1,25,27	-	**I**-59,60	**I**-61,63,65	-	**I**-1, 62,64
Forage harvesters, self-propelled	**I**-58	-	-	**I**-59,60; **II**-41	**I**-61,63,65	**I**-44	**I**-62,64
Forest products, sales values	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Foxtail millet seed	-	**II**-27	-	-	-	-	-
Fruit and tree nuts	**I**-58	**I**-33,35; **II**-32	-	**I**-59,60; **II**-2	**I**-50,52,54,55, 61,63,65	-	**I**-46,62,64
Fruits, tree nuts, and berries, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Fuels purchased, expense	**I**-58	-	-	**I**-1,4,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Full owners	**I**-58	-	-	**I**-59,60	**I**-50,52,54,55, 61,63,65; **II**-46	-	**I**-47,62,64; **A, B**

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
G							
Gains, net income	**I**-58	-	-	**I**-5,59,60; **II**-4	**I**-54,61,63,65	-	**I**-62,64
Game or sport fish	-	-	**II** -23	-	-	-	-
Garden plants sold	-	**I**-37	-	-	-	-	-
Garlic	-	**I**-34; **II**-30	-	-	-	-	-
Gasoline, fuels and oils purchased, expense	**I**-58	-	-	**I**-1,4,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-1,62,64
Geese	-	-	**I**-27; **II**-13,14	-	-	-	-
Generated energy	-	-	-	-	-	**II**-44	-
Ginger root	-	**II**-28	-	-	-	-	-
Ginseng	-	**I**-34; **II**-30	-	-	-	-	-
Goats	**I**-58	-	**I**-31; **II**-17-20	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-46,62,64
Government payments, all	**I**-58	-	-	**I**-3,6,40,59,60; **II**-1,5	**I**-50, 52, 54, 55, 61,63,65	**I**-11	**I**-17,62,64
Grain and bean combines	**I**-58	-	-	**I**-44,59,60	**I**-61,63,65	-	**I**-62,64
Grain storage capacity	-	-	-	-	-	-	**I**-39; **II**-39
Grains, oilseeds, dry beans, and dry peas	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-41, **II**-40	**I**-62,64
Grapefruit	-	**I**-35; **II**-32	-	-	-	-	-
Grapes	**I**-58	**I**-35; **II**-32	-	**I**-59,60	**I**-61,63,65	-	**I**-46,62,64
Grass silage	-	**I**-32,33; **II**-27	-	-	-	-	-
Greenchop	**I**-58	**I**-32,33; **II**-25,27	-	**I**-59,60	**I**-61,63,65	-	**I**-1,62,64; **II**-1
Greenhouse fruits and berries	-	**I**-37; **II**-35	-	-	-	-	-
Greenhouse vegetables	-	**I**-37; **II**-35	-	**I**-37; **II**-2	-	-	-
Greenhouse tomatoes	-	**I**-37; **II**-35	-	-	-	-	-
Guar	-	**II**-28	-	-	-	-	-
Guavas	-	**I**-35; **II**-32	-	-	-	-	-
H							
Harvested cropland	**I**-8,9,58; **II**-8,9,46	**I**-1,33-39; **II**-1, 25-39	-	**I**-40,59,60	**I**-61,63,65; **II**-46-47,49	**I**-10,11,48; **II**-10	**I**-46-47,62,64
Hawaiian (see Native Hawaiian and Other Pacific Islander)							
Hay	**I**-58	**I**-32,33; **II**-27	-	**I**-59,60	**I**-61,63,65	-	**I**-46,62,64
Hay balers	**I**-58	-	-	**I**-44,59,60	**I**-61,63,65	**I**-44	**I**-62,64
Haylage, grass silage, and greenchop hay	-	**I**-32,33; **II**-27	-	-	-	-	**I**-1
Hazelnuts (Filberts)	-	**I**-35; **II**-32	-	-	-	-	-
Head lettuce	-	**I**-34; **II**-30	-	-	-	-	-
Heifers	**I**-58	-	**I**-12,14-17	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Herbs	-	**I**-34,37; **II**-28,30,35	-	-	-	-	-
Hired farm labor	**I**-58	-	-	**I**-1,4,40,59,60; **II**-3,7	**I**-61,63,65	**I**-11	**I**-62,64
Hired managers	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54-55, 61, 63,65	-	**I**-62,64
Hispanic (see Spanish, Hispanic or Latino origin)							
Hogs and pigs	**I**-58	-	**I**-1,19-26; **II**-1,12	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-11,41; **II**-40	**I**-62, 64
Honey collected	-	-	**I**-31; **II**-21	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Honeydew melons	-	**I**-34; **II**-30	-	-	-	-	-
Hops	-	**I**-33; **II**-28	-	-	-	-	-
Horseradish	-	**I**-34; **II**-30	-	-	-	-	-
Horses and ponies	**I**-58	-	**I**-31; **II**-15	**I**-59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Horses, ponies, mules, burros, and donkeys, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Household income, percent from farming	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-62,64
Households sharing in farm income	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54-55, 61, 63,65	-	**I**-62,64
I							
Income from farm-related sources	**I**-58	-	-	**I**-1,7,59,60; **II**-1,6	**I**-61,63,65	**I**-11	**I**-47,62,64
Insects, chemical control	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-45**;II**-42	**I**-62,64
Institutional farms	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-1,47,62,64
Insurance payments	**I**-8,58**;** **II**-8	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Interest expenses	**I**-58	-	-	**I**-1,4,40,59,60; **II**-3	**I**-41, 58, 61, 63, 65	**I**-11	**I**-1,62,64; **II**-46
Internet access	**I**-58	-	-	**I**-59,60; **II**-2	**I**-50, 52, 54, 55, 61, 63,65	-	**I**-1,62,64; **II**-46
Irrigated land	**I**-9,58	**I**-33; **II**-25	-	**I**-59,60	**I**-61,63,65	**I**-10,11; **II**-10	**I**-47,62,64; **II**-1
J							
Jojoba	-	**II**-28	-	-	-	-	-
K							
Kale	-	**I**-34; **II**-30	-	-	-	-	-
Kentucky bluegrass seed	-	**II**-27	-	-	-	-	-
Kiwifruit	-	**I**-35; **II**-32	-	-	-	-	-
Kumquats	-	**I**-35; **II**-32	-	-	-	-	-
L							
Labor expense, hired	**I**-58	-	-	**I**-1,4,59,60; **II**-3,7	**I**-61,63,65	**I**-11	**I**-1,62,64
Ladino clover seed	-	**II**-27	-	-	-	-	-
Land and buildings, estimated market value	**I**-58; **II**-8	-	-	**I**-42,59,60	**I**-61,63,65	**I**-11	**I**-1, 46-47, 62, 64
Land in farms, acres	**I**-1, 8, 9, 58; **II**-8	-	-	**I**-40,59,60	**I**-50,52,54,55, 61, 63,65; **II**-46, 48, 49, 50,51,52,53,54, 55,56	**I**-11,48	**I**-46 47, 62, 64; **A-C**
Land owned	**I**-58	-	-	**I**-59,60	**I**-61,63,65; **II**-46	**I**-11	**I**-62,64
Land rented or leased to others	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-62,64; **II**-46
Land use	**I**-1,8,58	-	-	**I**-59,60	**I**-61,63,65	**I**-11	**I**-1, 46, 47, 62, 64
Land used for vegetables	**I**-58; **II**-29	**I**-33; **II**-29	-	**I**-59,60	**I**-61,63,65	-	**I**-1,62,64
Land used to raise certified organic crops	**I**-58	**I**-48; **II**-43	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Landlord's share of production expenses	**I**-58	-	-	**I**-4,59,60	**I**-61,63,65	-	**I**-62,64
Landlord's share of sales	**I**-58	-	-	**I**-2,59,60	**I**-61,63,65	-	**I**-62,64
Latino (see Spanish, Hispanic or Latino origin)							
Layers	**I**-58	-	**I**-27; **II**-13	**I**-59,60	**I**-61,63,65	-	**I**-1,62,64; **II**-1
Leaf lettuce	-	**I**-34; **II**-30	-	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Lemons	-	**I**-35; **II**-32	-	-	-	-	-
Lentils	-	**I**-33; **II**-26	-	-	-	-	-
Lespedeza seed	-	**II**-27	-	-	-	-	-
Lettuce, all	-	**I**-34; **II**-30	-	-	-	-	-
Lima beans- Green	-	**I**-34; **II**-30	-	-	-	-	-
Dry	-	**II**-26	-	-	-	-	-
Limes	-	**I**-35; **II**-32	-	-	-	-	-
Livestock and poultry purchased, expense	**I**-58	-	-	**I**-1,4,11,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-1,62,64;
Livestock inventory	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-11	**I**-1, 62,64
Livestock, poultry, and their products, value	-	-		**I**-2; **II**-2	**I**-50,52,54-55	**I**-11	**I**-1,47; **II**-1
Llamas	-	-	**I**-31; **II**-24	-	-	-	-
Loan deficiency payments	-	-	-	**I**-6	-	-	-
Loganberries	-	**I**-36; **II**-34	-	-	-	-	-
Losses, net income	**I**-58	-	-	**I**-5,59,60; **II**-4	**I**-61,63,65	-	**I**-62,64
M							
Macadamia nuts	-	**I**-35; **II**-32	-	-	-	-	-
Machinery and equipment-							
Estimated market value	**I**-58	-	-	**I**-1,43,59,60; **II**-41	**I**-61,63,65	**I**-11	**I**-46, 47, 62,64; **II**-1
Rent and lease expense	**I**-58	-	-	**I**-59,60; **II**-3,5	**I**-61,63,65	**I**-11	**I**-1,62,64
Mangoes	-	**I**-35; **II**-32	-	-	-	-	-
Manure applied	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-45; **II**-42	**I**-62,64
Maple syrup	-	**I**-38; **II**-38	-	-	-	-	-
Market value of agricultural products	**I**-58	-	-	**I**-1-3,40,59,60; **II**-1,2	**I**-50,54,55,61, 63,65	**I**-11,41	**I**-1,47, 62,64; **II**-1; **A-C**
Meat and other goats	-	-	**I** -31; **II** -20	-	-	-	-
Melons	-	**I**-35; **II**-30	-	-	-	-	-
Migrant workers	**I**-58	-	-	**I**-59,60; **II**-2,5	**I**-61,63,65; **II**-7	-	**I**-62,64
Milk and dairy products, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Milk cows	**I**-58	-	**I**-1,11,12,17; **II**-1,11	**I**-59,60	**I**-61,63,65	-	**I**-1,62,64
Milk goats	-	-	**I**-31; **II**-18	-	-	-	-
Mink and their pelts	-	-	**I**-31; **II**-22	-	-	-	-
Mint for oil	-	**I**-33,34; **II**-28	-	-	-	-	-
Miscellaneous poultry	-	-	**I**-27; **II**-14	-	-	-	**I**-46
Mohair	-	-	**I**-31; **II**-19	-	-	-	-
Mollusks	-	-	**II**-23	-	-	-	-
More than one race, operators	**I**-58	-	-	**I**-59,60	**I**-53,54,56, 61, 63, 65; **II**-56	-	**I**-62,64; **A, B**
Mules, burros, and donkeys	-	-	**I**-31; **II**-24	-	-	-	-
Mushroom spawn	-	**I**-37; **II**-35	-	-	-	-	-
Mushrooms	-	**I**-34,37; **II**-30,35	-	-	-	-	-
Mustard greens	-	**I**-34; **II**-30	-	-	-	-	-
Mustard seed	-	**II**-26	-	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
N							
Native Hawaiian and Other Pacific Islander operators	**I**-58	-	-	**I**-59,60	**I**-53,54, 55, 56,57,61, 63, 65; **II**-54	-	**I**-62,64; **A,B**
Nectarines	-	**I**-35; **II**-32	-	-	-	-	-
Nematodes, chemical control	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**II**-42	-
Net cash farm income of the operations and operators	**I**-58	-	-	**I**-5,59,60; **II**-4	**I**-61,63,65	-	**I**-62,64; **II**-1
Net gain	**I**-58	-	-	**I**-5,59,60; **II**-4,5	**I**-61,63,65	-	**I**-62,64; **B**
Net loss	**I**-58	-	-	**I**-5,59,60; **II**-4,5	**I**-61,63,65	-	**I**-62,64; **B**
Noncitrus fruit, all	-	**I**-35; **II**-32	-	-	-	-	**I**-46
Nonirrigated farms	-	-	-	-	-	**I**-11	-
Nonresponse adjustment	-	-	-	-	-	-	**A - C**
North American Industry Classification System (NAICS) -							
All other animal production (11299)	-	-	-	-	-	-	**I** -46
All other crop farming (11199)	-	-	-	-	-	-	**I** -46
Animal aquaculture (1125)	-	-	-	-	-	-	**I** -46
Animal aquaculture and other animal production (1125,1129)	**I**-58	-	-	**I**-59,60	**I**- 50, 52, 54, 55, 61, 63, 65	-	**I**-46, 47, 62, 64; **II** - 45
Animal production (112)	-	**I**-39	-	-	-	-	**I** -46
Apiculture (11291)	-	-	-	-	-	-	**I**-46
Apple orchards (111331)	-	-	-	-	-	-	**I**-46
Beef cattle ranching and farming including feedlots (11211)	-	-	-	-	-	-	**I**-46
Beef cattle ranching and farming (112111)	**I**-58	-	-	**I**-59,60	**I**- 50, 52, 54, 55, 61, 63, 65	-	**I**-46, 47, 62, 64; **II** - 45
Berry (except strawberry) farming (111334)	-	-	-	-	-	-	**I**-46
Broilers and other meat-type chicken production (11232)	-	-	-	-	-	-	**I**-46
Cattle feedlots (112112)	**I**-58	-	-	**I**-59,60	**I**- 50, 52, 54, 55, 61, 63, 65	-	**I**-46, 47, 62, 64; **II** - 45
Cattle ranching and farming (1121)	-	-	-	-	-	-	**I**-46
Chicken egg production (11231)	-	-	-	-	-	-	**I**-46
Citrus (except orange) groves (11132)	-	-	-	-	-	-	**I**-46
Corn farming (11115)	-	-	-	-	-	-	**I**-46
Cotton farming (11192)	**I**-58	-	-	**I**-59,60	**I**- 50, 52, 54, 55, 61, 63, 65	-	**I**-46, 47, 62, 64; **II** - 45
Crop farming, all other (11199)	**I**-58	-	-	**I**-59,60	**I**-50,52,54,55	**I**-61,63,65	**I**-46,62,64; **II**-45
Crop production (111)	-	**I**-39; **II**-39	-	-	-	-	**I**-46
Dairy cattle and milk production (11212)	**I**-58	-	-	**I**-59, 60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46,62,64; **II**-45
Dry pea and bean farming (11113)	-	-	-	-	-	-	**I**-46
Floriculture production (111422)	-	-	-	-	-	-	**I**-46
Food crops grown under cover (11141)	-	-	-	-	-	-	**I**-46
Fruit and nut combination farming (111336)	-	-	-	-	-	-	**I**-46; **II**-45
Fruit and tree nut farming (1113)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Fur-bearing animal and rabbit production (11293)	-	-	-	-	-	-	**I**-46
Goat farming (11242)	-	-	-	-	-	-	**I**-46

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Grape vineyards (111332)	-	-	-	-	-	-	**I**-46
Greenhouse, nursery, and floriculture production (1114)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Hay farming (11194)	-	-	-	-	-	-	**I**-46
Hog and pig farming (1122)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Horse and other equine production (11292)	-	-	-	-	-	-	**I**-46
Noncitrus fruit and tree nut farming (11133)	-	-	-	-	-	-	**I**-46
Nursery and floriculture production (11142)	-	-	-	-	-	-	**I**-46
Nursery and tree production (111421)	-	-	-	-	-	-	**I**-46
Oilseed and grain farming (1111)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Oilseed (except soybean) farming (11112)	-	-	-	-	-	-	**I**-46
Orange groves (11131)	-	-	-	-	-	-	**I**-46
Other animal production (1129)	-	-	-	-	-	-	**I**-45; **II**-45
Other crop farming (1119)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Other grain farming (11119)	-	-	-	-	-	-	**I**-46
Other noncitrus fruit farming (111339)	-	-	-	-	-	-	**I**-46
Other poultry production (11239)	-	-	-	-	-	-	**I**-46
Other vegetable (except potato) and melon farming (11219)	-	-	-	-	-	-	**I**-46
Potato farming (111211)	-	-	-	-	-	-	**I**-46
Poultry and egg production (1123)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Poultry hatcheries (11234)	-	-	-	-	-	-	**I**-46
Rice farming (11116)	-	-	-	-	-	-	**I**-46
Sheep and goat farming (1124)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Sheep farming (11241)	-	-	-	-	-	-	**I**-46
Soybean farming (11111)	-	-	-	-	-	-	**I**-46
Strawberry farming (111333)	-	-	-	-	-	-	**I**-46
Sugar cane farming, hay farming and all other crop farming (11193, 11194, 11195)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-47, 62, 64; **II**-45
Sugarcane farming (11193)	**I**-58	-	-	**I**-59,60	**I**-61,63,65	-	**I**-46,62,64
Tobacco farming (11191)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Tree nut farming (111335)	-	-	-	-	-	-	**I**-46
Turkey production (11233)	-	-	-	-	-	-	**I**-46
Vegetable and melon farming (11121)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Wheat farming (11114)	-	-	-	-	-	-	**I**-46
Number of farms	**I**-1, 8, 9, 58; **II**-8,9	**II** -32, 36-37	**I**-12-31; **II**-11-24	**I**-40,44,59; **II**-2,41	**I**-50,52-55, 61, 63,65; **II**-46	**I**-10,11,41; **II**-10, 40	**I**-1,46-47, 62, 64; **II**-1,2; **A-C**
Number of households sharing farm income	**I**-58	-	-	**I**-59	**I**-50, 52,54-55, 61, 63, 65	-	**I**-62,64
Number of operators	**I**-58	-	-	**I**-59,60	**I**-49-57, 61, 63,65; **II**-46-56	-	**I**-62,64
Number of persons living in operator's household	**I**-58	-	-	**I**-59,60	**I**-49,51,53, 54, 56-57, 61, 63, 65	-	**I**-62,64
Nursery crops	-	**I**-37; **II**-35	-	**II**– 2	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Nursery, greenhouse, floriculture and sod, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Nursery stock	-	**I**-37; **II**-35	-	-	-	-	-
Nuts, all	-	**I**-35; **II**-32	-	-	-	-	-
O							
Occupation of operator	**I**-58	-	-	**I**-59,60	**I**-1,49, 51, 53, 56,57,61,63,65 **II**-1,46	**I**-48	**I**-62,64; **A,B**
Off-farm work by operator	**I**-58	-	-	**I**-59	**I**-61, 63, 65; **II**-46	-	**I**-1,62,64; **II**-1
Okra	-	**I**-34; **II**-30	-	-	-	-	-
Olives	-	**I**-35; **II**-32	-	-	-	-	-
Onions	-	**I**-34; **II**-30	-	-	-	-	-
Operator characteristics	**I**-58	-	-	**I**-59,60	**I**-49, 51, 53, 56,57,61,63,65 **II**-46	**I**-48	**I**-62,64; **A**
Operators -							
Age	**I**-58	-	-	**I**-59,60	**I**-1,49, 51, 53, 56-57, 61, 63, 65; **II**-46	**I**-48	**I**-62,64; **A,B**
All	-	-	-	-	**I**-49,52,54; **II**-46	-	**A, B**
American Indian or Alaska Native operators	**I**-58	-	-	**I**-59,60	**I**-51,53-57, 61,63,65; **II**-51	-	**I**-47,62,64; **A, B, D**
Asian	**I**-58	-	-	**I**-59,60	**I**-51,54-57, 61, 63, 65; **II**-52	-	**I**-47,62,64; **A, B**
Black or African American	**I**-58	-	-	**I**-59,60	**I**-51, 53-56, 61,63,65; **II**-53	-	**I**-47,62,64; **A, B**
Living on an American Indian reservation	**I**-58	-	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64; **D**
Native Hawaiian or Other Pacific Islander	**I**-58	-	-	**I**-59,60	**I**-51,53-57, 61, 63, 65; **II**-54	-	**I**-62,64; **A,B**
On farm	**I**-58	-	-	**I**-59,60	**I**-61, 63, 65; **II**-46	-	**I**-62,64
Primary occupation	**I**-58	-	-	**I**-59,60	**I**-1,49, 51, 53, 56,57,61,63,65 **II**-1,46	**I**-48	**I**-62,64; **A,B**
Principal Operator	**I**-58	-	-	**I**-59,60	**I**-49-54, 56, 61, 63, 65; **II**-46,47, 49-57	**I**-48	**I**-62,64; **A,B**
Race	**I**-58	-	-	**I**-59,60	**I**-51, 53-57, 61, 63, 65; **II** -56	-	**I**-62,64
Spanish, Hispanic, or Latino	**I**-58	-	-	**I**-59,60	**I**-51,52-54 61, 63, 65; **II**-50	-	**I**-62,64; **A,B**
White	**I**-58	-	-	**I**-59,60	**I**-51,53-57, 61,63,65; **II**-55	-	**I**-62,64; **A, B**
Women	**I**-58	-	-	**I**-59,60	**I**-50-52, 54, 55, 61,63,65; **II**-46	-	**I**-62,64
Oranges	-	**I**-35; **II**-32	-	-	-	-	-
Orchardgrass seed	-	**II**-27	-	-	-	-	-
Orchards, land in	**I**-58; **II**-31	**I**-1,32,33; **II**-1,25	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Organic agriculture	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-48; **II**-43	**I**-62,64
Ornamental fish	-	-	**II**-23	-	-	-	-
Ostriches	-	-	**I**-27; **II**-14	-	-	-	-
Other livestock and other animal products	**I**-58	-	**I**-12-17, 19, 21.22, 25-27,31; **II**-24	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-41	**I**-1,62,64

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Other aquaculture products	-	-	**II**-23	-	-	-	-
Other berries	-	I-36; II-34	-	-	-	-	-
Other citrus	-	**I**-35; **II**-32	-	-	-	-	-
Other crops and hay	**I**-58	**I**-32-37; **II**-26-28, 30, 32, 34, 35	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-41	**I**-62,64
Other farm characteristics	-	-	-	-	**I**-50,52,54,55	-	-
Other farm production expenses	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Other farm-related income	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	**I**-11	**I**-62,64
Other federal farm program payments	-	-	-	**I**-6; **II**-5	**I**-50,52,54,55	-	-
Other food fish	-	-	**II**- 23	-	-	-	-
Other livestock	-	-	**I**-31; **II**-24	-	-	-	-
Other livestock and poultry purchased	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	-	**I**-62,64
Other poultry	-	-	**I**-27; **II**-13-14	-	-	-	-
Other types of organizations	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-1,62,64
Other vegetables	-	**I**-35; **II**-32	-	-	-	-	-
Owned land in farms	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46	**I**-11	**I**-62,64
P							
Pacific Islander (see Native Hawaiian and Other Pacific Islander)							
Papayas	-	**I**-35; **II**-32	-	-	-	-	-
Parsley	-	**I**-34; **II**-30	-	-	-	-	-
Part owners	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46,49	-	**I**-47,62,64; **A,B**
Partnerships	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46	-	**I**-1,62,64; **A,B**
Passion fruit	-	**I**-35; **II**-32	-	-	-	-	-
Pastureland	**I**-8,58; **II**-8	-	-	**I**-40,59,60	**I**-61,63,65	**I**-10,11,48; **II**-10,42,43	**I**-47,62,64
Patronage dividends and refunds from cooperatives	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Payroll	-	-	-	**II** -7	-	-	-
Peaches	**I**-58	**I**-35; **II**-32	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Peanuts	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Pears	-	**I**-35; **II**-32	-	-	-	-	-
Peas - Chinese	-	**I**-34; **II**-30	-	-	-	-	-
Dry edible	**I**-58	**I**-33; **II**-26	-	-	-	-	-
Dry southern (cowpeas)	-	**II**-26	-	-	-	-	-
Green (excluding southern)	**I**-58	**I**-34; **II**-30	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Green southern (cowpeas)	-	**I**-34; **II**-30	-	-	-	-	-
Pecans	**I**-58	**I**-35; **II**-32	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Peppers	-	**I**-34; **II**-30	-	-	-	-	-
Percent of income from farming	**I**-58	-	-	**I**-59,60	**I**-52, 54, 55, 61, 63,65	-	**I**-62,64
Permanent pasture and rangeland	**I**-8,58; **II**-8	-	-	**I**-59,60	**I**-61,63,65	-	**I**-47,62,64

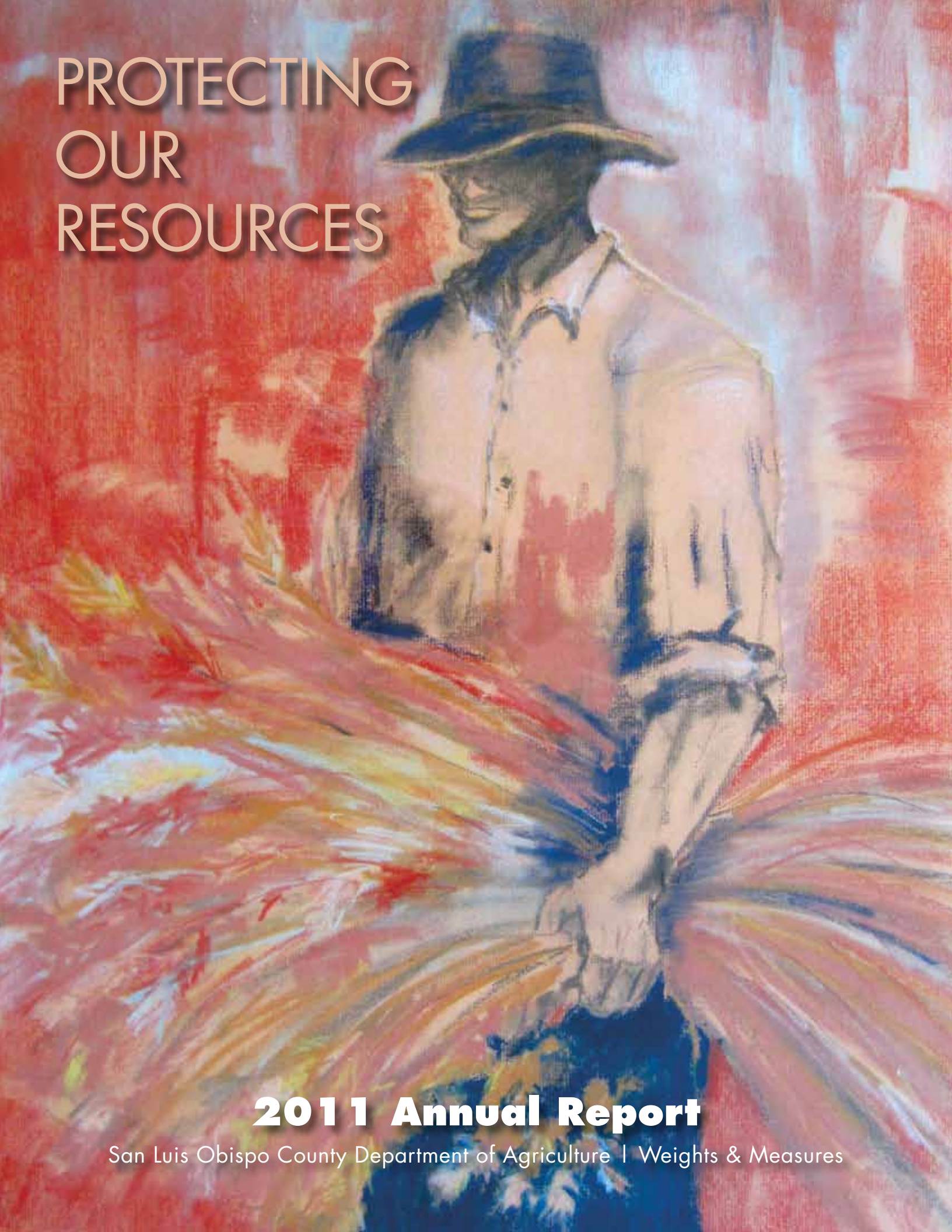
Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Persimmons	-	**I**-35; **II**-32	-	-	-	-	-
Pesticides, acres applied	**I**-58	-	-	**I**-59,60	-	**II**-42	**I**-62,64
Pheasants	-	-	**I**-27; **II**-14	-	-	-	-
Pigeons or squab	-	-	**I**-27; **II**-14	-	-	-	-
Pima cotton	-	**I**-32,33; **II**-1,26	-	-	-	-	-
Pineapples	-	**I**-1,33; **II**-1,25,28	-	-	-	-	-
Pistachios	-	**I**-35; **II**-32	-	-	-	-	-
Place of residence	**I**-58	-	-	**I**-59,60	**I**-49, 51, 53, 56,57,61,63,65 **II**-46	**I**-48	**I**-62,64
Plums and Prunes	-	**I**-35; **II**-32	-	-	-	-	-
Pluots	-	**I**-35; **II**-32	-	-	-	-	-
Pomegranates	-	**I**-35; **II**-32	-	-	-	-	-
Popcorn	-	**I**-33; **II**-26	-	-	-	-	-
Potatoes	**I**-58	**I**-1,34; **II**-1,30	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-41; **II**-40	**I**-62,64
Potted flowering plants	-	**I**-37; **II**-35	-	-	-	-	-
Poultry	**I**-58	-	**I**-27; **II**-13,14	**I**-2,40,59,60; **II**-2	**I**-61,63,65; **II**-46,50	**I**-41	**I**-62,64
Poultry hatched	-	-	**II**-14	-	-	-	-
Primary occupation (see Operator, primary occupation)							
Principal operator (see Operator)							
Production contracts	-	-	-	-	-	**I**-41; **II**-40	-
Property taxes paid, expense	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Proso millet	-	**I**-33; **II**-26	-	-	-	-	-
Prunes	-	**I**-35; **II**-32	-	-	-	-	-
Pullets for laying flock replacement	**I**-58	-	**I**-27; **II**-13	**I**-59,60	**I**-61,63,65	**I**-41; **II**-40	**I**-62,64
Pumpkins	-	**I**-34; **II**-30	-	-	-	-	-
Q							
Quail	-	-	**I**-27; **II**-14	-	-	-	-
R							
Rabbits and their pelts	-	-	**I**-31; **II**-24	-	-	-	-
Race of operator	**I**-58	-	-	**I**-59,60	**I**-51,53,54-57,61,63,65; **II**-51-56	-	**I**-62,64; **A,B**
Radishes	-	**I**-34; **II**-30	-	-	-	-	-
Rapeseed	-	**II**-26	-	-	-	-	-
Raspberries	-	**I**-36; **II**-34	-	-	-	-	-
Recreational services income	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Red clover seed	-	**II**-27	-	-	-	-	-
Redtop seed	-	**II**-27	-	-	-	-	-
Reliability estimates	-	-	-	-	-	-	**B**
Rent and lease expenses for machinery, equipment, and farm share of vehicles	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Rent or share payments income	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Rented or leased land	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61, 63,65; **II**-46	**I**-11	**I**-62,64
Rhubarb	-	**I**-34; **II**-30	-	-	-	-	-
Rice	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-46,62,64
Romaine lettuce	-	**I**-34; **II**-30	-	-	-	-	-
Rotational or management intensive grazing	-	-	-	-	**II**-44	-	-
Rye for grain	-	**I**-33; **II**-26	-	-	-	-	-
Ryegrass seed	-	**I**-33; **II**-27	-	-	-	-	-
S							
Safflower	-	**I**-33; **II**-26	-	-	-	-	-
Seed harvested	**I**-58	**I**-33,37; **II**-25-27,35	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Seedlings	-	**I**-37; **II**-35	-	-	-	-	-
Seeds, plants, vines, and trees, expense	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Sesame	-	**II**-28	-	-	-	-	-
Sex of operator	**I**-58	-	-	**I**-59,60	**I**-49, 53, 56, 57, 61,63,65; **II**-46	**I**-48	**I**-62,64; **A, B**
Share payments (see Rent)							
Sheep and lambs	**I**-58	-	**I**-28-30; **II**-1,16	**I**-2,40,59,60; **II**-2	**I**-50, 52, 54, 61, 63, 65	**I**-11; **II**-44	**I**-62,64; **II**-1,46,47
Sheep, goats, and their products, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Short rotation woody crops	**I**-58	**I**-38; **II**-37	-	**I**-2,7,40,59; **II**-2,6	**I**-61,63,65	-	**I**-62,64
Silage	**I**-58	**I**-1,32,33; **II**-1,25,27	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Small grain hay	-	**I**-32,33; **II**-27	-	-	-	-	-
Sod	-	**I**-37; **II**-35	-	**I**-2,40	-	-	-
Soil conditioners	**I**-58	-	-	**I**-1,4,40,59,60; **II**-2	**I**-61,63,65	**I**-11,45; **II**-42	**I**-62,64
Sorghum	**I**-58	**I**-1,32-33; **II**-1, 25, 26, 27, 28	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Soybeans	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Spanish, Hispanic or Latino origin, operators	**I**-58	-	-	**I**-59,60	**I**-51,52-53,55, 61, 63, 65; **II**-50	-	**I**-62,64; **A,B**
Spearmint for oil	-	**II**-28	-	-	-	-	-
Specified fruits and nuts, acres	-	**I**-35; **II**-32	-	-	-	-	-
Spinach	-	**I**-34; **II**-30	-	-	-	-	-
Sport or game fish	-	-	**II**-23	-	-	-	-
Spring wheat, other	-	**I**-1,32-33; **II**-1,26	-	-	-	-	-
Squab (see Pigeons)	-	-	**I**-27; **II**-14	-	-	-	-
Squash	-	**I**-34; **II**-30	-	-	-	-	-
State and local government program payments	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Stockholders in farm corporation	**I**-58	-	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Strawberries	-	**I**-36; **II**-34	-	-	-	-	-
Sudangrass seed	-	**II**-27	-	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Sugarbeets	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Sugarcane	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-59,60	**I**-50, 52, 54, 61, 63, 65	-	**I**-46, 47, 62, 64; **II**-1
Summer squash	-	**I**-34; **II**-30	-	-	-	-	-
Sunflower seed	**I**-58	**I**-1,33; **II**-1,25,26	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Supplies, repairs and maintenance, expense	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Sweet corn	**I**-58	**I**-34; **II**-28,30	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Sweet potatoes	**I**-58	**I**-1,34; **II**-30	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64; **II**-1
Sweetclover seed	-	**II**-1,27	-	-	-	-	-
T							
Tame hay, other	**I**-58	**I**-32,33; **II**-27	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Tangelos	-	**I**-35; **II**-32	-	-	-	-	-
Tangerines	-	**I**-35; **II**-32	-	-	-	-	-
Taps, maple syrup	-	**I**-38; **II**-38	-	-	-	-	-
Taro	-	**II**-28	-	-	-	-	-
Taxes, property	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Temples	-	**I**-35; **II**-32	-	-	-	-	-
Tenants	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46,49	-	**I**-47,62,64; **A,B**
Tenure of operator	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46,49	-	**I**-47,62,64; **A,B**
Timothy seed	-	**II**-27	-	-	-	-	-
Tobacco	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-46, 47, 62, 64; **II**-1,45
Tobacco transplants	-	**I**-37; **II**-35	-	-	-	-	-
Tomatoes	**I**-58	**I**-34; **II**-30	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Tomatoes, greenhouse	-	**I**-37; **II**-35	-	-	-	-	-
Total cropland	**I**-1,8,58; **II**-1,8	-	-	**I**-40,59,60	**I**-61,63,65	**I**-11	**I**-47,62,64
Total farm production expenses	**I**-58	-	-	**I**-4,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-1,47,62,64; **II**-1
Total sales	**I**-58	-	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Total woodland	**I**-8,58; **II**-8	-	-	**I**-59,60	**I**-61,63,65	-	**I**-47,62,64
Tractors	**I**-58	-	-	**I**-44,59,60; **II**-41	**I**-61,63,65	-	**I**-62,64
Triticale	-	**II**-26	-	-	-	-	-
Trout	-	-	**II**-23	-	-	-	-
Trucks	**I**-58	-	-	**I**-44,59,60; **II**-41	**I**-61,63,65	-	**I**-44,62,64
Tubers	-	**I**-37	-	-	-	-	-
Turkeys	**I**-58	-	**I**-27; **II**-13	**I**-59,60	**I**-61,63,65	**I**-41; **II**-40	**I**-62,64
Turnip greens	-	**I**-34; **II**-30	-	-	-	-	-
Turnips	-	**I**-34; **II**-30	-	-	-	-	-
Type of organization	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46	-	**I**-1,62,64;**A,B**
Typology of farm	**I**-58	-	-	**I**-59,60	**I**-61,63,65; **II**-46	-	**I**-62,64

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
U							
Upland cotton	-	**I**-1,32,33; **II**-1,26	-	-	-	-	-
Utilities, expense	**I**-58	-	-	**I**-4,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
V							
Valencia oranges	-	**I**-35; **II**-32	-	-	-	-	-
Value Added Commodities	-	-	-	-	-	**II** -44	-
Value of -							
Agricultural products sold	-	-	-	**I**-3; **II**-2	-	**I**-11	**I**-1; **II**-2
Commodities under production contract	-	-	-	-	-	**I**-41	-
Land and buildings	**I**-58; **II**-8	-	-	**I**-40,42,59,60	**I**-61,63,65	**I**-11	**I**-1, 46, 47, 62, 64; **II**-1
Landlord's share of total sales	**I**-58	-	-	**I**-2,40,59,60	**I**-61,63,65	-	**I**-62,64
Machinery and equipment	**I**-58	-	-	**I**-40,43,59,60; **II**-41	**I**-61,63,65	**I**-11	**I**-1, 46, 47, 62, 64; **II**-1
Organic product sales	**I**-58	-	-	**I**-40,59,60	**I**-61,63,65	**I**-48; **II**-43	**I**-62,64
Sales	**I**-58	**I**-37; **II**-35	**I**-13-18,20-22,31; **II**-23	**I**-1-3,40,59,60; **II**-1-2	**I**-50, 52, 54, 55, 61,63,65; **II**-47	**I**-11,41,48; **II**-43	**I**-1,46, 47, 62, 64; **A-C**
Veal calves	-	-	-	-	-	**II**-44	-
Vegetable seeds	-	**I**-37; **II**-35	-	-	-	-	-
Vegetable transplants	-	**I**-37; **II**-35	-	-	-	-	-
Vegetables	**I**-58	**I**-1,32-34,37; **II**-1,25, 29, 30, 35	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-41; **II**-40	**I**-62,64
Vetch seed	-	**II**-27	-	-	-	-	-
W							
Walnuts, English	**I**-58	**I**-35; **II**-32	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Watercress	-	**I**-34; **II**-30	-	-	-	-	-
Watermelons	-	**I**-34; **II**-30	-	-	-	-	-
Weeds, grass, or brush, chemical control	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-45; **II**-42	**I**-62,64
Wetlands Reserve Program	**I**-8,58; **II**-8	-	-	**I**-6,59,60; **II**-5	**I**-50, 52, 54, 55, 61,63,65	**I**-11	**I**-62,64
Wheat -							
All	**I**-58	**I**-1,32,33; **II**-25,26	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-1,46,62,64; **II**-1
Durum	-	**I**-1,32,33,34; **II**-1,26	-	-	-	-	-
Other spring	-	**I**-1,32,33,34; **II**-1,26	-	-	-	-	-
Winter	-	**I**-1,32,33,34; **II**-1,26	-	-	-	-	-
Wheatgrass seed	-	**II**-27	-	-	-	-	-
White clover seed	-	**II**-27	-	-	-	-	-
White operators	**I**-58	-	-	**I**-59,60	**I**-51,53-57, 61,63,65; **II**-55	-	**I**-62,64; **A, B**
Wild hay	-	**I**-32-33; **II**-27	-	-	-	-	-
Wild rice	-	**II**-26	-	-	-	-	-
Winter squash	-	**I**-34; **II**-30	-	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Women operators	**I**-58	-	-	-	**I**-49, 50, 51, 54, 57,61, 63, 65; **II**-46-49	**I**-48	**I**-62,64
Woodland crops	**I**-58	**I**-38; **II**-36-38	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Woodland, total	**I**-8,58; **II**-8	-	-	**I**-59,60	**I**-61,63,65	-	**I**-47,62,64
Wool production	-	-	**I**-28,29,30; **II**-16	-	-	-	-
Y							
Years on present farm	**I**-58	-	-	**I**-59,60	**I**-49, 51, 53, 56, 57, 61, 63,65; **II**-46	**I**-48	**I**-62,64



PROTECTING OUR RESOURCES

2011 Annual Report

San Luis Obispo County Department of Agriculture | Weights & Measures

SAN LUIS OBISPO COUNTY DEPARTMENT OF AGRICULTURE WEIGHTS AND MEASURES

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Administrative Services Staff
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Design and Printing: Peggy Eisen Thayer, Design To Print

Mission Statement

The Department of Agriculture/Weights and Measures is committed to serving the community by protecting agriculture, the environment, and the health and safety of its citizens, and by ensuring equity in the marketplace.

Financial Report | Fiscal Year 2010-11

REVENUE	**$5,582,432**	
COUNTY FUNDS	1,901,587	34%
STATE FUNDS	3,232,902	58%
COLLECTED FEES	447,943	8%
EXPENDITURES	**5,582,432**	
SALARIES AND BENEFITS	4,673,804	84%
SERVICES & SUPPLIES	534,544	10%
OVERHEAD	360,175	6%
EQUIPMENT	13,909	0%
FUNDING SOURCES	**$5,582,432**	
Agricultural Resources	**$475,170**	
STATE FUNDS	68,733	14%
COUNTY FUNDS	337,807	71%
COLLECTED FEES	68,630	14%
Weights and Measures	**$568,741**	
STATE FUNDS	7,181	1%
COUNTY FUNDS	374,676	66%
COLLECTED FEES	186,884	33%
Environmental Protection	**$1,347,771**	
STATE FUNDS	1,066,293	79%
COUNTY FUNDS	256,855	19%
COLLECTED FEES	24,623	2%
Pest Management	**$1,172,335**	
STATE FUNDS	472,111	40%
COUNTY FUNDS	696,954	59%
COLLECTED FEES	3,270	0%
Product Quality	**$186,627**	
STATE FUNDS	65,325	35%
COUNTY FUNDS	90,745	49%
COLLECTED FEES	30,557	16%
Pest Prevention	**$1,831,788**	
STATE FUNDS	1,553,258	85%
COUNTY FUNDS	144,551	8%
COLLECTED FEES	133,979	7%

COUNTY OF SAN LUIS OBISPO
Department of Agriculture/Weights and Measures

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Karen Ross, Secretary
California Department of Food and Agriculture
And
The Honorable Board of Supervisors
San Luis Obispo County

In accordance with Section 2279 of the California Food and Agricultural Code, I am pleased to release the 2011 annual crop report for San Luis Obispo County. It is important to note that the values represented in this report do not reflect net profits for producers, but rather, the gross value of agricultural commodities produced within the county.

Overall crop values increased to $736,208,000, representing a 3% improvement compared to the previous year. This marked another record breaking year for San Luis Obispo's agricultural producers. Although weather conditions were favorable for many commodities, some crop production was hampered by unseasonable temperatures during the year. Prices, however, were a saving grace, compensating in part for less than desirable yields for some crops.

Strawberries took the top rank in 2011 overtaking wine grapes which had occupied the number one spot for the past 20 years. Strawberry acreage increased by 741 acres and growers benefited from solid prices and yields for an overall value of $179,012,000. Strawberries represented 24% of the overall crop value for the year.

Wine grapes suffered a significant decline in production due to freezing temperatures experienced in April 2011. The resulting damage reduced countywide yields by 34% compared to 2010 totals. A 3% decline in statewide production resulted in varietal prices improving from 2% to 22% which prevented a larger decline in overall local value for this industry sector. Wine grapes ended the year with a gross value of $129,738,000, down 25% from 2010.

The animal industry saw a significant increase in overall value ending the year at $71,479,000. Larger herd sizes due to ample rainfall and favorable grazing conditions, as well as high market prices, pushed cattle values to $66,825,000.

Please note the theme story for this year's report outlining the California Land Conservation Act of 1965, commonly known as the Williamson Act. This Act is considered to be one of the most important pieces of legislation enacted to protect and conserve agricultural lands and has been a great benefit to the farmers, ranchers, and citizenry of San Luis Obispo County.

I would like to thank all of the growers and businesses who provided key information for this report. Without their knowledge, expertise, and desire to contribute, this report would not be possible. Also, I would like to express gratitude to my staff for their efforts in compiling and analyzing this information and for their continued dedication to our mission of protecting agriculture.
Respectfully submitted,

Martin Settevendemie
Agricultural Commissioner/Sealer

The Williamson Act Aims to Protect Agricultural Land as an Economic Resource

In the early 1960's, the California Legislature recognized that valuable farmland throughout the state was being converted to urban uses at a rapid rate. In 1965, Assemblyman John Williamson authored a bill to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. By passing the California Land Conservation Act of 1965, commonly referred to as the Williamson Act, the Legislature found "that the preservation of a maximum amount of the limited supply of agricultural land is necessary to the conservation of the state's economic resources, and is necessary not only to the maintenance of the agricultural economy of the state, but also for the assurance of adequate, healthful and nutritious food for future residents of the state and nation."

In general, the Williamson Act allows for private landowners to contract with counties and cities to voluntarily restrict land to agricultural uses for a rolling term*, 10 or 20 year contract. Landowners receive substantially reduced property tax assessments in return for enrollment under Williamson Act contract because property tax assessments are based upon a rate consistent with the property's actual agricultural use as opposed to potential market value of the property. From 1972 to 2009, the State general fund paid direct subvention funds to participating counties and cities to partially compensate for the resulting loss in property tax revenue.

The Williamson Act is considered an important land preservation and growth management tool for local government and agriculture because it provides certainty to landowners that they will be able to continue farming without encroachment of incompatible non-agricultural uses. In 1972, the San Luis Obispo County Board of Supervisors adopted Rules of Procedure to locally implement the Williamson Act.

Since the local implementation of the Act, the program has had two major effects on San Luis Obispo County, according to Warren Hoag, the manager responsible for overseeing the Planning Department's administration of the program from 1980 until his retirement in 2011. "First, as an incentive-based program, it has strengthened the local agricultural economy by reducing the property tax burden on our ranchers and farmers in return for maintaining their properties in larger parcel sizes and producing important agricultural commodities. The second major effect is that the Williamson Act is San Luis Obispo County's most effective agricultural land preservation program. Approximately 795,000 acres of land in our County is under land conservation contract. This represents 37% of the total land area of the County and 57% of the agriculturally zoned land in the County."

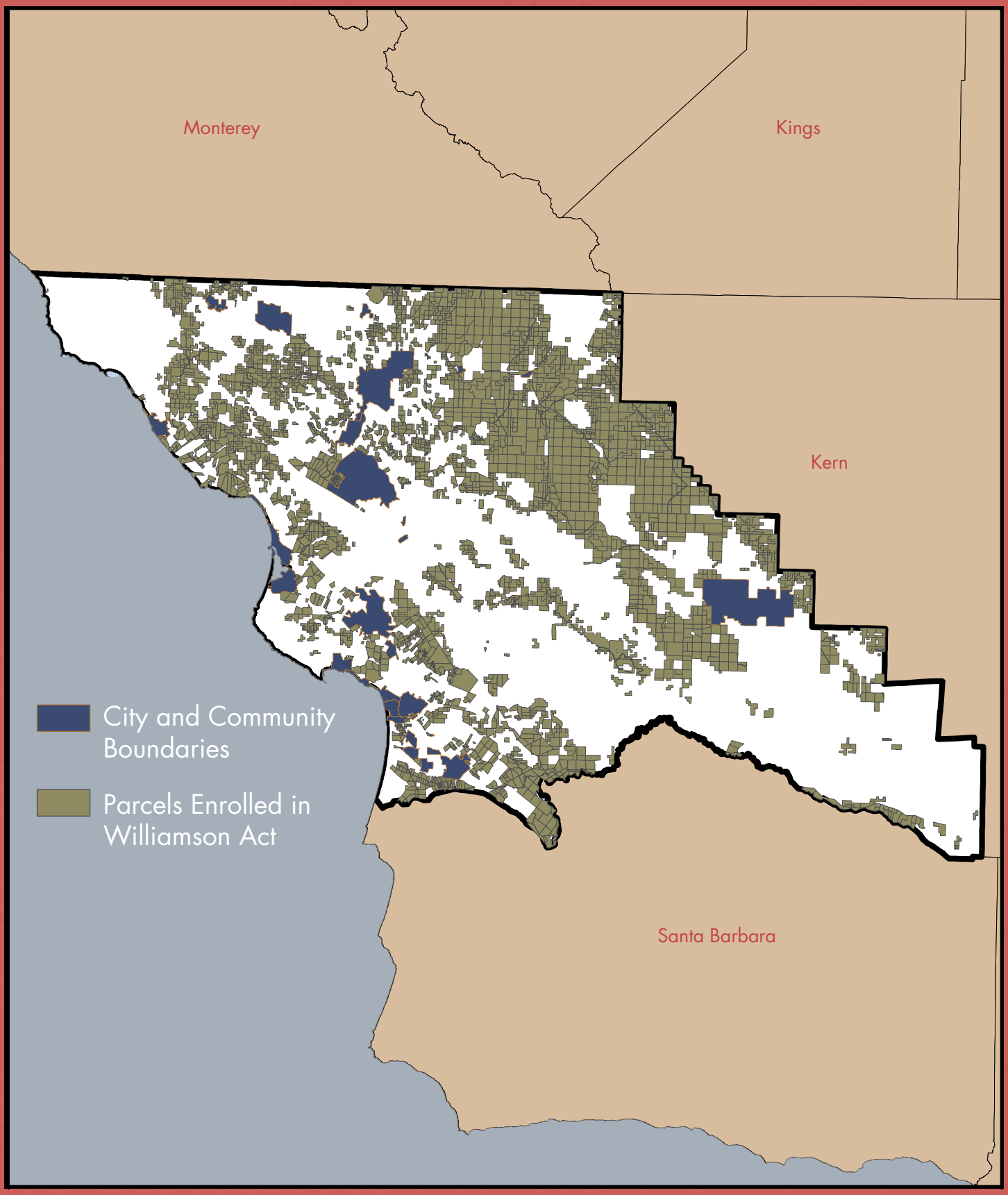
The benefits of maintaining the Williamson Act program has become an annual discussion item for the County Board of Supervisors because of the termination of State subvention funds. County residents recognize the economic and environmental value of preserving and protecting agricultural lands through the Williamson Act and the Board of Supervisors continues to demonstrate commitment to the program by allocating funding to cover the lost subvention payments.

When asked what the county might look like without the Williamson Act program, Hoag thought that "there would have been much more fracturing of our rural land into smaller residential home sites and hobby farms at the expense of maintaining that land in agricultural production. The areas adjacent to our communities would have been more intensively developed and the 'edge' separating urbanization and surrounding rural land would have been far less distinct. This in turn would have led to a loss of the rural setting and character that our County is known and valued for."

Even though the Williamson Act program has been in place in San Luis Obispo County for 40 years, it remains popular and continues to be an effective agricultural land conservation tool that benefits the farmers, ranchers, and the general citizenry of the County. Assemblyman Williamson's vision, wisdom, and hard work are evident throughout the county by the protection of agricultural land that provides the economic base for our strong local agricultural industry.

*Since the contract term automatically renews on each anniversary date of the contract, the actual term is essentially indefinite.

San Luis Obispo County Williamson Act Parcels



2011 Staff Highlights

In 2011, **Martin Settevendemie** was appointed Agricultural Commissioner/Sealer of Weights and Measures for San Luis Obispo County and became the seventh person to hold the job since 1922.

Marty's steady rise to department head began in 2000 when he was hired as a temporary help Inspector for the Glassy-winged Sharpshooter program. He earned permanent status as Agricultural Inspector/ Biologist in 2001. While working in the Pesticide Use Enforcement, Weeds and Pest Exclusion programs, he obtained the required licenses and experience and became a Deputy Agricultural Commissioner in 2005. Four years later Marty became fully qualified as an Agricultural Commissioner/Sealer of Weights and Measures, and was promoted to the job March 6, 2011.

Marty has been a resident of San Luis Obispo County for 28 years. His college career culminated in 1991 with a Bachelor of Science degree in Forestry and Natural Resource Management from Cal Poly. After graduation he worked locally for private industry conducting pesticide research. He also worked for the Department of Commerce, National Marine Fisheries Service where he played a supportive regulatory role as a Fisheries Observer. The data he gathered was used to access compliance with the Marine Mammal Protection Act and the job allowed him the good fortune of traveling to many countries in Central and South America to conduct his work. In that job Marty learned to appreciate the necessity of a fair regulatory process. That lesson combined with the core duties of the Department of Agriculture /Weights and Measures is what has led him on the perfect career path.

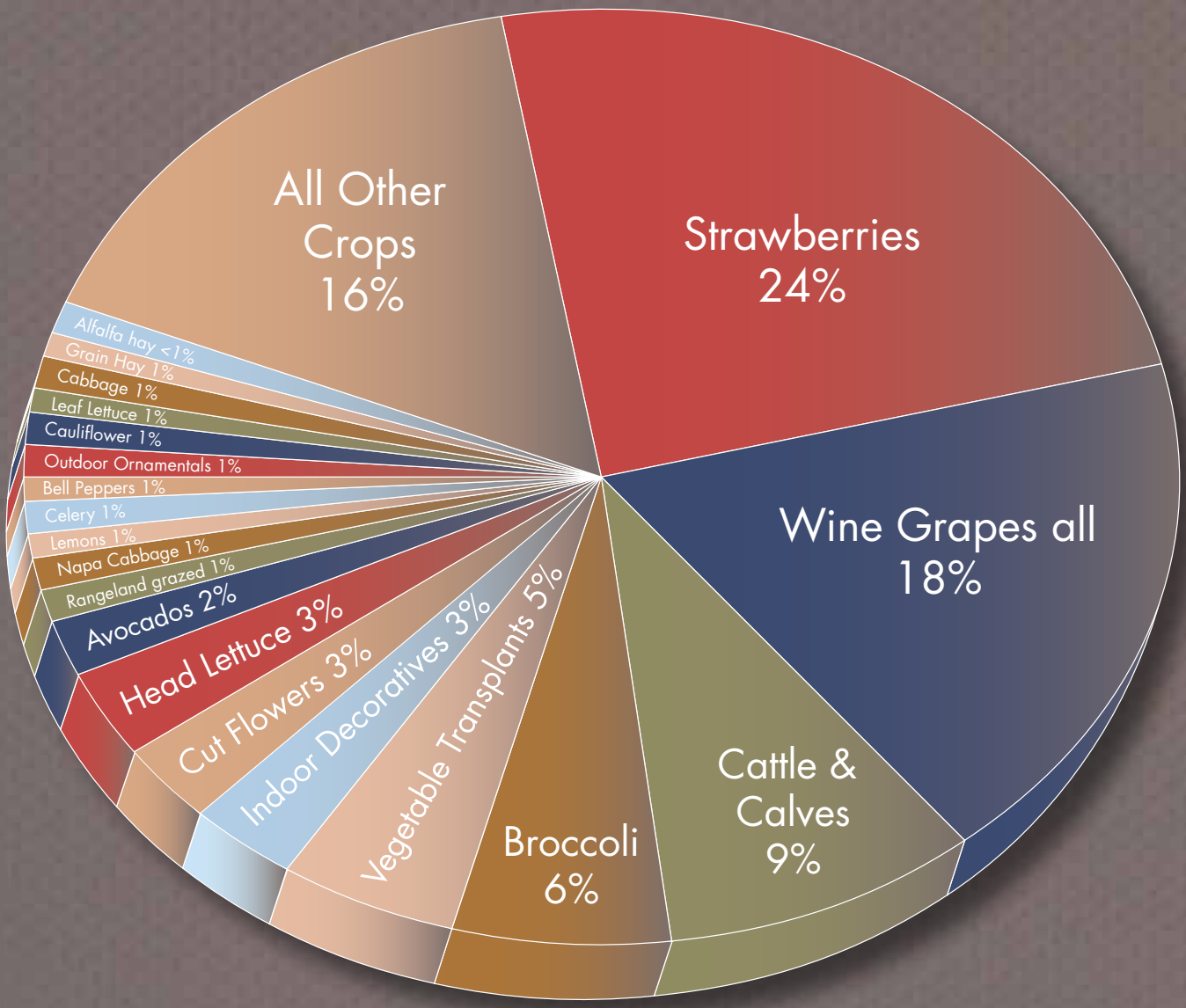
Marty's immediate goals in these current challenging economic times are to maintain our mandated services while protecting the county's environmental health and agricultural industry.

In December 2011 **Catherine Darling** celebrated her retirement from a 30 year career with the San Luis Obispo County Department of Agriculture Weights and Measures. Cathy was hired in 1982 and worked in all programs including Integrated Pest Management, Nursery Inspection, Pesticide use Enforcement, Weed Control, Pest Detection, and Pest Exclusion. Cathy's many creative and influential contributions to the Biological Control Program in San Luis Obispo County earned her the Challenge Award of Special Recognition by the County Supervisors Association of California.

This year we are proud to feature one of Cathy's beautiful pieces of artwork for our cover. Several years ago she drew this picture to honor the hard working farmers of our county.

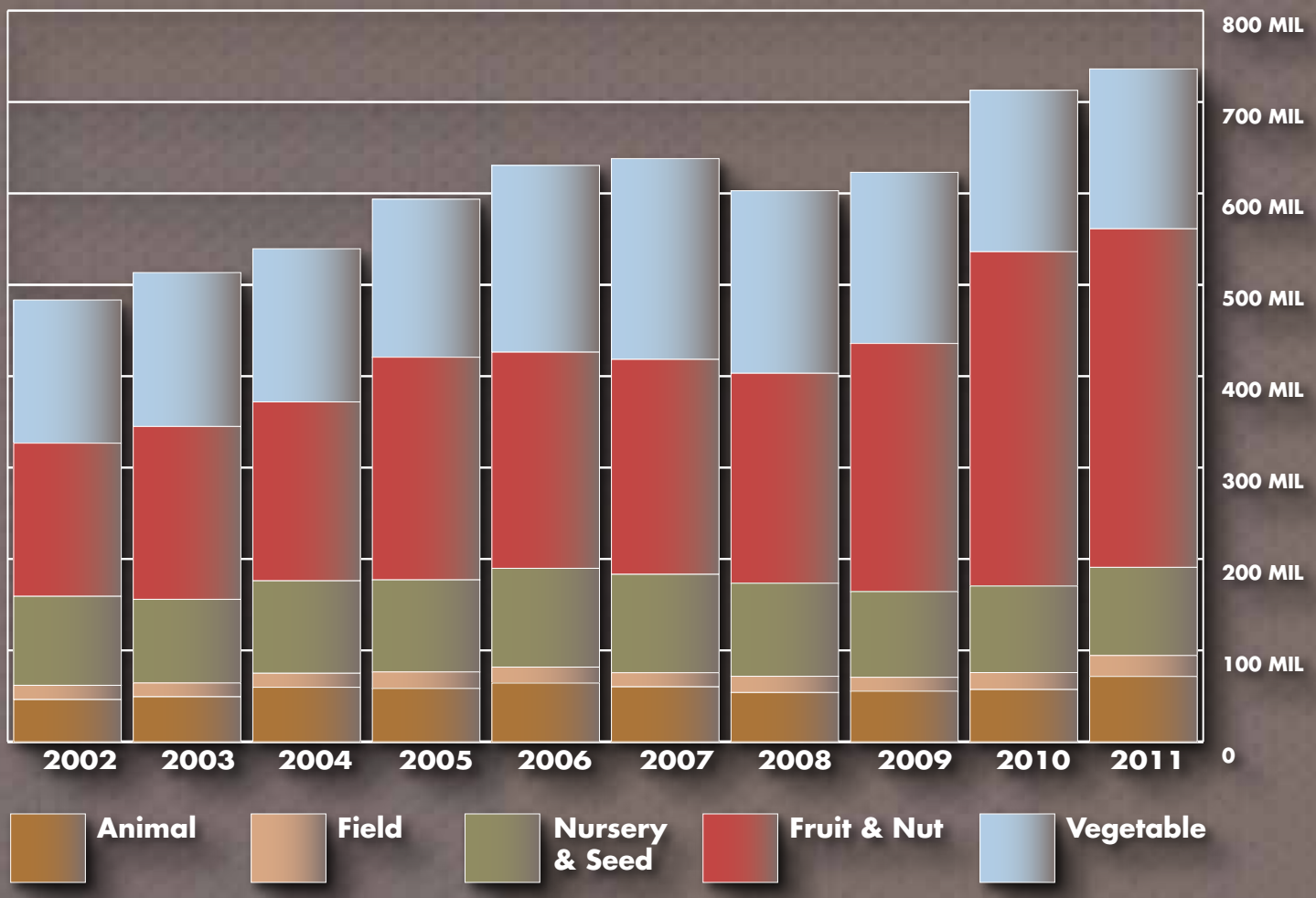
We wish to thank Cathy and congratulate her on a long and wonderful career. May great health and joy be with her for a full and happy retirement.

Top Twenty Value Crops



1. **Strawberries** $179,012,000
2. **Wine Grapes all** $129,738,000
3. **Cattle and Calves** $66,825,000
4. **Broccoli** $46,217,000
5. **Vegetable Transplants** $34,825,000
6. **Indoor Decoratives** $25,079,000
7. **Cut Flowers** $23,771,000
8. **Head lettuce** $20,386,000
9. **Avocados** $17,320,000
10. **Rangeland grazed** $10,250,000
11. **Napa Cabbage** $9,182,000
12. **Lemons** $8,112,000
13. **Celery** $7,970,000
14. **Bell peppers** $7,606,000
15. **Outdoor Ornamentals** $7,006,000
16. **Cauliflower** $6,882,000
17. **Leaf Lettuce** $6,611,000
18. **Cabbage** $4,386,000
19. **Grain Hay** $3,963,000
20. **Alfalfa Hay** $3,238,000

Comparison of Valuation of Major Groups During the Past Ten Years



YEAR	ANIMAL	FIELD	NURSERY	FRUIT & NUT	VEGETABLE	TOTAL VALUE
2002	46,161,000	15,595,000	97,377,000	167,555,000	156,687,000	483,375,000
2003	49,181,000	15,161,500	91,476,000	189,144,000	168,423,000	513,385,500
2004	59,620,000	15,342,100	101,156,000	195,712,000	167,606,000	539,436,100
2005	58,380,000	18,055,000	100,697,000	243,604,000	172,896,000	593,632,000
2006	64,244,000	17,477,000	108,066,000	236,491,000	204,336,000	630,614,000
2007	60,078,000	15,462,000	107,674,000	235,135,000	219,746,000	638,095,000
2008	53,848,000	17,790,000	101,845,000	229,661,000	199,778,000	602,922,000
2009	55,375,000	15,178,000	93,759,000	271,474,000	187,309,000	623,095,000
2010	57,139,000	18,545,000	94,708,000	365,750,000	176,666,000	712,808,000
2011	71,479,000	22,929,000	96,454,000	370,365,000	174,981,000	736,208,000

Animal Industry

The beef cattle industry saw larger herd sizes due to favorable grazing conditions and excellent prices resulting in a 25% increase in value over 2010. Drought conditions throughout the United States increased the demand for locally raised beef cattle.

Commodity	Year	Number Of Head	Production	Unit	Per Unit	Total
Cattle and Calves	2011	81,000	607,500	Cwt	$110.00	$66,825,000
	2010	77,500	550,250	Cwt	$97.00	$53,374,000
Miscellaneous*	2011					4,654,000
	2010					3,765,000
TOTAL ANIMAL INDUSTRY	**2011**					**$71,479,000**
	2010					**$57,139,000**

* *Aquaculture, Eggs, Goats, Lambs, Sheep, Wool, Chickens, Pigs*

Field Crops

Growing conditions for field crops such as barley, grain hay and alfalfa were variable due to the timing of the ample rainfall. Prices, however, were very strong overall as demand for animal feed increased due to the diversion of other feed crops throughout the United States to fuel production. Overall the combined value of field crops was 24% above 2010 levels.

		Acreage		Production			Value	
Crop	Year	Planted	Harvested	Per Acre	Total	Unit	Per Unit	Total
Alfalfa Hay	2011	2,110	2,110	5.88	12,407	Ton	$261.00	$3,238,000
	2010	2,216	2,216	5.72	12,676	Ton	$140.00	$1,775,000
Barley	2011	12,969	12,818	0.90	11,536	Ton	260.00	2,999,000
	2010	11,179	11,136	1.35	15,034	Ton	182.00	2,736,000
Grain Hay ++	2011	9,972	9,569	2.18	20,860	Ton	190.00	3,963,000
	2010	11,746	11,636	2.28	26,530	Ton	102.00	2,706,000
Grain Stubble (Grazed)	2011		8,323			Acre	11.00	92,000
	2010		6,038			Acre	17.00	103,000
Rangeland, Grazed	2011		1,025,000			Acre	10.00	10,250,000
	2010		1,025,000			Acre	9.00	9,225,000
Miscellaneous*	2011	3,467	4,612**					2,387,000
	2010	5,342	6,252**					2,000,000
TOTAL FIELD CROPS	**2011**	**28,518**	**1,062,432**					**$22,929,000**
	2010	**30,483**	**1,062,278**					**$18,545,000**

* Irrigated Pasture, Green Chop, Oats, Silage Corn, Safflower, Sudan Grass, Wheat, Field Seed
++ Includes winter forage
** Harvested acres include irrigated pasture

Fruit & Nut Crops

For the first time in San Luis Obispo County's history, the strawberry industry moved into the top position in overall value in 2011, representing 24% of the combined value of the County's entire agricultural industry. Over 119,000 tons of strawberries were picked in 2011.

Wine grapes slipped into the second position in overall value, ending 20 consecutive years as the number one ranked commodity in value. The production overall was 34% less than 2010 due to the devastating effects of the severe frost on April 8-9, 2011. Consumer demand and prices remained strong throughout 2011.

Avocado, lemon and orange growers experienced reduced yields due to the cool spring, high winds, and unusually warm days throughout the year. Yields for avocados dropped by 72% due to weather conditions and the natural alternating low yield fruit cycle of the trees, resulting in a a 52% drop in overall value compared to 2010. Dry-land farmed walnuts benefitted from the ample rainfall in 2011 and strong prices resulting in a 23% increase in value over 2010 levels.

		Acreage		Production				
Crop	**Year**	**Planted**	**Bearing/Harvested**	**Per Acre**	**Total**	**Unit**	**Per Unit**	**Total**
Avocados	2011	4,800	4,549	1.380	6,278	Ton	$2,759.00	$17,320,000
	2010	4,800	4,319	5.242	22,640	Ton	$1,584.00	$35,862,000
Grapes, Wine (All)	2011	37,688	35,086		114,600	Ton		129,738,000
	2010	36,253	33,827		173,885	Ton		173,558,000
Chardonnay	2011		3,474	3.380	11,742	Ton	1,213.00	14,243,000
	2010		3,381	5.712	19,312	Ton	1,195.00	23,078,000
Sauvignon Blanc	2011		950	4.213	4,002	Ton	998.00	3,994,000
	2010		915	7.217	6,604	Ton	842.00	5,560,000
White Wine (Other)	2011		1,801	2.713	4,886	Ton	1,173.00	5,731,000
	2010		1,750	4.562	7,984	Ton	1,109.00	8,854,000
Cabernet Sauvignon	2011		11,279	3.176	35,822	Ton	1,119.00	40,085,000
	2010		10,966	5.364	58,822	Ton	965.00	56,763,000
Merlot	2011		4,790	5.221	25,009	Ton	864.00	21,607,000
	2010		4,755	7.003	33,299	Ton	735.00	24,475,000
Pinot Noir	2011		2,106	1.379	2,905	Ton	2,681.00	7,788,000
	2010		1,994	1.825	3,640	Ton	2,474.00	9,005,000
Syrah	2011		3,694	2.274	8,400	Ton	1,189.00	9,988,000
	2010		3,462	3.959	13,706	Ton	977.00	13,391,000
Zinfandel	2011		3,099	2.709	8,395	Ton	1,164.00	9,772,000
	2010		2,869	3.800	10,902	Ton	1,064.00	11,600,000
Red Wine (Other)	2011		3,893	3.452	13,439	Ton	1,230.00	16,530,000
	2010		3,735	5.252	19,616	Ton	1,062.00	20,832,000
Lemons	2011	1,634	1,571	10.780	16,935	Ton	479.00	8,112,000
	2010	1,634	1,542	14.024	21,625	Ton	377.00	8,153,000
Strawberries (All)	2011		3,159		119,713	Ton		179,012,000
	2010		2,418		85,508	Ton		123,542,000
Fresh	2011			28.794	90,960	Ton	1,742.00	158,453,000
	2010			26.094	63,095	Ton	1,752.00	110,543,000
Processed	2011			9.102	28,753	Ton	715.00	20,559,000
	2010			9.269	22,412	Ton	580.00	12,999,000
Valencia Oranges	2011	295	295	14.119	4,165	Ton	162.00	675,000
	2010	295	295	25.860	7,629	Ton	177.00	1,350,000
English Walnuts	2011	2,371	2,371	0.512	1,214	Ton	2,599.00	3,155,000
	2010	2,371	2,330	0.488	1,137	Ton	2,259.00	2,569,000
Miscellaneous *	2011	2,959	2,459					32,353,000
	2010	2,912	2,290					20,716,000
TOTAL FRUIT & NUT CROPS	**2011**	**49,747**	**49,490**					**$370,365,000**
	2010	**48,265**	**47,021**					**$365,750,000**

* Almonds, Apples, Apricots, Asian Pears, Blackberries, Blueberries, Feijoas, Grapefruit, Kiwis, Mandarin Oranges, Navel Oranges, Olives, Passion Fruit, Peaches, Persimmons, Pistachios, Pomegranates, Raspberries, Specialty Citrus, Table Grapes

Vegetable Crops

The number of harvested acres of vegetable crops decreased by 5% from 2010 due primarily to the conversion of some of the historic vegetable acreage to strawberry production. Yields for some vegetable crops were negatively impacted by the cool and wet weather in 2011. Weather conditions also contributed to mildew problems affecting the yields and quality of sugar pea, bok choy, spinach and Napa cabbage plantings. The high cost of transportation and labor shortages continued to negatively affect the local vegetable industry in 2011. The value of vegetables decreased 1% overall.

Crop	Year	Harvested Acreage	Production Per Acre	Total	Unit	Per Unit	Total
Bell Peppers	2011	695	19.684	13,680	Ton	$555.98	$7,606,000
	2010	849	11.445	9,717	Ton	$478.00	$4,645,000
Bok Choy	2011	328	19.769	6,484	Ton	356.82	2,314,000
	2010	298	50.400	15,019	Ton	241.00	3,620,000
Broccoli (All)	2011	10,297	6.455	66,467	Ton	695.34	46,217,000
	2010	13,351	6.049	80,760	Ton	691.30	55,830,000
Cabbage	2011	681	17.711	12,061	Ton	363.66	4,386,000
	2010	559	20.723	11,584	Ton	347.11	4,021,000
Cauliflower	2011	1,280	9.752	12,483	Ton	551.29	6,882,000
	2010	1,705	9.600	16,368	Ton	566.40	9,271,000
Celery	2011	906	33.456	30,311	Ton	262.94	7,970,000
	2010	845	36.960	31,231	Ton	272.99	8,526,000
Lettuce, Head	2011	3,949	20.497	80,943	Ton	251.86	20,386,000
	2010	3,592	15.200	54,598	Ton	338.00	18,454,000
Lettuce, Leaf	2011	1,187	9.831	11,669	Ton	566.50	6,611,000
	2010	1,002	10.500	10,521	Ton	528.80	5,564,000
Napa Cabbage	2011	1,056	21.091	22,272	Ton	412.27	9,182,000
	2010	1,230	38.240	47,035	Ton	299.00	14,064,000
Peas Edible Pod	2011	322	0.796	256	Ton	2,327.99	597,000
	2010	422	3.260	1,376	Ton	1,622.00	2,231,000
Squash	2011	237	11.843	2,807	Ton	660.85	1,855,000
	2010	233	13.365	3,114	Ton	381.99	1,190,000
Miscellaneous*	2011	8,369					60,975,000
	2010	6,917					49,250,000
TOTAL VEGETABLE CROPS	**2011**	**29,307**					**$174,981,000**
	2010	**31,003**					**$176,666,000**

* *Artichokes, Beans, Beets, Brussel Sprouts, Carrots, Chard, Chili Peppers, Cilantro, Collards, Cucumbers, Daikon, Dandelion, Dill, Endive, Escarole, Fennel, Garlic, Green Onions, Herbs, Kale, Melons, Mushrooms, Mustard, Onions, Parsley, Potatoes, Pumpkins, Radishes, Spinach, Sweet Corn, Tomato, Tomatillo*

Nursery Products

The downturned economy and lack of new housing construction continued to hit the local bedding plant and outdoor ornamental nursery producers hard in 2011. However, the total value for the nursery industry rebounded by 2% overall compared to just a 1% increase in 2010. The demand throughout the state for locally grown vegetable transplants held steady. Greenhouse growers found more efficient ways to produce high quality plants and consumer demand for indoor decorative plants improved. Growers continued to struggle with high transportation and shipping costs.

Crop	Year	Field Production (acres)	Greenhouse Production (sq ft)	Value
Bedding Plants, Sod, & Ground Cover	2011	10	112,430	$3,039,000
	2010	63	109,000	$3,827,000
Cut Flowers and Greens	2011 ^	126	2,835,865	23,771,000
	2010 ^	131	3,103,804	23,313,000
Indoor Decoratives	2011	1	2,657,695	25,079,000
	2010	1	2,364,295	23,289,000
Outdoor Ornamentals	2011	76	146,490	7,006,000
	2010	84	98,108	8,152,000
Vegetable and Ornamental Transplants	2011	24	1,777,732	34,825,000
	2010	23	1,749,828	33,460,000
Miscellaneous*	2011	126	136,307	2,734,000
	2010	129	136,506	2,667,000
TOTAL NURSERY STOCK	**2011**	**363**	**7,666,519**	**$96,454,000**
	2010	**431**	**7,561,541**	**$94,708,000**

* *Aquatic, Bulbs, Cacti, Christmas Trees, Fruit-Nut trees, Herbs, Propagative plants, Scion wood, Flower seed, Specialty plants, Succulents*
^ *Includes cut flowers grown in greenhouse and field*

Sustainable Agriculture Report

BIOLOGICAL CONTROL PROGRAM

Throughout 2011, three different species of *Gonatocerus* parasitic wasps were released for control of a small, localized glassy-winged sharpshooter infestation that was detected within the city of San Luis Obispo. The wasps parasitize the egg masses of the sharpshooter. Only three live sharpshooters were detected within the infested area during 2011, and none were detected after the month of August. Monitoring will continue for several additional growing seasons in order to insure the success of this ongoing eradication program.

The Department also worked with the California Department of Food and Agriculture to release thousands of *Trichogramma platneri*; this tiny wasp destroys the eggs of the light brown apple moth, which was detected in Los Osos. Trapping for the moth will continue throughout 2012 to monitor this infestation.

Gonatacerus

PEST DETECTION PROGRAM

California is one of the main points of entry for imported goods into the United States. As a result, introductions of invasive and destructive agricultural pests into California have become more frequent. The California Department of Food and Agriculture's statewide pest detection trapping program, implemented locally by the Agricultural Commissioner, is designed to intercept pests quickly when pest population levels are still low and controllable. County Pest Detection staff placed over 5,000 insect traps and conducted over 59,000 service visits during 2012.

Trap monitoring of a small population of glassy-winged sharpshooter (*Homalodisca vitripennis*) in San Luis Obispo, originally detected in a trap in September 2010, resulted in no further interception of sharpshooters following an eradication program conducted in Spring and Summer 2011.

Light brown apple moths (*Epiphyas postvittana*) continued to show up in traps placed throughout Los Osos causing the extension of the localized quarantine for this destructive pest. Additional interceptions of the moth in July 2011 triggered a quarantine action for portions of Cayucos. An interception of a single moth trapped in Nipomo initiated additional trapping which yielded no additional interceptions.

EGVM trap

Intensified trapping for the European grapevine moth (*Lobesia botrana*) was conducted statewide in 2011 to determine the presence of this damaging grape pest. The number of traps placed in the county increased from 1200 in 2010 to 1700 traps in 2011. Successful eradication measures in other portions of the State and pest exclusion efforts locally helped prevent any interceptions of the European grapevine moth in San Luis Obispo County.

The Asian citrus psyllid (*Diaphorina citri Kuwayama*) continued its spread throughout California in 2011. Most of Southern California was under quarantine for this pest, which is capable of transmitting the fatal citrus greening disease or Huanglongbing. Despite trapping interceptions as far north as Ventura, this pest was not detected in San Luis Obispo County in 2011.

The department also monitored for other pests detrimental to agriculture, including a variety of exotic fruit flies, the red imported fire ant, gypsy moth, and Japanese beetle, none of which were captured in traps in 2011.

Local trapping efforts aimed at detrimental pests helped maintain the high quality of agricultural products grown in San Luis Obispo County and assured growers access to the global market.

PEST EXCLUSION PROGRAM

In order to protect San Luis Obispo County agriculture and the environment from the introduction of pests that do not exist here, staff, intercepted, inspected, quarantined, excluded and destroyed incoming plant shipments infested with various kinds

of harmful pests originating from across the United States and around the world. During 2011, of the 12,109 plant shipments held for inspection, 4,979 shipments were visually inspected and 49 were rejected for significant pest finds or violations of other California regulatory requirements.

Efforts to protect agriculture and the environment extend beyond our county borders. In addition to the inspection of incoming plant material, staff certified 1,808 outgoing shipments of fresh produce and plants leaving local farms and nurseries
for destinations throughout the United States and the world. Examples of exported locally grown products include broccoli to Canada, strawberries to Mexico, and nursery stock to Canada and the Netherlands.

Staff also inspected 4,496 nursery shipments that originated from outside of the county for the presence of the glassy-winged sharpshooter. Due to the success of this statewide program only two shipments infested with the glassy-winged sharpshooter were detected in 2011. This thorough inspection program has been successful in preventing the glassy-winged sharpshooter from becoming widely established in our county. One small infestation was detected within the city of San Luis Obispo in late 2010, but that infestation has largely been contained and eradication could be declared by 2013.

ORGANIC CROP STATISTICS

A total of 103 registered organic producers, handlers and brokers operated in San Luis Obispo County in 2011, a 13% increase in registrants over 2010. According to the California Department of Food and Agriculture, San Luis Obispo County ranked #11 out of 58 counties for the number of registrants. Producers registered 14,114 acres, which included rangeland for organic livestock, wild mushroom and fallow lands, as organic in 2011. Registered organic acres represent acres under production or acreage that could potentially be under organic production during 2011 in compliance with the requirements of the California Organics Products Act of 2003 and the National Organics Program.

CERTIFIED FARMERS' MARKETS OF SAN LUIS OBISPO COUNTY

Local farmers' markets allow producers to sell their certified commodities directly to the public. There are 138 certified producers that have been issued San Luis Obispo County certificates. The following 18 Farmers' Markets have been certified by the Agricultural Commissioner to market local and regional produce in San Luis Obispo County. These producers offer a wide variety of commodities, with broad year round access.

MONDAY:

Los Osos/Baywood
Santa Maria St. and 2nd St.. . . . . 2:00 - 4:30 pm

TUESDAY:

Paso Robles
Downtown City Park . . . . . 3:00 - 6:00 pm

WEDNESDAY:

Arroyo Grande
Spencer's Parking Lot, Courtland & E. Grand . . . 8:30 - 11:00 am

Pismo Beach
Pismo Beach Promenade . . . . . 3:00 - 7:00 pm

Atascadero
Albertson's Parking Lot. . . . . 3:00 - 6:00 pm

THURSDAY:

Morro Bay
Spencer's Parking Lot, 2650 Main St. . . . . 2:30 - 5:00 pm

San Luis Obispo
Downtown San Luis Obispo Higuera St.. . . . . 6:00 - 9:00 pm

FRIDAY:

Avila Beach
Downtown Promenade (April - September). . . . . 4:00 - 8:00 pm

Cambria
Vet's Hall Parking Lot, 1000 Main St. . . . . 2:30 - 5:00 pm

Cayucos
Downtown Vets Hall (Memorial Day - Labor Day) . 9:30 am - 12:00 pm

SATURDAY:

San Luis Obispo
Cost Plus Parking Lot Madonna Rd. . . . . 8:00 - 10:30 am

Arroyo Grande
Downtown Gazebo, Branch St.. . . . . 12:00 - 2:30 pm

Paso Robles
Downtown City Park . . . . . 9:00 am - 1:00 pm

Templeton
Downtown Park, 6th and Crocker St.. . . . . 9:00 am - 12:30 pm

Morro Bay
Downtown Main St.. . . . . 3:00 - 6:00 pm

SUNDAY:

Nipomo
Monarch Dunes Country Club, 1645 Trilogy Pkwy. . 11:30 am - 2:30 pm

Grover Beach
Ramona Garden Park, 995 Ramona . . . . . 3:00 pm - 6:00 pm
(June - September)

San Luis Obispo
Kennedy Club Parking Lot 3889 Long St. . . . 10:00 am - 2:00 pm

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Water Quality Control Plan

for the

Central Coastal Basin

June 2011

Regional Water Quality Control Board, Central Coast Region
State Water Resources Control Board
California Environmental Protection Agency

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Matt Rodriquez, Secretary, California Environmental Protection Agency

State Water Resources Control Board

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Central Coast Region

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vacant	Industrial Water Use Member
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Water Quality Control Plan

for the

Central Coastal Basin

June 2011

(Including Amendments Effective Through June 8, 2011)

This report was prepared under the direction of:

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by

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Regional Water Quality Control Board, Central Coast Region
State Water Resources Control Board
California Environmental Protection Agency

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CHAPTER 1. INTRODUCTION

I. FUNCTION OF THE WATER QUALITY CONTROL PLAN (BASIN PLAN)

The objective of this Water Quality Control Plan for the Central Coastal Basin, or Basin Plan, is to show how the quality of the surface and ground waters in the Central Coast Region should be managed to provide the highest water quality reasonably possible. Water uses and water benefits vary. Water quality is an important factor in determining use and benefit. For example, drinking water has to be of higher quality than the water used to irrigate pastures. Both are legitimate uses, but the quality requirements for irrigation are different from those for domestic use. The plan recognizes such variations.

This Basin Plan lists the various water uses (Beneficial Uses, Chapter Two). Second, it describes the water quality which must be maintained to allow those uses (Water Quality Objectives, Chapter Three). Federal terminology is somewhat different, in that beneficial uses and water quality objectives are combined and the combination is called Water Quality Standards. Chapter Four, the Implementation Plan, then describes the programs, projects, and other actions which are necessary to achieve the standards established in this plan. Chapter Five, Plans and Policies, summarizes State Water Resources Control Board (State Board) and Regional Water Quality Control Board (Regional Board) plans and policies to protect water quality. Chapter Six describes statewide surveillance and monitoring programs as well as regional surveillance and monitoring programs.

The Regional Board implements the Basin Plan by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose waste discharges can affect water quality. These requirements can be either State Waste Discharge Requirements for discharges to land, or federally delegated National Pollutant Discharge Elimination System (NPDES) permits for discharges to surface water. Methods of treatment are not specified. When such discharges are managed so that: 1) they meet these requirements; 2) water quality objectives are met; and, 3) beneficial uses are protected, water quality is controlled.

The Basin Plan is also implemented by encouraging water users to improve the quality of their water supplies, particularly where the wastewater they discharge is likely to be reused. Public works or other projects which can affect water quality are reviewed and their impacts identified. Proposals which implement or help achieve the goals of the Basin Plan are supported; the Regional Board makes water quality control recommendations for other projects.

II. LEGAL BASIS AND AUTHORITY

California's Porter-Cologne Water Quality Control Act (1969), which became Division Seven ("Water Quality") of the State Water Code, establishes the responsibilities and authorities of the nine Regional Water Quality Control Boards (previously called Water Pollution Control Boards) and the State Water Resources Control Board (SWRCB). The Porter-Cologne Act names these Boards "... the principal State agencies with primary responsibility for the coordination and control of water quality" (Section 13001). Each Regional Board is directed to "...formulate and adopt water quality control plans for all areas within the region." A water quality control plan for the waters of an area is defined as having three components: beneficial uses which are to be protected, water quality objectives which protect those uses, and an implementation plan which accomplishes those objectives (Section 13050). Further, "such plans shall be periodically reviewed and may be revised" (13240). The federal Clean Water Act (Public Law 92-500, as amended) provides for the delegation of certain responsibilities in water quality control and water quality planning to

the states. Where the Environmental Protection Agency (EPA) and the SWRCB have agreed to such delegation, the Regional Boards implement portions of the Clean Water Act, such as the NPDES program and toxic substance control programs.

The Porter-Cologne and Clean Water Acts also describe how enforcement of waste discharge regulations is to be carried out. Enforcement tools available to the Regional Board range from simple letters to the discharger, through formal Regional Board order, and direct penalty assessments, to judicial abatement for civil and/or criminal penalties. Legally noticed public hearings are required for most actions, but some enforcement actions (e.g., Cleanup or Abatement Orders) have been delegated to staff to allow for a quicker response than regularly scheduled Regional Board meetings can provide.

III. THE CENTRAL COASTAL REGION

One of nine Regional Water Quality Control Boards in California, the Central Coast Regional Board has jurisdiction over a 300-mile long by 40-mile wide section of the State's central coast. Its geographic area encompasses all of Santa Cruz, San Benito, Monterey, San Luis Obispo, and Santa Barbara Counties as well as the southern one-third of Santa Clara County, and small portions of San Mateo, Kern, and Ventura Counties. Included in the region are urban areas such as the Monterey Peninsula and the Santa Barbara coastal plain; prime agricultural lands as the Salinas, Santa Maria, and Lompoc Valleys; National Forest lands, extremely wet areas like the Santa Cruz mountains; and arid areas like the Carrizo Plain. Figure 1-1 shows the Central Coast Regional boundary. Some physical characteristics of the Region are listed below:

CENTRAL COAST REGION[1]

CHARACTERISTICS	NUMBER	MEASURE
Area of Region	--	11,274 square miles
Streams	Unknown	2,360 miles
Lakes	99	25,040 acres
Ground Water Basins	53	3,559 square miles
Mainland Coast	--	378 miles
Wetlands and Estuaries	59	8,387 acres
Areas of Special Biological Significance	9	235,825 acres

1 Water Quality Assessment for Water Years 1986 and 1987, Water Quality Monitoring Report No. 88-1 Water Quality, Division of Water Quality, State Water Resources Control Board, July, 1988.

Topographic features are dominated by a rugged seacoast and three parallel ranges of the Southern Coast Mountains. Ridges and peaks of these mountains, the Diablo, Gabilan, and Santa Lucia Ranges, reach to 5,800 feet. Between these ranges are the broad valleys of the San Benito and Salinas Rivers. These Southern Coast Ranges abut the west to east trending Santa Ynez Mountains of the Transverse Ranges that parallel the southern exposed terraces of the Santa Barbara Coast.

This coastal area includes urbanized and agricultural areas along Monterey Bay, the rugged Big Sur Coast, Morro Bay with its famous rock, the sandy clam beds of Pismo Beach, and a varied coastline south to Point Conception and eastward along the terraces and recreational beaches which line the Santa Barbara Channel. The inland valleys and cities reflect an agricultural, oil, and tourism economy, as well as the early history of California expressed in the architectural styles of the famous Spanish missions which are found throughout this region.

The trend of the mountain ranges, relative to onshore air mass movement, imparts a marked climatic contrast between seacoast, exposed summits, and interior basins. Variations in terrain, climate, and vegetation account for a multitude of different landscapes. Seacliffs, sea stacks, white beaches, cypress groves, and redwood forests along the coastal strand contrast with the dry interior landscape of small sagebrush, short grass, and low chaparral.

In times past, the beaches and ocean waters offshore have been prolific producers of clams, crustaceans, and important sport and commercial

Figure 1-1. Central Coast Region 3

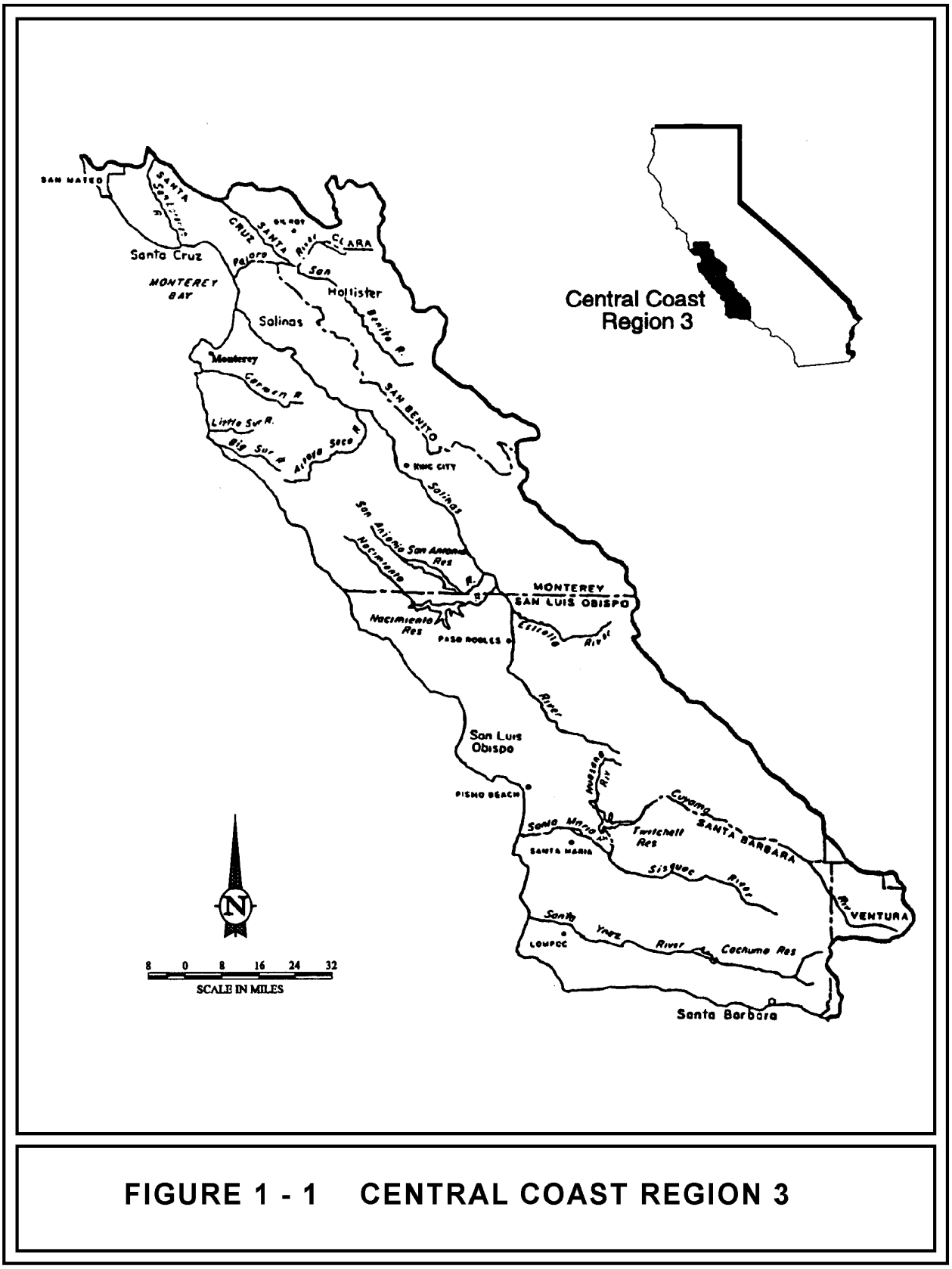

FIGURE 1 - 1 CENTRAL COAST REGION 3

fish. Past fishing practices and disruption of habitat have reduced fishery resources; protective controls are now in effect. Terrestrial wildlife includes a wide range of valley and upland species including the more common raccoon, quail, bear, and deer. Rare, endangered, or unique species include various shore birds, the Morro Bay Kangaroo rat, the European boar, and the California condor. The Sespe Condor Range serves as a sanctuary for this impressive bird.

Historically, the economic and cultural activities in the basin have been agrarian. Livestock grazing persists, but it has been combined with hay cultivation in the valleys. Irrigation, with pumped local ground water, is very significant in intermountain valleys throughout the basin. Mild winters result in long growing seasons and continuous cultivation of many vegetable crops in parts of this basin.

While agriculture and related food processing activities are major industries in the region, oil production, tourism, and manufacturing contribute heavily to its economy. The northern part of the region has experienced a significant influx of electronic manufacturing industry, and the southern part is being heavily influenced by expanded offshore oil exploration and production.

The Central Coast Region has three times the volume of average annual precipitation (12,090,000 acre-feet) as the Los Angeles Region, but one-seventh the population (1.2 million versus 8 million). The North Coast Region receives 52 million acre-feet of precipitation on the average with a population of 460,000. These three regions demonstrate the range of California's water and population distribution imbalance:

Region	Annual Average Precipitation (Ac. Ft.) per Person
North Coast	113.0
Central Coast	9.9
Los Angeles	0.56

Although this table shows the Central Coast is somewhat in the middle of the State's water-versus-population distribution, the region is considered arid for the most part. An exception is the Santa Cruz mountain area with its relatively high average precipitation.

Total population of the region is estimated to be 1.22 million people. San Luis Obispo County continues to grow more rapidly than other large counties in the region. The population of San Luis Obispo County has doubled since 1970:

CENTRAL COAST REGION POPULATION

County	1970	1988
Santa Cruz	124,000	225,400
Santa Clara (South)	29,000	65,800
San Benito	18,000	34,100
Monterey	249,000	346,100
San Luis Obispo	107,000	204,300
Santa Barbara	265,000	345,000
Total[1]	792,000	1,220,700

1 Table does not include relatively small populations of portions of Ventura, Kern, and San Mateo Counties that are within the Central Coast Region.

Adequate quality water for many beneficial uses in the Central Coastal Basin is in short supply. Water rationing for domestic purposes is seriously considered and sometimes implemented during water shortages. The use of water by the human population and its activities is increasing in the basin. Water mining and seawater intrusion have resulted in some locations. Consequently, the competition for waters of adequate quality will become more intense in the future.

Water quality problems most frequently encountered in the Central Coastal Basin pertain to excessive salinity or hardness of local ground waters. Ground water basins containing 1000 mg/l Total Dissolved Solids (TDS) or higher are found near Hollister, the Lower Forebay of the Salinas Sub-basin, the Carrizo Plain, the Santa Maria and Cuyama Valleys, San Antonio Creek Valley, Lompoc and Santa Rita Basins of the Santa Ynez River Valley, and Goleta and Santa Barbara. The Carrizo Plain ground waters are most highly mineralized -- averaging over 5,000 mg/l TDS. Increasing nitrate concentrations is a growing problem in the Salinas River Basin, Los Osos Creek Basin, the Santa Maria Valley, and near Arroyo Grande. Surface water problems are less frequently evident, although bacteriological contamination of coastal waters has been a problem in Morro Bay and South Santa Barbara County. Eutrophication occurs in Pajaro River and Llagas Creek, Salinas River

below Spreckels, and in the lower reaches of San Luis Obispo Creek. Some streams in the basin are naturally highly mineralized and contribute to the excessive salinity of local ground waters; examples include Pancho Rico Creek in the Salinas River Sub-basin, and the Cuyama River in the Santa Maria Sub-basin. Both surface waters contain in excess of 1000 mg/l TDS.

IV. THE REGIONAL BOARD

The Regional Board consists of nine members appointed by the Governor to serve staggered four-year terms. Members must reside or maintain a place of business within the Region and must be associated with or have special knowledge of specific activities related to the control of water quality. Members of the Regional Board conduct their business at regular meetings and public hearings at which public participation is encouraged.

All duties and responsibilities of the Regional Board are directed at providing reasonable protection and enhancement of the quality of all waters in the Region, both surface and underground. The programs by which these duties and responsibilities are carried out include:

- Preparing new or revised policies addressing region-wide water quality concerns;
- Adopting, monitoring compliance with, and enforcing waste discharge requirements and NPDES permits;
- Providing recommendations to the State Board on financial assistance programs, proposals for water diversion, budget development, and other statewide programs and policies;
- Coordinating with other public agencies which are concerned with water quality control; and
- Informing and involving the public on water quality issues.

V. HISTORY OF BASIN PLANNING AND THE BASIN PLAN

Prior to 1970, the Regional Board did not have an active water quality planning function. Water quality problems in surface streams and ground water were responded to by setting controls on discharges. Those discharge controls generally consisted of limiting the allowable increases in TDS concentrations and certain other parameters. Normally, the only additional requirement specified by the Regional Board was that the discharge could not create a nuisance or pollution.

At the request of the federal Water Quality Administration, predecessor to the EPA (and successor to the federal Water Pollution Control Administration), the so-called 1967 Standards were developed and published. These standards applied to coastal and estuarine waters .

By 1970, the Regional Board was actively involved in the formulation of plans to meet established water quality objectives. The federal Clean Water Act and the Porter-Cologne Act, requiring basinwide planning in order to qualify for state and federal funding, plus the National Pollution Discharge Elimination System (NPDES), which empowers the states to set discharge standards, placed new tools in the hands of the Regional Boards and encouraged the development of new approaches to water quality management.

The first single plan for this Region was the 1971 Interim Water Quality Control Plan. It represented significant progress in that the 1967 Standards were incorporated and standards were designated for fresh water streams as well.

Following adoption of the 1971 Interim Plan, the State Board developed and adopted the Ocean Plan and the Thermal Plan. The Regional Board expanded objectives for municipal and domestic water supplies. Chemical objectives for the San Lorenzo River Sub-basin were made more stringent. Incorporation of these State Board plans and Regional Board revisions produced the Revised Interim Water Quality Control Plan of 1973.

Work then began in earnest on a complete Water Quality Control Plan, the 1975 Basin Plan, which has been the foundation of the Regional Board's planning operations since its adoption in 1975. Basin Plans were being developed statewide at that time under the direction of the State Water Resources Control Board (SWRCB). In this region, the prime contractors for basin planning were Brown and Caldwell Consulting Engineers; Water Resources Engineers, Inc.; and Yoder, Trottner, Orlob and Associates. Water quality objectives were based largely on existing water quality.

After adoption of the 1975 Basin Plan, some thirty-eight amendments were made to the Basin Plan. Management of those amendments became cumbersome and led to the need for a Basin Plan reprint which included all current amendments. This document is intended to fulfill that need.

VI. TRIENNIAL REVIEW AND BASIN PLAN AMENDMENT PROCEDURE

The federal Clean Water Act (Section 303(c)) requires states to hold public hearings for review of water quality standards at least once every three years. Water quality standards consist of beneficial use designations and water quality criteria (objectives) necessary to protect those uses. The Porter-Cologne Water Quality Control Act requires the entire Basin Plan to be reviewed periodically. While a major part of the review process consists of identifying potential problems, an important part of the review is the reaffirmation of those portions of the plan where no potential problems are identified.

At the conclusion of the triennial review public hearing, Regional Board staff prepares a priority list of potential problems to the Basin Plan that may result in amendments. Placing a potential problem on the priority list will only require the Regional Board staff to investigate the need for an amendment. It does not necessarily mean a revision of the water quality control plan will be made.

Other items completed after the public hearing include:

- Detailed workplans of each issue;
- Regional Board identification of issues that can be completed within existing resource allocations over a three-year period; and
- List of issues requiring additional resources to complete.

Once the triennial review process is complete, Regional Board staff begin investigating the issues in order of rank. After each investigation, staff determines the need for a Basin Plan amendment.

Basin Plan amendments can also occur for issues not identified during the triennial review. Amendments can occur for urgent issues to reflect new legislation.

Basin Plan amendment hearings are advertised in the public notice section of a newspaper circulated in areas affected by the amendment. Persons interested in a particular issue can also notify the Regional Board staff of their interest in being notified of hearings on that topic.

Basin Plan amendments do not become effective until approved by the State Board. Surface water standards also require the approval of the Environmental Protection Agency to become effective.

VI.A. CONTINUING PLANNING

The Basin Plan is a flexible tool which must be reviewed and revised regularly for it to adapt to changing conditions. "Continuing planning" allows this to occur. The following section prioritizes Regional Board tasks and resources. This ranked list is referred to as the "Triennial Review List" and is shown in Table 1-1.

Items listed were ranked in order of priority by the Regional Board on May 6, 1988 and July 8, 1988. Each item is followed by an estimate of staff time needed to complete the item (actual time and duration). For those items requiring contract funding, estimated contract needs are identified following the description of each item. Resolution of these items may result in future Basin Plan amendments.

Table 1-1. 1988 Triennial Review Priority List

Task	Estimated Time Staff Resources (Staff Years and Duration)
1. Adopt water quality limited segments*	0.02 SY
2. Reprint Basin Plan*	0.2 SY 1 year
3. Incorporate Proposition 65 criteria as developed by State Board	0.2 SY 6 months
4. Determine water quality monitoring needs*	0.4 SY
5. Establish nutrient objectives for Pajaro River and Llagas Creek Contract $ = 40,000	0.3 SY 20 months
6. Establish nutrient objectives for San Luis Obispo Creek Contract $ = 10,000	0.3 SY 20 months
7. Establish additional toxic pollutant objectives as developed by the State Water Resources Control Board	0.1 SY 5 years
8. Reevaluate Santa Maria Basin ground water quality objectives (including Nipomo Mesa and Valley) Contract $ = 20,000	0.3 SY 2 years
9. Reevaluate discharge prohibition to Santa Maria River below Highway One Bridge Contract $ = 20,000	0.2 SY 2 years
10. Revaluate Lompoc Plain Boron objective*	0.03 SY
11. Incorporate State Board Ground Water Strategy and Develop Regional Ground Water Strategy	0.3 SY 3 years
12. Reevaluate San Lorenzo River nitrate objective Contract $ = $30,000	0.4 SY 2 years
13. Review on-site sewage disposal prohibition in San Lorenzo Valley Class I & II areas	0.2 SY
14. Review beneficial uses for: Santa Barbara Harbor (shellfish), Goleta Slough (migration and spawning), San Luis Obispo Creek (municipal water supply), Lower Salinas River (all)	0.7 SY
15. Develop Upper Salinas Valley ground water salt management plan Contract $ = 30,000	0.4 SY 1 year
16. Adopt amendments for water bodies affected by toxics as required by Clean Water Act	0.2 SY
17. Develop toxic control strategy	0.3 SY
18.	
a. Develop beneficial uses for additional needed water bodies	0.2 SY
b. Add "Preservation of Areas of Special Biological Significant" (BIOL) beneficial use to needed water bodies	0.05 SY
19. Determine need for septic tank prohibition in Prunedale, San Lucas, Los Olivos, Ballard and other needed areas	1.0 SY
20. Establish septic tank sludge policy	0.2 SY
21. Establish residual repositories policy	0.3 SY
22. Establish Gilroy, Morgan Hill, San Martin ground water management plan	0.4 SY 8 months
23. Establish nonpoint source runoff policy for sensitive watersheds (i.e. Elkhorn Slough)	0.5 SY 1 year
24. Establish agriculture/ pesticide runoff policy	0.2 SY
25. Establish greenhouse operations policy	0.1 SY
26. Evaluate erosion/sedimentation problems in Santa Cruz County	0.4 SY
27. Reevaluate vessel discharge policy	0.2 SY
28. Reevaluate Santa Ynez ground water basin objective	0.3 SY 6 months
29. Provide guidance for effluent limits in areas with high background concentrations (e.g. ground water nitrate exceeds objectives)	0.2 SY
30. Establish suitable criteria for Waste Discharge Requirements (e.g. standardize rainfall event used to evaluate capacity)	0.2 SY
31. Provide guidance for regulation of point source discharges in the vicinity of significant nonpoint source discharges	0.2 SY
32. Review unionized ammonia objective for receiving waters	0.4 SY
33. Reevaluate nonpoint source controls for urban and rural runoff	0.3 SY
34. Establish storm water discharge policy	0.5 SY
35. Review cumulative impact of Monterey Bay discharges. Determine need for policy	0.4 SY
36. Establish policy for discharge of high temperature waters to ground water	0.2 SY
37. Incorporate revised ground water basin boundary maps*	0.2 SY
38. Review cumulative impact of future on-site disposal on Nipomo Mesa/Valley. Reevaluation of the Nipomo prohibition boundaries	0.4 SY
39. Establish oil drilling mud policy	0.2 SY
40. Establish Morro Basin ground water objectives	0.5 SY
41. Establish ground water objectives for San Benito Basin Contract $ = 40,000	0.5 SY 2 years

Table 1-1. 1988 Triennial Review Priority List

Task	Estimated Time Staff Resources (Staff Years and Duration)
42. Establish ground water objectives for Price Canyon-Edna Valley Watershed Contract $ = $20,000	0.3 SY 18 months
43. Establish offshore oil policy	0.1 SY
44. Establish reclamation/conservation policy	0.05 SY
45. Evaluate need for sewering Hidden Glen area of Scotts Valley	0.2 SY
46. Review water contact recreation for San Miguel, Santa Rosa, and Santa Cruz Island	0.05 SY
47. Update landfill policy to incorporate new State standards*	0.05 SY
48. Update dairy waste policy to incorporate new State standards*	0.05 SY
49. Delete Mission Canyon and Los Alamos prohibition areas*	0.05 SY

* These tasks accomplished by adoption of this Basin Plan

CHAPTER 2. PRESENT AND POTENTIAL BENEFICIAL USES

State policy for water quality control in California is directed toward achieving the highest water quality consistent with maximum benefit to the people of the State. Therefore, all water resources must be protected from pollution and nuisance that may occur as a result of waste discharges.

Establishing the beneficial uses to be protected in the Central Coastal Basin is a cornerstone of this comprehensive plan. Once uses are recognized, compatible water quality standards can be established as well as the level of treatment necessary to maintain the standards and ensure the continuance of the beneficial uses. This chapter will examine and identify historical, present, and potential beneficial uses in the Basin.

The remainder of this chapter summarizes current beneficial uses, describes anticipated future water demands characterizing future or potential water users, and lists the present and potential beneficial uses in tabular form.

I. PRESENT AND POTENTIAL BENEFICIAL USES

Beneficial uses are presented for inland surface waters by 13 sub-basins in Table 2-1. Beneficial uses for inland surface waters are arranged by hydrologic unit on pages II-2 through II-15. A map of the hydrologic units is shown in Figure 2-1 on page II-16. Beneficial uses are regarded as existing whether the water body is perennial or ephemeral, or the flow is intermittent or continuous. Beneficial uses of coastal waters are shown in Table 2-2 on page II-17.

Surface water bodies within the Region that do not have beneficial uses designated for them in Table 2-1 are assigned the following designations:

- Municipal and Domestic Water Supply
- Protection of both recreation and aquatic life.

Municipal and Domestic Water Supply is designated in accordance with the provisions of State Water Resources Control Board Resolution 88-63 is by reference, a part of this Plan. (A copy of this resolution is located in the appendix). These MUN designations in no way affect the presence or absence of other beneficial use designations in these water bodies.

Ground water throughout the Central Coastal Basin, except for that found in the Soda Lake Sub-basin, is suitable for agricultural water supply, municipal and domestic water supply, and industrial use. Ground water basins are listed in Table 2-3. A map showing these ground water basins is displayed in Figure 2-2 on page II-19.

II. BENEFICIAL USE DEFINITIONS

Beneficial uses for surface and ground waters are divided into the twenty standard categories listed below. One of the principal purposes of this standardization is to facilitate establishment of both qualitative and numerical water quality objectives that will be compatible on a statewide basis.

Municipal and Domestic Supply (MUN) - Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply. According to State Board Resolution No. 88-63, "Sources of Drinking Water Policy" all surface waters are considered suitable, or potentially suitable, for municipal or domestic water supply except where:

a. TDS exceeds 3000 mg/l (5000 uS/cm electrical conductivity);
b. Contamination exists, that cannot reasonably be treated for domestic use;
c. The source is not sufficient to supply an average sustained yield of 200 gallons per day;

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
BIG BASIN HYDROLOGIC UNIT																						
Lucerne Lake Estuary						X	X	X	X			X	X	X	X				X			X
Lucerne Lake	X	X				X	X	X	X							X			X			
Arroyo de los Frejoles Creek	X	X			X	X	X	X	X	X	X	X	X	X		X			X			
Arroyo de los Frejoles Reservoir	X	X			X	X	X	X	X	X						X	X		X			
Gazos Creek Lagoon/Estuary						X	X	X	X	X	X	X	X	X	X				X			X
Gazos Creek	X	X			X	X	X	X	X		X	X				X			X			
Old Womans Creek	X					X	X	X	X		X	X	X						X			
Whitehouse Creek	X					X	X	X	X		X	X	X		X	X			X			
Cascade Creek Lagoon/Estuary						X	X	X	X		X	X	X	X	X				X			X
Cascade Creek	X	X			X	X	X	X	X		X	X	X	X		X			X			
Green Oaks Creek Lagoon/Estuary						X	X	X	X			X		X	X				X			X
Green Oaks Creek	X	X			X	X	X	X	X	X	X	X	X		X	X			X			
Ano Nuevo Creek	X	X			X	X	X	X	X		X	X	X	X	X	X			X			
Finney Creek	X	X				X	X	X	X				X		X	X			X			
Elliot Creek	X	X				X	X	X	X				X		X	X			X			
Waddell Creek Estuary					X	X	X	X	X		X	X	X	X	X				X			X
Waddell Creek (Main Stem)	X	X		X	X	X	X	X	X		X	X	X	X		X			X			
Waddell Creek, east branch	X				X	X	X	X	X		X	X	X	X		X			X			
Last Chance Creek	X	X			X	X	X	X	X		X	X		X					X			
Blooms Creek	X				X	X	X	X	X			X	X	X					X			
Sempervirens Creek	X				X	X	X	X	X		X	X	X						X			
Union Creek	X					X	X	X	X				X						X			
Sempervirens Res.	X					X	X	X	X				X			X			X			X
Opal Creek	X				X	X	X	X	X				X						X			
Rogers Creek	X					X	X	X	X				X						X			
Maddocks Creek	X					X	X	X	X				X						X			
Waddell Creek, west branch	X				X	X	X	X	X		X	X	X	X					X			
Kelley Creek	X				X	X	X	X	X										X			
Berry Creek	X				X	X	X	X	X										X			
Henry Creek	X				X	X	X	X	X				X						X			
Scott Creek Lagoon						X	X	X	X		X	X		X	X				X			X
Scott Creek	X	X		X	X	X	X	X	X		X	X		X		X			X			
Little Creek	X	X		X	X	X	X	X	X		X	X		X					X			
Big Creek (Ano Nuevo)	X	X		X	X	X	X	X	X		X	X		X				X	X			
Berry Creek	X				X	X	X	X	X				X						X			
Deadman Gulch Creek	X				X	X	X	X	X			X		X					X			
Boyer Creek	X				X	X	X	X	X			X						X	X			
Mill Creek (Scott Creek)	X	X		X	X	X	X	X	X		X	X		X		X			X			
Mill Creek Res.	X					X	X	X	X	X	X	X				X	X		X			
Molino Creek	X	X			X	X	X	X	X						X	X			X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
San Vicente Creek	X	X	X	X	X	X	X	X	X		X	X		X	X	X			X			
Mill Creek (Bonnie Doon)	X				X	X	X	X	X		X	X							X			
Liddell Creek	X	X			X	X	X	X	X		X	X		X	X	X			X			
Liddell Creek, east branch	X	X		X	X	X	X	X	X		X	X							X			
Liddell Creek, west branch	X				X	X	X	X	X		X	X							X			
Laguna Creek Estuary					X	X	X	X	X		X	X		X	X				X			X
Laguna Creek	X	X		X	X	X	X	X	X		X	X		X		X			X			
Reggiardo Creek	X				X	X	X	X	X					X					X			
Majors Creek	X	X		X	X	X	X	X	X		X	X		X	X	X			X			
Baldwin Creek Estuary						X	X	X	X	X	X	X	X	X	X				X			X
Baldwin Creek	X	X			X	X	X	X	X		X	X	X	X		X			X			
Wilder Creek Estuary						X	X	X	X	X	X	X	X	X	X				X			X
Wilder Creek	X	X			X	X	X	X	X	X	X	X	X			X			X			
Cave Gulch	X				X	X	X	X	X	X									X			
Younger's Lagoon					X	X	X	X	X	X		X	X						X			X
Antonellis Pond					X	X	X	X		X	X	X		X					X			
Moore Creek	X	X			X	X	X	X	X	X		X	X			X			X			
Neary's Lagoon					X	X	X	X		X		X		X					X			
San Lorenzo River Estuary						X	X	X	X		X	X	X	X	X				X			
San Lorenzo River	X	X		X	X	X	X	X	X		X	X	X	X		X			X			
Branciforte Creek	X	X			X	X	X	X	X		X	X							X			
Blackburn Gulch	X				X	X	X	X	X		X	X							X			
Tie Gulch	X				X	X	X	X	X		X	X							X			
Granite Creek	X			X	X	X	X	X	X		X	X							X			
Carbonera Creek	X	X		X	X	X	X	X	X		X	X							X			
Zayante Creek	X	X		X	X	X	X	X	X		X	X							X			
Bean Creek	X	X		X	X	X	X	X	X		X	X							X			
Mackenzie Creek	X				X	X	X	X	X		X	X							X			
Ruins Creek	X				X	X	X	X	X		X	X							X			
Lockhart Gulch Creek	X				X	X	X	X	X		X	X							X			
Mountain Charlie Gulch	X				X	X	X	X	X		X	X							X			
Lompico Creek	X	X			X	X	X	X	X		X	X							X			
Mill Creek (SLR)	X				X	X	X	X	X										X			
Newell Creek	X	X		X	X	X	X	X	X		X	X				X			X			
Loch Lomond Res.	X	X		X	X	X	X	X	X	X	X	X		X		X	X		X			X
Love Creek	X				X	X	X	X	X		X	X							X			
Fritch Creek	X				X	X	X	X	X		X	X							X			
Smith Creek	X				X	X	X	X	X										X			
Spring Creek Gulch	X				X	X	X	X	X										X			
Bear Creek	X	X			X	X	X	X	X		X	X							X			
Connelly Gulch	X				X	X	X	X	X		X	X							X			
Shear Creek	X				X	X	X	X	X		X	X							X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
Deer Creek	X				X	X	X	X	X		X	X							X			
Hopkins Gulch	X				X	X	X	X	X		X	X							X			
Two Bar Creek	X				X	X	X	X	X		X	X							X			
Kings Creek	X				X	X	X	X	X		X	X	X						X			
Logan Creek	X				X	X	X	X	X		X	X							X			
Sleeper Gulch	X				X	X	X	X	X				X						X			
McDonald Gulch	X				X	X	X	X	X		X	X	X						X			
Spring Creek	X				X	X	X	X	X		X	X							X			
Boulder Creek	X	X			X	X	X	X	X		X	X							X			
Bracken Brae Creek	X				X	X	X	X	X					X					X			
Hare Creek	X				X	X	X	X	X		X	X		X					X			
Jamison Creek	X				X	X	X	X	X		X	X							X			
Peavine Creek	X				X	X	X	X	X		X	X							X			
Silver Creek	X				X	X	X	X	X		X	X							X			
Foreman Creek	X				X	X	X	X	X		X	X							X			
Malosky Creek	X				X	X	X	X	X		X	X							X			
Clear Creek	X				X	X	X	X	X		X	X							X			
Alba Creek	X				X	X	X	X	X		X	X							X			
Marshall Creek	X				X	X	X	X	X		X	X							X			
Manson Creek	X				X	X	X	X	X		X	X							X			
Fall Creek	X	X		X	X	X	X	X	X		X	X	X						X			
South Fall Creek	X	X			X	X	X	X	X		X	X	X						X			
Bennett Creek	X	X		X	X	X	X	X	X		X	X	X						X			
Bull Creek	X				X	X	X	X	X			X							X			
Shingle Mill Creek	X				X	X	X	X	X		X	X							X			
Gold Gulch Creek	X				X	X	X	X	X		X	X							X			
Woods Lagoon						X	X	X			X	X			X				X			X
Arana Gulch	X				X	X	X	X	X		X	X		X		X			X			
Schwan Lake						X	X	X		X		X	X	X					X			X
Corcoran Lagoon					X	X	X	X		X		X		X	X				X			X
Rodeo Creek Gulch (Doyle Gulch)	X	X		X	X	X	X	X	X			X				X			X			
Moran Lake					X	X	X	X		X		X							X			
Soquel Lagoon						X	X	X	X		X	X		X	X				X			
Soquel Creek	X	X		X	X	X	X	X	X		X	X	X			X			X			
Bates Creek	X					X	X	X	X		X	X	X						X			
Grover Gulch	X				X	X	X	X	X		X	X							X			
Soquel Creek, east branch	X			X	X	X	X	X	X		X	X							X			
Hinckley Creek	X	X		X	X	X	X	X	X		X	X	X						X			
Amaya Creek	X				X	X	X	X	X		X	X							X			
Soquel Creek, west branch	X				X	X	X	X	X		X	X							X			
Hester Creek	X				X	X	X	X	X		X	X							X			
Laural Creek	X				X	X	X	X	X		X	X							X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
Burns Creek	X				X	X	X	X	X		X	X							X			
Moores Gulch	X				X	X	X	X	X		X	X							X			
Miners Creek	X				X	X	X	X	X		X	X							X			
Aptos Creek	X	X		X	X	X	X	X	X		X	X	X		X	X			X			
Valencia Creek	X				X	X	X	X	X		X	X							X			
Trout Gulch	X				X	X	X	X	X										X			
Bridge Creek	X	X				X	X	X	X		X	X	X						X			
Valencia Lagoon						X	X	X		X		X		X					X			
PAJARO RIVER HYDROLOGIC UNIT																						
Corralitos Lagoon						X	X	X	X										X			
Palm Beach Pond	X					X	X	X		X				X					X			
Pinto Lake	X	X			X	X	X	X		X		X							X			
Kelley Lake	X	X			X	X	X	X		X		X							X			
Drew Lake	X	X			X	X	X	X		X		X							X			
Tynan Lake	X	X			X	X	X	X		X		X							X			
Warner Lake	X	X			X		X	X											X			
Pajaro River Estuary						X	X	X	X	X	X	X	X	X	X				X			X
Pajaro River	X	X		X	X	X	X	X	X	X	X	X				X			X			
San Benito River	X	X		X	X	X	X	X		X		X				X			X			
Bird Creek	X	X			X	X	X	X		X			X						X			
Pescadero Creek (S. Benito)	X	X			X	X	X	X	X	X	X	X							X			
Tres Pinos Creek	X	X		X	X	X	X	X		X		X							X			
Hernandez Reservoir	X	X			X	X	X	X		X		X				X	X		X			
Tequisquita Slough					X	X	X	X		X		X							X			
San Felipe Lake	X	X			X	X	X	X	X	X	X					X	X		X			
Pacheco Creek	X	X			X	X	X	X	X	X	X	X	X	X		X			X			
Pacheco Lake	X	X			X	X	X	X	X	X		X		X		X	X		X			
Llagas Creek (above Chesbro Res.)	X	X			X	X	X	X	X	X				X		X			X			
Chesbro Reservoir	X	X			X	X	X	X		X	X	X		X		X	X		X			
Llagas Creek (below Chesbro Res.)	X	X		X	X	X	X	X	X	X	X	X		X					X			
Alamias Creek	X	X			X	X	X	X	X	X	X	X							X			
Live Oak Creek	X	X			X	X	X	X	X	X	X								X			
Little Llagas Creek	X	X			X	X	X	X		X									X			
Carnadero Creek	X				X	X	X	X	X	X	X			X					X			
Uvas Creek, downstream	X	X		X	X	X	X	X	X	X	X	X		X					X			
Uvas Res.	X	X			X	X	X	X		X		X		X		X	X		X			
Little Arthur Creek	X	X			X	X	X	X	X	X	X	X							X			
Bodfish Creek	X	X			X	X	X	X	X	X	X	X		X					X			
Black Hawk Canyon Creek	X					X	X	X		X	X	X		X					X			
Uvas Creek, upstream	X				X	X	X	X	X		X	X		X		X			X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
Little Uvas Creek	X	X			X	X	X	X		X									X			
Swanson Canyon Creek	X				X	X	X	X											X			
Alec Canyon Creek	X				X	X	X	X	X		X	X							X			
Croy Creek	X				X	X	X	X		X				X					X			
Eastman Canyon Creek	X	X			X	X	X	X		X									X			
Pescadero Creek	X	X			X	X	X	X	X		X	X	X						X			
Soda Lake							X	X		X				X					X			
Salsipuedes Creek	X	X			X	X	X	X	X		X	X							X			
Corralitos Creek	X	X		X	X	X	X	X	X	X	X	X							X			
Browns Creek	X	X		X	X	X	X	X	X	X	X	X							X			
Gamecock Creek	X				X	X	X	X	X		X	X							X			
Ramsey Gulch	X				X	X	X	X	X		X	X							X			
Redwood Creek	X					X	X	X	X		X	X							X			
Mormon Gulch	X				X	X	X	X	X										X			
Clipper Gulch	X				X	X	X	X	X										X			
Cookhouse Gulch	X				X	X	X	X	X										X			
Shingle Mill Gulch	X				X	X	X	X	X		X	X							X			
Rattlesnake Gulch	X				X	X	X	X	X										X			
Diablo Gulch Creek	X				X	X	X	X	X										X			
Eureka Gulch	X				X	X	X	X	X										X			
Rider Gulch Creek	X				X	X	X	X	X		X	X							X			
Watsonville Slough						X	X	X		X		X	X	X	X				X			
Struve Slough						X	X	X		X		X	X	X	X				X			
Hanson Slough						X	X	X		X		X	X	X	X				X			
Harkins Slough						X	X	X		X		X	X	X	X				X			
Gallighan Slough						X	X	X		X		X		X	X				X			
BOLSA NEUVA HYDROLOGIC UNIT																						
McClusky Slough					X	X	X	X		X		X		X					X			X
Elkhorn Slough						X	X	X	X	X	X	X	X	X	X		X		X	X		X
Los Carneros Creek	X					X	X	X	X		X	X		X		X			X			
Bennett Slough/Estuary						X	X	X	X	X		X	X	X	X				X			X
Parsons Slough						X	X	X	X			X	X	X	X				X			X
CARMEL RIVER HYDROLOGIC UNIT																						
Carmel River Estuary					X	X	X	X	X		X	X	X	X	X				X			X
Carmel River	X	X		X	X	X	X	X	X	X	X	X	X	X		X			X			
San Clemente Res.	X	X			X	X	X	X	X		X	X				X	X		X			
San Clemente Creek	X	X			X	X	X	X	X	X	X	X				X			X			
Pine Creek	X				X	X	X	X	X	X	X	X	X						X			
Los Padres Reservoir	X				X	X	X	X	X	X	X	X				X	X		X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
Cachagua Creek	X	X	X	X	X	X	X	X	X	X	X	X				X			X			
Finch Creek	X				X	X	X	X	X	X	X	X	X	X					X			
Tularcitos Creek	X	X			X	X	X	X	X	X	X	X							X			
Rana Creek	X				X	X	X	X	X	X	X	X							X			
Chupines Creek	X				X	X	X	X	X	X	X	X							X			
Black Rock Creek	X					X	X	X	X		X	X		X		X			X			
White Rock Lake	X					X	X	X	X	X	X	X					X		X			
SANTA LUCIA HYDROLOGIC UNIT																						
San Jose Creek Estuary						X	X	X	X		X	X	X	X	X				X			X
San Jose Creek	X	X			X	X	X	X	X	X	X	X	X			X			X			
Garrapata Creek	X					X	X	X	X		X	X		X	X	X			X	X		
Palo Colorado Canyon	X	X			X	X	X	X	X	X		X			X	X			X			
Rocky Creek	X					X	X	X	X	X	X	X			X	X			X			
Bixby Creek	X					X	X	X	X		X	X		X	X	X			X			
Mill Creek	X					X	X	X	X		X	X							X			
Little Sur River Estuary						X	X	X	X		X	X	X	X	X				X			X
Little Sur River	X	X			X	X	X	X	X		X	X	X	X		X			X			
Big Sur River Estuary						X	X	X	X	X	X	X	X	X	X				X			X
Big Sur River	X	X			X	X	X	X	X	X	X	X	X	X		X			X			
Big Creek	X					X	X	X	X	X	X	X	X	X	X	X			X			
Devils Canyon Creek, south fork	X					X	X	X	X		X	X	X						X			
Devils Canyon Creek, middle fork	X					X	X	X	X		X	X	X						X			
Devils Canyon Creek, north fork	X					X	X	X	X		X	X	X						X			
Big Creek, north fork	X					X	X	X	X				X						X			
Limekiln Creek	X	X			X	X	X	X	X		X	X	X	X	X	X			X			
Mill Creek (Cape San Martin)	X					X	X	X	X	X	X	X			X	X			X			
Willow Creek	X				X	X	X	X	X		X	X		X	X	X			X			
Salmon Creek	X					X	X	X	X		X	X		X	X	X			X			
SALINAS HYDROLOGIC UNIT																						
Moro Cojo Slough					X	X	X	X	X	X		X	X	X	X				X			X
Old Salinas River Estuary						X	X	X	X	X	X	X	X	X	X				X			X
Tembldero Slough						X	X	X		X		X		X	X				X			X
Espinosa Lake						X	X	X		X									X			
Espinosa Slough						X	X	X		X									X			
Salinas Reclamation Canal						X	X	X		X									X			
Gabilan Creek	X	X			X	X	X	X		X		X							X			
Alisal Creek	X	X			X	X	X	X	X	X		X							X			
Blanco Drain						X	X	X		X									X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
Salinas River Refuge Lagoon (South)						X	X	X	X	X	X		X	X					X			X
Marina Pond #1					X	X	X	X	X			X	X	X					X			
Marina Pond #2					X	X	X	X	X				X	X					X			
Marina Pond #3					X	X	X	X	X				X	X					X			
Marina Pond #4/5					X	X	X	X	X				X	X					X			
Marina Pond #6					X	X	X	X	X				X	X					X			
Marina Pond #7					X	X	X	X	X			X	X	X					X			
Laguna Grande/Roberts Lake	X					X	X	X	X	X									X			
Del Monte Lake	X					X	X	X		X									X			
El Estero Lake	X				X	X	X	X	X	X		X							X			
Salinas River Lagoon (North)						X	X	X	X	X	X	X	X	X	X				X			X
Salinas River, dnstr of Spreckels Gage	X	X					X	X	X	X	X					X			X			
Salinas River, Spreckels Gage-Chualar	X	X	X	X	X	X	X	X	X	X	X								X			
Salinas Riv, Chualar-Nacimiento Riv	X	X	X	X	X	X	X	X	X	X	X	X		X					X			
Arroyo Seco River	X	X		X	X	X	X	X	X	X	X	X		X					X			
Abbott Lakes (The Lakes)	X				X	X	X	X	X	X		X					X		X			
Piney Creek	X					X	X	X	X		X	X							X			
Paloma Creek	X	X			X	X	X	X	X	X									X			
Tassajara Creek	X	X			X	X	X	X	X	X	X	X	X	X					X			
Santa Lucia Creek	X	X			X	X	X	X	X	X	X	X	X						X			
Vaqueros Creek	X	X				X	X	X	X		X	X							X			
Reliz Creek	X	X			X	X	X	X	X		X	X							X			
Hames Creek	X	X			X	X	X	X		X									X			
San Antonio Riv., dwnstr frm Res.	X	X		X	X	X	X	X		X	X	X		X					X			
San Antonio Reservoir	X	X			X	X	X	X	X	X		X		X		X	X	X	X			
San Antonio Riv, upstm Frm Res.	X	X		X	X	X	X	X	X	X	X	X		X		X			X			
Pancho Rico Creek	X	X			X	X	X	X		X		X							X			
San Lorenzo Creek	X	X			X	X	X	X		X		X							X			
Chalone Creek	X	X			X	X	X	X		X		X							X			
Salinas R.,Nacimiento R.-S. Margarita Res.	X	X	X		X	X	X	X	X	X	X	X		X					X			
Nacimiento River, upstream of Res.	X	X			X	X	X	X	X	X		X		X		X			X			
Salmon Creek	X					X	X	X	X		X	X		X					X			
Nacimiento Reservoir	X	X			X	X	X	X	X	X		X		X		X	X		X			
Nacimiento River, dwnstr Res.	X	X		X	X	X	X	X	X	X	X	X		X					X			
Las Tablas Creek	X	X			X	X	X	X	X	X		X		X					X			
Las Tablas Creek, north fork	X	X			X	X	X	X	X			X		X					X			
Las Tablas Creek, south fork	X	X			X	X	X	X	X			X		X					X			
Franklin Creek	X	X			X	X	X	X											X			
San Marcos Creek	X	X			X	X	X	X		X									X			
Paso Robles Creek	X	X			X	X	X	X	X		X	X		X					X			
Jack Creek	X	X			X	X	X	X	X		X	X		X					X			
Santa Rita Creek	X	X		X	X	X	X	X	X	X	X	X		X					X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
Atascadero Creek	X	X			X	X	X	X	X			X		X					X			
Santa Margarita Reservoir (Lake)	X	X		X	X	X	X	X	X	X		X		X		X	X	X	X			
Salinas R., Reservoir-Headwaters	X	X			X	X	X	X	X		X	X				X			X			
Huerhuero Creek	X	X			X	X	X	X		X				X					X			
Vineyard Canyon Creek	X	X			X	X	X	X		X									X			
Big Sandy Creek	X	X			X	X	X	X		X			X	X					X			
Atascadero Lake	X				X	X	X	X	X	X		X					X		X			
ESTERO BAY HYDROLOGIC UNIT																						
San Carpoforo Creek Estuary						X	X	X	X		X	X	X	X	X				X			X
San Carpoforo Creek	X	X		X	X	X	X	X	X	X	X	X		X		X			X			
Estrada Creek	X	X			X	X	X	X	X	X									X			
Chris Flood Creek	X	X			X	X	X	X	X	X									X			
Wagner Creek	X	X			X	X	X	X	X	X									X			
Dutra Creek	X	X			X	X	X	X	X	X									X			
Arroyo de los Chinos	X	X			X	X	X	X	X	X				X	X	X			X			
Arroyo de la Cruz Estuary						X	X	X	X		X	X	X	X	X				X			X
Arroyo de la Cruz Creek	X	X		X	X	X	X	X	X	X	X	X		X		X			X			
Burnett Creek	X	X			X	X	X	X	X	X	X	X		X					X			
Arroyo del Oso	X	X			X	X	X	X	X					X	X	X			X			
Arroyo del Corral	X	X			X	X	X	X	X	X	X	X		X	X	X			X			
Oak Knoll Creek	X	X			X	X	X	X	X	X				X	X	X			X			
Arroyo Laguna						X	X	X	X			X		X	X				X			X
Little Pico Creek Estuary						X	X	X	X		X	X	X	X	X				X			X
Little Pico Creek	X	X			X	X	X	X	X		X	X		X		X			X			
Pico Creek Estuary					X	X	X	X	X	X	X	X	X	X	X				X			X
Pico Creek	X	X			X	X	X	X	X	X	X	X	X	X		X			X			
Pico Creek, south fork	X	X			X	X	X	X	X		X	X		X					X			
Pico Creek, north fork	X	X			X	X	X	X	X		X	X		X					X			
San Simeon Creek Estuary					X	X	X	X	X		X	X	X	X	X				X			X
San Simeon Creek	X	X		X	X	X	X	X	X	X	X	X	X	X		X			X			
Steiner Creek	X	X			X	X	X	X	X	X	X	X		X					X			
Santa Rosa Creek Estuary					X	X	X	X	X	X	X	X	X	X	X				X			X
Santa Rosa Creek	X	X		X	X	X	X	X	X	X	X	X		X		X			X			
Perry Creek	X	X			X	X	X	X	X					X					X			
Green Valley Creek	X	X			X	X	X	X	X	X				X					X			
Villa Creek	X	X			X	X	X	X	X		X	X		X	X	X			X			
Cayucos Creek	X	X			X	X	X	X	X	X	X	X	X	X	X	X			X			
Old Creek, downstream	X	X			X	X	X	X		X				X	X	X			X			
Whale Rock Reservoir	X	X	X	X	X	X	X	X	X	X		X		X		X	X		X			
Old Creek, upstream	X	X	X	X	X	X	X	X	X	X		X		X		X			X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
Toro Creek	X	X			X	X	X	X	X	X	X	X		X	X	X			X			
Morro Creek	X	X			X	X	X	X	X	X	X	X		X	X	X			X			
Little Morro Creek	X	X			X	X	X	X	X		X	X		X					X			
Morro Bay Estuary				X		X	X	X	X		X	X	X	X	X				X	X		X
Chorro Creek	X	X			X	X	X	X	X	X	X	X	X	X		X			X			
Dairy Creek	X	X			X	X	X	X	X		X	X		X					X			
San Luisito Creek	X	X			X	X	X	X	X		X	X		X					X			
San Bernardo Creek	X	X			X	X	X	X	X		X	X		X					X			
Los Osos Creek	X	X			X	X	X	X	X	X	X	X		X		X			X			
Warden Lake Wetland		X			X	X	X	X		X		X		X					X			
Islay Creek	X	X			X	X	X	X	X		X	X	X	X	X	X			X			
Coon Creek	X	X			X	X	X	X	X		X	X	X	X	X	X			X			
Diablo Canyon Creek	X	X		X	X	X	X	X	X			X		X	X	X			X			
San Luis Obispo Creek Estuary (a)					X	X	X	X	X	X	X	X	X	X	X				X	X		X
S.L.O.Crk. above W. Marsh St.	X	X			X	X	X	X	X	X	X	X		X					X			
S.L.O.Crk. below W. Marsh St.	X	X			X	X	X	X	X	X	X	X				X			X			
Froom Creek	X					X	X	X						X					X			
Davenport Creek	X	X			X	X	X	X	X					X					X			
San Luis Obispo Creek, east fork	X	X			X	X	X	X	X		X	X		X					X			
Stenner Creek	X	X			X	X	X	X	X		X	X		X					X			
Brizziolari Creek	X	X			X	X	X	X	X		X	X		X					X			
Prefumo Creek	X	X			X	X	X	X	X		X	X		X		X			X			
Laguna Lake	X	X			X	X	X	X		X	X	X		X			X		X			
Pismo Creek Estuary					X	X	X	X	X		X	X	X	X	X				X			X
Pismo Creek	X	X		X	X	X	X	X	X	X	X	X	X	X		X			X			
Arroyo Grande Creek Estuary					X	X	X	X	X		X	X	X	X	X				X			X
Arroyo Grande Creek, downstream	X	X		X	X	X	X	X	X	X	X			X		X			X			
Oceano Lagoon						X	X	X		X		X	X	X					X			
Meadow Creek	X	X			X	X	X	X	X				X	X					X			
Pismo Marsh (Lake)					X	X	X	X		X			X	X					X			
Los Berros Creek	X	X			X	X	X	X	X		X			X					X			
Lopez Reservoir	X	X	X	X	X	X	X	X	X	X		X		X		X	X		X			
Arroyo Grande Creek, upstream	X	X	X	X	X	X	X	X	X	X	X	X		X					X			
Big Pocket Lake (Dunes Lakes)					X		X	X						X					X			
Willow Lake " "					X	X	X	X		X		X		X					X			
Pipeline Lake " "					X	X	X	X		X		X		X					X			
Celery Lake " "					X	X	X	X		X		X		X					X			
Hospital Lake " "					X	X	X	X		X		X		X					X			
Big Twin Lake " "					X	X	X	X		X		X		X					X			
Small Twin Lake " "						X	X	X		X		X		X					X			
Bolsa Chico Lake " "					X	X	X	X		X		X		X					X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
White Lake " "					X	X	X	X		X		X		X					X			
Mud Lake " "					X	X	X	X		X		X		X					X			
Black Lake " "					X	X	X	X		X		X		X					X			
Dune Lakes Marsh Area " "					X	X	X	X		X		X		X					X			
CARRIZO PLAIN HYDROLOGIC UNIT																						
San Diego Creek	X	X			X	X	X	X		X			X	X		X			X			
Soda Lake				X			X	X		X			X	X					X			
SANTA MARIA HYDROLOGIC UNIT																						
Oso Flaco Lake					X	X	X	X		X		X	X	X			X		X			
Oso Flaco Creek	X	X			X	X	X	X		X			X	X		X			X			
Santa Maria River Estuary					X	X	X	X		X	X	X	X	X	X				X			X
Santa Maria River	X	X		X	X	X	X	X	X	X	X			X		X			X			
Corralitos Canyon Creek	X	X				X	X	X											X			
Sisquoc River, downstream	X	X		X	X	X	X	X	X	X	X	X							X			
Sisquoc River, upstream	X				X	X	X	X	X		X	X	X	X					X			
Cuyama River, downstream	X	X			X	X	X	X		X				X					X			
Twitchell Reservoir	X	X			X		X	X		X				X		X			X			
Cuyama River, upstream	X	X	X	X	X	X	X	X	X	X		X		X		X			X			
Alamo Creek	X	X			X	X	X	X	X	X		X		X					X			
Huasna River	X	X			X	X	X	X		X				X					X			
Orcutt Creek	X	X			X	X	X	X	X					X	X	X			X			
SAN ANTONIO HYDROLOGIC UNIT																						
Shuman Canyon Creek	X	X				X	X	X		X		X			X	X			X			
Casmalia Canyon Creek	X	X				X	X	X		X		X							X			
San Antonio Creek Estuary					X	X	X	X	X	X	X	X	X	X	X				X			X
San Antonio Creek	X	X			X	X	X	X	X	X	X	X		X		X			X			
Barka Slough					X	X	X	X		X		X		X	X				X			X
SANTA YNEZ HYDROLOGIC UNIT																						
Santa Ynez River Estuary						X	X	X		X	X	X	X	X	X				X			X
Santa Ynez River, downstream	X	X	X	X	X	X	X	X	X	X	X	X		X		X			X			
Graves Wetland						X	X	X		X		X							X			
Lompoc Canyon	X	X		X	X	X	X	X		X									X			
La Salle Canyon Creek	X	X			X	X	X	X		X									X			
Sloans Canyon Creek	X				X	X	X	X		X									X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
San Miguelito Creek	X	X			X	X	X	X	X	X		X							X			
Salsipuedes Creek	X	X		X	X	X	X	X	X	X	X	X							X			
El Jaro Creek	X	X		X	X	X	X	X	X	X	X	X							X			
El Callejon Creek	X				X	X	X	X		X									X			
Llanito Creek	X				X	X	X	X		X									X			
Yridisis Creek	X	X			X	X	X	X		X		X							X			
Canada de la Vina	X	X			X	X	X	X		X									X			
Nojoqui Creek	X	X			X	X	X	X	X	X		X							X			
Alamo Pintado Creek	X	X		X	X	X	X	X		X									X			
Zaca Creek	X	X			X	X	X	X	X	X				X					X			
Zaca Lake	X					X	X	X	X	X		X		X					X			
Santa Rosa Creek	X	X			X	X	X	X	X	X	X	X							X			
Santa Rita Creek	X	X		X	X	X	X	X		X									X			
Davis Creek	X				X	X	X	X		X									X			
Santa Lucia Canyon Creek	X	X			X	X	X	X		X									X			
Oak Canyon Creek	X	X		X	X	X	X	X		X			X						X			
Hilton Creek	X	X			X	X	X	X	X		X	X							X			
Cachuma Reservoir	X	X	X		X	X	X	X	X	X		X		X		X	X		X			
Santa Ynez River, upstream	X	X	X	X	X	X	X	X	X	X	X	X		X		X			X			
Gibralter Reservoir	X	X	X	X	X	X	X	X	X	X		X		X		X	X		X			
Jameson Reservoir	X	X	X		X	X	X	X	X	X		X		X		X	X		X			
Agua Caliente Canyon	X	X		X	X	X	X	X	X	X		X		X					X			
Mono Creek	X	X		X	X	X	X	X	X	X	X	X		X					X			
Indian Creek	X	X		X	X	X	X	X	X	X	X	X	X	X					X			
Santa Cruz Creek	X	X		X	X	X	X	X	X	X	X	X		X					X			
Cachuma Creek	X				X	X	X	X	X	X	X	X		X					X			
SOUTH COAST HYDROLOGIC UNIT																						
Canada Honda Creek Estuary						X	X	X	X	X	X	X	X	X	X				X			X
Canada Honda Creek	X	X			X	X	X	X	X	X	X	X		X		X			X			
Canada Agua Viva	X				X	X	X	X		X					X	X			X			
Water Canyon Creek	X				X	X	X	X		X			X		X	X			X			
Canada del Jolloru	X					X	X	X		X					X	X			X			
Jalama Creek Estuary						X	X	X		X	X	X	X	X	X				X			X
Jalama Creek	X	X			X	X	X	X		X		X				X			X			
Escondido Creek	X				X	X	X	X	X	X	X	X		X					X			
Gasper Creek	X				X	X	X	X		X									X			
Espada Creek	X				X	X	X	X		X									X			
Wood Canyon Creek	X				X	X	X	X		X					X	X			X			
Canada del Cojo	X				X	X	X	X		X					X	X			X			
Barranca Honda	X	X			X	X	X	X		X				X	X	X			X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
Arroyo Bulito	X	X			X	X	X	X		X					X	X			X			
Canada de Santa Anita	X	X			X	X	X	X		X					X	X			X			
Canada del Sacate	X	X			X	X	X	X		X					X	X			X			
Canada Alegria	X				X	X	X	X		X					X	X			X			
Canada del Agua Caliente	X	X			X	X	X	X	X	X					X	X			X			
Canada de la Gaviota	X	X			X	X	X	X	X	X	X	X	X	X	X	X			X			
Canada San Onofre	X					X	X	X	X	X	X	X		X	X	X			X			
Canada del Molino	X					X	X	X		X				X	X	X			X			
Arroyo Hondo	X					X	X	X	X	X	X	X		X	X	X			X			
Arroyo Quenado	X	X				X	X	X	X		X	X		X	X	X			X			
Tajigas Creek	X	X			X	X	X	X	X	X	X	X		X	X	X			X			
Canada del Refugio	X	X			X	X	X	X	X	X	X	X	X	X	X	X			X			
Canada del Capitan	X	X			X	X	X	X	X	X	X	X	X	X	X	X			X			
Dos Pueblos Canyon Creek	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X			X			
Tecolote Creek	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X			X			
Devereaux Ranch Lagoon						X	X	X		X	X	X	X	X	X				X			X
Devereaux Creek	X				X	X	X	X		X						X			X			
Goleta Point Marsh						X	X	X		X		X	X	X					X			
Goleta Slough/Estuary						X	X	X		X	X	X	X	X	X				X			X
Carneros Creek	X	X			X	X	X	X	X	X						X			X			
Tecolotito Creek	X				X	X	X	X	X	X	X					X			X			
Glen Anne Creek	X	X	X	X	X	X	X	X	X	X	X	X		X		X			X			
Los Caneros Wetland					X	X	X	X		X		X		X					X			
Los Caneros	X	X			X	X	X	X		X		X		X		X			X			
Atascadero Creek (SB)	X	X			X	X	X	X	X	X	X	X		X		X			X			
Maria Ygnacio Creek	X	X			X	X	X	X	X		X	X							X			
San Antonio Creek (S Barbara County)	X	X			X	X	X	X	X	X	X	X		X					X			
San Jose Creek (S Barbara County)	X	X			X	X	X	X	X	X	X	X		X		X			X			
Las Vegas Creek	X				X	X	X	X	X	X									X			
San Pedro Creek	X	X			X	X	X	X	X	X	X					X			X			
Las Palmas Creek	X				X	X	X	X		X									X			
Arroyo Burro Estuary						X	X	X		X		X			X				X			
Arroyo Burro Creek	X				X	X	X	X		X		X	X	X		X			X			
Mission Creek	X				X	X	X	X	X	X	X	X		X	X	X			X			
Rattlesnake Canyon	X				X	X	X	X	X	X	X	X							X			
Waste Slough					X	X	X	X		X		X							X			
Sycamore Creek	X	X			X	X	X	X	X	X	X	X		X	X	X			X			
Andree Clark Bird Refuge						X	X	X		X			X	X					X			X
San Ysidro Creek	X				X	X	X	X		X					X	X			X			
Romero Creek	X				X	X	X	X		X					X	X			X			
Toro Canyon Creek	X				X	X	X	X		X					X	X			X			
Arroyo Paredon	X	X			X	X	X	X		X	X	X		X	X	X			X			

Table 2-1. Identified Uses of Inland Surface Waters

Waterbody Names	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
Carpinteria Marsh (El Estero Marsh)						X	X	X		X	X	X	X	X	X				X			
Santa Monica Creek	X	X			X	X	X	X	X	X		X	X			X			X			
Franklin Creek	X	X			X	X	X	X	X	X	X	X		X		X			X			
Carpinteria Creek	X	X			X	X	X	X	X	X	X	X	X	X	X	X			X			
Gobernador Creek	X				X	X	X	X	X	X		X							X			
Steer Creek	X					X	X	X	X	X	X	X							X			
Rincon Creek	X	X			X	X	X	X	X	X	X	X		X	X	X			X			
SANTA BARBARA CHANNEL HYDROLOGIC UNIT																						
SANTA ROSA ISLAND																						
Canada Lobos Creek	X	X				X	X	X		X			X	X					X			
Old Ranch Canyon Creek	X	X				X	X	X		X			X	X		X			X			
Arlington Canyon Creek	X	X				X	X	X		X			X	X					X			
Water Canyon Creek	X	X				X	X	X		X			X	X					X			
Cow Canyon Creek	X	X				X	X	X		X			X	X					X			
Clapp Springs	X	X				X	X	X		X			X	X					X			
Old Ranch Canyon Creek Estuaries		X				X	X	X		X			X	X	X				X			
Old Ranch House Canyon Creek	X	X				X	X	X		X			X	X		X			X			
Cherry Canyon Creek	X	X				X	X	X		X			X	X					X			
SANTA CRUZ ISLAND																						
Willow Canyon Creek	X					X	X	X		X			X	X					X			
Coches Prieto Canyon Creek	X					X	X	X		X			X	X					X			
Almos Anchorage Canyon Creek	X					X	X	X		X			X	X					X			
Canada del Puerta (Prisoner Harbor)	X					X	X	X		X			X	X					X			
Canada Larga Creek	X					X	X	X		X			X	X					X			
Upper Pozo Canyon Creek	X					X	X	X		X			X	X					X			
Sauces Canyon Creek	X					X	X	X		X			X	X					X			
Twin Harbors Canyon Ck, (E. Fork)	X					X	X	X		X			X	X					X			
Lady's Harbor Canyon Creek	X					X	X	X		X			X	X					X			
ESTRELLA RIVER HYDROLOGIC UNIT																						
Estrella River	X	X			X	X	X	X		X		X							X			
San Juan Creek	X	X			X	X	X	X		X				X					X			
Chalome Creek	X	X			X	X	X	X		X				X					X			
Little Chalome Creek	X	X			X	X	X	X		X				X					X			

Figure 2-1. Central Coast Hydrologic Planning Area

FIGURE 2-1. CENTRAL COAST HYDROLOGIC PLANNING AREA

Table 2-2. Existing and Anticipated Uses of Coastal Waters[a]

Coastal Water	REC-1	REC-2	IND	NAV	MAR	SHELL	COMM	RARE	ASBS	WILD
Pescadero Pt. to Pt. Ano Nuevo		E	E	E	E	E	E	E	E	E
Pt. Ano Nuevo to Soquel Pt.	E	E	E	E	E	E	E	E		
Pt. Ano Nuevo and Island	E	E	E	E	E	E				
Santa Cruz Harbor	E	E	E	E	E		E			
San Lorenzo Esturary	E	E		E	E	E	E	E		
Soquel Pt. to Salinas River	E	E	E	E	E	E	E	E		E
Elkhorn Slough[b]	E	E	E	E	E	E		E		
Moss Landing Harbor	E	E	E	E	E	E[c]	E	E		E
Salinas River to Pt. Pinos	E	E	E	E	E	E	E	E		
Monterey Harbor	A	E	E	E	E	E	A	E		
Pacific Grove Marine Gardens	E	E	E		E	E	E	E		
Hopkins Marine Life Refuge	E	E	E		E	E	E	E		
Pt. Pinos to Pt. Piedras Blancas	E	E		E	E		E	E		E
Carmel Bay	E	E	E		E	E	E	E		
Pt. Lobos State Reserve	E	E	E	E	E	E				
Pt. Sur	E	E	E	E	E	E				
Pfeiffer-Burns State Park	E	E	E	E	E	E				
Ocean Area Surrounding Salmon Creek	E	E	E		E	E				
Pt. Piedras Blancas to Pt. Estero		E	E		E	E	E	E	E	E
Estero Bay	E	E	E	E	E	E	E	E		E
Morro Bay	E	E	E	E	E	E	E	E		E
Pt. Buchon to Pt. San Luis	E	E	E	E	E	E	E	E		
Pt. San Luis to Pt. Sal	E	E	E	E	E	E	E	E		E
Pt. Sal to Pt. Arguello	E	E		E	E	E	E	E		
Pt. Arguello to Coal Oil Pt.	E	E	E	E	E	E	E			
Coal Oil Pt. to Rincon Pt.	E	E	E	E	E	E	E	E		E
Goleta Slough	E	E	E	E		E		E		
Santa Barbara Harbor	E	E	E	E	E		E			
Beach Parks	E	E		E	E					
San Miguel Island	E	E		E	E	E	E	E	E	E
Santa Rosa Island	E	E		E	E	E	E		E	E
Santa Cruz Island	E	E		E	E	E	E	E	E	E
El Estero	E	E	E	E		E		E		

a This table lists selected coastal segments. It is not a complete inventory for the Central Coast Region. Unlisted water bodies have implied beneficial use designations for protection of both recreation and aquatic life.

b Elkhorn Slough has been designated an ecological reserve by the California Department of Fish and Game, and recognized as a National Estuary Sanctuary by the Federal Government.

c Clamming is an existing beneficial use in the North Harbor and on the south side of the entrance channel to Elkhorn Slough (north of the Pacific Gas and Electric Cooling Water Intake). Presently, no shellfishing use occurs south of the Pacific Gas and Electric Intake.

NOTES: E = Existing beneficial water use
A = Anticipated beneficial water use

Table 2-3. Central Coastal Ground Water Basins[a]

Name	County
Ano Nuevo Area (3-20)	San Mateo
Arroyo de la Cruz Valley (3-34)	San Luis Obispo
Arroyo Grande Valley-Nipoma Mesa Area (3-11)	San Luis Obispo
Big Spring Area (3-47)	San Luis Obispo
Bitter Water Valley (3-30)	San Benito
Careaga Sand Highlands (3-48)	Santa Barbara
Carmel Valley (3-7)	Monterey
Carpinteria Basin (3-18)	Santa Barbara
Carrizo Plain (3-19)	San Luis Obispo
Cayucos Valley (3-38)	San Luis Obispo
Cholame Valley (3-5)	Monterey, San Luis Obispo
Chorro Valley (3-42)	San Luis Obispo
Corral de Tierra Area (3-4.10)	Monterey
Cuyama Valley (3-13)	Kern, San Luis Obispo, Santa Barbara, Ventura
Dry Lake Valley (3-29)	Benito
Gilroy-Hollister Valley (3-3)	Benito, Santa Clara
Goleta Basin (3-16)	Santa Barbara
Hernandez Valley (3-31)	Benito
Huasna Valley (3-45)	San Luis Obispo
Langley Area (3-4.09)	Monterey
Lockwood Valley (3-6)	Monterey
Los Osos Valley (3-8)	San Luis Obispo
Montecito Area (3-49)	Santa Barbara
Morro Valley (3-41)	San Luis Obispo
Old Valley (3-39)	San Luis Obispo
Pajaro Valley (3-2)	Monterey, Santa Cruz
Paso Robles Basin (3-4.06)	Monterey, San Luis Obispo
Peach Tree Valley (3-32)	San Benito
Pismo Creek Valley (3-10)	San Luis Obispo
Pozo Valley (3-44)	San Luis Obispo
Quien Sabe Valley (3-24)	San Benito
Rafael Valley (3-46)	San Luis Obispo
Rinconada Valley (3-43)	San Luis Obispo
Salinas Valley (3-4)	Monterey
San Antonio Creek Valley (3-14)	Santa Barbara
San Benito River Valley (3-28)	San Benito
San Carpoforo Valley (3-33)	San Luis Obispo
San Luis Obispo Valley (3-9)	San Luis Obispo
San Simeon Valley (3-35)	San Luis Obispo
Santa Ana Valley (3-22)	San Benito
Santa Barbara Basin (3-17)	Santa Barbara
Santa Cruz Purisima Formation Highlands (3-21)	Santa Cruz
Santa Maria River Valley (3-12)	San Luis Obispo, Santa Barbara
Santa Rosa Valley (3-36)	San Luis Obispo
Santa Ynez River Valley (3-15)	Santa Barbara
Scotts Valley (3-27)	Santa Cruz
Seaside Area (3-4.08)	Monterey
Soquel Valley (3-1)	Santa Cruz
Toro Valley (3-40)	San Luis Obispo
Tres Pinos Creek Valley (3-25)	San Benito
Upper Santa Ana Valley (3-23)	San Benito
Villa Valley (3-37)	San Luis Obispo
West Santa Cruz Terrace (3-26)	Santa Cruz

a Basin number locations identified on Figure 2-2.

Figure 2-2. Central Coast Groundwater Basins

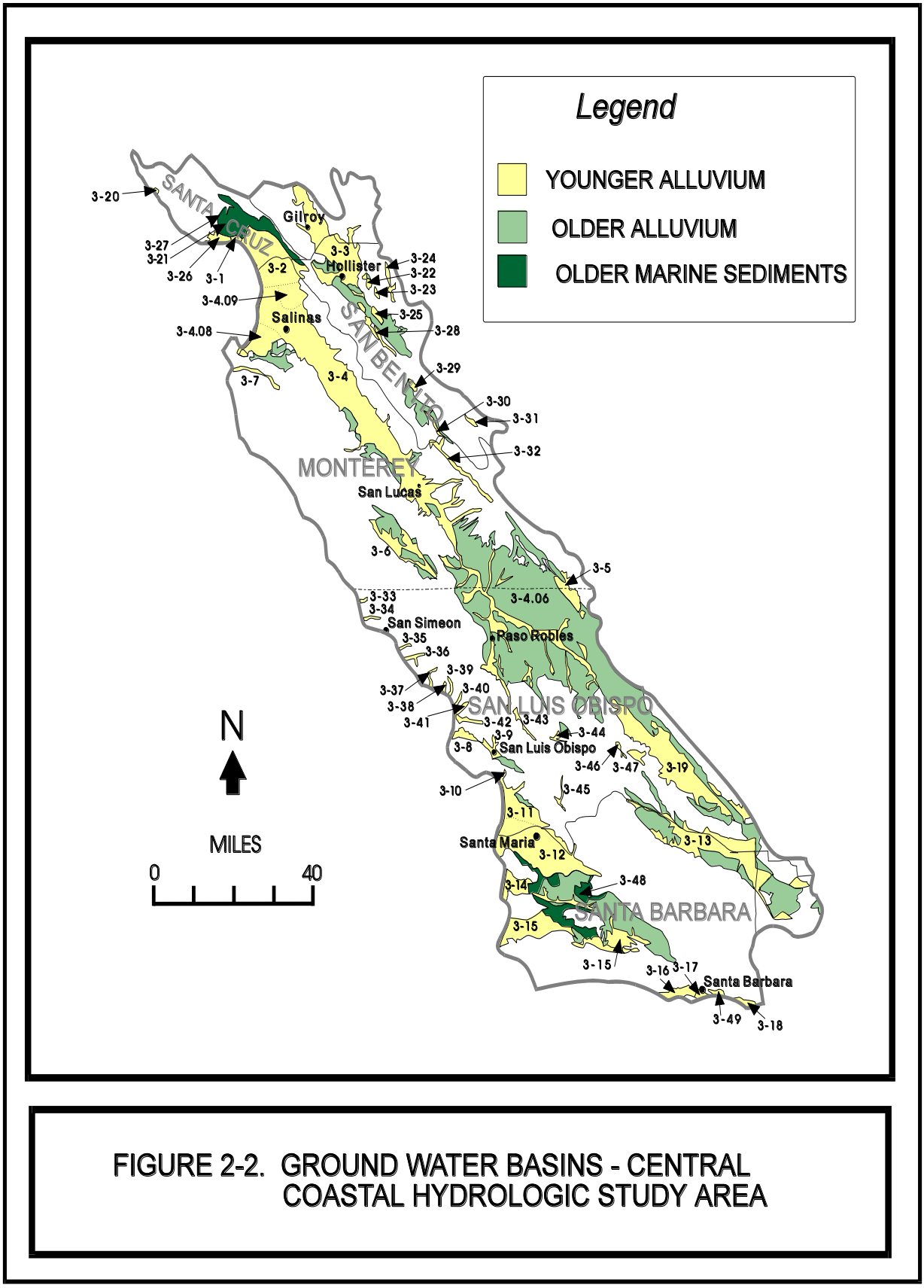

FIGURE 2-2. GROUND WATER BASINS - CENTRAL COASTAL HYDROLOGIC STUDY AREA

d. The water is in collection or treatment systems of municipal or industrial wastewaters, process waters, mining wastewaters, or storm water runoff; and
e. The water is in systems for conveying or holding agricultural drainage waters.

Agricultural Supply (AGR) - Uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.

Industrial Process Supply (PROC) - Uses of water for industrial activities that depend primarily on water quality (i.e., waters used for manufacturing, food processing, etc.).

Industrial Service Supply (IND) - Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well repressurization.

Ground Water Recharge (GWR) - Uses of water for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers. Ground water recharge includes recharge of surface water underflow.

Freshwater Replenishment (FRSH) - Uses of water for natural or artificial maintenance of surface water quantity or quality (e.g., salinity) which includes a water body that supplies water to a different type of water body, such as, streams that supply reservoirs and lakes, or estuaries; or reservoirs and lakes that supply streams. This includes only immediate upstream water bodies and not their tributaries.

Navigation (NAV) - Uses of water for shipping, travel, or other transportation by private, military, or commercial vessels. This Board interprets NAV as, "Any stream, lake, arm of the sea, or other natural body of water that is actually navigable and that, by itself, or by its connections with other waters, for a period long enough to be of commercial value, is of sufficient capacity to float watercraft for the purposes of commerce, trade, transportation, and including pleasure; or any waters that have been declared navigable by the Congress of the United States" and/or the California State Lands Commission.

Hydropower Generation (POW) - Uses of water for hydropower generation.

Water Contact Recreation (REC-1) - Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.

Non-Contact Water Recreation (REC-2) - Uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.

Commercial and Sport Fishing (COMM) - Uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes.

Aquaculture (AQUA) - Uses of water for aquaculture or mariculture operations including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption or bait purposes.

Warm Fresh Water Habitat (WARM) - Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

Cold Fresh Water Habitat (COLD) - Uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish or wildlife, including invertebrates.

Inland Saline Water Habitat (SAL) - Uses of water that support inland saline water ecosystems including, but not limited to, preservation or enhancement of aquatic saline habitats, vegetation, fish, or wildlife, including invertebrates. Soda Lake is a saline habitat typical of desert lakes in inland sinks.

Estuarine Habitat (EST) - Uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds). An estuary is generally described as a semi-enclosed body of water having a free connection with the open sea, at least part of the year and within which the seawater is diluted at least seasonally with fresh water drained from the land. Included are water bodies which would naturally fit the definition if not controlled by tidegates or other such devices.

Marine Habitat (MAR) - Uses of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).

Wildlife Habitat (WILD) - Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

Preservation of Biological Habitats of Special Significance (BIOL) - Uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection.

Rare, Threatened, or Endangered Species (RARE) - Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered.

Migration of Aquatic Organisms (MIGR) - Uses of water that support habitats necessary for migration or other temporary activities by aquatic organisms, such as anadromous fish.

Spawning, Reproduction, and/or Early Development (SPWN) - Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.

Shellfish Harvesting (SHELL) - Uses of water that support habitats suitable for the collection of filter-feeding shellfish (e.g., clams, oysters, and mussels) for human consumption, commercial, or sport purposes. This includes waters that have in the past, or may in the future, contain significant shellfisheries.

Areas of Special Biological Significance (ASBS) - are those areas designated by the State Water Resources Control Board as requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable.

The following areas have been designated Areas of Special Biological Significance in the Central Coastal Basin:

1. Ano Nuevo Point and Island, San Mateo County

2 Pacific Grove Marine Gardens Fish Refuge and Hopkins Marine Life Refuge, Monterey County

3. Point Lobos Ecological Reserve, Monterey County

4. Carmel Bay, Monterey County

5 Julia Pfeiffer Burns Underwater Park, Monterey County

6. Ocean area surrounding the mouth of Salmon Creek, Monterey County

7. Channel Islands, Santa Barbara County - San Miguel, Santa Rosa, Santa Cruz

An ASBS designation implies the following requirements:

Discharge of elevated temperature wastes in a manner that would alter water quality conditions from those occurring naturally will be prohibited.

Discharge of discrete, point source sewage or industrial process wastes in a manner that would alter water quality conditions from those occurring naturally will be prohibited.

Discharge of waste from nonpoint sources, including but not limited to storm water runoff, silt, and urban runoff, will be controlled to the extent practicable. In control programs for waste from nonpoint sources, Regional Boards will give high priority to areas tributary to ASBS.

Further information concerning ASBS areas can be found by reviewing Regional Board Policies in Chapter Five.

CHAPTER 3. WATER QUALITY OBJECTIVES

Section 13241, Division 7 of the California Water Code specifies that each Regional Water Quality Control Board shall establish water quality objectives which, in the Regional Board's judgment, are necessary for the reasonable protection of beneficial uses and for the prevention of nuisance.

Section 303 of the 1972 Amendments to the federal Water Pollution Control Act requires the State to submit to the Administrator of the U.S. Environmental Protection Agency (U.S. EPA) for approval, all new or revised water quality standards which are established for surface and ocean waters. Under federal terminology, water quality standards consist of beneficial uses enumerated in Chapter Two and water quality objectives contained in this chapter.

Water quality objectives contained herein are designed to satisfy all State and federal requirements.

As new information becomes available, the Regional Board will review the appropriateness of objectives contained herein. These objectives are subject to public hearing at least once during each three-year period following adoption of this plan for the purpose of review and modification as appropriate.

I. CONSIDERATIONS IN SELECTING WATER QUALITY OBJECTIVES

The aforementioned 1972 Amendments to the federal Water Pollution Control Act declare that a national goal is elimination of discharge of pollutants into navigable waters.

A prerequisite to water quality control planning is the establishment of a base or reference point. The base in this instance was various general and specific water quality criteria previously found acceptable for particular beneficial uses or selected sources of waste. Current technical guidelines, available historical data, and enforcement feasibility were given full consideration in formulating water quality objectives.

A distinction is made here between the terms "water quality objectives" and "water quality standards". Water quality objectives have been adopted by the State and, when applicable, extended as federal water quality standards. Water quality standards, previously mentioned in this chapter's introduction, pertain to navigable waters and become legally enforceable criteria when accepted by the U.S. EPA Regional Administrator.

Point and nonpoint water pollution sources described herein have the same meaning as defined in the federal Water Pollution Control Act. Point sources are waste loads from identifiable sources such as municipal discharges, industrial discharges, vessels, controllable storm waters, fish hatchery discharges, confined animal operations, and agricultural drains. Nonpoint sources are waste loads resulting from land use practices where wastes are not collected and disposed of in any readily identifiable manner. Examples include: urban drainage, agricultural runoff, road construction activities, mining, grassland management, logging and other harvest activities, and natural sources such as effects of fire, flood, and landslide. The distinction between point sources and diffuse sources is not always clear but generally applies to the practicality of waste load control.

Water quality objectives for the Central Coastal Basin satisfy State and federal requirements to protect waters for the beneficial uses in Chapter Two and are consistent with all existing statewide plans and policies.

II. WATER QUALITY OBJECTIVES

The water quality objectives which follow supersede and replace those contained in the 1967 Water Quality Control Policies; the Interim Water Quality Control Plan for the Central Coastal Basin adopted by the Regional Board in 1971, including all existing revisions; and the Water Quality Control Plan Report for the Central Coastal Basin, adopted by the Regional Board in 1974.

Controllable water quality shall conform to the water quality objectives contained herein. When other conditions cause degradation of water quality beyond the levels or limits established as water quality objectives, controllable conditions shall not cause further degradation of water quality.

Controllable water quality conditions are those actions or circumstances resulting from man's activities that may influence the quality of the waters of the State and that may be reasonably controlled.

Water quality objectives are considered to be necessary to protect those present and probable future beneficial uses enumerated in Chapter Two of this plan and to protect existing high quality waters of the State. These objectives will be achieved primarily through the establishment of waste discharge requirements and through implementation of this water quality control plan.

In setting waste discharge requirements, the Regional Board will consider the potential impact on beneficial uses within the area of influence of the discharge, the existing quality of receiving waters, and the appropriate water quality objectives. The Regional Board will make a finding of beneficial uses to be protected and establish waste discharge requirements to protect those uses and to meet water quality objectives.

Several water quality objectives listed herein originate from the California Code of Regulations, Title 22. If Title 22 concentrations are amended, Basin Plan objectives are automatically amended to correspond with the new regulations.

II.A. ANTI-DEGRADATION POLICY

Wherever the existing quality of water is better than the quality of water established herein as objectives, such existing quality shall be maintained unless otherwise provided by the provisions of the State Water Resources Control Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," including any revisions thereto. A copy of this policy is included in the Appendix.

II.A.1. OBJECTIVES FOR OCEAN WATERS

The provisions of the State Board's "Water Quality Control Plan for Ocean Waters of California" (Ocean Plan), "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" (Thermal Plan), and any revisions thereto shall apply in their entirety to affected waters of the basin. The Ocean and Thermal Plans shall also apply in their entirety to Monterey Bay and Carmel Bay. Copies of these plans are included verbatim in the Appendix.

In addition to provisions of the Ocean Plan and Thermal Plan, the following objectives shall also apply to all ocean waters, including Monterey and Carmel Bays:

<u>Dissolved Oxygen</u>

The mean annual dissolved oxygen concentration shall not be less than 7.0 mg/l, nor shall the minimum dissolved oxygen concentration be reduced below 5.0 mg/l at any time.

<u>pH</u>

The pH value shall not be depressed below 7.0, nor raised above 8.5.

<u>Radioactivity</u>

Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent which

presents a hazard to human, plant, animal, or aquatic life.

II.A.2. OBJECTIVES FOR ALL INLAND SURFACE WATERS, ENCLOSED BAYS, AND ESTUARIES

II.A.2.a. GENERAL OBJECTIVES

The following objectives apply to all inland surface waters, enclosed bays, and estuaries of the basin:

Color

Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. Coloration attributable to materials of waste origin shall not be greater than 15 units or 10 percent above natural background color, whichever is greater.

Tastes and Odors

Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.

Floating Material

Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.

Suspended Material

Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.

Settleable Material

Waters shall not contain settleable material in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses.

Oil and Grease

Waters shall not contain oils, greases, waxes, or other similar materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.

Biostimulatory Substances

Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

Sediment

The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

Turbidity

Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.

Increase in turbidity attributable to controllable water quality factors shall not exceed the following limits:

1. Where natural turbidity is between 0 and 50 Jackson Turbidity Units (JTU), increases shall not exceed 20 percent.

2. Where natural turbidity is between 50 and 100 JTU, increases shall not exceed 10 JTU.

3. Where natural turbidity is greater than 100 JTU, increases shall not exceed 10 percent.

Allowable zones of dilution within which higher concentrations will be tolerated will be defined for each discharge in discharge permits.

pH

For waters not mentioned by a specific beneficial use, the pH value shall not be depressed below 7.0 or raised above 8.5.

Dissolved Oxygen

For waters not mentioned by a specific beneficial use, dissolved oxygen concentration shall not be reduced below 5.0 mg/l at any time. Median values should not fall below 85 percent saturation as a result of controllable water quality conditions.

Temperature

Temperature objectives for Enclosed Bays and Estuaries are as specified in the "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" including any revisions thereto. A copy of this plan is included in the Appendix.

Natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.

Toxicity

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods as specified by the Regional Board.

Survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality conditions, shall not be less than that for the same water body in areas unaffected by the waste discharge or, when necessary, for other control water that is consistent with the requirements for "experimental water" as described in Standard Methods for the Examination of Water and Wastewater, latest edition. As a minimum, compliance with this objective shall be evaluated with a 96-hour bioassay.

In addition, effluent limits based upon acute bioassays of effluents will be prescribed where appropriate, additional numerical receiving water objectives for specific toxicants will be established as sufficient data become available, and source control of toxic substances is encouraged.

The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/l (as N) in receiving waters.

Pesticides

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

For waters where existing concentrations are presently nondetectable or where beneficial uses would be impaired by concentrations in excess of nondetectable levels, total identifiable chlorinated hydrocarbon pesticides shall not be present at concentrations detectable within the accuracy of analytical methods prescribed in Standard Methods for the Examination of Water and Wastewater, latest edition, or other equivalent methods approved by the Executive Officer.

Chemical Constituents

Where wastewater effluents are returned to land for irrigation uses, regulatory controls shall be consistent with Title 22 of the California Code of Regulations and other relevant local controls.

Other Organics

Waters shall not contain organic substances in concentrations greater than the following:

Methylene Blue Activated Substances	0.2 mg/l
Phenols	0.1 mg/l
PCB's	0.3 μg/l
Phthalate Esters	0.002 μg/l

Radioactivity

Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life.

MUNICIPAL AND DOMESTIC SUPPLY (MUN)

pH

The pH value shall neither be depressed below 6.5 nor raised above 8.3.

Organic Chemicals

All inland surface waters, enclosed bays, and estuaries shall not contain concentrations of organic chemicals in excess of the limiting concentrations set forth in California Code of Regulations, Title 22, Chapter 15, Article 5.5, Section 64444.5, Table 5 and listed in Table 3-1.

Chemical Constituents

Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2.

Phenol

Waters shall not contain phenol concentrations in excess of 1.0 μg/l.

Radioactivity

Waters shall not contain concentrations of radionuclides in excess of the limits specified in California Code of Regulations, Title 22, Chapter 15, Article 5, Sections 64441 and 64443, Table 4.

AGRICULTURAL SUPPLY (AGR)

pH

The pH value shall neither be depressed below 6.5 nor raised above 8.3.

Dissolved Oxygen

Dissolved oxygen concentration shall not be reduced below 2.0 mg/l at any time.

Chemical Constituents

Waters shall not contain concentrations of chemical constituents in amounts which adversely affect the agricultural beneficial use. Interpretation of adverse effect shall be as derived from the University of California Agricultural Extension Service guidelines provided in Table 3-3.

In addition, waters used for irrigation and livestock watering shall not exceed concentrations for those chemicals listed in Table 3-4. Salt concentrations for irrigation waters shall be controlled through implementation of the anti-degradation policy to the effect that mineral constituents of currently or potentially usable waters shall not be increased. It is emphasized that no controllable water quality factor shall degrade the quality of any ground water resource or adversely affect long-term soil productivity.

Where wastewater effluents are returned to land for irrigation uses, regulatory controls shall be consistent with Title 22 of the California Code of Regulations and with relevant controls for local irrigation sources.

WATER CONTACT RECREATION (REC-1)

pH

The pH value shall neither be depressed below 6.5 nor raised above 8.3.

Table 3-1. Organic Concentrations Not to be Exceeded in Domestic or Municipal Supply

Constituent		Maximum Contaminant Level (MCL), mg/l
(a)	Chlorinated Hydrocarbons	
	Endrin	0.0002
	Lindane	0.004
	Methoxychlor	0.1
	Toxaphene	0.005
(b)	Chlorophenoxys	
	2,4-D	0.1
	2,4,5-TP Silvex	0.01
(c)	Synthetics	
	Atrazine	0.003
	Bentazon	0.018
	Benzene	0.001
	Carbon Tetrachloride	0.0005
	Carbofuran	0.018
	Chlordane	0.0001
	1,2-Dibromo-3-chloropropane	0.0002
	1,4-Dichlorobenzene	0.005
	1,1-Dichloroethane	0.005
	1,2-Dichloroethane	0.0005
	cis-1,2-Dichloroethylene	0.006
	trans-1,2-Dichloroethylene	0.01
	1,1-Dichloroethylene	0.006
	1,2-Dichloropropane	0.005
	1,3-Dichloropropene	0.0005
	Di(2-ethylhexyl) phthalate	0.004
	Ethylbenzene	0.680
	Ethylene Dibromide	0.00002
	Glyphosate	0.7
	Heptachlor	0.00001
	Heptachlor epoxide	0.00001
	Molinate	0.02
	Monochlorobenzene	0.030
	Simazine	0.010
	1,1,2,2-Tetrachloroethane	0.001
	Tetrachloroethylene	0.005
	Thiobencarb	0.07
	1,1,1-Trichloroethane	0.200
	1,1,2-Trichloroethane	0.032
	Trichloroethylene	0.005
	Trichlorofluromethane	0.15
	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.2
	Vinyl Chloride	0.0005
	*Xylenes	1.750

* MCL is for either a single isomer or the sum of the isomers.

Table 3-2. Inorganic and Fluoride Concentrations Not to be Exceeded in Domestic or Municipal Supply

Constituent	Limiting Concentration ,mg/l			
	Lower	Optimum	Upper	Maximum Contaminant Level
Temperature °F*	Fluoride			
53.7° and below	0.9	1.2	1.7	2.4
53.8° to 58.3°	0.8	1.1	1.5	2.2
58.4° to 63.8°	0.8	1.0	1.3	2.0
63.9° to 70.6°	0.7	0.9	1.2	1.8
70.7° to 79.2°	0.7	0.8	1.0	1.6
79.3° to 90.5°	0.6	0.7	0.8	1.4
Inorganic Chemicals				Maximum Contaminant Level
Aluminum				1
Arsenic				0.05
Barium				1
Cadmium				0.010
Chromium				0.05
Lead				0.05
Mercury				0.002
Nitrate (as NO3)				45
Selenium				0.01
Silver				0.05

*Annual Average of Maximum Daily Air Temperature, ^{o}F based on temperature data obtained for a minimum of five years.

Table 3-3. Guidelines for Interpretation of Quality of Water for Irrigation[a]

Problem and Related Constituent	No Problem	Water Quality Guidelines Increasing Problems	Severe
Salinity[b]			
EC of irrigation water, mmho/cm	<0.75	0.75 - 3.0	>3.0
Permeability			
EC of irrigation water, mmho/cm	>0.5	<0.5	<0.2
SAR, adjusted[c]	<6.0	6.0 - 9.0	>9.0
Specific ion toxicity from root absorption [d]			
Sodium (evaluate by adjusted SAR)	<3	3.0 - 9.0	>9.0
Chloride			
me/l	<4	4.0 - 10	>10
mg/l	<142	142 - 355	>355
Boron, mg/l	<0.5	0.5 - 2.0	2.0 - 10.0
Specific ion toxicity from foliar absorption[e](sprinklers)			
Sodium			
me/l	<3.0	>3.0	--
mg/l	<69	>69	--
Chloride			
me/l	<3.0	>3.0	--
mg/l	<106	>106	--
Miscellaneous[f]			
NH4 - N, mg/l for sensitive crops	<5	5 - 30	>30
NO3 - N, mg/l for sensitive crops	<5	5 - 30	>30
HCO3 (only with overhead sprinklers)			
me/l	<1.5	1.5 - 8.5	>8.5
mg/l	<90	90 - 520	>520
pH	Normal range	6.5 - 8.4	--

a Interpretations are based on possible effects of constituents on crops and/or soils. Guidelines are flexible and should be modified when warranted by local experience or special conditions of crop, soil, and method of irrigation.

b Assumes water for crop plus needed water for leaching requirement (LR) will be applied. Crops vary in tolerance to salinity. Refer to tables for crop tolerance and LR. The mmho/cm x 640 = approximate total dissolved solids (TDS) in mg/l or ppm; mmho x 1,000 = micromhos.

c Adjusted SAR (sodium adsorption ratio) is calculated from a modified equation developed by U.S. Salinity Laboratory to include added effects of precipitation and dissolution of calcium in soils and related to CO_3 + HCO_3 concentrations.

To evaluate sodium (permeability) hazard: Adjusted SAR = Na/[1/2 (Ca + Mg)] $^{1/2}$[1+ (8.4 - pHc)].
Refer to Appendix for calculation assistance.

SAR can be reduced if necessary by adding gypsum. Amount of gypsum required (GR) to reduce a hazardous SAR to any desired SAR (SAR desired) can be calculated as follows:

$$GR = \left[\frac{2(Na)^2}{SAR^2\, desired} - (Ca + Mg) \right] 234$$

Note: Na and Ca + Mg should be in me/l. GR will be in lbs. of 100 percent gypsum per acre foot of applied water.

d Most tree crops and woody ornamentals are sensitive to sodium and chloride (use values shown). Most annual crops are not sensitive (use salinity tolerance tables). For boron sensitivity, refer to boron tolerance tables.

e Leaf areas wet by sprinklers (rotating heads) may show a leaf burn due to sodium or chloride absorption under low humidity/high evaporation conditions. (Evaporation increases ion concentration in water films on leaves between rotations of sprinkler heads.)

f Excess N may affect production or quality of certain crops; e.g., sugar beets, citrus, avocados, apricots, etc.
(1 mg/l NO_3 - N = 2.72 lbs. N/acre foot of applied water.) HCO_3 with overhead sprinkler irrigation may cause a white carbonate deposit to form on fruit and leaves.

Table 3-4. Water Quality Objectives for Agricultural Water Use

ELEMENT	Maximum Concentration (mg/l)[a] Irrigation supply[b]	Livestock watering
Aluminum	5.0	5.0
Arsenic	0.1	0.2
Beryllium	0.1	--
Boron	0.75	5.0
Cadmium	0.01	0.05
Chromium	0.10	1.0
Cobalt	0.05	1.0
Copper	0.2	0.5
Fluoride	1.0	2.0
Iron	5.0	--
Lead	5.0	0.1[c]
Lithium	2.5[d]	--
Manganese	0.2	--
Mercury	--	0.01
Molybdenum	0.01	0.5
Nickel	0.2	--
Nitrate + Nitrite	--	100
Nitrite	--	10
Selenium	0.02	0.05
Vanadium	0.1	0.10
Zinc	2.0	25

a. Values based primarily on "Water Quality Criteria 1972" National Academy of Sciences-National Academy of Engineers, Environmental Study Board, ad hoc Committee on Water Quality Criteria furnished as recommended guidelines by University of California Agriculture Extension Service, January 7, 1974; maximum values are to be considered as 90 percentile values not to be exceeded.

b. Values provided will normally not adversely affect plants or soils; no data available for mercury, silver, tin, titanium, and tungsten.

c. Lead is accumulative and problems may begin at threshold value (0.05 mg/l).

d. Recommended maximum concentration for irrigation citrus is 0.075 mg/l.

Bacteria

Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of total samples during any 30-day period exceed 400/100 ml.

NON-CONTACT WATER RECREATION (REC-2)

pH

The pH value shall neither be depressed below 6.5 nor raised above 8.3.

Bacteria

Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 2000/100 ml, nor shall more than ten percent of samples collected during any 30-day period exceed 4000/100 ml.

COLD FRESHWATER HABITAT (COLD)

pH

The pH value shall not be depressed below 7.0 or raised above 8.5. Changes in normal ambient pH levels shall not exceed 0.5 in fresh waters.

Dissolved Oxygen

The dissolved oxygen concentration shall not be reduced below 7.0 mg/l at any time.

Temperature

At no time or place shall the temperature be increased by more than 5oF above natural receiving water temperature.

Chemical Constituents

Waters shall not contain concentrations of chemical constituents known to be deleterious to fish or wildlife in excess of the limits listed in Table 3-5.

WARM FRESHWATER HABITAT (WARM)

pH

The pH value shall not be depressed below 7.0 or raised above 8.5.

Changes in normal ambient pH levels shall not exceed 0.5 in fresh waters.

Dissolved Oxygen

The dissolved oxygen concentration shall not be reduced below 5.0 mg/l at any time.

Temperature

At no time or place shall the temperature of any water be increased by more than 5oF above natural receiving temperature.

Chemical Constituents

Waters shall not contain concentrations of chemical constituents known to be deleterious to fish or wildlife in excess of the limits listed in Table 3-5.

FISH SPAWNING (SPWN)

Cadmium

Cadmium shall not exceed .003 mg/l in hard water or .0004 mg/l in soft water at any time. (Hard water is defined as water exceeding 100 mg/l CaCO3.)

Dissolved Oxygen

The dissolved oxygen concentration shall not be reduced below 7.0 mg/l at any time.

Table 3-5. Toxic Metal Concentrations not to be Exceeded in Aquatic Life Habitats, mg/l[a,b]

METAL	Freshwater (COLD, WARM) HARD (> 100 mg/l CaCO3)	SOFT (< 100 mg/l CaCO3)
Cadmium[c]	.03	.004
Chromium	.05	.05
Copper	.03	.01
Lead	.03	.03
Mercury[d]	.0002	.0002
Nickel[e]	.4	.1
Zinc	.2	.004

a. Based on limiting values recommended in the National Academy of Sciences-National Academy of Engineers "Water Quality Criteria 1972." Values are 90 percentile values except as noted in qualifying note "d."

b. Revision of Table 3-5 is currently in progress by the Regional Board.

c. Lower cadmium values not to be exceeded for crustaceans and waters designated SPWN are 0.003 mg/l in hard water and 0.0004 mg/l in soft water.

d. Total mercury values should not exceed 0.05 μg/l as an average value; maximum acceptable concentration of total mercury in any aquatic organism is a total B.O.D. burden of 0.5 μg/l wet weight.

e. Value cited as objective pertains to nickel salts (not pure metallic nickel).

MARINE HABITAT (MAR)

pH

The pH value shall not be depressed below 7.0 or raised above 8.5.

Changes in normal ambient pH levels shall not exceed 0.2 units.

Dissolved Oxygen

The dissolved oxygen concentration shall not be reduced below 7.0 mg/l at any time.

Chemical Constituents

Waters shall not contain concentrations of chemical constituents known to be deleterious to fish or wildlife in excess of limits listed in Table 3-6.

Table 3-6. Toxic Metal Concentrations Not to be Exceeded in Marine Habitats, mg/l[a]

METAL	MARINE (MAR)
Cadmium	.0002
Chromium	.05
Copper	.01
Lead	.01
Mercury[c]	.0001
Nickel[d]	.002
Zinc	.02

a. Based on limiting values recommended in the National Academy of Sciences-National Academy of Engineers "Water Quality Criteria 1972." Values are 90 percentile values except as noted in qualifying note "c."
b. Revision of Table 3-6 is currently in progress by the Regional Board.
c. Total mercury values should not exceed 0.05 μg/l as an average value; maximum acceptable concentration of total mercury in any aquatic organism is a total B.O.D. burden of 0.05 μg/l net weight.
d. Value cited as objective pertains to nickel salts (not pure metallic nickel).

SHELLFISH HARVESTING (SHELL)

Chromium

The maximum permissible value for waters designated SHELL shall be 0.01 mg/l.

Bacteria

At all areas where shellfish may be harvested for human consumption, the median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 ml, nor shall more than ten percent of the samples collected during any 30-day period exceed 230/100 ml for a five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used.

II.A.3. WATER QUALITY OBJECTIVES FOR SPECIFIC INLAND SURFACE WATERS, ENCLOSED BAYS AND ESTUARIES

Certain water quality objectives have been established for selected surface waters; these objectives are intended to serve as a water quality baseline for evaluating water quality management in the basin. Median values, shown in Table 3-7 for surface waters, are based on available data.

It must be recognized that the median values indicated in Table 3-7 are values representing gross areas of a water body. Specific water quality objectives for a particular area may not be directly related to the objectives indicated. Therefore, application of these objectives must be based upon consideration of the surface and ground water quality naturally present; i.e., waste discharge requirements must adhere to the previously stated objectives and issuance of requirements must be tempered by consideration of beneficial uses within the immediate influence of the discharge, the existing quality of receiving waters, and water quality objectives. Consideration of beneficial uses includes: (1) a specific enumeration of all beneficial uses potentially to be affected by the waste discharge, (2) a determination of the relative importance of competing beneficial uses, and (3) impact of the discharge on existing beneficial uses. The Regional Board will make a judgment as to the priority of dominant use and minimize the impact on competing uses while not allowing the discharge to violate receiving water quality objectives.

Table 3-7. Surface Water Quality Objectives, mg/l[a]

Sub-Basin/Sub-Area	TDS	Cl	SO4	B	Na
Santa Ynez					
Cachuma Reservoir	600	20	220	0.4	50
Solvang	700	50	250	0.4	60
Lompoc	1000	100	350	0.4	100
Santa Maria					
Cuyama River (Near Garey)	900	50	400	0.3	70
Sisquoc River (Near Garey)	600	20	250	0.2	50
Estero Bay					
Santa Rosa Creek	500	50	80	0.2	50
Chorro Creek	500	50	50	0.2	50
San Luis Obispo Creek	650	100	100	0.2	50
Arroyo Grande Creek	800	50	200	0.2	50
Salinas River					
Salinas River					
Above Bradley	250	20	100	0.2	20
Above Spreckles	600	80	125	0.2	70
Gabilan Tributary	300	50	50	0.2	50
Diablo Tributary	1200	80	700	0.5	150
Nacimiento River	200	20	50	0.2	20
San Antonio River	250	20	80	0.2	20
Carmel River	200	20	50	0.2	20
Monterey Coastal					
Big Sur River	200	20	20	0.2	20
Pajaro River					
at Chittenden	1000	250	250	1.0	200
San Benito River	1400	200	350	1.0	250
Llagas Creek	200	10	20	0.2	20
Big Basin					
Boulder Creek	150	10	10	0.2	20
Zayante Creek	500	50	100	0.2	40
San Lorenzo River					
Above Bear Creek	400	60	80	0.2	50
At Tait Street Check Dam	250	30	60	0.2	25

a Objectives shown are annual mean values. Objectives are based on preservation of existing quality or water quality enhancement believed attainable following control of point sources.

As part of the State's continuing planning process, data will be collected and numerical water quality objectives will be developed for those mineral and nutrient constituents where sufficient information is presently not available for the establishment of such objectives.

II.A.4. OBJECTIVES FOR GROUND WATER

II.A.4.a. GENERAL OBJECTIVES

The following objectives apply to all ground waters of the basin.

Tastes and Odors

Ground waters shall not contain taste or odor producing substances in concentrations that adversely affect beneficial uses.

Radioactivity

Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life.

MUNICIPAL AND DOMESTIC SUPPLY (MUN)

Bacteria

The median concentration of coliform organisms over any seven-day period shall be less than 2.2/100 ml.

Organic Chemicals

Ground waters shall not contain concentrations of organic chemicals in excess of the limiting concentrations set forth in California Code of Regulations, Title 22, Chapter 15, Article 5.5, Section 64444.5, Table 5 and listed in Table 3-1.

Chemical Constituents

Ground waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Chapter 15, Article 4, Section 64435, Tables 2 and 3.

Radioactivity

Ground waters shall not contain concentrations of radionuclides in excess of the limits specified in California Code of Regulations, Title 22, Chapter 15, Article 5, Section 64443, Table 4.

AGRICULTURAL SUPPLY (AGR)

Ground waters shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use. Interpretation of adverse effect shall be as derived from the University of California Agricultural Extension Service guidelines provided in Table 3-3.

In addition, water used for irrigation and livestock watering shall not exceed the concentrations for those chemicals listed in Table 3-4. No controllable water quality factor shall degrade the quality of any ground water resource or adversely affect long-term soil productivity. The salinity control aspects of ground water management will account for effects from all sources.

II.A.5. OBJECTIVES FOR SPECIFIC GROUND WATERS

Certain water quality objectives have been established for selected ground waters; these objectives are intended to serve as a water quality baseline for evaluating water quality management in the basin. The median values for ground waters are shown in Table 3-8.

The restrictions specified for Table 3-7 are applicable to the values indicated in Table 3-8; i.e., the values are at best representative of gross areas only. Ground waters in the Upper Valley of the Salinas River Sub-basin have average Total Dissolved Solids (TDS) concentrations that range from 300 mg/l to over 3000 mg/l. Therefore, application of these objectives must be consistent with the objectives previously stated in this chapter and synchronously reflect the actual ground water

quality naturally present. The Regional Board must afford full consideration to: (1) present and probable future beneficial uses affected by the waste discharge; (2) competing beneficial uses; (3) degree of impact on existing beneficial uses; (4) receiving water quality; and (5) water quality objectives, before adjudging priority of dominant use and promulgating waste discharge requirements.

As part of the State's continuing planning process, data will be collected and numerical water quality objectives will be developed for those mineral constituents where sufficient information is presently not available for the establishment of such objectives.

Table 3-8. Median Ground Water Objectives, mg/l[a]

Sub-basin/Sub-Area	TDS	Cl	SO_4	B	Na	N[b]
South Coast						
Goleta	1000	150	250	0.2	150	5
Santa Barbara	700	50	150	0.2	100	5
Carpinteria	700	100	150	0.2	100	7
Santa Ynez						
Santa Ynez	600	50	10	0.5	20	1
Santa Rita	1500	150	700	0.5	100	1
Lompoc Plain[f]	1250	250	500	0.5	250	2
Lompoc Upland[f]	600	150	100	0.5	100	2
Lompoc Terrace[f]	750	210	100	0.3	130	1
San Antonio Creek	600	150	150	0.2	100	5
Santa Maria[c]						
Upper Guadalupe[f]	1000[d]	165	500[d]	0.5	230	1.4[e]
Lower Guadalupe[f]	1000[d]	85	500[d]	0.2	90	2.0[e]
Lower Nipomo Mesa[f]	710	95	250	0.15	90	5.7[e]
Orcutt[f]	740	65	300	0.1	65	2.3[e]
Santa Maria[f]	1000[d]	90	510	0.2	105	8.0[e]
Cuyama Valley	1500	80	--	0.4	--	5
Soda Lake	[e]	[e]	[e]	[e]	[e]	[e]
Estero Bay						
Santa Rosa	700	100	80	0.2	50	5
Chorro	1000	250	100	0.2	50	5
San Luis Obispo	900	200	100	0.2	50	5
Arroyo Grande	800	100	200	0.2	50	10
Salinas River						
Upper Valley[f]	600	150	150	0.5	70	5
Upper Forebay[f]	800	100	250	0.5	100	5
Lower Forebay[f]	1500	250	850	0.5	150	8
180 foot Aquifer[f]	1500	250	600	0.5	250	1
400 foot Aquifer[f]	400	50	100	0.2	50	1
Paso Robles[g]						
Central Basin[f]	400	60	45	0.3	80	3.4
San Miguel[f]	750	100	175	0.5	105	4.5
Paso Robles[f]	1050	270	200	2.0	225	2.3
Templeton[f]	730	100	120	0.3	75	2.7
Atascadero[f]	550	70	85	0.3	65	2.3
Estrella[f]	925	130	240	0.75	170	3.2
Shandon	1390	430	1025[h]	2.8	730	2.3
Pajaro River						
Hollister	1200	150	250	1.0	200	5
Tres Pinos	1000	150	250	1.0	150	5
Llagas	300	20	50	0.2	20	5
Big Basin						
Near Felton	100	20	10	0.2	10	1
Near Boulder Creek	250	30	50	0.2	20	5

a Objectives shown are median values based on data averages; objectives are based on preservation of existing quality or water quality enhancement believed attainable following control of point sources.
b Measured as Nitrogen
c Basis for objectives is in the "Water Quality Objectives for the Santa Maria Ground Water Basin Revised Staff Report, May 1985" and February 1986, Staff Report.
d These are maximum objectives in accordance with Title 22 of the Code of Regulations.
e Ground water basin currently exceeds usable mineral quality.
f Ground water basin boundary map available in appendix.
g Basis for objectives is in the report "A Study of the Paso Robles Ground Water Basin to Establish Best Management Practices and Establish Salt Objectives", Coastal Resources Institute, June 1993.
h Standard exceeds California Secondary Drinking Water Standards contained in Title 22 of the Code of Regulations. Water quality standard is based upon existing water quality. If water quality degradation occurs, the Regional Board may consider salt limits on appropriate discharges.

CHAPTER 4. IMPLEMENTATION PLAN

A program of implementation to protect beneficial uses and to achieve water quality objectives is an integral component of this Basin Plan. The program of implementation is required to include, but is not limited to:

- A description of the nature of actions which are necessary to achieve the objectives, including recommendations for appropriate action by any entity, public or private.
- A time schedule for the actions to be taken.
- A description of surveillance to be undertaken to determine compliance with objectives.

Additional surveillance activities to determine compliance with objectives are described in Chapter Six, "Surveillance and Monitoring".

This chapter includes discussions of:

- Regional Water Quality Control Board Goals;
- General Control Actions and Related Issues;
- Waste Discharge Regulation;
- Hazardous Waste Compliance Issues; and
- Nonpoint Source Measures.

Detailed descriptions of waterbodies with their specific water quality problems and recommended control actions are included in the Region's Water Quality Assessment database and Fact Sheets.

This chapter is organized in the following manner:

I. Regional Water Quality Control Board Goals
II. General Control Actions and Related Issues
III. Control Actions under State Board Authority
IV. Control Actions to be Implemented by Other Agencies with Water Quality or Related Authority
V. Control Actions under Regional Board Authority
   A. Waste Discharge Restrictions
      1. Water Quality Certification
      2. National Pollutant Discharge Elimination System
      3. Waste Discharge Requirements
      4. Waivers
      5. Prohibitions and Prohibition Exemptions
      6. Enforcement Actions
      7. Best Management Practices
      8. Compliance Schedules
   B. Nonpoint Source Program
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I. REGIONAL WATER QUALITY CONTROL BOARD GOALS

To insure that the water resources of the Central Coastal Basin are preserved for future generations of Californians, the California Regional Water Quality Control Board, Central Coast Region, determined it was desirable to establish certain planning goals. These goals pertain to utilization of the basin's water resources and guidelines for control of waste discharges, as follows:

1. Protect and enhance all basin waters, surface and underground, fresh and saline, for present and anticipated beneficial uses, including aquatic environmental values.

2. The quality of all surface waters shall allow unrestricted recreational use.

3. Manage municipal and industrial wastewater disposal as part of an integrated system of fresh water supplies to achieve maximum benefit of fresh water resources for present and future beneficial uses and to achieve harmony with the natural environment.

4 Achieve maximum effective use of fresh waters through reclamation and recycling.

5. Continually improve waste treatment systems and processes to assure consistent high quality effluent based on best economically achievable technology.

6. Reduce and prevent accelerated (man-caused) erosion to the level necessary to restore and protect beneficial uses of receiving waters now significantly impaired or threatened with impairment by sediment.

II. GENERAL CONTROL ACTIONS AND RELATED ISSUES

The Regional Water Quality Control Board (Regional Board) regulates the sources of water quality related problems which could result in actual or potential impairment or degradation of beneficial uses or degradations of water quality. The Regional Board regulates both point and nonpoint source discharge activities. A point source discharge generally originates from a single identifiable source, while a nonpoint source discharge comes from diffuse sources. To regulate the point and nonpoint sources, control actions are required for effective water quality protection and management. Such control actions are set forth for implementation by the State Water Resources Control Board (State Board), by other agencies with water quality or related authority, and by the Regional Board.

III. CONTROL ACTIONS UNDER STATE WATER RESOURCES CONTROL BOARD AUTHORITY

The State Board has adopted several water quality plans and policies which complement or may supersede portions of the Water Quality Control Plan. These plans and policies may include specific control measures. See Chapter Five, "Plans and Policies" for summaries of the most significant State Board plans and policies which affect the Central Coast Region.

IV. CONTROL ACTIONS TO BE IMPLEMENTED BY OTHER AGENCIES WITH WATER QUALITY OR RELATED AUTHORITY

Water quality Management Plans prepared under Section 208 of the federal Water Pollution Water Control Act (Clean Water Act) have been prepared by various public agencies. These Section 208 plans, as well as other plans adopted by federal, State, and local agencies, may affect the Regional Board's water quality management and control activities. A summary of relevant water quality management plans is included in Chapter Five, "Plans and Policies".

V. CONTROL ACTIONS UNDER REGIONAL BOARD AUTHORITY

Control measures implemented by the Regional Board must provide for the attainment of this Basin Plan's beneficial uses and water quality objectives. These uses and objectives can be found in Chapters Two and Three, respectively. In addition the control measures must be consistent with State Board and Regional Board plans, policies, agreements, prohibitions, guidance, and other restrictions and requirements contained within this document.

To prevent water quality problems, waste discharge restrictions are often used. The waste discharge restrictions can be implemented through Water Quality Certification, National Pollutant Discharge Elimination System (NPDES) permits, waste discharge requirements/permits (WDRs), discharge prohibitions, enforcement actions, and/or "Best Management Practices".

V.A. WASTE DISCHARGE RESTRICTIONS

V.A.1. WATER QUALITY CERTIFICATION

Clean Water Act Section 401 Water Quality Certification gives the State extremely broad authority to review proposed federal activities in and/or affecting the Region's waters. The Regional Board can recommend to the State Board that it grant, deny, or condition certification of federal permits or licenses that may result in a discharge to "waters of the United States".

V.A.2. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

NPDES permits are issued to regulate discharges of waste from point sources to "waters of the United States" including discharges of storm waters from urban separate storm sewer systems and certain categories of industrial activity. Waters of the United States are surface waters such as rivers, intermittent streams, dry stream beds, lakes, bays, estuaries, oceans, etc. The permits are authorized by Section 402 of the Clean Water Act and Section 13370 of the California Porter-Cologne Water Quality Control Act. The permit content and the issuance process are contained in 40 Code of Federal Regulations Part 122 and Chapter 9 of the California Code of Regulations. Regional Water Boards are authorized to take a variety of enforcement actions to obtain compliance with an NPDES permit. Enforcement actions the Regional Board may take are described below.

The U.S. Environmental Protection Agency (U.S. EPA) has approved the State's program to regulate discharges of waste water from point sources to "waters of the United States". The State , through the Regional Water Boards, issues the NPDES permits, reviews discharger self-monitoring reports,

performs independent compliance checking, and takes enforcement actions as needed.

NPDES permits are required to prescribe conditions of discharge which will ensure protection of beneficial uses of the receiving water. The Regional Board uses this Basin Plan, the Ocean Plan, and water quality control policies adopted by the State Board to develop permits for specific types of discharges or uses of waste water.

In addition to regulating discharges of waste water to surface waters, NPDES permits also require municipal sewage treatment systems to conduct pretreatment programs if their design capacity is greater than five million gallons per day. Smaller municipal treatment systems may be required to conduct pretreatment programs if there are significant industrial users of their systems. The pretreatment programs must comply with 40 Code of Federal Regulations Part 403. The pretreatment program is further described under separate heading in the "Waste Discharge Regulation" Section further in this chapter.

V.A.3. WASTE DISCHARGE REQUIREMENTS (WDRs)

The California Porter-Cologne Water Quality Control Act authorizes Regional Boards to regulate discharges to protect ground and surface water quality. Regional Boards issue WDRs in accordance with Section 13263 of the California Porter-Cologne Water Quality Control Act. Regional Boards are required to review WDRs periodically based on the complexity and threat to water quality. WDRs seek to protect the beneficial uses of ground and surface water. Regional Boards issue WDRs, review self-monitoring reports submitted by the discharger, perform independent compliance checking, and take necessary enforcement action. The California Porter-Cologne Water Quality Control Act authorizes Regional Boards to issue enforcement actions (see below) ranging from orders requiring relatively simple corrective action to monetary penalties in order to obtain compliance with WDRs.

V.A.4. WAIVERS

Regional Boards may waive issuance of WDRs pursuant to California Porter-Cologne Water Quality Control Act Section 13269 if the Regional Board determines that such waiver is in the public interest. The requirement to submit a Report of Waste Discharge can also be waived. WDRs can be waived for a specific discharge or types of discharges. A waiver of WDRs is conditional and may be terminated at any time by the Regional Board. Regional Boards may delegate their power to waive WDRs to the Regional Board Executive Officer in accordance with policies adopted by the Regional Board and approved by the State Board. The Regional Board's general policy regarding waivers is described in Chapter Five, "Plans and Policies". Regional Boards may not waive NPDES permits.

V.A.5. PROHIBITIONS AND PROHIBITION EXEMPTIONS

The Regional Board can prohibit specific types of discharges to certain areas (California Porter-Cologne Water Quality Control Act Section 13243). These discharge prohibitions may be revised, rescinded, or adopted as necessary. Discharge prohibitions are described in pertinent sections of Chapter Four, "Implementation Plan" and Chapter Five, "Plans and Policies" in the Regional Board Discharge Prohibition Section. Prohibitions can be found by referring to the Table of Contents.

V.A.6. ENFORCEMENT ACTIONS

To facilitate water quality problem remediation or Basin Plan violation remediation, the Regional Board can use different types of enforcement measures. These measures can include:

<u>Notice of Violation</u>

A Notice of Violation is a letter formally advising the discharger that the facility is in noncompliance and

that additional enforcement actions may be necessary, if appropriate actions are not taken.

Time Schedule

A Time Schedule (California Porter-Cologne Water Quality Control Act Section 13300) is a time schedule for specific actions a discharger shall take to correct or prevent violations of requirements. A Time Schedule is issued by the Regional Board for situations in which the Regional Board is reasonably confident that the problem will be corrected.

Cleanup or Abatement Order

A Cleanup or Abatement Order (California Porter-Cologne Water Quality Control Act Section 13304) is an order requiring a discharger to clean up a waste or abate its effects or, in the case of a threatened pollution or nuisance, take other necessary remedial action. A Cleanup or Abatement Order can be issued by the Regional Board or by the Regional Board Executive Officer. Cleanup or Abatement Orders are issued for situations when action is needed to correct a problem caused by regulated or unregulated discharges which are creating or threatening to create a condition of pollution or nuisance. A Cleanup or Abatement Order is also used by the Regional Board to establish the acceptable level of cleanup.

Cease and Desist Order

A Cease and Desist Order (California Porter-Cologne Water Quality Control Act Section 13301) is an order requiring a discharger to comply with Waste Discharge Requirements or prohibitions according to a time schedule. If the violation is threatening water quality, a Cease and Desist Order can be used to require appropriate remedial or preventative action. A Cease and Desist Order is issued by the Regional Board when violations of requirements or prohibitions are threatened, are occurring, or have occurred and probably will continue in the future. Issuance of a Cease and Desist Order requires a public hearing.

Administrative Civil Liabilities

Administrative Civil Liabilities (monetary liabilities or fines) may also be imposed administratively by the Regional Board after a public hearing.

State Attorney General Referral

State Attorney General referral is used under certain circumstances. Enforcement actions may be referred to either the General or District Attorney.

V.A.7. BEST MANAGEMENT PRACTICES

Property owners, managers, or other dischargers may implement "Best Management Practices" to protect water quality. (Implementation and enforcement of Best Management Practices are discussed below under the "Nonpoint Source Measures" section of this chapter). The term "Best Management Practices" is used in reference to control measures for nonpoint source water pollutants and is analogous to the terms "Best Available Technology/Best Control Technology" used for control of point source pollutants. The U.S. EPA (40 Code of Federal Regulations Section 103.2[m]) defines Best Management Practices as follows:

> "Methods, measures, or practices selected by an agency to meet its nonpoint source control needs. Best Management Practices include, but are not limited to structural and nonstructural controls and operation and maintenance procedures. Best Management Practices can be applied before, during, and after pollution producing activities to reduce or eliminate the introduction of pollutants into receiving waters."

U.S. EPA regulations (40 Code of Federal Regulations Section 103.6[b][4][i]) provide that Basin Plans:

> "...shall describe the regulatory and nonregulatory programs, activities, and Best Management Practices which the agency has selected as the means to control nonpoint source pollution where necessary to protect or achieve approved water uses. Economic, institutional, and technical factors shall be considered in a continuing process of identifying control needs and evaluating and modifying the Best Management Practices as necessary to achieve water quality goals."

Best Management Practices fall into two general categories:

1. Source controls which prevent a discharge or threatened discharge.

These may include measures such as recycling of used motor oil, fencing stream banks to prevent livestock entry, fertilizer management, street cleaning, revegetation and other erosion controls, and limits on total impervious surface coverage. Because the effectiveness of Best Management Practices is often uncertain, source control is generally preferable to treatment. It is also often less expensive.

2. Treatment controls which remove pollutants from a discharge before it reaches surface or ground waters.

Examples include infiltration facilities, oil/water separators, and constructed wetlands.

Several important points about Best Management Practices must be emphasized;

- Best Management Practices are not officially considered "best" practices for use in California unless they have been certified by the State Board.

- The use of Best Management Practices does not necessarily ensure compliance with effluent limitations or with receiving water objectives. Because nonpoint source control has been a priority only since the 1970's, the long-term effectiveness of some Best Management Practices has not yet been documented. Some source control Best Management Practices (e.g., waste motor oil recycling) may be 100 percent effective if implemented properly. Monitoring and evaluation of Best Management Practice effectiveness is an important part of nonpoint source control programs.

- The selection of individual Best Management Practices must take into account specific site conditions (e.g., depth to ground water, quality of runoff, infiltration rates). Not all Best Management Practices are applicable at every location. High ground water levels may preclude the use of runoff infiltration facilities, while steep slopes may limit the use of wet ponds.

- To be effective, most Best Management Practices must be implemented on a long term basis. Structural Best Management Practices (e.g., wet ponds and infiltration trenches) require periodic maintenance, and may eventually require replacement.

- The "state-of-the-art" for Best Management Practices design and implementation is expected to change over time. The State planning process will include periodic review and update of Best Management Practices certifications.

General information on recommended nonpoint source management practices is provided under different water quality problem categories throughout this chapter. For detailed information on the design, implementation, and effectiveness of specific Best Management Practices, the reader should consult the appropriate Best Management Practices Handbook for the project type or location.

V.A.8. COMPLIANCE SCHEDULES

The California Porter-Cologne Water Quality Control Act (Section 13242[b]) requires a Basin Plan's implementation program for achieving water quality objectives to include a "time schedule for the actions to be taken". Regional Board prohibitions are effective upon adoption, unless specifically mentioned otherwise. The Regional Board issues discharge permits. Each includes an effective date. (Often compliance is effective upon Regional Board adoption). Waste discharge permits for construction projects generally require implementation of Best Management Practices during and immediately after construction. Long-term maintenance of permanent Best Management Practices is expected. Regional Board enforcement orders for specific problems also generally include compliance schedules.

The 1975 Basin Plans included recommendations that specific studies be carried out by specific dates on community wastewater collection and treatment facilities needs in certain areas of the Central Coast Region. These plans also recommended that some communities construct specific facilities by the given dates. Most of these schedules were not met. Because expected year-to-year changes in availability of and priorities for funding will ensure that long term schedules are unrealistic, this Basin Plan does

not include such recommendations. Priorities are set on a short term basis for studies through the State Board's use of the Clean Water Strategy ranking system various grant programs, and for facilities construction through the State Board Division of Clean Water Programs needs assessment process for loans and grants. Once funding is allocated, completion schedules are set through the contract process.

V.B. NONPOINT SOURCE PROGRAM

Nonpoint source pollution has been identified as a major cause of water pollution throughout the United States, and the California Central Coast Region is no exception. Nonpoint sources of water pollution are generally defined as sources which are diffuse (spread out over a large area). These sources are not as easily regulated or controlled as are point sources. Nonpoint source pollution is caused by land use activities or anthropomorphic activities. Deposition of pollutants may occur in lakes, rivers, wetlands, coastal waters, or ground waters.

In order to address the nonpoint source pollution problem nationwide, the U.S. Congress incorporated Section 319 into the 1987 amendments to the Clean Water Act. By amending the Clean Water Act, Congress shifted the federal emphasis from nonpoint source pollution planning and problem identification to a new nonpoint source action program. Section 319 of the federal Clean Water Act required each state to develop a State Nonpoint Source Management Program describing the measures the State would take to address nonpoint sources of pollution. In November 1988, the State Water Resources Control Board adopted a Nonpoint Source Management Plan which outlined steps to initiate the systematic management of nonpoint sources in California. For effective management of nonpoint sources the Management Plan required:

- An explicit long-term commitment by the State Board and Regional Boards;
- More effective coordination of existing State Board and Regional Board nonpoint source related programs;
- Greater use of Regional Board regulatory authority coupled with nonregulatory Regional Board programs;
- Stronger links between the local, State, and federal agencies which have authority to manage nonpoint sources; and
- Development of new funding sources.

The 1988 State Board Nonpoint Source Management Plan advocates three approaches for addressing nonpoint source management:

1. Voluntary implementation of Best Management Practices

Property owners or managers may volunteer to implement Best Management Practices. Implementation could occur for economic reasons and/or through awareness of environmental benefits.

2. Enforcement of Best Management Practices

Although the California Porter-Cologne Water Quality Control Act constrains Regional Boards from specifying the manner of compliance with water quality standards, there are two ways in which Regional Boards can use their regulatory authorities to encourage implementation of Best Management Practices.

First, the Regional Board may encourage Best Management Practices by waiving adoption of waste discharge requirements on condition that discharges comply with Best Management Practices. Alternatively, the Regional Board may enforce Best Management Practices indirectly by entering into management agency agreements with other agencies which have the authority to enforce Best Management Practices.

The Regional Board will generally refrain from imposing effluent requirements on discharges that are implementing Best Management Practices in accordance with a waiver of waste discharger requirements, and approved Management Agency Agreements, or other State or Regional Board formal action.

3. Adoption of Effluent Limitations

The Regional Board can adopt and enforce requirements on the nature of any proposed or existing waste discharge, including discharges from

nonpoint sources. Although the Regional Board is precluded from specifying the manner of compliance with waste discharge limitations, in appropriate cases, limitations may be set at a level which, in practice, requires implementation of Best Management Practices.

Not all of the categories of nonpoint source pollution follow this three-tiered approach. For example, silviculture activities on non-federal lands are administered by the California Department of Forestry. The State Board has entered into a Management Agency Agreement with California Department of Forestry which allows the Regional Boards to review and inspect timber harvest plans and operations for implementation of Best Management Practices for protection of water quality.

The Regional Board approach to addressing or regulating categories of nonpoint source pollution is discussed in various sections throughout this chapter.

VI. WASTE DISCHARGE PROGRAM IMPLEMENTATION

Water Quality Control Plans to regulate wasteloads in the Central Coastal Basin have been developed to insure protection of beneficial uses of water described in Chapter Two, as well as water quality objectives described in Chapter Three.

VI.A. EFFLUENT LIMITS

Effluent limitations for disposal of wastes are based on water quality objectives for the area of effluent disposal and applicable State and federal policies and effluent limits. Water quality objectives and policies are based on beneficial uses established for receiving waters. Decisions in treatment process selection are discussed for four general disposal modes considered: stream disposal, estuarine disposal, ocean disposal, and land disposal. There is no discussion provided for disposal to lakes or confined sloughs since these water bodies are protected by discharge prohibitions. Separate discussions of treatment for wastewater reclamation and reuse and sludge processing and disposal are also provided.

Management Principles and Regional Board Policies contained in Chapter Five should be reviewed for further information concerning discharge to surface waters.

VI.A.1. STREAM DISPOSAL

Most streams in the Central Coastal Basin are ephemeral in character. During summer months, there is little or no flow in stream channels. In several instances, flow during the dry season is composed of irrigation runoff or, in a very few cases, wastewater treatment plant effluent. Usually, these flows infiltrate into the stream bed a short distance downstream of discharges. In such instances, the concept of receiving water assimilative capacity has little meaning. Disposal of wastewater in ephemeral streams must be accomplished in a manner that safeguards public health and prevents nuisance conditions. Where possible, discharges should be beneficial as stream flow augmentation. When recharge of a useful ground water basin occurs through stream channel recharge, impacts on ground water quality must be considered.

There are a few streams in the basin which flow on a year-round basis and support an inland fishery. Disposal of wastewater to such streams requires that essentially all oxygen demanding substances and toxicity be removed.

Principal factors governing treatment process selection for stream disposal are federal effluent limits, State public health regulations, and water quality requirements for beneficial use protection. As a minimum, secondary treatment, as defined by the Environmental Protection Agency (EPA), is required in all cases. Where rapid percolation occurs, conventional secondary treatment is currently adequate. EPA guidelines for best practicable treatment would also apply in these cases. Where water contact recreational use is to be protected, the

California Department of Health Services (DOHS) recommends coagulation, filtration, and disinfection providing a median coliform MPN of 2.2/100 ml. Detoxification is required where fishery protection is a concern. Detoxification would include effluent limits for identified toxicants, pursuant to Section 307 of the federal Water Pollution Control Act. Source control of specific toxicants may be necessary to comply with the Act.

VI.A.2. ESTUARINE DISPOSAL

Water quality objectives applying to estuaries are contained in Chapter Three.

Receiving waters considered estuaries are one of two groups: (1) shallow waters of an open bay, and (2) confined tidal estuaries or lagoons. Flushing action is usually present in a shallow open bay and natural dispersion and dilution is available on a limited scale. In confined waters, flushing action is limited or nonexistent except during high stream inflow or storms. Since these shorelines frequently are heavily developed and waters are extensively used, requirements for wastewater disposal into such areas are the most stringent of any for marine receiving waters. The "Water Quality Control Policy for Enclosed Bays and Estuaries of California," adopted by the State Water Resources Control Board, prohibits discharge of waste to most enclosed bays and estuaries in the State, unless the discharge will enhance water quality.

Water quality objectives in Chapter Three prevent discharges that could raise natural nutrient levels to an extent that nuisance algal blooms or other aquatic growths occur. Excessive eutrophication in coastal estuaries of California often is characterized by floating and stranded mats of green marine seaweeds Enteromorpha and Ulva. These algae generally grow on mud or other substrates in estuarine water and can produce nuisance conditions along shorelines. These algae have a high sulfur content and emit foul smelling hydrogen sulfide and mercaptans during decomposition. Caution should be given in determining control measures for estuaries, as many of the seasonal algal growths that occur on mud flats are natural and may not be significantly affected by waste discharges in the watershed. Where eutrophication problems are apparent, secondary treatment with denitrification, or phosphorus removal and disinfection should be provided prior to discharge.

VI.A.3. OCEAN DISPOSAL

Water quality objectives applicable to ocean waters are contained in Chapter Three.

Federal guidelines for secondary treatment apply to ocean discharges. The State Water Resources Control Board's Water Quality Control Plan for Ocean Waters of California (Ocean Plan) establishes effluent limits achievable by alternative processes, such as advanced primary treatment. The Ocean Plan contains water quality objectives, requirements for effluent quality and management of waste discharges, and discharge prohibitions (including Areas of Special Biological Significance). Effluent quality requirements establish limitations for grease and oil, solids, turbidity, pH, and toxicity. Limits are also established for heavy metals, chlorine residual, various chlorinated pesticides, PCBs, toxaphene and radioactivity outside the zone of initial dilution.

For municipal discharges, the Clean Water Act allows waiver of secondary treatment standards on a case-by-case basis. Secondary treatment waivers are further discussed as they apply to specific discharges in the following section on Municipal Wastewater Management. If full secondary treatment is required but funding is inadequate, treatment levels should be achieved through staged construction. Ocean Plan objectives can be achieved as an interim measure. Secondary treatment must be added later if a waiver is not issued, or if receiving water monitoring indicates additional treatment is necessary to protect ocean waters. Industrial wastewater management is discussed later in this chapter.

VI.A.4. LAND DISPOSAL

To protect ground water resources, the Regional Board allows few waste discharges to land. Those that are permitted are closely regulated under existing laws and regulations to maintain and to protect ground water quality and beneficial uses.

Disposal of waste to land in the Central Coast Region is regulated by California Code of Regulations, Title 23, Chapter 15; the federal Resource Conservation and Recovery Act; the Toxic Pits Cleanup Act; the Porter-Cologne Water Quality Control Act; and State Health Department Regulations. Types of land disposal operations being regulated by the Central Coast Region include landfills, surface impoundments, septage and sludge disposal, mining operations, confined animal facilities, and some oil field exploration and production facilities.

California Code of Regulations, Title 23, Chapter 15

All land disposal operations are regulated by Chapter 15. Formerly called Subchapter 15. This is the most significant regulation used by the Regional Board in regulating hazardous and nonhazardous waste treatment, storage, and disposal. These regulations include very specific siting, construction, monitoring, and closure requirements for all existing and new waste treatment, storage, and disposal facilities. Chapter 15 requires operators to provide assurances of financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases from waste management units. Detailed technical criteria are provided for establishing water quality protection programs, and corrective action programs are mandated for releases from waste management units.

Resource Conservation and Recovery Act

The State implements Resource Conservation and Recovery Act's Subtitle C (Hazardous Waste Regulations for Treatment, Storage, and Disposal) through the Department of Toxic Substances Control and the Regional Boards. In August 1992, the U.S. EPA formally delegated the Act program implementation authority to Department of Toxic Substances Control. As described above, regulation of hazardous waste discharges is also included in California Code of Regulations, Title 23, Chapter 15. (Chapter 15 monitoring requirements were also amended in August 1991 so as to be equivalent to Act requirements). These will be implemented through the adoption of Waste Discharge Requirements for hazardous waste sites covered by the Act. The discharge requirements will then become part of a State Resource Conservation and Recovery Act permit issued by Department of Toxic Substances Control.

Federal regulations required by Resource Conservation and Recovery Act Subtitle D have been adopted for Municipal Solid Waste landfills (40 Code of Federal Regulations Parts 257 & 258). The California Integrated Waste Management Board is the State lead agency for Subtitle D implementation. The State Board and the California Integrated Waste Management Board received U.S. EPA State program approval. Delegation of authority for the State Board to implement Subtitle I (Underground Storage Tanks) will occur after U.S. EPA approval of the State's program application. (The Underground Storage Tank Section is discussed later in this chapter).

Toxic Pits Cleanup Act

The Toxic Pits Cleanup Act of 1984 required all impoundments containing liquid hazardous wastes or free liquids containing hazardous waste be retrofitted with a liner/leachate collection system, or dried out by July 1, 1988. Impoundments "dried out" were closed to remove all contaminants and/or to stabilize any residual contamination.

VI.A.4.a. WASTEWATER DISPOSAL

Principal factors affecting treatment process selection for land disposal are the nature of soils and ground waters in the disposal areas and, where irrigation is involved, the nature of crops. Wastewater characteristics of particular concern are total salt content, nitrate, boron, pathogenic organisms, and toxic chemicals. Where percolation alone is considered, the nature of underlying ground waters is of particular concern. Treatment processes should be tailored to insure that local ground waters are not degraded.

Nitrate removal is required in many cases where percolation is to usable ground water basins. Percolation basins operated in alternating wet and dry cycles can provide significant nitrogen removal through nitrification/denitrification processes in the soil column. Finer textured soils are more effective than coarse soils. Nitrate removal would not necessarily be required, and secondary treatment

may be adequate where recharge is for other purposes such as prevention of seawater intrusion or where soil percolation constraints do not require further treatment. Monitoring in the immediate vicinity of the disposal site is required in either case. Where the need for nitrate removal is not clear, removal could be considered at a possible future stage depending on monitoring results. Where well controlled irrigation is practiced, nitrate problems in the dry season will be controlled. Vegetative uptake will utilize soluble nitrates which would otherwise move into ground water under a percolation operation. Demineralization techniques or source control of total dissolved solids may be necessary in some inland areas where ground waters have been or may be degraded. Presence of excessive salinity, boron, or sodium could be a basis for rejection of crop irrigation with effluent.

State Health Department regulations, described in Title 22 of the California Code of Regulations, stipulate disinfection levels required for specific crops. In some cases, such as pasture for milking animals, the California Code of Regulations requires oxidation with disinfection to a median number of coliform organisms of 23 MPN/100 ml. Environmental Protection Agency guidelines for secondary treatment do not apply to land disposal cases. However, municipal treatment facilities must provide effective solids removal and some soluble organics removal for percolation bed operations and for reduction of nuisance in wastewater effluent irrigation operations. Disinfection requirements are dictated by the disposal method. Oxidation ponds may be cost-effective in some remote locations and may be equivalent to secondary treatment.

VI.A.5. RECLAMATION AND REUSE

Water shortages in California are resulting in increased demand for reclamation. Reclamation and reuse is encouraged where feasible and beneficial. Where practicable, land disposal by spray irrigation shall be accomplished by proper reclamation techniques rather than by over-irrigation. This will aid water shortages and maximize nutrient removal.

Treatment process selection for reclamation of wastewater is dependent upon the intended reuse. Where irrigation reuse or ground water recharge is intended, treatment requirements will depend on conditions described under land disposal. Clearly, the nature of the crop to be irrigated, soil percolation, and water characteristics are important considerations. Title 22 of the California Code of Regulations provides wastewater reclamation criteria to regulate specific uses of reclaimed water. Where reuse is extended to water contact recreation, secondary treatment with coagulation, filtration, and disinfection is required. Where golf course irrigation is practiced, this level of treatment minus coagulation and filtration may be adequate. More stringent measures may be necessary with increased risk of public exposure (for example, residents adjacent to fairways). However, where more complete reclamation is envisioned, such as creation of recreational lakes for fishing, swimming, and water skiing, nutrient removal may also be required to minimize algae growths and to encourage fish propagation. Comparable treatment may also be needed for industrial water supplies used for cooling and uses where algae growth in transfer channels or cooling towers is of concern. Nitrogen removal and demineralization processes may also be necessary for selected reclamation projects as discussed under land disposal.

To meet the increased demand for reclamation, existing regulations contained in the California Code of Regulations, Title 22, are being expanded. California Code of Regulations, Title 22, are hereby incorporated as applicable reclamation requirements.

Dual water systems may be feasible in some instances. Reclaimed wastewater should be investigated as an alternative water source for toilets.

Management Principles contained in Chapter Five should be reviewed for further reclamation information. This section is located after the "Recommended State Water Resources Control Board Actions" section.

VI.A.6. PRETREATMENT PROGRAMS

State and federal regulations require certain municipalities to develop and administer pretreatment programs to control the discharge of industrial wastes to the treatment plant. All municipal plants discharging to navigable waters with design flows greater than 5.0 mgd are required to develop and implement a pretreatment program. Other municipalities may be required to develop a pretreatment program if circumstances warrant such a program. The Environmental Protection Agency has established specific industrial subcategories of industries which discharge certain quantities or concentrations of pollutants to municipal systems. Pretreatment is required to meet effluent standards established for each industrial category. The objectives of a pretreatment program are to: (1) prevent introduction of pollutants into publicly-owned treatment works which will interfere with treatment operations and/or use or disposal of municipal sludge, (2) prevent introduction of pollutants into publicly owned treatment works which will pass through treatment works or be incompatible with treatment techniques, (3) increase feasibility of recycling and reclaiming municipal and industrial wastewaters and sludges, and (4) enforce applicable EPA Categorical Standards.

A pretreatment program must include: (1) a local pretreatment ordinance, (2) a use permit system, (3) a program of monitoring and inspection to insure compliance with the ordinance and use permit, and (4) an enforcement program sufficient to obtain compliance with provisions of the ordinance or use permit. Pretreatment programs are further discussed as they apply to specific dischargers in the section on Municipal Wastewater Management.

Municipalities required to comply with federal pretreatment regulations in the Central Coast Region are:

City of Santa Cruz,
Cities of Gilroy/Morgan Hill,
City of Watsonville,
Monterey Regional Wastewater Treatment Plant,
City of Salinas Industrial Plant,
City of San Luis Obispo,
City of Santa Maria,
City of Lompoc, and
City of Santa Barbara

VI.A.7. SLUDGE TREATMENT

Sludge management is a difficult aspect of wastewater treatment. The methods used for sludge disposal or reuse tend to determine the sludge processing methods. Major goals of sludge treatment include pathogen destruction, vector attraction reduction, odor reduction, moisture removal, and contaminant removal. Treated sludge is commonly referred to as "Biosolids."

Solids removed during wastewater treatment include grit, primary sludge, and biological sludges. Grit is typically removed in a grit chamber and is usually inert and easily dewatered, so landfilling is usually the preferred management option. Primary sludges are generally solids that readily float or sink, whereas biological sludges are suspended organic materials and necessitate biological treatment (e.g., trickling filter, activated sludge, or oxidation pond) to float or sink. Polymers are widely used to increase settling and thickening efficiencies and to reduce chemical sludge handling problems. Primary and biological sludges are usually combined prior to final treatment. Anaerobic digestion and lagoon stabilization are common sludge treatment methods, but methods which can render sludge pathogen and odor free, such as lime stabilization, composting, thermophylic aerobic digestion, and heat treatment, are becoming increasingly popular. Public acceptance of beneficial sludge uses, such as spreading on farm land and reclamation of strip mines, may be improved by advanced sludge treatment technologies.

Sludge treatment methods are evolving as disposal is discouraged and beneficial reuse is encouraged. Ocean disposal of sludge is prohibited by the California Ocean Plan. Landfilling of sludge is generally allowed if the sludge is nonhazardous and meets specific moisture content requirements. Sludge may be disposed in Class I and Class II waste management units, but this practice is uncommon

due to its high cost. Disposal of sludge is becoming less attractive as landfill capacity decreases, recycling mandates (Assembly Bill 939) must be met, and society becomes aware that sludge can be a valuable resource as a soil amendment/fertilizer.

VI.B. MUNICIPAL WASTEWATER MANAGEMENT

Municipal wastewater conveyance, treatment, and disposal facilities recommended for the Central Coastal Basin are described in the following pages. Recommended plans for municipal facilities are described in geographic sequence by hydrographic units. Hydrographic units are identified in Chapter Two, Figure 2-1. Numbers in parentheses throughout the chapter refer to design capacity unless otherwise stated. Pretreatment programs and modifications to secondary treatment are discussed as part of the recommended plan where applicable. Further discussion of these topics can be found under the subheadings "Ocean Disposal" and "Pretreatment Programs" at the beginning of this chapter.

Further specific municipal management information can be found in the Management Principles section of Chapter Five. General municipal wastewater management information is also included in the State Water Resources Control Board Plans and Policies section, Discharge Prohibitions section, Control Actions section, and Regional Board Policies section.

VI.B.1. BIG BASIN HYDROLOGIC UNIT

The Big Basin Hydrologic Unit includes discharges from the City of Santa Cruz and the City of Scotts Valley, in addition to unsewered areas and several small waste dischargers. Table 4-1 displays summarized Big Basin Hydrologic Unit dischargers.

Table 4-1. Big Basin Hydrologic Unit Summarized Municipal Dischargers

Davenport County Sanitation District
California Department of Parks and Recreation - Big Basin State Park
California Department of Forestry - Ben Lomond Conservation Facility
City of Santa Cruz
City of Scotts Valley
Santa Cruz County Service Area No. 7 - Boulder Creek Golf and Country Club
Santa Cruz County Service Area No. 10 - Rolling Woods Subdivision
San Lorenzo Valley Water District - Bear Creek Estates
Big Basin Woods
Santa Cruz County Service Area No. 5 - Sand Dollar Beach and Canon del Sol
Santa Cruz County Service Area No. 20 - Trestle Beach
Individual Septic Tank Systems

The City of Santa Cruz operates a wastewater collection, primary treatment, and ocean disposal system with a capacity of 21 mgd. Sewerage service is provided to the City of Santa Cruz, Santa Cruz County Sanitation District (SCCSD), and the City of Scotts Valley. The SCCSD serves East Cliff, Capitola, Aptos, and Seacliff areas. The recommended plan for the City is to upgrade the existing treatment plant at Neary's Lagoon to secondary level treatment. A new outfall was completed in 1988. The new outfall is 12,250 feet long terminating in 100 feet of water about one mile offshore. It replaces a 2,000 foot outfall which was a source of many complaints due to its proximity to the shore water-contact recreation area.

Mitigation measures to offset environmental impacts to Neary's Lagoon and an adjacent park must be resolved before the plant can proceed. The City has implemented a pretreatment program affecting the City of Santa Cruz, and Santa Cruz County Sanitation District.

Wastewaters from sewered areas of the City of Scotts Valley are transported to Scotts Valley's secondary treatment plant. Effluent is transported through a land outfall to the City of Santa Cruz marine outfall for disposal to the Pacific Ocean. A recommended plan for Scotts Valley includes: (1) increasing wastewater treatment capacity from 0.65

mgd to 0.95 mgd, (2) providing reclaimed water to Pasatiempo Golf Course and other green belt areas for irrigation purposes, and (3) transporting excess wastewater through the Scotts Valley land outfall to the City of Santa Cruz ocean outfall. An alternative plan is to transport raw wastewater through the Scotts Valley land outfall to the Santa Cruz wastewater treatment plant for treatment and disposal through the ocean outfall. Local water agencies (Scotts Valley Water District and San Lorenzo Valley Water District) may benefit from reclamation efforts and should be involved in reuse planning.

Davenport County Sanitation District (DCSD) was created in 1979 to provide sewer and water services to the Davenport-Newtown area located on the coast north of Santa Cruz. Davenport-Newtown area has interceptors and an aerated wastewater lagoon on property owned by Lone Star Industries. Disposal is through evaporation/ percolation and industrial reuse. DCSD is responsible for wastewater collection, treatment, and disposal.

The State Department of Parks and Recreation is responsible for Big Basin State Park facilities (.04 mgd). Discharge provides stream flow augmentation. The wastewater treatment plant includes secondary treatment with sand filtration and coagulation. This stream discharge qualifies as an acceptable wastewater reclamation project. The discharge is upstream from a popular swimming hole, so this plan emphasizes the need to enhance water quality and protect beneficial uses in Waddell Creek. The Department of Parks and Recreation must correct wastewater system deficiencies in order to protect public health and the beneficial uses of Waddell Creek and tributaries.

The recommended plan for the Ben Lomond Conservation Facility is to retain the existing septic tank, evaporation/percolation ponds, and spray field. Existing facilities are adequate so long as operation and maintenance are effective.

Wastewater management in San Lorenzo Valley (SLV) is provided by three community treatment and disposal facilities (Bear Creek Estates, Big Basin Woods, and Boulder Creek Golf and Country Club). Remaining areas are served by individually owned septic tank and soil absorption systems. Bear Creek Estates uses septic tank treatment with disposal to a soil absorption system. This facility is the responsibility of San Lorenzo Valley Water District and Bear Creek Estates.

The recommended plan for Big Basin Woods Subdivision is to retain the existing extended aeration treatment facility with leachfield disposal, presently operating at approximately ten percent of total capacity (.35 mgd). Flow from County Service Area No. 7 has been diverted to Big Basin Woods' leachfield during equipment repair periods. Leachfield capacity is adequate to serve both Big Basin Woods and CSA No. 7. Existing facilities are adequate so long as operation and maintenance are effective. This plan will be implemented by Big Basin Sanitation Company, Big Basin Woods Subdivision, and the San Lorenzo Valley Water District.

The recommended plan for Boulder Creek Golf and Country Club is to retain the existing activated sludge treatment facility with leachfield disposal and add filtration for golf course irrigation. Existing facilities are adequate so long as operation and maintenance are effective. Operation and maintenance of the system is the responsibility of the Santa Cruz County Department of Public Works. This plan will be implemented by Santa Cruz County Service Area No. 7 through Santa Cruz County Department of Public Works and San Lorenzo Valley Water District.

Rolling Woods Subdivision, Santa Cruz County Service Area No. 10, provides treatment with a redwood bark biofilter and disposes treated effluent through percolation pits. This facility should be replaced with an interceptor that would convey wastes to the City of Santa Cruz for treatment and disposal.

Individually owned septic tank leachfield systems in the San Lorenzo Valley have been inspected and monitored from 1986 through 1994. Problem areas have been identified and the suitability of these problem areas for the continued use of septic systems has been determined as documented in the County of Santa Cruz, Environmental Health Services reports (1) Preliminary Report, An Evaluation of Wastewater Disposal and Water Quality in the San Lorenzo Watershed, September, 1989; (2) Final Project Report, Boulder Creek Wastewater Feasibility Study, October, 1991; and (3) Final Project Report, San Lorenzo Valley Community Wastewater Feasibility Studies, March, 1994. Alternatives have been evaluated and solutions proposed to reduce septic system problems in certain areas of the valley. Solutions are contained in the “Wastewater Management Plan for the San Lorenzo River Watershed, County of Santa Cruz, Health Services Agency, Environmental Health Service”, February 1995 and “San Lorenzo Nitrate Management Plan,

Phase II Final Report", February 1995, County of Santa Cruz, Health Services Agency, Environmental Health Service (Wastewater Management Plan). The Wastewater Management Plan documented standards and conditions that shall be met for the protection and enhancement of beneficial uses.

Dischargers in the Aptos-Soquel area include Santa Cruz County Service Area No. 5 (Sand Dollar Beach and Canon del Sol), SCCSA No. 20 (Trestle Beach), and Monterey Bay Academy. Flows from Aptos and East Cliff are conveyed through interceptors and pumping stations for treatment at the City of Santa Cruz Wastewater Treatment Plant.

The recommended plan for SCCSA No. 5 is to retain the existing extended aeration package treatment plant and disposal to seepage pits. Wastewater treatment and disposal at Canon del Sol will be by the same methods as Sand Dollar Beach. Facilities will be adequate so long as operation and maintenance are effective. This plan will be implemented by SCCSA No. 5 through Santa Cruz County Department of Public Works.

Wastewater treatment at Trestle Beach (SCCSA No. 20) will be provided by an extended aeration package treatment plant with disposal to seepage pits. This plan will be implemented by SCCSA No. 20 through the Santa Cruz County Department of Public Works. It is recommended that CSA No. 5 and No. 20 be connected to regional collection systems when service is extended to adjacent areas.

The recommended plan for the Monterey Bay Academy is to retain the existing settling pond with disposal to a series of evaporation-percolation ponds.

VI.B.2. PAJARO RIVER HYDROLOGIC UNIT

Summarized municipal dischargers in the Pajaro River Hydrologic Unit include the City of Gilroy/ Morgan Hill, City of Hollister, City of San Juan Bautista, and the City of Watsonville. Table 4-2 displays dischargers summarized for the Pajaro River Hydrologic Unit.

Table 4-2. Pajaro River Hydrologic Unit Summarized Municipal Dischargers

Unsewered San Martin
City of Gilroy/Morgan Hill
San Benito County Facilities
Sunnyslope County Water District
Tres Pinos County Water District
City of Hollister
City of San Juan Bautista
City of Watsonville

The Gilroy area includes the unsewered San Martin area and the City of Gilroy's advanced primary treatment and land disposal facilities serving the Cities of Gilroy and Morgan Hill. The Cities are currently attempting to develop facilities to resolve disposal capacity deficiencies. Primary treatment provided via two oxidation ponds with surface aeration. Effluent disposal is to a series of evaporation/percolation ponds. Wastewater reclamation facilities were constructed in 1977 to alleviate water shortages during drought conditions. When reclamation facilities are in use (seasonally), primary effluent is provided further treatment in an aeration pond. Effluent is then screened, chlorinated, and pumped through nine miles of distribution pipe to various users (for irrigation purposes). The reclamation system's economics have not been favorable. Industrial flows of 6.3 mgd are treated and disposed of in a separate series of sedimentation, oxidation, and percolation ponds.

The recommended plan for the Gilroy-Morgan Hill wastewater treatment facilities is to continue geohydrological assessments to determine impacts of continued effluent disposal by percolation at the Gilroy site. If beneficial uses of surface and ground waters are not adequately protected, other treatment and/or disposal methods must be used. Disposal will continue to be by percolation, evaporation, and reclamation. Before a discharge to surface waters is considered, the City will be required to evaluate feasible land disposal options. If current percolation practices are not causing receiving water problems, feasibility of existing disposal area expansion should be considered. The Cities are also evaluating stream disposal. Currently, the Cities of Gilroy and Morgan Hill are responsible for collection, treatment, and disposal of wastewater. They are also responsible for operating the wastewater reclamation facilities. Santa Clara Valley Water District is responsible for

administrative tasks for the reclamation system. In addition, the Cities of Gilroy and Morgan Hill have implemented a pretreatment program since 1983.

Individual on-site systems are used for sewage disposal in the San Martin area. Twenty percent of the area's wells exceed the nitrate drinking water objective. This is a significant problem since this area serves as the sole recharge area for the Santa Clara Valley. Methods of providing a water supply that is free of excessive nitrate concentration should be investigated and implemented. Nitrate loadings from various sources should be calculated for the area to determine the contribution from various sources. The need for on-site system restrictions should be determined.

Small discharges (less than 0.10 mgd) in the Hollister area include flows from San Benito County Facilities, Sunnyslope County Water District, and Tres Pinos County Water District. City of Hollister wastewater is treated at the City of Hollister Wastewater Treatment Facilities (1.2 mgd). San Juan Bautista wastewater is treated at the City of San Juan Bautista Wastewater Treatment Facilities (0.15 mgd).

The recommended plan for Tres Pinos is to retain the existing evaporation/percolation ponds. The recommended plan for San Benito County Hospital Facilities and Sunnyslope County Water District is to study the feasibility of constructing interceptors to the Hollister facilities or consolidating into a single subregional system. Existing facilities consisting of aerated pond treatment followed by land disposal to evaporation/percolation ponds may be maintained if project level studies determine this to be the more feasible method of wastewater treatment and disposal. Sunnyslope County Water District owns and operates a wastewater treatment and disposal system serving approximately 300 homes in Ridgemark Estates subdivision located approximately 2-1/2 miles south-east of Hollister. Wastewater is treated in two aerated ponds and disposed of in evaporation/percolation ponds. Effluent may be used in the future to irrigate a golf course.

The recommended plan for the City of Hollister is to retain the existing advanced primary treatment facilities and percolation ponds which started operating in 1979. The Hollister industrial system is to be maintained separately to receive seasonal flows from the spinach and tomato processing operations. The recommended plan for the City of San Juan Bautista is development of a land disposal system. The City currently discharges secondary effluent to a drainage ditch tributary to Pajaro River.

Land disposal of wastewaters in the Hollister region must be monitored carefully to assure ground water quality is protected. Source control of salt must be stressed to reduce effluent salinity to levels acceptable for disposal to local ground waters.

Wastewaters in the Watsonville area are transported to regional treatment facilities in the City of Watsonville with a design capacity of 13.4 mgd. Collection, primary treatment, and disposal to Monterey Bay are provided for the City of Watsonville, and the local sewering entities of Freedom County Sanitation District, Pajaro County Sanitation District, and Salsipuedes Sanitary District. The City submitted an application to EPA for waiver of secondary treatment requirements and the Regional Board has approved a waiver permit. Project level studies determined ocean disposal to be the most feasible method of waste disposal. Ocean outfall improvements and a phased approach to secondary treatment are included in Watsonville's Clean Water Grant Project. If a waiver from secondary treatment is granted, the project will provide advanced primary treatment. Local sewering entities retain ownership and direct responsibility for wastewater collection and transport systems up to the point of discharge to interceptors owned and operated by Watsonville. The City is implementing a pretreatment program and the Regional Board has approved a waiver permit.

VI.B.3. CARMEL RIVER HYDROLOGIC UNIT

Summarized municipal dischargers in the Carmel River Hydrologic Unit include Carmel Sanitary District. Table 4-3 displays dischargers summarized for the Carmel River Hydrologic Unit.

Table 4-3. Carmel River Hydrologic Unit Summarized Municipal Dischargers

Carmel Sanitary District
Carmel Valley Sanitation District
Village Green
White Oaks
Carmel Valley Ranch
Carmel Highlands Inn
Carmel Sanitary Association

The Carmel Sanitary District operates a secondary wastewater treatment plant with ocean disposal serving Carmel-by-the-Sea, Del Monte Forest, and a few adjacent areas. The outfall system terminates within a portion of Carmel Bay that is designated an Area of Special Biological Significance (ASBS). The District is developing a reclamation project for irrigation of Monterey Peninsula Golf Courses. A high concentration of golf courses in a water short area makes reclamation particularly desirable and attractive.

Carmel Valley Sanitation District operates three facilities in Carmel Valley. These include community septic tank/subsurface disposal systems at Village Green and White Oaks and a tertiary type treatment plant with golf course reclamation at Carmel Valley Ranch. No changes are recommended unless public health or water quality problems develop. Should the need arise for specific septic system maintenance in Carmel Valley, local agencies should be considered for management responsibilities.

Comprehensive studies to determine the feasibility of establishing separate treatment plants have been completed for the Carmel Valley area. These studies conclude that on-site septic systems should remain operational until further ground water monitoring data shows sewers are necessary. Wastewater treatment and reuse on the Carmel Valley Ranch Golf Course provides an optimal way of managing waste generated in the area.

Carmel Highlands wastewaters should continue to be treated in on-site wastewater systems except at the Highlands Inn and the Carmel Highlands Sanitary Association. Both of these systems will continue to discharge treated secondary quality effluent to the Pacific Ocean.

VI.B.4. SANTA LUCIA HYDROLOGIC UNIT

The U.S. Navy's Point Sur wastewater facilities and the State Department of Parks and Recreation Pfeiffer Big Sur State Park facilities are the only significant facilities in this hydrologic unit. Ocean discharge from the U. S. Navy is being discontinued and is being replaced with a subsurface land disposal system. The subsurface land disposal system at Pfeiffer Big Sur State Park also seems adequate. If expansion to this facility is considered or if ground or surface water degradation from this discharge is detected, other means of disposal, such as reclamation, are recommended.

VI.B.5. SALINAS RIVER HYDROLOGIC UNIT

The extensive Salinas River Hydrologic Unit includes the Monterey Peninsula and southern coastal area of Monterey Bay, the City of Salinas, agricultural and small urban centers of the Salinas Valley, and recreational developments in the upper watersheds. Major dischargers in the Salinas River Hydrologic Unit include the Monterey Regional Water Pollution Agency (MRWPCA). Table 4-4 displays dischargers summarized below for the Salinas River Hydrologic Unit.

Table 4-4. Salinas River Hydrologic Unit Summarized Municipal Dischargers

Monterey Regional Water Pollution Control Agency (MRWPCA)
U.S. Army Fort Hunter Liggett
California Army National Guard - Camp Roberts
King City
City of Paso Robles
City of Atascadero
San Luis Obispo County Service Area No. 7A Oak Shores
San Luis Obispo County Service Area No. 19 Heritage Ranch Development

The recommended plan for the Monterey Peninsula-Salinas area calls for consolidation of

Monterey Peninsula, Salinas, Castroville, and other Monterey Bay municipal wastewater flows into a regional wastewater treatment plant and outfall. Discharge is to central Monterey Bay outside the prohibition zone described in Chapter 5 "Discharge Prohibitions" under "Waters Subject to Tidal Action." Upon completion of the regional plant, wastewater treatment plants in Monterey, Salinas (2), Castroville, and Fort Ord will be taken out of service. The Monterey Regional Water Pollution Control Agency (MRWPCA) was established to manage and implement regional consolidation.

It is recommended MRWPCA implement wastewater reclamation. MRWPCA plans to provide reclaimed water to the Castroville Irrigation Project which involves irrigating food crops in the Castroville area with water reclaimed at the regional plant blended with water diverted from the Salinas River.

New major residential developments proposed within the service area of the Regional Project should connect to the regional system unless studies can show that water quality and public health concerns can be properly mitigated. Sewerage feasibility studies and aerial ground water studies should continue in this sub-basin to assure that adequate sewage treatment and disposal capabilities are maintained for both existing and proposed development.

Recommended plans for Salinas Valley communities, the U. S. Army's Fort Hunter Liggett, the California Army National Guard's Camp Roberts, and recreational areas in the upper watershed involve separate wastewater treatment and disposal facilities.

Dischargers along the Salinas River should remain as separate treatment facilities with land disposal to evaporation/percolation systems and land application (irrigation) systems where possible. Disposal should be managed to provide maximum nitrogen reduction (e.g., through crop irrigation or wet and dry cycle percolation). Facility expansions shall include means for nitrogen reduction. Shallow ground water monitoring at these facilities will determine if additional improvements are necessary. King City should consider expanding its service area to include Pine Canyon if development continues in that area.

The City of Paso Robles owns and operates a secondary treatment plant (4.9 mgd) utilizing trickling filtration followed by oxidation ponds. Disposal is by evaporation and percolation from the oxidation ponds and by discharging from the last pond to the Salinas River channel. Use of reclaimed water should be investigated and implemented, if feasible. A reduction of inorganic salt in the effluent would increase its desirability to potential users. A report, "Water Quality in the Paso Robles Area," published by the California Department of Water Resources in 1981 made water quality control recommendations, including a recommendation for more stringent control of total dissolved solids and sodium in the City's wastewater treatment plant discharge. A Regional Board Salt Balance Study is planned to further define the need and methods of salt reduction.

The City of Paso Robles also owns and operates the wastewater facility serving the California Youth Authority and Paso Robles Airport Wastewater treatment plant (0.10 mgd). Disposal is to a series of oxidation-percolation ponds located adjacent to Huerhuero Creek. Wastewater reclamation uses should be investigated. An effluent pump exists at the plant in case wastewater reclamation potential develops. The City is planning an interceptor sewer to eliminate this facility and provide all treatment and disposal at its main City facility.

The City of Atascadero (1.67 mgd) owns and operates a wastewater collection, treatment, and disposal system serving part of the City. Pond treatment is provided followed by land disposal to percolation ponds and by irrigation of a golf course. San Luis Obispo County Health Department has documented public health problems and water quality problems arising from failing on-site sewage disposal systems in areas within the City. The City was sewered in the most significant problem areas, but additional sewering is needed.

Dischargers in the Nacimiento Reservoir area include San Luis Obispo County Service Area No. 7A, Oak Shores Development (0.1 mgd); and, San Luis Obispo County Service Area No. 19, Heritage Ranch Development (0.40 mgd). Wastewater facilities for the Oak Shores Development consist of two aerated treatment ponds and spray disposal. Part of the collection system is located below the spillway elevation of Nacimiento Reservoir. This has been a

source of excessive infiltration in the past and the problem has been corrected. This area should be watched closely as reservoir level rises and wastewater flows increase to insure infiltration and/or exfiltration do not reoccur. Major expansion of wastewater facilities is expected in the future. As the development grows, new disposal facilities should be relocated well away from Nacimiento Lake.

Wastewater at Heritage Ranch is treated in aerated lagoons at the development. Discharge is to a holding pond, filtered, and then discharged to a drainageway located outside the Nacimiento Reservoir watershed.

Camp Roberts is a U. S. Army installation that is leased by the California National Guard as a major training site. Wastewater flows that vary from 3000 gpd in winter to nearly 1.0 mgd in summer are treated to secondary levels prior to disposal in a series of percolation/evaporation ponds located near the Salinas River. The facility was upgraded in 1980 and there are no additional recommendations.

Dischargers in the San Antonio Reservoir watershed include Monterey County's Department of Parks and Recreation and the U.S. Army's Fort Hunter Liggett. There are no recommended changes to facilities operated by the Monterey County Department of Parks and Recreation. The U.S. Army, Fort Hunter Liggett operates wastewater treatment facilities located adjacent to the San Antonio River. The recommended plan is to maintain the existing facilities with improvement of the spray disposal area.

VI.B.6. ESTERO BAY HYDROLOGIC UNIT

Municipal wastewater management plans for the Estero Bay Hydrologic Unit are described for each of these four areas: North Coast, Morro Bay, San Luis Obispo Creek, and South County Regions. Table 4-5 displays dischargers summarized below.

Table 4-5. Estero Bay Hydrologic Unit Summarized Dischargers

Cambria Community Services District
San Simeon Acres Community Services District
City of Morro Bay and Cayucos Sanitary District
California Men's Colony
Los Osos septic tank/leachfield systems
City of San Luis Obispo
Avila Beach County Water District
San Luis Obispo County Service Area No. 18-Country Club Estates
City of Pismo Beach
South San Luis Obispo County Sanitation District
Lopez Recreation Area Wastewater Treatment Plant

Dischargers in the North San Luis Obispo Coast include Cambria Community Services District (1.0 mgd) and San Simeon Acres Community Services District (0.2 mgd).

Secondary treatment facilities at Cambria have a design capacity of 1.0 mgd and include a land outfall and spray irrigation system for effluent disposal, and an effluent holding reservoir. Excess effluent that cannot be spray-irrigated is pumped to the reservoir for later land disposal or discharged during wet weather through a sand filter bed to Van Gordon Creek. The District is evaluating land disposal improvements. Implementation of this plan is the responsibility of Cambria Community Services District.

San Simeon Acres Community Services District owns and operates a secondary treatment (activated sludge) plant with design capacity of 0.2 mgd. Wastewater visitor complex generated at Hearst Castle and within the community is treated and discharged to the Pacific Ocean through an ocean outfall. The recommended plan is to retain the treatment plant.

Dischargers in the Morro Bay area include the City of Morro Bay and Cayucos Sanitary District (2.1 mgd), California Men's Colony (CMC) (1.2 mgd), and Los Osos- Baywood septic tank leachfield systems.

The City of Morro Bay and the Cayucos Sanitary District jointly own treatment facilities with ocean outfall disposal. Wastewater is being treated by a newly constructed plant and discharged through a newly constructed ocean outfall. In order to

maximize plant capacity and meet Ocean Plan requirements, part of the effluent receives primary treatment only and part receives secondary treatment. Primary and secondary quality effluents are blended before disposal to the Pacific Ocean in compliance with a secondary treatment waiver.

Recently renovated wastewater treatment facilities at California Men's Colony also serve the California National Guard Camp, Cuesta College, the County Educational Center, and the County Operational Facility. Secondary treatment with coagulation/filtration, and subsequent disposal to Chorro Creek (stream flow augmentation) are provided. Effluent is also used to irrigate fodder crops on nearby lands owned by California State Polytechnic University.

Development on small lots in Los Osos-Baywood has resulted in one of the most densely populated areas without public sewers on the central coast. Septic tank effluent is discharged in predominantly sandy soil over a ground water basin which is the sole source of water for the area. Some shallow wells have approached and exceeded the public health maximum nitrate concentration limit. The County of San Luis Obispo conducted a Clean Water Grant funded study of this situation. Study findings resulted in a Basin Plan Prohibition of discharges effective November 1, 1988. The County has not implemented the recommended project of sewering the area. (A new septic system discharge prohibition now exists for the area).

Dischargers in the San Luis Obispo Creek area include the City of San Luis Obispo (5.1 mgd), Avila Beach County Water District (0.1 mgd), and San Luis Obispo County Service Area (CSA) No. 18, Country Club Estates (0.12 mgd).

The City of San Luis Obispo wastewater treatment facilities serve as a regional plant for the City and certain proximal unincorporated county areas. Trickling filters provide secondary treatment before disposal to San Luis Obispo Creek. Infiltration and inflow in the wastewater collection system causes excessive wet weather flows and intermittent discharges to San Luis Obispo Creek of partially treated wastewater. The recommended plan for San Luis Obispo is improving the collection and treatment facilities capacity to eliminate these discharges. The City's Wastewater Management Plan should be implemented to provide treatment necessary to comply with stringent permit requirements.

The small community of Avila Beach is served by a small advanced primary trickling filter wastewater treatment facility owned and operated by the Avila Beach County Water District. Design capacity of the plant was originally 0.18 mgd, but was downgraded in 1986 to 0.1 mgd as the NPDES permit was revised to include secondary treatment standards for tickling filters. Current average flow is only 0.07 mgd. Wastewater disposal is through an ocean outfall to the Pacific Ocean. Additional treatment and/or outfall modification will be necessary as flow increases. Oceanographic studies would be required to determine appropriate modifications (e.g., lengthen the outfall and add a multiport diffuser).

Country Club Estates (CSA No. 18) is a small subdivision in South San Luis Obispo County that historically relied on septic tank systems for wastewater treatment and disposal. A septic tank system performance survey completed in January, 1981, identified significant public health hazards from numerous failing septic tank systems in the subdivision. The septic systems were replaced in 1988 by a small secondary treatment plant (0.12 mgd) with effluent disposal via golf course irrigation at the San Luis Obispo Golf and Country Club.

Dischargers in the South San Luis Obispo County Region include the City of Pismo Beach (1.2 mgd), South San Luis Obispo County Sanitation District (3.0 mgd) (serving the City of Arroyo Grande, City of Grover City, and Ocean Community Services District), and Lopez Recreation Area wastewater treatment plant (0.10 mgd). These dischargers provide secondary treatment of wastewater through three separate facilities. Pismo Beach has a land outfall to the South San Luis Obispo County Sanitation District ocean outfall. Plant reliability improvements were made in 1987. Future treatment plant enlargements should provide duplicate process units for improved operation and maintenance. A long range solids management plan must be developed and implemented.

South San Luis Obispo County Sanitation District disposes of secondary effluent through an ocean outfall to the Pacific Ocean. The District has enlarged its facilities to 3.0 mgd and changed from activated sludge to fixed film reactor. A long range

solids management plan is also needed for this plant.

The Lopez Recreation Area treatment facilities serve County facilities adjacent to Lopez Lake. Lopez Lake serves as a municipal water supply for downstream coastal communities. It is recommended land disposal of wastes be continued. Ground water quality monitoring should be used to provide warning of any potential ground water problems downstream of the disposal area. Implementation of this plan is the responsibility of the County of San Luis Obispo.

VI.B.7. CARRIZO PLAIN HYDROLOGIC UNIT

There are no municipal sewerage systems in the Carrizo Plain Hydrologic Unit; recommended practices for individual disposal systems will pertain to this area.

VI.B.8. SANTA MARIA RIVER HYDROLOGIC UNIT

The municipal wastewater management plans for the Santa Maria Valley and the Cuyama Valley are described separately for the City of Guadalupe, the City of Santa Maria, the Laguna County Sanitation District, Nipomo, and the New Cuyama wastewater treatment plant.

It is recommended that separate wastewater treatment and disposal/reclamation facilities be maintained by the City of Guadalupe (0.5 mgd), the City of Santa Maria (7.8 mgd), and the Laguna County Sanitation District (3.2 mgd). Discharge will be to land in each case.

The City of Guadalupe provides primary treatment followed by mechanically aerated lagoons. An unincorporated neighborhood known as the Gularte Tract is located adjacent to Guadalupe. A lift station and interceptor have been constructed to transport Gularte's wastewater to the City's collection system.

The recommended plan for Guadalupe is to complete additional storage ponds and disposal facilities to insure containment of wastewaters during wet weather and accommodate planned growth and to continue effluent discharge to land. Use of reclaimed water to irrigate nearby pasture lands is encouraged and should be maximized. Implementation of this plan is the responsibility of the City of Guadalupe. The County of Santa Barbara will be responsible for wastewater collection and transport systems for Gularte Tract up to the point of discharge to interceptors owned and operated by Guadalupe.

The City of Santa Maria provides wastewater collection, treatment, and disposal services to the City of Santa Maria, Santa Maria Airport District, and part of Laguna County Sanitation District. Biological secondary treatment is provided with disposal to percolation ponds and irrigation lands. The recommended plan for Santa Maria is to retain the existing treatment and disposal facilities. Since the Santa Maria ground water basin is in a state of adverse dissolved solids balance, it is imperative that quantities of total dissolved solids, sodium, chloride, nitrogen, and nitrogen compounds be kept to a minimum by implementing a strict source control ordinance. Additional measures -- importing better quality water, drilling new wells, partial desalting, etc. - may be required in the future to provide a suitable water supply for the area. Laguna County Sanitation District retains ownership and direct responsibility for wastewater collection and transport systems up to the point of discharge into interceptors owned and operated by the City of Santa Maria.

A secondary wastewater treatment plant owned and operated by Laguna County Sanitation District treats most of the wastewater generated within the District. Wastewater is discharged to approximately 2,250 acres of private lands located adjacent to the facility. The landowners and the County have a 30-year agreement for irrigation of fodder, fiber, and seed crops. The recommended plan for Laguna is to improve plant performance and increase capacity through a staged construction plan. Enough land is available to allow expansion and continue reclamation. Recommended improvements include increasing capacity and reliability of the Orcutt Lift Station, increasing sludge drying bed area, and expanding effluent, pumping, storage, and conveyance facilities. Funding of future

improvements and plant expansions would be through connection and user charges. Laguna County Sanitation District is responsible for implementation of the recommended plan. Impact of salts must be minimized by implementing a strict source control ordinance and discharging to areas outside the main ground water recharge area.

Failing individual on-site sewage disposal systems in the community of Nipomo resulted in a treatment facility being completed in 1987. Treatment is by aerated lagoons and disposal is by percolation beds. Sewer service is provided to downtown Nipomo and County operated systems of Nipomo Palms, Black Lake Estates, and Galaxy Subdivisions. The recommended plan is to extend the sewer system to small lot areas as growth allows.

Existing facilities at the New Cuyama Wastewater Treatment Plant provide primary treatment of wastewater, with some aeration. Effluent is chlorinated before discharge to Salisbury Creek. The recommended plan for New Cuyama is to study existing facilities, determine future needs of the community, and, since water is in short supply, explore wastewater reclamation alternatives. Cuyama Community Services District is the responsible party for wastewater and water supply facilities in New Cuyama. It is recommended that exploratory wells be drilled to find a higher quality water supply. If a lower salt content water is not available, the existing water supply should be partially demineralized.

VI.B.9. SAN ANTONIO CREEK HYDROLOGIC UNIT

Los Alamos Community Services District owns and operates a wastewater treatment and disposal facility to serve the Los Alamos community. Wastewater (0.1 mgd) is treated in mechanically aerated ponds and discharged to disposal ponds and a spray reclamation area.

VI.B.10. SANTA YNEZ RIVER HYDROLOGIC UNIT

Municipal wastewater management plans for the Santa Ynez River Hydrologic Unit are described below. Table 4-6 displays dischargers discussed below.

Table 4-6. Santa Ynez River Hydrologic Unit Summarized Municipal Dischargers

City of Lompoc
Mission Hills Community Services District
Vandenberg Air Force Base
U. S. Department of Justice, Bureau of Prisons
Buellton Community Services District
City of Solvang
Cachuma County Sanitation District

Parts of Lompoc Valley ground water basin are in a state of adverse salt balance because of municipal and agricultural discharges. It is imperative that impacts of point source waste discharges to land be reduced by continuing to implement strict salt limitations, source control programs, and other salt management practices.

The City of Lompoc operates a secondary treatment facility (5.0 mgd) and discharges treated effluent to Santa Ynez River. The City also provides service to Vandenberg Village Community Services District and sewered areas of Vandenberg Air Force Base. The recommended plan for Lompoc is to control mineral concentrations in the effluent by enforcing strict limits on discharges to the sewer system and to continue to implement a pretreatment program. Implementation of this plan is the responsibility of the City of Lompoc. Vandenberg Air Force Base and Vandenberg Village Community Services District retain ownership and direct responsibility for wastewater collection and transport systems up to the point of discharge into the wastewater treatment plant and/ or interceptors owned and operated by the City of Lompoc.

In 1980, the Mission Hills Community Services District (0.4 mgd) was formed, assuming ownership and responsibility for water supply and sewage disposal in Mission Hills. The District expanded and

upgraded its La Purisima Plant and eliminated the Rucker Road Plant. Wastewater is treated in mechanically aerated ponds and discharged to a series of evaporation/percolation ponds and reclamation areas. Separate water reclamation requirements were adopted for Mission Belle Dairy as a primary user of reclaimed water for pasture and fodder crop irrigation.

There are isolated areas of Vandenberg Air Force Base that are not served by the Base's collection system. Separate treatment and disposal systems exist to serve these areas. Due to the isolation of these systems, it is recommended that they be retained. Efficient operation and maintenance of these systems will protect public health and water quality.

The United States Department of Justice, Bureau of Prisons, owns and operates existing facilities at the U.S. Penitentiary (0.6 mgd) which provide secondary treatment of wastewater. Treated wastewater is reclaimed for irrigation of forage crop land.

It is recommended that facilities be maintained separately at Buellton Community Services District (0.65 mgd), City of Solvang (1.0 mgd), and Cachuma County Sanitation District (0.22 mgd). Secondary treatment prior to land disposal coupled with a strict source control program will be necessary to protect local ground waters in these three areas.

The City of Solvang operates a secondary wastewater treatment facility to serve the City and Santa Ynez Community Services District with effluent disposal to evaporation/percolation ponds. Since the disposal ponds are located in a flood-prone area, it is imperative that sufficient disinfection capacity be available to disinfect effluent during wet weather. Expansion of capacity should be considered for ongoing growth in areas adjacent to present City and District boundaries. Implementation of this plan is the responsibility of both the City of Solvang and Santa Ynez Community Services District. Need for, and feasibility of providing, sewerage facilities for the Los Olivos-Ballard areas should be investigated by the County of Santa Barbara. Treatment and disposal service for this area be contracted with the City of Solvang.

The recommended plan for Cachuma County Sanitation District is to continue to treat and dispose of wastewater in percolation ponds and spray fields outside the Cachuma Reservoir watershed. Since ground waters down gradient from the spray field are used for domestic water supply, sampling of the nearest down gradient well is recommended to insure that water supply quality is not adversely affected by the discharge.

VI.B.11. SOUTH COAST HYDROLOGIC UNIT

Summarized municipal wastewater treatment and disposal agencies in the South Coast Hydrologic Unit are described separately for the Goleta Sanitary District (9.7 mgd), City of Santa Barbara (11.0 mgd), Montecito Sanitary District (1.5 mgd), Summerland Sanitary District (0.20 mgd), and, Carpinteria Sanitary District (2.0 mgd) wastewater treatment plants.

Goleta Sanitary District operates a wastewater collection system within the District and a treatment and ocean disposal system to provide service to Goleta Sanitary District, Isla Vista Sanitary District, University of California at Santa Barbara, Santa Barbara Municipal Airport, and facilities of Santa Barbara County. EPA granted the District a waiver from secondary treatment requirements. The waiver permit limits flow to 7.9 mgd provided mass emission rates do not exceed limits based on a flow of 7.3 mgd. In order to meet EPA's conditions and Ocean Plan criteria, part of the effluent receive primary treatment only and part receives secondary treatment. Primary and secondary effluent are blended before disposal to the Pacific Ocean. The District implements a pretreatment program. Isla Vista Sanitary District, University of California at Santa Barbara, Santa Barbara Municipal Airport, and Santa Barbara County retain ownership and direct responsibility for wastewater collection and transport systems up to the point of discharge into interceptors owned and operated by Goleta Sanitary District. A long range solids management plan is needed to assure sludge disposal needs are met.

The recommended plan for the City of Santa Barbara is to retain El Estero Wastewater Treatment Plant, with disposal to the Pacific Ocean, along with implementation of the City of Santa Barbara wastewater reclamation project. The City could consider implementing a cost-effective composting program to reduce transportation costs. The City implements a pretreatment program and also provides service to an unincorporated community in Mission Canyon located above the City.

The recommended plan for Montecito Sanitary District is to continue secondary treatment with disposal to the Pacific Ocean.

The recommended plan for Summerland Sanitary District is to expand and upgrade existing facilities to insure reliable plant operations and to accommodate planned growth. Recommended improvements are addition of standby power, dual processes, and continuous monitoring of total chlorine residual.

The recommended plan for Carpinteria Sanitary District is to retain existing secondary treatment facilities with disposal to the Pacific Ocean.

VI.C. INDUSTRIAL WASTEWATER MANAGEMENT

In general, the alternatives available to industrial discharges are the following: (1) ocean discharge and compliance with the State Ocean Plan, the State Thermal Plan, and Public Law 92-500; (2) containment of nonsaline and non-toxic wastes on land; (3) reinjection of oil and gas production brines; (4) inland surface water discharge, if other alternatives are proved infeasible; and, (5) abandonment of the treatment facility and connection to a publicly owned treatment works. In most cases, alternatives will be limited by standards of performance and pretreatment standards being developed by EPA. It should also be noted that federal guidelines will be subject to regional considerations such as important fishery resources or wildlife areas which could necessitate making regional industrial discharge requirements more stringent than national performance standards.

Specific effluent limitations are being promulgated for existing industrial waste discharges together with standards of performance and pretreatment standards of performance for new sources pursuant to sections 304(b), 306 (b), and 307(b), of the federal Water Pollution Control Act. Effluent limitations were being circulated for comment by the EPA. Waste source categories of particular interest in the basin which will be covered by those sections of the federal law include:

Meat product and rendering processing

Dairy product processing

Canned and preserved fruits and vegetables processing

Canned and preserved seafood processing

Cement Manufacturing

Feedlots

Electroplating

Beet sugar processing

Petroleum production and refining
Steam electric power plants

Leather tanning and finishing

Further information pertaining to industrial discharges can be found in the Management Principles and Control Actions Section of Chapter 5. The State Water Resources Control Board Plans and Policies Section, Discharge Prohibition Section, and Regional Board Policies Section are likely to apply (depending on site specific circumstances).

VI.D. SOLID WASTE MANAGEMENT

The protection and maintenance of water resources requires consideration and regulation of solid waste management practices. This section discusses present and future solid waste production, existing disposal practices and their effect on water quality, and proposed plans for solid waste disposal within the study area.

Land disposal is regulated by the California Code of Regulations, Title 23, Chapter 15 (Chapter 15). In the vernacular of Chapter 15, wastes are classified as either hazardous waste, designated waste, nonhazardous solid waste, or inert waste. Waste Management Units (WMUs) are classified as either Class I, II, or III depending on the type of waste to be disposed of in the unit. Class I WMUs have the most restrictive siting criteria and must be constructed to provide optimum conditions for isolation of wastes from waters of the State. A double liner and a leachate collection and removal system (LCRS) is required for all Class I units. Class II WMUs also have relatively restrictive siting and construction standards and are designed to totally isolate wastes from the environment. Double liners and LCRSs are typically, but not always, required for Class II units. Class III WMUs must be sited and constructed such that no impairment of beneficial uses of surface or ground water beneath or adjacent to the site occurs. Siting and construction standards for Class III units are the least restrictive of the three, but the requirements are still considerable.

Wastes are considered hazardous if they meet the criteria defined in CCR Title 22, Section 66300. Examples of wastes that are considered hazardous include: waste solvents, waste pesticides, and waste electroplating solutions, to name a few. Hazardous wastes must be discharged only at Class I WMU.

Wastes are classified as designated if, under ambient conditions at the WMU, they may be released in concentrations in excess of applicable water quality objectives or cause degradation of waters of the State. Some examples of designated waste include, wet sewage treatment plant sludge, oil field wastes, and some drilling muds. Designated wastes must be disposed of only at Class I WMU's, or at Class II WMU's which are approved for that particular type of waste.

Nonhazardous solid wastes consist of the more typical household and industrial wastes including: trash; rubbish; ashes; demolition and construction wastes; discarded home and industrial appliances; manure; and vegetable or animal solid or semi-solid wastes provided they do not meet the criteria mentioned above for hazardous or designated wastes. Nonhazardous solid waste may be disposed of at any classified WMU, but normally it is disposed of only at Class III WMUs to conserve the diminishing volume in the few operating Class I and Class II WMUs.

Inert waste does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives and does not contain significant quantities of decomposable waste. Some examples of inert wastes include: broken up concrete rubble and excess clean earth fill. Inert wastes do not necessarily need to be disposed of at classified waste management units (i.e., Class I, II or III), but waste discharge requirements may be issued for the discharge at the discretion of the Regional Board.

There are 28 authorized active waste disposal sites regulated by the Central Coast Regional Board. Of the 28 sites, 26 are Class III landfills, with one Class I landfill, and one Class II surface impoundment. Additional information regarding a specific waste management unit can be found in the respective County Waste Management Plan in which the unit is located.

In recent years, data indicates municipal solid waste landfills may be having a greater impact on water resources than was previously anticipated. Legislation was passed in 1984 which requires all owners of active, inactive, or former landfills to initiate a study to determine if the landfilling operation has had an impact on waters of the State. Approximately 150 sites are evaluated per year throughout the State, with approximately nine sites per year coming from the Central Coastal Region. Further studies and/or corrective actions are initiated at all sites impacting State waters.

A recent report from the Assembly Office of Research has documented California's dwindling remaining landfill capacity. In general, remaining landfill capacity within the Central Coastal Region is higher than most areas of the State. However, the ratio of landfill closures to landfill expansions or opening of new landfills within the region for the last five years is approximately 4:1. This ratio will probably remain the same or increase with the more stringent regulatory requirements and the time consuming permitting process required for siting of new waste management units. In order to avoid a landfill capacity crisis similar to the situation on the East Coast, our solid waste handling and disposal practices should be reevaluated and a more environmentally sound management practice should be developed.

The Toxic Pits Cleanup Act of 1984 (TPCA) declares that discharges of liquid hazardous wastes or hazardous wastes containing free liquids into lined or unlined impoundments pose a serious threat to the quality of the waters of the State. Therefore, the legislature enacted TPCA as Article 9.5 (Surface Impoundments) of Chapter 6.5 (Hazardous Waste Control) of Division 20 of the California Health and Safety Code with the intent of insuring that existing surface impoundments were either made safe or were closed.

The effect of TPCA was to prohibit discharge (defined to include storage) of liquid hazardous wastes and hazardous wastes containing free liquids to surface impoundments, which did not satisfy specific construction and monitoring standards, by June 30, 1988, or December 31, 1988, depending on the location and characteristics of the impoundment. TPCA allows specific exemptions with varying application and granting deadlines. However, on and after January 1, 1989, all discharge of liquid hazardous wastes and of hazardous wastes containing free liquids to surface impoundments which had not been granted exemptions, and which did not meet specific construction and monitoring standards, was prohibited. There is a rare set of circumstances which may exempt a surface impoundment from the January 1, 1989, deadline.

TPCA is fulfilling its goal of reducing the threat of liquid hazardous wastes to the waters of the State.

VI.D.1. SOLID WASTE DISCHARGE PROHIBITIONS

Discharge is prohibited as follows:

1. Any Class I solid waste material to any location other than Class I solid waste disposal site.

2. Any Class II solid waste materials to any location other than Class I or II solid waste disposal sites.

3. Solid wastes shall not be discharged to rivers, streams, creeks, or any natural drainage ways or flood plains of the foregoing.

VI.E. STORM WATER MANAGEMENT

Storm water runoff can be a significant pollution source. The United States Environmental Protection Agency (U.S. EPA) estimates that at least 33% of all contamination in lakes and estuaries and 10% of all river contamination are caused by storm water runoff. Sources of pollution include runoff from industrial facilities, construction sites, and urban municipalities.

Federal regulations (40 Code of Federal Regulations 122.26) require certain industrial facility owners and/or operators to obtain storm water discharge permits. The specific types of facilities that need coverage is dependent upon the facility's Standard Industrial Classification Code. The program is primarily directed at manufacturing facilities, oil and gas extraction facilities, transportation maintenance facilities (trucking and mass transit), and construction sites (with greater than five acres of land disturbance). In addition, municipalities with populations greater than 100,000 must participate in a municipal storm water permitting program.

In August and September 1992, the State Water Resources Control Board (State Board) adopted the statewide General Construction Activity Storm Water

Permit and amended the statewide General Industrial Activities Storm Water Permit. The statewide permits expire five years after adoption. At that time, Regional Boards will most likely adopt Region specific General Permits.

The storm water program objectives include identification and elimination of pollutant contact with storm water by implementation of Best Management Practices. To obtain coverage under a General Permit, an applicant (i.e., those facilities required under 40 Code of Federal Regulations 122.26) must submit a Notice of Intent and the appropriate fee. The Notice of Intent is an agreement accepting the discharge specifications and monitoring requirements of the General Permit.

General Industrial Permit Requirements include the development of a Storm Water Pollution Prevention Plan and storm water runoff monitoring. The Storm Water Pollution Prevention Plan is a facility specific document which includes: a site description, facility processes, pollutant sources, storm water management system, employee education and training program, and measures proposed to eliminate non-storm water discharges. Minimum monitoring and reporting requirements include: sampling and analysis of four pollutant indicator parameters, wet and dry weather storm water conveyance system inspections, and annual reporting. The Regional Board can recommend additional monitoring parameters based on the presence of specific pollutant sources.

The Construction Permit has similar requirements regarding development of a storm water pollution prevention plan, but mainly deals with reducing pollutant sources associated with erosion and sediment transfer and chemicals used at construction sites. The monitoring requirements are less stringent and no sampling is required.

Annual monitoring reports required by the Industrial permit are due July 1 of each year. Sampling results and annual report information will be used to prioritize Regional Board staff education and enforcement efforts and to develop future group general permits. Compliance is measured through implementation of pollution prevention Best Management Practices, reduction in pollutant loadings, and accurate and timely report submittal.

VI.F. BAY PROTECTION AND TOXIC CLEANUP PROGRAM

The State Water Resources Control Board (State Board) established the Bay Protection and Toxic Cleanup Program in response to legislation enacted in 1989 (Chapter 269; Senate Bill 475 Torres) which added Chapter 5.6, Sections 13390 through 13396, to the California Porter-Cologne Water Quality Control Act. The Bay Protection and Toxic Cleanup Program is a statewide program that is coordinated with the California Department of Fish and Game and California Environmental Protection Agency's Office of Environmental Health Hazard Assessment. The Water Code requires the State and Regional Water Quality Control Boards to do the following to attain the goals of the Bay Protection and Toxic Cleanup Program:

1. Develop and maintain a program to identify toxic hot spots, plan for their cleanup or mitigation, and amend Water Quality Control Plans/Policies to abate toxic hot spots;

2. Formulate and adopt a Water Quality Control Plan for enclosed bays and estuaries;

3. Review and, if necessary, revise Waste Discharge Requirements to conform to the Plan;

4. Develop a database of toxic hot spots;

5. Develop an ongoing monitoring and surveillance program;

6. Develop sediment quality objectives;

7. Develop criteria for assessment and priority ranking of toxic hot spots; and

8. Fund the program through fees on point and nonpoint dischargers. (California Code of Regulations, Title 17, Section 2236, authorizes the fee program).

Funds for the Bay Protection and Toxic Cleanup Program will come from user fees, as proposed by State Board staff. User fees have been drafted for the following:

1. All NPDES and WDR dischargers to the ocean, bays, or estuaries;

2. Counties or cities which operate a storm drain system which discharges to the ocean, a bay, or estuary;

3. Dischargers of agricultural drainage to the ocean, bays, or estuaries;

4. Boat construction and repair facilities;

5. Boat marinas and recreational facilities;

6. Operators of commercial harbors and ports; and

7. Operators of dredging discharges.

The fees are based on threat to water quality, as defined by the Waste Discharge System (WDS) ranking system (threat to water quality and complexity criteria).

The Central Coast Regional Board has identified 17 potential toxic hot spots to be addressed under this program. These 17 sites are identified in the Appendix. An assessment/monitoring plan has been developed for potential toxic hot spots. Potential hot spots are ranked according to threat to beneficial uses. The assessment/monitoring plan includes the following:

1. Definition of the extent of degradation;

2. Analysis of existing point and nonpoint discharges in the area;

3. Identification of contaminant sources; and

4. Development of options for removing the threat to beneficial uses, including consideration of additional effluent limits on point and nonpoint discharges and actual cleanup.

VI.G. MILITARY INSTALLATIONS

Military installations throughout the country include some of the largest and most complex contamination problems. In 1987, President Reagan signed into law Executive Order No. 12580 directing all federal facilities to investigate and remediate areas of environmental contamination. As a result, the U.S. Department of Defense has assumed responsibility for investigation and remediation at military bases. Certain environmental restoration projects involving hazardous materials and wastes from past military activities are being addressed through what is known as the U.S. Department of Defense Program. Although U.S. Department of Defense has assumed environmental restoration responsibility, the Regional Board is an active oversight participant.

From its inception, the Regional Board has been involved with a variety of military installation activities. Since 1990, this Regional Board has been actively and extensively involved in U.S. Department of Defense Program investigations and remedial activities at numerous military facilities within its jurisdiction. Active military installations in the Region addressed by the U.S. Department of Defense Program (current as of 1993) include Fort Ord, Presidio of Monterey, Monterey Naval Post Graduate School, Fort Hunter Liggett, Camp Roberts, Estero Bay Defense Fuel Supply Point, and Vandenburg Air Force Base. Fort Ord is unique since it is a closing base and has been identified as a federal superfund site. Four formerly used defense sites in the Region undergoing U.S. Department of Defense remediation (as of 1993) include: Camp San Luis Obispo - California National Guard, Camp San Luis Obispo - San Luis Obispo County, Paso Robles Airport, and Santa Barbara Airport. Potentially additional military facilities can be added to the U.S. Department of Defense Program.

Program Background

Decades of intense military activities have generated significant quantities of hazardous waste. As a result of insufficient internal control, improper handling and disposal practices, and inadequate regulation, military installations are now considered one of the Nation's most significant environmental polluters. Pollution problems are exacerbated by the large base size, the complex and varying missions, as well as routine personnel changes and inconsistent regulation and control. Many bases are actually small to midsize,

totally contained communities providing complete services for base operations. Services vary from base to base, but range from aircraft, vehicle, or shop maintenance and repair facilities to laundry services, photo shops, gas stations, and other typical municipal services (e.g., utilities, streets, water supply, sewerage, and solid waste disposal).

Past waste disposal practices in both government and private industries were insufficient to protect public health and the environment. Environmental laws and regulation developed in the 1970s addressed many deficiencies, but federal operations, especially the military, remained inadequately addressed. The military was adamant that sovereign immunity protected them from State and local environmental regulation. Enforcement actions to force the military to comply with State and federal regulation were often protracted or disregarded. In 1976, U.S. Department of Defense developed its Installation-Restoration Program to help identify, investigate, and cleanup contamination from past operations. Due to funding and timing, Program activities were initiated at most military facilities in the early 1980s.

In 1980, the federal Comprehensive, Environmental Response, Compensation, and Liability Act (CERCLA), which is also referred to as "Superfund" was enacted to address cleanup of hazardous substance disposal and spill sites. The Superfund Amendments and Reauthorization Act was enacted in 1986 to enhance hazardous waste cleanup. The Superfund Amendments and Reauthorization Act, in part, mandated the Defense Environmental Restoration Program specifically to address cleanups at U.S. Department of Defense facilities. The Defense Environmental Restoration Program included an Inland Restoration Program as a component. To carry out required environmental restoration at its military facilities, U.S. Department of Defense established the Defense Environmental Restoration Account as the funding mechanism.

Executive Order No. 12580 was enacted in 1987 to intensify investigation and remediation of environmental problems. The Executive Order directed all federal agencies to ensure environmental restoration. To comply with this Executive Order, U.S. Department of Defense has assumed lead responsibility to cleanup military bases throughout the world. California has the largest number of active military bases covered by the military cleanup plan.

As a result of Executive Order No. 12580 and growing public awareness, U.S. Department of Defense is now actively pursuing environmental restoration at military facilities. U.S. Department of Defense has demonstrated its restoration sincerity by providing oversight reimbursement to the State. The Defense/State Memorandum of Agreement signed by U.S. Department of Defense and State of California officials, provides State oversight cost reimbursement to a maximum of one percent (1%) of the total cleanup cost. The Memorandum of Agreement requires preparation and administration of a cooperative agreement between the State and Corp of Engineers to verify funding and services for remedial responses. The Memorandum of Agreement lists specific sites for which the State will receive federal funding for its oversight and regulatory involvement. In California, Regional Boards and the Department of Toxic Substances Control share State regulatory responsibility and reimbursement dollars allocated to the U.S. Department of Defense Program.

To ensure proper regulatory compliance and environmental restoration, Executive Order No. 12580 requires all federal agencies to complete cleanup pursuant to "Superfund." This means cleanups at all military installations must comply with the stringent federal CERCLA requirements, whether or not the base is a listed Superfund site. The Act requires federal facilities which are placed on the Superfund National Priorities List by the U.S. Environmental Protection Agency (U.S. EPA), to conduct cleanup following the National Contingency Plan and U.S. EPA procedures and standards. In this Region, Fort Ord is the only currently listed U.S. Department of Defense Superfund National Priority List site.

In addition to following federal CERCLA requirements, Superfund National Priority List sites must be conducted pursuant to agreements called Federal Facility Agreements. These agreements are

between the federal agency owning the base (e.g., Department of the Army at Fort Ord) and the U.S. EPA. The agreements may include certain State agencies. The Fort Ord Federal Facility Agreement includes the Regional Board and Department of Toxic Substances Control as signatories.
By federal law non-Superfund military sites must cleanup hazardous waste releases pursuant to federal Comprehensive, Environmental Response, Compensation, and Liability Act requirements and to State laws. Federal non-Superfund facilities may enter into a State compliance agreement. Such an agreement is called a Federal Facility Site Remediation Agreement. At Vandenburg Air Force Base (a non-Superfund site), a Federal Facility Site Remediation Agreement was signed by the Department of the Air Force, the Regional Board, and Department of Toxic Substances Control in June 1991. Both Federal Facility Agreements and Federal Facility Site Remediation Agreements identify roles, responsibilities, dispute resolution procedures, and schedules.

By signing an agreement (Federal Facility Agreement and Federal Facility Site Remediation Agreement), and following federal CERCLA requirements, site remediation is modified from typical State procedures. The modification eliminates the need for State and local permits and enforcement action. Generally, Waste Discharge Requirements, Cleanup of Abatement Orders, and local agency permits are not imposed. Such provisions were included to ensure compliance with stringent federal cleanup standards, while limiting permit and enforcement involvement by local or State Agencies. In some parts of the Country, local and State involvement slowed or obstructed cleanup efforts.

The federal CERCLA (Section 121) does require compliance with State and federal laws and regulations which are more stringent than the CERCLA, and which are necessary to ensure site-specific environmental and public health protection. This compliance process is referred to as "Applicable" or "Relevant and Appropriate" requirements, because it allows consideration of either "Applicable" or "Relevant and Appropriate" requirements pursuant to State or federal law and regulations. At Superfund sites, U.S. EPA has final authority to approve "Applicable" or "Relevant and Appropriate" requirements. At non-Superfund sites, the lead State agency is responsible to ensure "Applicable" or "Relevant and Appropriate" requirements are identified.

Federal Comprehensive, Environmental Response, Compensation, and Liability Act (Superfund) Response Process

Although cleanup pursuant to the federal CERCLA is quite complex, it was developed with the intent of simplifying regulatory requirements in a uniform manner and expediting environmental cleanup and restoration. The Act, although similar, is significantly more complex than the Regional Board's typical cleanup procedures pursuant to the California Porter-Cologne Water Quality Control Act. Following is a very simplified summary of the basic "Superfund" response process.

Many initial past military installation investigations included a Preliminary Assessment/Site Inspection. The Preliminary Assessment is an assessment based on existing, readily available information. The Preliminary Assessment attempts to evaluate the magnitude of a potential hazard and identify the source and nature of hazard release. The Site Inspection includes a site visit and possibly sample collection, soil borings, and well installation. The Site Inspection is intended to better characterize the problem and determine the need for further action. Often, information from the Preliminary Assessment/Site Inspection is used to place a site on the Superfund list.

Once a site has been Superfund listed, or has been identified as requiring remedial activities, more in-depth characterization is required. The next phase of remedial activities-site characterization is called the Remedial Investigation/Feasibility Study. The Remedial Investigation is the mechanism for collecting detailed site data to define fully the nature and extent of contamination. During the Remedial Investigation, treatability studies may be conducted to evaluate available treatment technologies in support of remedy selection. The Feasibility Study focuses on developing and screening specific remedial alternatives. The Feasibility Study goal is to identify preferred cleanup alternatives. The Remedial Investigation/Feasibility Study includes risk assessment, identifies "Applicable" or "Relevant and Appropriate" requirements, and develops cleanup goals.

The next phase is the Proposed Plan, which presents the preferred cleanup alternatives and allows public input. After public comments are considered, a Record of Decision is prepared at Superfund sites. The Record of Decision establishes cleanup levels and discharge standards and is based, in part, on identified "Applicable" or "Relevant and Appropriate" requirements. When the Record of Decision is complete and acceptable, the selected remedy is administratively approved by the military department, U.S. EPA, and the State (Regional Boards and Department of Toxic Substances Control). The final cleanup levels are established and "frozen" in the Record of Decision. Agencies that signed the Federal Facility Agreements also sign the Final Record of Decision. At non-Superfund sites in California, the typical document establishing the cleanup levels and discharge standards is called the Remedial Action Plan. The Remedial Action Plan is signed by the agencies that signed the Federal Facility Site Remediation Agreement. Decision Documents are used sometimes to identify cleanup levels for individual sites at non-Superfund installations. Agencies and the public can petition U.S. EPA to change the Record of Decision levels (or the State to change the Remedial Action Plan), if substantial evidence is available demonstrating that an established cleanup level is not protective of human health and the environment.

Once the Record of Decision (or Remedial Action Plan) is signed, Remedial Design plans are prepared to implement the Record of Decision. Remedial Action, the long-term remediation, begins when Remedial Design and construction are complete. Operation and maintenance, including monitoring, evaluate long term performance and ensure that the Remedial Action is carried out as intended. Long term remediation (e.g., ground water cleanup) continues until conditions of the Record of Decision (or Remedial Action Plan) have been met. Remediation progress must be evaluated at least every five years.

The federal CERCLA includes the Removal Action process to allow remediation of small/limited areas of contamination or time critical cleanups. A Removal Action may be undertaken at any time to address problems that do not require a full scale remediation project. Removal Actions are short term activities that remove immediate threats to public health or that can be implemented in a timely manner. Generally, Removal Actions are limited to $2 million and are completed in twelve months or less (e.g., removal and proper disposal of a small volume of surface soil contamination).

It is worthy to note that environmental assessment is addressed during the Remedial Investigation/Feasibility Study process. All military installations must comply with the National Environmental Policy Act by preparing an Environmental Impact Statement or Finding of No Significant Impact. An Environmental Impact Statement is similar to an Environmental Impact Report and a Finding of No Significant Impact is similar to a Negative Declaration in California. In California, National Environmental Policy Act compliance may not be sufficient to address all environmental impacts; thus, environmental assessment must also comply with the California Environmental Quality Act.

Regional Board Responsibility

The federal Clean Water Act and the California Porter-Cologne Water Quality Control Act give the Regional Board regulatory responsibility and authority to protect water quality, including waters within and beneath federal lands. The primary role of the Regional Board and its staff, relative to military installations (U.S. Department of Defense Program) is to ensure that waters of the State are adequately protected. Involvement includes review and direction of all investigation and remediation documents, site visits to guide field activities, and oversight to ensure that cleanup/remediation is carried out properly to protect beneficial uses of water resources. Identification of "Applicable" or "Relevant and Appropriate" requirements and direction on cleanup level establishment require considerable involvement by the Regional Board and its staff.

Typically, the U.S. EPA is the lead regulatory agency at Superfund sites (e.g., Fort Ord). The Regional Board and Department of Toxic Substances Control are responsible State agencies. In the past, at non-Superfund sites (all other military installations in the Region) either the Regional Board or Department of Toxic Substances Control has been the lead regulatory agency. At military installations where water quality and public health is threatened or impacted due to the release of hazardous

substances, the Regional Board and Department of Toxic Substances Control may have overlapping jurisdiction. A Memorandum of Understanding exists between the State Water Resources Control Board, the Regional Boards, and Department of Toxic Substances Control specifying roles and responsibilities in hazardous waste cleanups where overlap may occur. In September 1993, the California Environmental Protection Agency requested the overall State "lead" become Department of Toxic Substance Control's responsibility. This transition should not impact the basic responsibilities. In general, Regional Boards have primary regulatory responsibility for water and soils directly related to water quality protection. Department of Toxic Substances Control has primary regulatory responsibility for public health protection, soil (where waters are not involved), air, and hazardous waste treatment and storage.

In this Region, the Regional Board has been the lead State agency at six of the currently active (1993) U.S. Department of Defense facilities (Vandenberg Air Force Base, Estero Bay Defense Fuel Supply Point, Camp Roberts, Fort Hunter Liggett, Monterey Naval Post-Graduate School, and Presidio of Monterey). These sites are shown in Figure 4-1. The lead may be shared with Department of Toxic Substances Control at Fort Hunter Liggett, since there are several federal Resource Conservation and Recovery Act sites requiring investigation. In California, U.S. EPA has authorized Department of Toxic Substances Control to implement
Resource Conservation and Recovery Act program compliance.

Agreements have been signed only at Fort Ord and Vandenberg Air Force Base in this Region. The Federal Facility Agreements for Fort Ord identifies the Regional Board as a support agency since the U.S. EPA is the lead regulatory agency. The current Federal Facility Site Remediation Agreement identifies the Regional Board as the lead agency at Vandenberg Air Force Base. Agreements could be negotiated at other military installations, or re-negotiated when they currently exist, if and when it becomes necessary to clarify roles and responsibilities. Changes are being considered in California to streamline regulatory processes associated with military installation cleanup, particularly at closing bases. The California Environmental Protection Agency has recently designated (September 1993) Department of Toxic Substances Control as the overall State lead at military installations. This designation will impact program activities, roles, and responsibilities.

VI.H. SPILLS, LEAKS, INVESTIGATIONS AND CLEANUP PROGRAM

The Spills, Leaks, Investigations, and Cleanup program was established to allow Regional Boards to address water quality problems and potential problems resulting from discharges not covered by other State programs. Investigations and cleanups of Spills, Leaks, Investigations, and Cleanup program sites proceed as described in State Board Resolution No. 92-49 explained in the "Hazardous Waste Compliance Issues" section later in this chapter.

<u>Spill, Leak, and Complaint Responses</u>

Regional Board staff responds to complaints of nuisance conditions (e.g., odors from sewage treatment plants) and discharges or threatened discharges of substances which may impact ground and/or surface water quality. Complaints are followed up as soon as feasible. Proper response to a complaint includes the following:

- Completion of a Central Coast Region spill report form.

- Notification to other responsible agencies, or interested parties, as needed.

Figure 4-1. Active Military Installations in the Central Coast Region

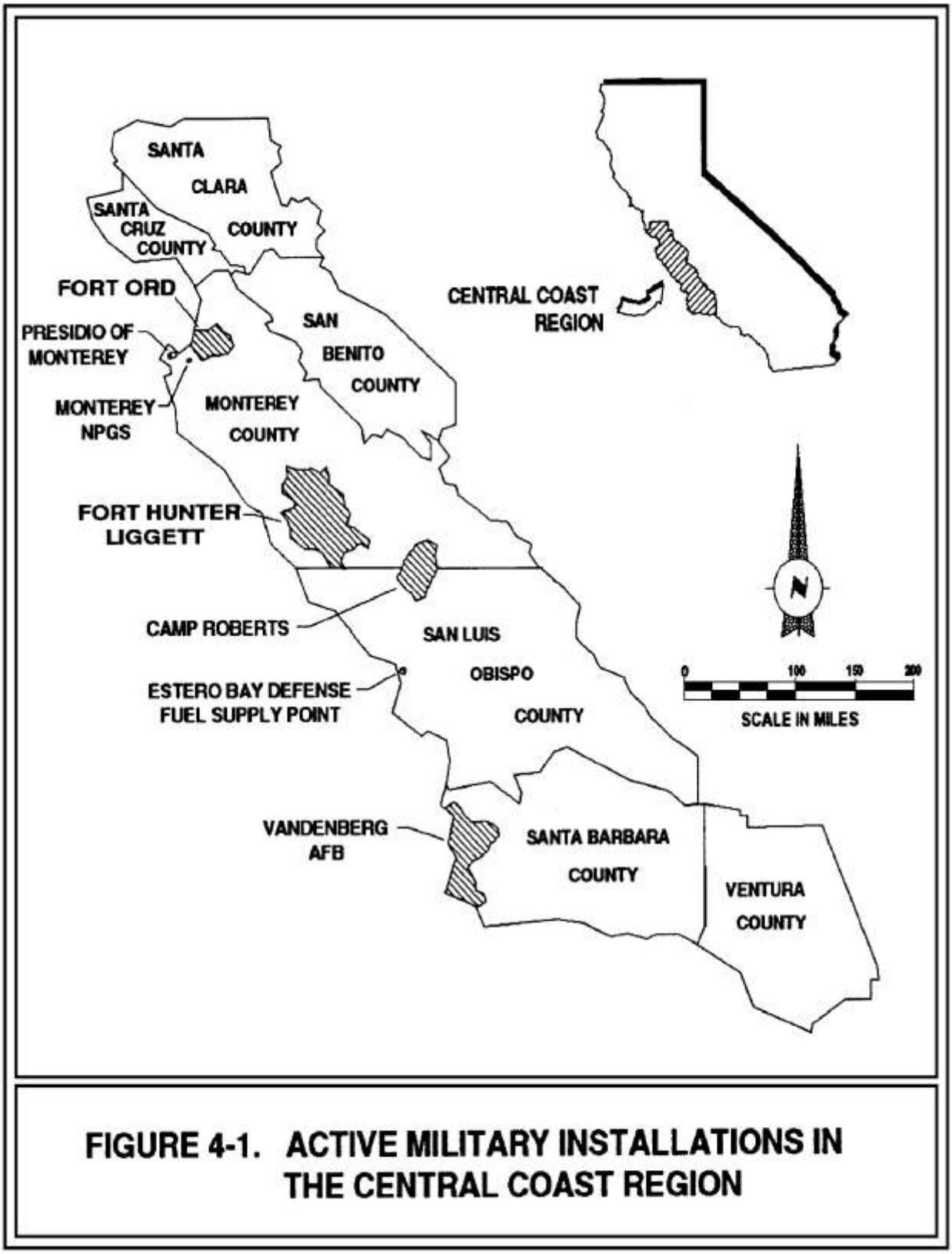

FIGURE 4-1. ACTIVE MILITARY INSTALLATIONS IN THE CENTRAL COAST REGION

- Site inspection to determine validity of the complaint and to assess the situation, including determination of responsible party/parties.

- Written follow-up as needed (letters, cleanup or abatement orders, and/or waste discharge requirements)

- Except in cases where anonymity is requested, notification to complainant of findings and subsequent actions, if any.

Except for a discharge in compliance with waste discharge requirements, any person who causes or permits any reportable quantity of hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is or probably will be discharged into or on any waters of the State, shall, as soon as possible, notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan. The person shall also immediately notify the State Board or the appropriate Regional Board of the discharge (California Porter-Cologne Water Quality Control Act Section 13271).

Similarly any person who discharges any oil or petroleum product under the above stated conditions shall, as soon as possible, notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan. Immediate notification of an appropriate agency of the federal government, or of the appropriate Regional Board (in accordance with the reporting requirements set under California Porter- Cologne Water Quality Control Act Section 13267 or 13383) shall satisfy the oil spill notification requirements of this paragraph (California Porter-Cologne Water Quality Control Act Section 13272).

The Regional Board staff will assist other agencies and work cooperatively at large-scale hazardous material releases resulting from surface transportation accidents. The Regional Board staff's role is primarily to provide immediate, on-site technical assistance concerning water quality in order to minimize the potential damage to the public health and safety, and the environment. In cases of railroad incidents, Regional Board staff will work with other agencies pursuant to the Office of Emergency Services Railroad Accident Prevention and Immediate Deployment Plan. Specifically, Regional Board staff are required to:

- Provide information on existing downstream beneficial uses and potential impacts from released substances.

- Provide toxicity information about released substances.

- Set up water sediment monitoring program.

- Collect water samples or provide technical assistance for others to collect samples.

- Coordinate available resources and equipment.

VI.I. UNDERGROUND STORAGE TANK PROGRAM

In 1981, citizens of Santa Clara County determined the cause of numerous birth defects to be polluted ground water. The source of pollution was traced to underground storage tanks leaking chlorinated solvents. This revelation prompted the San Francisco Bay Regional Water Quality Control Board to investigate numerous other underground storage tanks, the majority of which were found to be leaking. The Santa Clara County Fire Chiefs Association then sponsored a task force which developed, in 1982, a Model Hazardous Material Storage Permit Ordinance. The Ordinance addressed materials regulated, secondary containment, permits, inspections, and so forth.

Recognizing the problem was a statewide problem, the Legislature passed the initial State underground storage tank law in 1983, and numerous counties and cities followed with local ordinances to regulate underground storage of hazardous materials. The State law contains a sunset provision with a termination date of January 1, 1998.

Since 1985, over 21,000 leaking tank sites have been reported statewide and over 1250 have been reported within the Central Coast Region. Of the reported cases, approximately 90% are petroleum

product cases and one-third have impacted ground water. As one might expect, Regions with the larger cities (thus more gasoline stations) have the largest number of reported leaks. The same holds true in the Central Coast Region. Santa Barbara County has almost fifty percent of the cases in this Region (up from 37% a few years ago) and San Benito County has only four percent; Monterey County has about twenty percent.

The Health and Safety Code gives both Regional Boards and local agencies authority to oversee investigation and cleanup of leaky Underground Petroleum Storage Tank sites. The California Code of Regulations, Title 23, Chapter 16, Article 11 requires local agencies to oversee leak reporting and tank closures. Two agencies within the Central Coast Region, Santa Clara and Santa Barbara Counties, also provide oversight for cleanup of leaky Tank sites under a Local Oversight Program contract with the State Board.

Unauthorized releases from underground tanks are reported to the Regional Board by local agencies or private parties. Generally, investigation and cleanup of leaky Underground Petroleum Storage Tank sites is shared between the Regional Board and local agencies. Typically the Regional Board oversees cases involving impact to surface and ground water and local agencies oversee impacts to soil. However, in some circumstances the Regional Board oversees both soil and ground water cleanup, and, in Santa Barbara and Santa Clara Counties, Local Oversight Programs oversee both soil and ground water cleanup.

Investigations and cleanup of leaky Tanks are carried out in a manner similar to investigations and cleanups in the Spills, Leaks, Investigations, and Cleanup Program mentioned earlier.

To assist responsible parties to pay for cleanups and to meet federal financial responsibility requirements, the State has established a Tank Cleanup Fund. Money for the fund is generated by a fee paid for each gallon of petroleum delivered to Tanks. Owners and operators of Tanks may draw upon the fund after paying for the initial $10,000 in cleanup costs. The Fund will pay up to $990,000 per cleanup.

Underground Petroleum Storage Tank regulations regarding construction, monitoring, repair, release reporting, and corrective action are found in the California Code of Regulations, Title 23, Division 3, Chapter 16. Regulations regarding the State's Underground Petroleum Storage Tank Cleanup fund are found in California Code of Regulations, Title 23, Division 3, Chapter 18, and regulations regarding underground testers are found in California Code of Regulations Title 23, Division 3, Chapter 17.

VI.J. ABOVEGROUND PETROLEUM STORAGE TANKS

Above ground petroleum storage tanks and associated piping leaks have been found to cause impacts to surface and ground water. Prior to 1990, above ground tank sites were regulated by the United States "Environmental Protection Agency Regulations on Oil Pollution Prevention", 40 Code of Federal Regulations Section 112, as amended. On January 1, 1990, the Above Ground Petroleum Storage Act became effective as Chapter 6.67 (commencing with Section 25270), Division 20, of the Health and Safety Code and amendment to Section 3106 of the Public Resources Code. The regulations require:

- Regional Boards to inspect above ground storage tanks used for crude oil and its fractions;
- Owners or operators of tank facilities to prepare and initiate a spill prevention control and countermeasure plan in accordance with Part 112, Subchapter D, Chapter I, Title 40 of the Code of Federal Regulations by January 1, 1991 and any required monitoring program within 180 days later;
- Tank facility owners or operators to report releases of crude oil and its fractions in excess of one barrel; and
- Owners or operators of tank facilities to submit a storage statement and appropriate filing fee every two years.

- The Above Ground Petroleum Storage Act provides for recovery of cost incurred by Regional Board staff for oversight of above ground tank site cleanups.

VI.K. CALIFORNIA CODE OF REGULATIONS, TITLE 23, CHAPTER 15

The California Code of Regulations, Title 23, Chapter 15 (Chapter 15) contains minimum, prescriptive standards for proper management of applicable wastes. Landfills, surface impoundments, septage and sludge disposal, mining operations, confined animal facilities, and some oil field exploration and production facilities are regulated according to Chapter 15. Regional Boards may impose more stringent requirements to accommodate regional and/or site-specific conditions. Factors affecting site specific considerations include: depth to ground water, permeability of underlying soils, geologic structure, importance of underlying ground water uses, waste characteristics, ability to remediate leaks, adequacy of the monitoring system, proximity of beneficial uses such as aquatic life, and others.

Dischargers may propose engineering alternatives to the construction or prescriptive standards contained in Chapter 15 if they can show the prescriptive standard is not feasible (i.e., too difficult or costly to implement, or not likely to perform adequately under the given circumstances). The proposed alternative must be able to provide equivalent management of the waste, and must not be less stringent than the prescribed standards.

Discharges to land which may be exempt from Chapter 15 are listed in the Basin Plan Waiver Policy in Chapter Five.

Wastes fall into four categories under the current classification system. These four categories are: Hazardous, Designated, Non-Hazardous, and Inert, and are defined in Article 2 of Chapter 15. Hazardous and Designated wastes can often be generated by the same source and may differ only by their concentrations of given constituents.

Wastes must be disposed of differently depending on their liquids content and the waste category into which they fall. A table containing the Summary of Waste Management Strategies for Discharge of Waste to Land is provided in the appendix.

Receiving water monitoring is required at all waste management units. Article 5 discusses the monitoring requirements for the various classes of waste management units, and describes the progressive phases of monitoring.

The routine ground water monitoring conducted during the entire compliance period of a project's life is referred to as "detection monitoring". If a release (leak) is detected during the course of detection monitoring, an "evaluation monitoring" program must be established. If the evaluation monitoring verifies the presence of a leak, a decision must be made as to whether the release represents a significant enough threat to water quality and the environment to warrant corrective action. If the leak is a significant water quality threat, a "corrective action program" must be established, including monitoring of the effectiveness of corrective action, and conducted until the problem has been successfully corrected.

Vadose zone monitoring must be conducted at all waste management units where feasible. Article 5 discusses the minimum requirements for an acceptable vadose zone monitoring program.

Special requirements for confined animal facilities are discussed in Article 6 of Chapter 15 and in Chapter 5 of this Basin Plan. These facilities are also subject to other portions of Chapter 15 as applicable.

Under Chapter 15, mining waste discharges are only subject to the requirements of Article 7, or other portions of Chapter 15 as referenced by Article 7. (Mining wastes are also subject to regulation under the Surface Mining and Reclamation Act, Public Resources Code Title 14, Division 2, Chapter 9).

Discharges of hazardous and nonhazardous waste, and the waste management units at which the wastes are discharged (e.g., landfills, surface impoundments), are regulated by the Regional Board through Waste Discharge Requirements to properly contain the wastes, and to ensure effective monitoring is undertaken to protect water resources

of the Region. These waste discharges are also concurrently regulated by other State and local agencies. Local agencies implement the State's solid waste management programs as well as local ordinances governing the siting, design, and operation of solid waste disposal facilities (usually landfills) with the concurrence of the California Integrated Waste Management Board.

The California Integrated Waste Management Board also has direct responsibility for review and approval of plans for closure and post-closure maintenance of solid waste landfills. The Department of Toxic Substance Control issues permits for all hazardous waste management, treatment, storage, and disposal facilities. The State Board, Regional Boards, California Integrated Waste Management Board, and Department of Toxic Substances Control have entered into Memorandums of Understanding to coordinate their respective roles in the concurrent regulation of these discharges.

The laws and regulations governing both hazardous and nonhazardous solid waste disposal have been revised and strengthened in recent years.

An inactive waste management unit can still pose a threat to water quality. In fact, due to the nature of some wastes and the characteristics of some disposal sites, sometimes water quality problems do not become evident until years after a site has closed. Therefore, Chapter 15 requires all waste management units have a plan for acceptable closure procedures and post-closure maintenance and monitoring.

VI.K.1. SOLID AND LIQUID WASTE REQUIREMENTS (LANDFILLS AND SURFACE IMPOUNDMENTS)

Solid wastes are usually disposed of in a landfill or Solid Waste Disposal Site. A landfill, as defined in Chapter 15, is a waste management unit at which waste is discharged in or on land for disposal. A landfill may be classified as Class I, II, or III, depending on the type of waste being accepted, but the term "landfill" typically refers to a Class III municipal solid waste landfill which accepts only inert or non-hazardous, municipal solid waste. Class I units are for hazardous wastes, Class II units are for designated wastes, and Class III landfills are for nonhazardous wastes as defined in Chapter 15, Article 3. Landfills are an integral component of many communities in the Central Coast Region. Hazardous and/or designated solid wastes must be disposed of in Class I or II landfills or waste piles, respectively, also referred to as Resource Conservation and Recovery Act or non-Resource Conservation and Recovery Act solid waste management units.

Liquid wastes may not be disposed of to Class III waste management units. Rather, liquid wastes must be discharged to Class I or II surface impoundments, depending on the waste classification.

Discharges from solid and liquid waste management units can impact both ground and surface waters. The receiving water most likely to be at risk from a waste management unit is the ground water beneath the site. Precipitation or runoff may enter the unit and contact the waste, percolate through it, and travel to ground water, carrying constituents of the waste with it to the vadose zone or ground water beneath the unit. Solid waste may contain enough free liquids to form a leachate which can migrate to ground water. Vapors may migrate from a waste management unit into the soils and ground water below the unit. Gases forming in a closed waste management unit may pressurize the unit and force contaminants into the ground water. A liquid waste impoundment may leak its content into the soils and ground water beneath the unit. Liquids may exit a waste management unit and travel to nearby surface waters. Uncontained solid waste may also be transported to surface waters by wind.

The Regional Board regulates all the active waste management units and some of the closed units in the Region under Waste Discharge Requirements which contain pertinent Chapter 15 regulations. Some of the applicable requirements include:

1. Waste management units must be sited in locations where they will not extend over a known Holocene fault, other areas of rapid geologic change or into areas with inadequate separation from ground water.

2. Waste management units must be constructed to minimize (Class III) or prevent (Class I and II) the possibility of leachate contacting ground water. The probability of accomplishing this goal may be improved by siting the unit in an area where the depth to ground water is very great or where natural geologic features will provide containment. A Class III waste management unit is required to have a composite clay and synthetic liner with a leachate collection and removal system, in accordance with federal Subtitle D requirements. New Class I and II units must also be lined. A discharger may propose engineered alternatives to the Chapter 15 and Subtitle D containment requirements, but the alternatives must provide equal or greater protection to the receiving waters at the site, per Article One.

3. To minimize or prevent the formation of leachate, solid waste management units shall be covered periodically (typically daily) with soil or other approved materials. The importance of effective interim cover is illustrated by recent improvements to some landfill interim covers which resulted in an apparent cessation of ground water degradation. Rainwater surface flow from offsite should be prevented from entering a waste management unit and contacting the wastes in the unit.

4. The potential receiving waters shall be monitored. A waste management unit shall have sufficient ground water monitoring wells at appropriate locations and depths to yield ground water samples from the uppermost water bearing strata with continued saturation at depth, to provide the best assurance of the earliest possible detection of a release from the waste management unit. Perched ground water zones shall also be monitored. Background monitoring should be conducted for at least one year prior to opening a new waste management unit.

   Chapter 15 requires vadose zone monitoring at all new sites and at any existing site, unless it can be shown to the satisfaction of the Regional Board no vadose zone monitoring devices would work at the site, or that installation of vadose zone monitoring devices would require unreasonable dismantling or relocating of permanent structures.

5. All operating waste management units must have an approved closure/post-closure monitoring and maintenance plan and their operators must provide the Regional Board with assurance sufficient funds are irrevocably committed to ensure the site will be properly reclaimed and maintained.

6. The operator of a waste management unit must obtain and maintain assurances of financial responsibility for known and foreseeable releases from the unit.

VI.K.2. WASTEWATER SLUDGE/SEPTAGE MANAGEMENT

Wastewater sludge (biosolids) is a by-product of wastewater treatment. Treated domestic sludge is now referred to as biosolids to encourage using this material for fertilizer and soil amendment. Raw sludge usually contains 93 to 99.5 percent water with the balance being solids present in the wastewater and added to or cultured by wastewater treatment processes. Most Publically Owned Treatment Works treat the sludge prior to ultimate use or disposal. Normally, this treatment consists of dewatering and/or digestion.

Treated and untreated sludges may contain high concentrations of heavy metals, organic pollutants, pathogens, and nitrates. Improper storage and disposal of municipal sludges on land can result in degradation of ground and surface water. Therefore, sludge handling and disposal must be regulated.

Septage and grease are usually considered liquid waste, so landfill disposal is usually restricted. Septage, the residual solids periodically pumped from septic tanks, is commonly applied to farm land as fertilizer. Grease waste is usually recycled, but grease trap pumpings are commonly rejected by grease recyclers. Grease and septage usually must be disposed in a Class I or II waste management unit.

The Regional Board will regulate disposal of sludge and septage pursuant to Chapter 15 and Department

of Health Services standards for sludge management.

Sludge containing less than 50% solids by weight may be placed in a Class III landfill (see section on Chapter 15) if it can meet the following requirements, otherwise it must be placed in a Class II surface impoundment:

1. The landfill is equipped with a leachate collection and removal system;

2. The sludge must contain at least 20 percent solids if primary sludge, or at least 15 percent solids if secondary sludge, mixtures of primary and secondary sludges, or water treatment sludge; and

3. A minimum solids-to-liquid ratio of 5:1 by weight must be maintained to ensure that the co-disposal will not exceed the initial moisture-holding capacity of the nonhazardous solid waste. The Regional Board may require that a more stringent solids-to-liquid ratio be maintained, based on site-specific conditions.

4. Non-hazardous sludge containing greater than 50% solids by weight is generally considered solid waste.

Beneficial reuse of sludge/septage is increasing in popularity. Sludges and septage, (including composted, liquid, dewatered and dried sludges) have been successfully used as a soil amendment/fertilizer on farmland, orchards, forest lands, pasture, land reclamation projects (e.g., strip mines and landfills), parks and home gardens. As the concentrations of heavy metals has dropped in municipal sludge, and as advanced sludge treatment methods are utilized, the public's acceptance of beneficial reuse projects has improved. However, improper land application of sludge/septage can cause significant odor nuisance, attract flies, contain high levels of pathogens and heavy metals, and be aesthetically offensive due to the presence of plastics.

Currently, regulation of sludge and septage management projects is under the jurisdiction of the Regional Board. Handling and disposal of sludge/septage can be regulated under Chapter 15 of Title 23, California Code of Regulations and California Department of Toxic Substance Control Standards for hazardous waste management. If sludge is used beneficially, the project may be exempted from Chapter 15, but the Regional Board may issue waste discharge requirements.

The U.S. Environmental Protection Agency (U.S. EPA) has promulgated a policy of promoting those municipal sludge management practices that provide for the beneficial use of sludge and septage while maintaining or improving environmental quality and protecting public health. On February 19, 1993, the U.S. EPA published final sewage sludge regulations in 40 Code of Federal Regulations 503. The 503 regulations are intended to assure that use and disposal of sewage sludges and septage comply with federal sludge use and disposal criteria developed by the U.S. EPA. The State Board or the California Integrated Waste Management Board may develop a State sludge management program consistent with the U.S. EPA's policy and criteria for land application, surface disposal, and incineration of sludge to seek federal authorization to implement the 40 Code of Federal Regulations 503 sludge regulations.

VI.K.3. MINING ACTIVITIES (NONFUEL COMMODITIES)

The Central Coast has had a rich and varied mining history. Currently extracted products include asbestos, decomposed granite, diatomite, dimension stone, dolomite, gypsum, limestone, sand and gravel, shale, specialty sand and stone. The hundreds of inactive metal mines and prospects appear to be the worst polluters though. Mercury, used partly to amalgamate gold ore, was mined from the Little Bonanza deposit, San Luis Obispo County, as early as 1862. The Buena Vista Mine, which ceased production in 1970 or 1971, is believed to have been the last mercury producer in the Central Coast Region. Chromite deposits have been mined in San Luis Obispo County since about 1870. By 1944, and probably until the demise of production possibly 20 years ago, San Luis Obispo County produced more chromite than any other California county. Other products mined or prospected for historically include gold, silver, manganese,

magnesium, antimony, copper, nickel, iron, barite, coal, feldspar, gemstones, biotite, molybdenum, peat, phosphate, sodium sulfate, sulfur, titanium, uranium, zircon, and possibly platinum.

The extent of environmental degradation by all mining ventures is not yet known. Active operations are regulated individually pursuant to the California Code of Regulations, Chapter 15, the Porter-Cologne Water Quality Control Act, the California Surface Mining and Reclamation Act and/or the federal Clean Water Act (including the NPDES permit program). About 25 active mines currently hold Waste Discharge Requirements and/or NPDES surface water discharge permits and a few operations have been granted waivers. Chapter 15 land disposal requirements are imposed as required.

Inactive operations with responsible parties fall under the same purview, as warranted. Inactive mines, with or without responsible parties (those without are considered abandoned) may be remediated as federal Superfund sites pursuant to federal Comprehensive, Environmental Response, Compensation, and Liability Act, or as State Board Cleanup and Abatement Account sites. Low interest loans or government or academic grants may, in rare cases, be applied to inactive mine remediation.

Mines are subject to the Resource Conservation and Recovery Act, although comprehensive regulations have not yet been written. If hazardous constituents are present, Resource Conservation and Recovery Act, Subtitle C, and California Code of Regulations Title 22 may apply to active and inactive sites.

VI.K.4. OTHER INDUSTRIAL ACTIVITIES

Cement Industry -- Concrete manufacturing operations generate two significant types of solid waste, kiln dust and "off-specification" concrete. The first, kiln dust, is classified as a designated waste under Title 22 and is typically disposed of in Class II or III landfills operated by the concrete manufacturers. The second waste, "off-spec" concrete, is generated in much greater quantities and, while classified as a hazardous waste due to its very high pH (often ranging from 12.5 to 13.5 pH units), is frequently dumped on-site at the concrete plants and spread.

Cement batch plants generate large quantities of liquid and semi-solid wastes from rinsing of cement trucks and/or cement covered equipment. This waste, referred to as "washout" is very alkaline (pH may be as high as 12.5 in fresh cement), is high in total dissolved solids, and may contain assorted heavy metals. Washout may also contain various air-entrainment additives or other chemicals.

The Regional Board regulates cement kiln dust disposal and all ready mix cement plants where water quality could be impacted. Wastewater from cement batch plants is considered to be a designated waste, and may need to be discharged to a lined impoundment, if site-specific characteristics (e.g., soil type, depth to ground water, ground water quality, etc.) will not protect ground water from degradation. The Regional Board will consider, on a case-by-case basis, the need to line cement wastewater ponds. Solid or semi-solid wastes should be deposited in landfills or other legal points of disposal unless the discharger can demonstrate the waste will not pose a threat to water quality if deposited onsite.

Asphalt production -- Asphalt batch plants generally involve mixing heavy long chain hydrocarbons with aggregates. Occasionally other hydrocarbon sources (diesel and gasoline contaminated soil) are mixed with asphalt as a beneficial reuse. Diesel fuel and other solvents are used to clean equipment and as "lubricants" to prevent asphalt from sticking to equipment. Large quantities of these materials are generally stored on-site. Water quality can be significantly degraded if these materials reach water courses. Waste control measures are fairly straightforward at such sites. Petroleum products should be stored in tanks, and the tanks placed in lined holding areas. If spillage to soil occurs, contaminated soils should be scraped up, stored on a liner, and incorporated into asphalt as soon as possible. A berm (or other runoff control) should be placed down gradient from earthen material stockpiles.

Oil Field Exploration and Production Facilities -- Oil exploration and production is a thriving business in the Central Coast Region. Although drilling muds

are exempt from Resource Conservation and Recovery Act, Oil Exploration and Production Operations are often subject to the requirements of Chapter 15 because they represent a threat to water quality. Due to the significant Chapter 15 workload, remote oil operations may not reach the top of the regulatory priority list. The Interstate Oil and Gas Compact Commission recently recommended:

"The review team recommends State Board obtain the resources necessary to fully discharge its responsibilities...seek adequate resources from the legislature or use some other mechanism to enable Regional Boards to process applications for WDRs in a timely manner...One option is to remove or raise the statutory cap on discharger fees so that State Board may restructure its fee system to improve its equity and cure substantial resource shortcomings."

The Interstate Oil and Gas Compact Commission also commended the Central Coast Regional Board for having a road spreading policy. This policy, Resolutions No. 73-05 and 89-04, is located in the appendix.

VI.L. RESOURCE CONSERVATION RECOVERY ACT (SUBTITLE D)

Policy for Regulation of Discharges of Municipal Solid Waste

On June 17, 1993, the State Water Resources Control Board (State Board) adopted Resolution 93-62, entitled Policy For Regulations Of Discharges Of Municipal Solid Waste. A copy of this policy is available in the appendix.

The Policy implements the State Board's regulations governing the discharge of waste to land, California Code of Regulations, Title 23, Chapter 15 (23 California Code of Regulations Section 2510 et seq., "Chapter 15"), and implements those water quality related portions of the federal regulations governing the discharge of municipal solid waste at landfills (40 Code of Federal Regulations Section 258.1 et seq., "federal municipal solid waste regulations") that are not addressed by Chapter 15. The federal municipal solid waste regulations apply to all landfills that receive waste on or after October 9, 1991; the majority of the federal provisions become effective on October 9, 1993 (federal deadline).

The Policy directs Regional Boards to revise-or adopt, as appropriate-prior to the Federal Deadline, the waste discharge requirements (WDRs) for each landfill subject to the federal municipal solid waste regulations. The revised WDRs must implement those regulations in the manner described in the Policy and must implement the Chapter 15 regulations as well.

Landfills are subject to Subtitle D in California beginning October 9, 1993 or October 9, 1995 depending on landfill size and whether it is within one mile of a drinking water intake.

These federal regulations apply to municipal solid waste landfills (Class III landfills, under Chapter 15). The Subtitle D regulations outline the classification of municipal landfills, siting criteria, design criteria, operation procedures, water quality monitoring parameters and standards, closure and post-closure care requirements, and financial assurance guidelines similar to Chapter 15. U.S. EPA considers Subtitle D to be minimum standards for landfill operation. States may have equal or more stringent requirements, but may not have less stringent requirements. If a state's landfill regulation program meets U.S. EPA's approval, that state may apply to become an U.S. EPA "approved state" for landfill regulation.

California received Subtitle D approval in October 1993 and will be able to consider engineering alternatives to certain provisions of Subtitle D.

VI.M. SOLID WASTE WATER QUALITY ASSESSMENT TEST

In 1984, California Porter-Cologne Water Quality Control Act Section 13273 was adopted to require operators (and/or owners) of active and inactive solid waste disposal sites to perform a Solid Waste Assessment Test investigation. About 150 sites per year are to be analyzed statewide. The State Board has approved a statewide ranked list including 2,242 sites in 15 ranks. It has prioritized all sites on the basis of the potential threat to water quality and has established schedules for Investigation Workplan (Workplan) and Solid Waste Assessment Test report's submittals. The Central Coast Region's 15 ranks include 131 sites. Test reports are due the first day of July each year, depending on their ranking. Rank One sites were due July 1, 1987.

If monitoring information conclusively demonstrates hazardous waste is migrating, or has migrated to State waters, the site owner/operator may request a waiver of the Test reporting requirements pursuant to Water Code Section 13273(c). Waiver requests are usually requested within 120 days of the notification date. Water Code Section 13273.1 allows the site operator to request an exemption from Test reporting requirements by submitting a Solid Waste Assessment Questionnaire. Questionnaires may be submitted if a site contains less than 50,000 cubic yards of waste and is not known nor suspected of containing hazardous substances, other than household hazardous wastes. Based on this Questionnaire, the Regional Board may exempt the Operator from all or part of the Solid Waste Assessment reporting requirements.

Solid Waste Assessment Test reports are required to contain:

1. An analysis of the surface and ground water on, under, and within one mile of the solid waste disposal site to provide a reliable indication whether there is any leakage of hazardous waste.

2. A chemical characterization of the soil-pore liquid in those areas which are likely to be affected if the solid waste disposal site is leaking, as compared to geologically similar areas near the solid waste disposal site which have been affected by leakage or waste discharge (Porter-Cologne §13273[b]).

3. A finding whether hazardous waste is leaching into surface or ground water on, under, and within one mile of the disposal site.

If hazardous waste has migrated, the Regional Board must notify the Department of Health Services and the Integrated Waste Management Board, and take appropriate remedial action (Porter-Cologne §13273[e]).

More than eighty percent of Test sites (mostly unlined) evaluated in all climates and geologic terrain in California have been found to impact ground water quality as part of the Solid Waste Assessment Test program.

From the beginning, the Test program was supported by the California General Fund. In recent years, agencies with programs with such funding have been under increasing pressure to find alternative funding or face elimination. These pressures resulted in the Test Program being understaffed and, in the summer of 1991, eliminated. At that time, almost 200 Test Reports had been accepted and reviewed by the Regional Water Boards. However, a backlog of nearly 300 additional Test Reports had been submitted and had not been reviewed. The Central Coast Region had reviewed and accepted 29 reports, however 14 were backlogged.

In 1992, the Legislature adopted Assembly Bill 3348 (Eastin) which allocated $2,500,000 from the Integrated Waste Management Board's "Solid Waste Disposal Site Cleanup and Maintenance Account" to the State and Regional Boards to fund the review of the above backlog. This law restricted these funds to the review of Solid Waste Assessment Reports from Ranks One through Five only and required the work be in accordance with a Memorandum of Understanding between the Regional Boards and the California Integrated Waste Management Board. This Memorandum of Understanding was signed by the Executive Directors of the two agencies in January 1993.

VII. HAZARDOUS WASTE COMPLIANCE ISSUES

The Regional Board obtains information regarding hazardous waste discharge through two reporting programs. These programs are "Reportable Qualities of Hazardous Waste and Sewage Discharges" and the "Proposition 65" program. These mechanisms are discussed below:

VII.A. REPORTABLE QUANTITIES OF HAZARDOUS WASTE AND SEWAGE DISCHARGES

California Porter-Cologne Water Quality Control Act Section 13271 requires the State Board and the Department of Health Services to adopt regulations establishing reportable quantities for substances listed as hazardous wastes or hazardous materials pursuant to Section 25140 of the Health and Safety Code. Reportable quantities are those which should be reported because they may pose a risk to public health or the environment if discharged to ground or surface water.

Similarly, the State Board was required to adopt regulations establishing reportable quantities for sewage. These requirements for reporting the discharge of sewage and hazardous materials do not supersede waste discharge requirements or water quality objectives.

The regulations for reportable quantities adopted by the State Board are included in Subchapter 9.2 of the California Code of Regulations.

VII.B. PROPOSITION 65

The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) went into effect January 1, 1987. Proposition 65 is found in the Health and Safety Code, Section 25249.5, et seq. It prohibits discharges of chemicals known to the State to cause cancer or reproductive toxicity to a potential source of drinking water, with certain exceptions. The Governor is required to publish a list of such chemicals. The list must be updated yearly. The current list is found in 22 California Code of Regulations, Section 12000.

Section 25180 of the Health and Safety Code requires designated governmental employees to disclose information to the local Board of Supervisors and local health officer regarding an illegal discharge of hazardous waste if the discharge is likely to cause substantial injury to the public. A designated employee is one who is required to sign a conflict of interest statement. Any designated employee who knowingly or intentionally fails to report information, as required by Proposition 65, is subject to fines and imprisonment (Section 25180.7). The following information should be reported:

- Discharge type
- How discharge was discovered
- Location of discharge
- Probable discharger
- Possible contacts
- Concentration of contaminant in soil and/or water.

VIII. NONPOINT SOURCE MEASURES

The State Nonpoint Source Management Plan initiated development of specific program objectives to be implemented at the State and Regional level. Currently, Regional Board staff are implementing the following State Board program objectives:

A. Control of Nonpoint Source pollution (urban runoff; agriculture; land disturbance activities such as road construction/maintenance, land construction, timber harvesting, and mining; hydrologic modification; and individual disposal systems). These activities include outreach, education, public participation, technical assistance, financial assistance, interagency coordination, demonstration projects, and regulatory activities such as imposing septic tank area prohibitions.

B. Preparation of contracts for projects selected for grant funding. Regional Board staff also participate in these projects by providing technical assistance and publicizing their results.

C. Implementation of the 1990 Coastal Zone Act Reauthorization Amendments, as developed by the State Board and the California Coastal Commission. This shall be an enforceable Nonpoint Source Management Program to control land use and anthropomorphic activities impacts that have a significant affect on coastal waters. (Further discussion of the Amendments is provided later.)

D. Initiation of nonpoint source watershed pilot programs.

Using State program objectives, Regional Board staff developed task-specific workplans to address nonpoint sources of pollution. For the Central Coastal Region, the following tasks are managed and implemented by the Nonpoint Source Program staff:

Task 1: Water Quality Assessment

Regional Board staff reviewed and updated the nonpoint source portion of the Water Quality Assessment and prepared water body fact sheets. (The Water Quality Assessment and water body fact sheets are discussed in Chapter Six.)

Task 2: Watershed Studies/Planning

Three impaired watersheds (Morro Bay Watershed, San Luis Obispo Creek Watershed, and San Lorenzo River Watershed) have been targeted for intensive activity. Major activities for San Luis Obispo Creek watershed include:

1. Develop a Demonstration "Total Maximum Daily Load" model.

2. Create a "San Luis Obispo Creek Riparian Task Force".

3. Implement a riparian corridor restoration project.

4. Identify major nonpoint pollutants and sources.

5. Develop a watershed management program.

For Morro Bay watershed, the activities include:

1. Develop a long term monitoring program to assess water quality improvements associated with the implementation of nonpoint source pollution control measures.

2. Develop funding for the long term monitoring program.

3. Implement a sediment reduction program using best management practices.

4. Participate in the Morro Bay Task Force.

For San Lorenzo River watershed, the activities include:

1. Develop a detailed assessment of Nonpoint Source impacts in the watershed.

2. Develop a wastewater management plan for on/off-site wastewater disposal.

3. Develop of a nutrient objective for the river.

4. Conduct experimental on-site wastewater treatment to reduce nitrogen discharge into the environment.

Task 3: Outreach Program

Staff meets regularly with individuals and local government agencies to promote education and solutions on Nonpoint Source problems. Additionally, the use of grant and loan resources to correct Nonpoint Source problems is emphasized during outreach activities.

Specific outreach activities include participation on the San Luis Obispo Creek Riparian Task Force, Morro Bay Task Force, and various 319(h)/205(j)/Basin Planning Technical Advisory Committees, and development of grant applications with local agencies.

Task 4: Project Tracking and Participation

Regional Board staff prepare contracts, coordinate with project proponents, track project progress, review and approve invoices, and provide technical support for Nonpoint Source grant funded projects.

VIII.A. COASTAL ZONE ACT REAUTHORIZATION AMENDMENTS

In November 1990, Congress enacted Section 6217 of the Coastal Zone Act Reauthorization Amendments to help address the problem of nonpoint source pollution in coastal waters. Section 6217 requires that coastal states with federally approved coastal management programs develop Coastal Nonpoint Pollution Control Programs. The legislative history indicates that the central purpose of section 6217 is to strengthen the links between federal and State coastal zone management and water quality programs in order to enhance efforts to manage land use activities that degrade coastal beneficial uses. The State coastal zone management agency designated under Section 306 of the Amendments and nonpoint source management agency designated under section 319 of the Clean Water Act will have a dual and co-equal role and responsibility in developing and implementing the coastal nonpoint program.

The program gives the U.S. Environmental Protection Agency (U.S. EPA) and the National Oceanic and Atmospheric Administration joint authority to approve programs developed by the State to address 6217 requirements.

The State agencies chosen to develop California's Coastal Nonpoint Pollution Control Program are the State Board and the Coastal Commission. The statute requires that the State program be "coordinated closely with State and local water quality plans and programs." This means that the State's nonpoint source programs under Sections 208 and 319 of the Clean Water Act and the coastal program must be examined to determine if they comprehensively address land use activities and anthropomorphic effects that have a significant effect on coastal waters. In addition, the State agencies are charged with developing a coordinated program that:

- identifies categories of nonpoint sources that adversely impact coastal waters;
- describes management measures to be implemented;
- identifies the land uses and critical coastal areas that will require more stringent or additional management measures;
- describes the State-developed additional management measures to be implemented in critical areas;
- documents the authorities the State will use to implement both the guidance and additional management measures, including designation of a lead agency for each source category and/or subcategory; and
- sets forth a schedule to achieve full implementation of the guidance management measures within three years of program approval by U.S. EPA and National Oceanic and

Atmospheric Administration, and full implementation of additional management measures within six years of program approval.

The Coastal Commission and the State Board staff have been working on a strategy to develop the required Coastal Nonpoint Pollution Control Program plan. Recently, the State Board directed staff to review and revise the statewide Nonpoint Source Management Plan to include a strong coastal component. Revision of the Plan is intended to satisfy the requirements of Section 6217 within the existing framework of current nonpoint source activities.

On a Regional Board level, staff has been involved with the statewide program since 1991. A pilot project, "The New Coastal Nonpoint Pollution Control Program using the Morro Bay Watershed as a Model" was performed to assess the feasibility of establishing the Coastal Nonpoint Pollution Control Program in California. Regional Board staff supplied technical information and reviewed reports. Concerted planning and implementation efforts on target coastal watersheds such as Morro Bay will be major accomplishments to satisfy Coastal Nonpoint Pollution Control Program requirements. As the program goes statewide, Regional Board staff will attend technical advisory committee meetings and will work closely with staff of the State Board and other Regional Boards, as well as staff of other relevant local, State, and federal agencies to develop a workable Coastal Nonpoint Pollution Control Program.

Wastewater originating from nonpoint sources includes those from urban runoff, agricultural activities, on-site sewage disposal systems, and land disturbance activities. Management of these types of nonpoint source discharges are discussed in the following section. The Regional Board will be developing management practices for marinas and recreational boating; hydromodification facilities; and wetlands, riparian areas, and vegetated treatment systems at a future date.

VIII.B. URBAN RUNOFF MANAGEMENT

The effect of urban runoff on receiving water quality is a problem which has only recently come to be recognized. Most of the work up to the present has centered on characterizing urban runoff: concentrations of various constituents have been measured, attempts to relate these to such factors as land use type and rainfall intensity have been made, and studies concerning the amounts of these constituents present on street surfaces have been conducted. It appears that considerable quantities of contaminants, heavy metals in particular, may enter the receiving waters through urban runoff. The federal Water Pollution Control Act Amendments of 1972 stress future "control of treatment of all point and nonpoint sources of pollution." Thus the federal government has concluded that nonpoint sources, such as urban runoff, are indeed deleterious to the aquatic environment and that measures should be taken to control such emissions.

There are four basic approaches to controlling pollution from urban runoff: (1) prevent contaminants from reaching urban land surfaces, (2) improve street cleaning and cleaning of other areas where contaminants may be present, (3) treat runoff prior to discharge to receiving waters, and (4) control land use and development. Which approach or combination of approaches is most effective or economical has not yet been studied extensively. Thus only the basic characteristics of each approach can be discussed. In addition to these direct approaches, measures to reduce the volume of runoff from urban areas are also available.

VIII.B.1. SOURCE CONTROLS

The first approach, which emphasizes source control, has many aspects. Tough effective air pollution laws can probably aid in reducing the amount of certain materials deposited on the land. An obvious example is lead in automobile exhaust emissions. Effective anti-litter ordinances and

campaigns can aid in reducing floatable materials washed to surface waters. These materials are objectionable primarily from an aesthetics viewpoint, although water fowl can be affected by plastics. New construction techniques may reduce emissions to receiving waters. Erosion can be decreased by seeding, sodding, or matting excavated areas as quickly as practicable. Construction in certain critical areas can be limited to the dry season. Stockpiling of excavated material can be regulated to minimize erosion. Control of chlorinated hydrocarbon pesticide usage would reduce the amounts found on urban land surfaces and thus reduce the amounts washed to natural waters.

VIII.B.2. STREET CLEANING

The second approach to reducing pollution from urban runoff involves improving street cleaning techniques. Generally, street cleaning as presently practiced is intended to remove large pieces of litter which are aesthetically objectionable. The removal of fine material which may account for most of the important contaminants is minimal. It may be possible to design mechanical sweepers to remove a greater fraction of the fine material. Alternatively, vacuum-type street cleaners could produce better results.

In addition to streets, sidewalks and roofs contribute large amounts of runoff. Controlling contaminants present on these surfaces would be more difficult and would be up to individuals. Advertising campaigns would probably be unproductive and legislation would be unworkable except perhaps in specific, localized situations. Therefore, contaminant removal will probably be limited to street surfaces.

In many areas, streets are cleaned by flushing with water from a tank truck. If catch basins are present, this material may be trapped in them. If catch basins do not exist, the material will be simply washed to the storm sewers where subsequent rainfall will carry them to surface waters. Where catch basins are regularly cleaned out, they can be effective in removing materials during runoff. Where they are allowed to fill up with material, they add to the pollution loading during a storm by discharging septic material. In any case, catch basins usually exist in older urban areas and have a rather low efficiency in removing contaminants from storm water.

VIII.B.3. TREATMENT

The third approach to reducing the effects of urban runoff on receiving water quality involves collecting and treating the runoff. Physical or physical-chemical treatment would be required; the intermittent nature of storm flows precludes biological treatment. Examples of possible treatment processes are simple sedimentation, sedimentation with chemical clarification, and dissolved air flotation. In addition to cost, a principal problem with this approach is collection. Present storm sewerage systems generally drain to open creeks and rivers or directly to tidal waters. Even if treatment facilities were located at various sites in the Basin, a massive collection system would have to be built.

The economic question of "treatment vs. transport" would have to be studied with specific regard to storm water runoff. Local sewage treatment plants abandoned in favor of regional facilities could possibly be utilized in such a program. One method of cutting down the peak flow capacity required is to provide storage volume in the collection system.

Solutions to the problem of preventing water quality degradation by urban runoff are only in the earliest stages of development and consist mostly of plausible hypothesis on how to deal with the problem. Therefore, it is not possible at this time to present a definite plan with regard to this subject. It is probable that research and study which up to now has emphasized defining and characterizing the problem, will turn to developing methods of control. The federal Water Pollution Control Act Amendments of 1972 state specifically that the EPA is authorized to conduct and assist studies "which will demonstrate a new or improved method of preventing, reducing, and eliminating the discharge into any waters of pollutants from sewers which carry storm water..." Considerable progress will be made during the next few years.

Information should be collected and studied so that a workable plan can be implemented in the future.

VIII.B.4. CONTROL OF URBANIZATION

A fourth approach is to encourage controls on urbanization which will either reduce the volume of runoff or at least not cause runoff to increase as a result of urban growth. The usual pattern is that increased urbanization leads to higher runoff coefficients, reflecting the many impervious surfaces associated with development. Roof drains to storm sewers, paved parking lots and streets, installation of storm sewers, filling of natural recharge areas, and increased efficiency in realigned and resurfaced stream channels all are characteristics of urban growth. Development near streams and on steep slopes is deleterious to water resources; it is less disruptive to develop the lower portions of a watershed than the headwater areas, both from the standpoint of the length of channel affected and the extent of channel enlargement necessary to convey storm water. Use of porous pavements and less reliance on roof connections to storm drains and more emphasis on local recharge would reduce the peak volume of runoff from storms. Areal mass emissions of urban drainage constituents should be quantified. Urban planning should be more cognizant of land constraints to permit greater natural recharge where possible and feasible and to discourage intensive development of steep land particularly in headwater areas.

VIII.C. AGRICULTURAL WATER AND WASTEWATER MANAGEMENT

Agricultural wastewaters and the effect of agricultural operations are a result of land use practices; controls should ultimately be developed from land use plans. Controls are required to minimize adverse effects from agricultural practices. The following discussion is confined to recommended improvements in practices and to the scope of federal-state permit programs which will regulate certain agricultural activities. The discussion of practices is limited here to animal confinement and irrigation practices. Although Public Law 92-500 defines a confined animal operation as a point source, this plan presents it in the traditional manner of dispersed nonpoint sources. Pesticide use and limits on fertilizer applications are not specifically considered; these materials are covered by appropriate water quality objectives.

VIII.C.1. FEDERAL-STATE PERMITS GOVERNING AGRICULTURAL OPERATIONS

Dischargers of wastes are managed in part by the NPDES permit program. Any person proposing to discharge waste that could affect the quality of the waters of the State must file a report of waste discharge with the appropriate regional board. The Regional Board will prescribe discharge requirements. The requirements implement water quality control plans and take into consideration beneficial uses to be protected.

Public Law 92-500 directed the Environmental Protection Agency to set up a permit system for all dischargers. Agriculture is specifically considered and permits are required for:

1. Feed lots with 1,000 or more slaughter steers and heifers.

2. Dairies with 700 head or more, including milkers, pregnant heifers, and dry mature cows, but not calves.

3. Swine facilities with 2,500 or more swine weighing 55 pounds or more.

4. Sheep feedlots with 10,000 head or more.

5. Turkey lots with 55,000 birds, unless the facilities are covered and dry.

6. Laying hens and broilers, with continuous flow watering, and 100,000 or more birds.

7. Laying hens and broilers, with liquid manure handling systems, and 30,000 or more birds.

8. Irrigation return flow from 3,000 or more continuous acres of land when conveyed to navigable waters from one or more point sources.

The law also provides that the State may administer its own permit program if EPA determines such program is adequate to carry out the objective of the Law. On March 26, 1973, this authority was transferred from the EPA to the State of California for waters within the State. Thus, the Regional Board issues discharge requirements to the agricultural operations covered under the aforementioned guidelines. The State may require discharge permits from any discharger, regardless of size.

VIII.C.2. ANIMAL CONFINEMENT OPERATIONS

Animal confinements such as feedlots and dairy corrals present a surface runoff problem during wet winter flows. Runoff water passes through hillside operations to sometimes contribute manure loads to the surface streams. Stockpiled manure may also add to the problem. Disposing of washwater and manures from dairies in such a manner that ground waters are not degraded can be a problem. Most dairies have some associated land for waste disposal. The land is devoted to crops and pasture and its assimilative capacity will depend upon the size, crop, crop yield, and the season. During intensive growth periods, crops can utilize more nutrients than in slow growth period. Small dairies with adequate crop land in close proximity may be able to use washwaters year round as a source of nutrients. Large dairies with smaller acreage will view the slurry wastes as a disposal problem, not a resource. Thus, there theoretically exists a threshold size for waste disposal. Regulations to achieve this size would be impractical and unenforceable. Crop land is expensive in the basin and would be difficult to acquire. However, a combination of crop patterns and pasture land best suited for each size operation should be determined and the dairymen should be encouraged to follow such a pattern. Where acreage is not available, mutually advantageous agreements between the dairymen and a neighbor cultivator could be formed for disposal of dairy wastes.

Sumps, holding ponds, and reservoirs holding manure wastes should be protected from flood flows. No pipes, drains or ditches from the milk barn should be allowed to drain in or near a stream channel.

Specific Regional Board policies pertaining to animal confinement operations can be found under "Control Actions" in Chapter Five.

VIII.C.3. IRRIGATION OPERATIONS - NEED FOR SALT MANAGEMENT

Salts originate by dissolution of the more soluble portions of rocks and soil particles in rain water (weathering). Such salts are transported in solution, but are concentrated in soils, waters, and so-called salt sinks due to evaporation from soil and water surfaces and transpiration (use) by crops (plants). This removal of water by evaporation or transpiration leaves salts behind. Salts are concentrated by each successive evaporative loss of water. In time, accumulations of salt can go from no- problem to extreme-problem levels unless some controls are applied.

For irrigated agriculture to continue production into the foreseeable future, this problem of gradual accumulation of salts in soils and waters must be faced and kept under control at acceptable levels. Otherwise, production will decline even under the best management, and no added amount of good management will be able to continue production of the quantities of food crops needed. In most of California's water basins, the rate of export or removal of salts from the basin will need to be

increased to more closely match or exceed the rate of salt accumulation. For each basin, not only do the rates of import and export of salts need to be in reasonably close balance, but the balance must also be maintained at a sufficiently low level of salinity to meet the quality demands of the various designated beneficial uses. This is often referred to as maintenance of a "favorable salt balance."

The rate of water quality degradation within a basin which results from inadequate salt exports is slow. It may be so slow that the need for control of salts is believed to be far into the future and of no concern to present planning. However, just as degradation may be a slow process, correction of a critical basin-wide salinity problem is also an extremely slow process. Good planning, now, to control this long-term, slow degradation of our soil and water resources seems the better course of action, rather than to wait until the problem becomes critical. Decisions made, or not made, now can be critical to control in the future.

Agriculture's need for salt management is both for on-farm management and for off-farm (basin-wide) management. The absolute need for discharge of salts by agriculture will create conflicts with other water users - even other agricultural water users.

Compromises and trade-offs will be necessary to reconcile these conflicts; however, necessary motivation for change in management at the farm level will need to be tied to dollars and the economic consequences of "no- change." If required agricultural management changes for essential pollution control result in added costs to the farmer, he has the same hard choices of any other businessman:

1. Absorb the cost with reduced profit

2. Pass on the cost in increased prices to consumers

3. Accept some form of public subsidy to off-set cost

4. Go out of business

5. Change crops grown

In coastal higher rainfall areas, irrigated agriculture could probably continue almost indefinitely, since irrigation would be used primarily during dry summer periods to supplement winter rainfall. Rainfall would be sufficient to flush salts through soils and provide adequate recharge and outflow from the underground water basin toward the ocean for salt control. There is more cause for concern in the drier inland areas such as the Salinas River Sub-basin and in the naturally mineralized ground water areas such as the Santa Maria Valley.

VIII.C.4. IMPROVED SALT MANAGEMENT TECHNIQUES

A concept of minimal degradation should be considered in some areas, but this will need to be coupled with management of the surface and ground water supplies to minimize and correct the effects of degradation that may occur. If complete correction is not possible, improved management will delay the time when salts reach critical levels. Several options available to correct degradation through improved salt management follow.

Improved irrigation efficiency would reduce both potential and actual pollutants in the water moving from surface to ground. Improved efficiency would also reduce total quantities of salts leaching to the water table and cut down on withdrawals or diversions from the limited water supply. Present statewide efficiency of water use may average 50 to 60 percent, but individual uses will vary from an estimated low of 30 percent where water is plentiful and inexpensive to a high of 95 percent where water quantity is limited and/or the price is high.

Implementation of the Leaching Requirement reported by U.S. Salinity Laboratory, Riverside, will help improve efficiency of irrigation. Other research data by this same laboratory has been reported on the effects of low leaching fractions in reduction of salt loads leaching to water tables. The new data offers real incentives to agriculture to improve irrigation efficiency in the form of real dollars saved by the farmer. Real water saved by agriculture can then be used for dilution, recharge, or nonagricultural uses. True, the salts moving to the water table under these low leaching fractions will be more concentrated, but due to low solubilities of

certain salts, a progressive precipitation and removal from solution occurs as the salt concentration in the percolating soil solution rises. As the concentration rises, considerable portions of the low solubility salts come out of solution, e.g., the relatively insoluble lime, dolomite, and slightly soluble gypsum.

With these low leaching fractions, salt load to the underground may be reduced as much as 50 percent in some cases. Sodium salts (sodium chloride, and sulfate) are not affected, so in relation to calcium and magnesium salts these sodium salts in the percolating waters increase. The compounds which precipitate are deposited in the lower root zone or below and cause no problem to agriculture except for a few specialized situations which are correctable (lime induced chlorosis). The increased proportions of sodium salts (higher SAR) will not reduce permeabilities of subsoils since salinity remains high enough to continue normal permeabilities of subsoils. The higher sodium (SAR) reaching water tables may reduce hardness slightly, but is not expected to be a problem to users of the underground waters.

Crop production can continue into the foreseeable future in the low rainfall areas if the minimal degradation that almost inevitably will occur is offset (a) by recharge and replenishment of the underground which will furnish dilution water for the added salts and (b) by drainage or removal of degraded waters at a sufficient rate to maintain low salt levels and achieve a satisfactory balance between salts coming into the basin and salts leaving the basin.

To help in recharge and dilution, additional winter runoff can be stored in surface reservoirs for later use for either surface stream or underground water quantity/quality enhancement or maintenance, e.g., Nacimiento and Twitchell reservoirs. Possible future reservoirs may be located on the Arroyo Seco and Carmel rivers. Or winter runoff could be used directly for ground water recharge to enhance flushing and flow-through dilution of salts and pollutants.

Drainage wells which discharge to drains leading to salt sinks are a possibility in removing salty waters, but these have had only limited success in draining high water table areas. However, they might be well adapted to ground water quality maintenance. Such wells could be drilled and operated to recover the salty top layers of water tables where salts are believed to accumulate as a layer of poorer quality water over the better quality deeper layers. Since most of the movement within water tables is thought to be horizontal and down slope, and vertical mixing is relatively slow, the possibility of recovering polluted upper layers of water tables should be explored as a quality maintenance tool or rejuvenation procedure for degraded water supplies.

Underdrains (tile systems) can aid in both water and salt management. Perched water tables intercept percolating salts, nutrients, and other pollutants and offer real possibilities as an aid in management and protection of the overall water quality of a basin. A "perched" water table is held up and separated from deeper aquifers by a relatively impermeable barrier (soil, rock, hardpan). This barrier often protects the deeper waters from pollution by preventing leakage of polluted waters from above. Perched water tables exist in portions of several basins. Salts and nutrients collected in these perched water tables may be tapped by underdrains (tile systems) and transported through the basin drainage system to disposal sites.

Basin-wide or area-wide drainage systems will be needed in order to move unusable wastewaters to acceptable temporary or permanent disposal sites (salt sinks). On- farm drainage problems will normally be solved at individual farmer expense because of the economics involved--the cost is not prohibitive and the costs of "not-solving" the problem (reduced yields, changing cropping patterns, or going out of business) are unacceptable. The off-farm part of drainage, however, is too big for individual farmers to solve, and some form of collective, organized large scale action is needed. The off- farm problems include collection of discharges, rights-of-way for conveyance, building and maintenance of a drainage system, disposal site acquisition, and management for compliance with discharge requirements.

Acceptable temporary or permanent salt disposal sites (salt sinks) must be designated and used. The Pacific Ocean is the only acceptable sink for most of the Central Coastal Basin; however, Soda Lake and certain highly mineralized ground water basins may be acceptable. To be able to remove salts as required to maintain a low salinity level in any one basin, there must be some other basin or site that will accept the salts. These acceptor areas are

known as salt sinks. Without acceptable salt sinks, salt management becomes a long-term losing battle and a frustrating exercise in futility.

Other salt inputs to a basin can be reduced by improved management of other salt sources such as fertilizer, animal wastes, and soil amendments. Regulation may be required but an appreciable improvement can be expected by education of farmers to better understand and better utilize existing information and guidelines. A salt routing approach could be used in areas such as Pancho Rico Creek to permit discharge of highly mineralized wastewater during periods of high flow.

VIII.C.5. MUSHROOM FARM OPERATIONS

Mushroom farm operations present surface or ground water problems if not properly managed.

VIII.C.5.a. TYPICAL MUSHROOM FARM OPERATION

Compost is needed as a growing base medium to produce mushrooms. Typically compost is produced on-site from straw, horse manure, cottonseed meal, or other organic matter. During composting, the organic material breaks down into a useable protein source for mushrooms. Water, added to assist the composting process, is constantly leaching through compost piles. Once compost is ready for use, it is placed in mushroom growing trays. After mushroom harvesting, steaming and fumigation sterilize the growing house and spent compost. Spent compost is then removed to "spent compost storage areas" and marketed as a soil additive or disposed of in some other manner.

VIII.C.5.b. TYPES OF WASTES DISCHARGED

Composting operations are typically carried out on concrete composting slabs. Compost is frequently sprayed with water. Excess water typically drains into a sump. Normally, excess water is recycled by pumping it back to spray the pile. In summer very little runoff or leachate is produced from composting. During the rainy season the sump collects more runoff from the compost slab than is recycled. Discharge to drainage ways or containment sumps may result.

When mushroom beds are irrigated, excess water drains from concrete floors to drainage ways or disposal sumps. This water contains peat moss, soluble substances from beds, salt from salt pans (used to "sanitize" the footwear of persons entering the cultivating room), and whatever is on the floor, such as pesticide residues and mushroom stems, at the time the floor is washed.

Steam is used for tray sterilization and to heat and sterilize growing houses. Prior to entering boilers, water is softened and treated with an organic or inorganic corrosion and scale inhibitors. Salt is used as a water softener regenerant. Discharge of water softener regenerant and boiler blowdown to drainage ways or disposal sumps may occur.

Solid wastes consisting of pesticide bags, mushroom roots and stumps, cardboard boxes, spent compost, and general debris are generated by mushroom farms.

Some of the disinfectants, fungicides, and pesticides being sprayed on the floor, walls, and mushrooms are occasionally washed off during washdown of the facility. Generally, pesticides used in this business have a relatively short life.

VIII.C.5.c. POSSIBLE WATER QUALITY PROBLEMS

Compost leachate and irrigation/ washwater is high in biochemical oxygen demand (BOD). BOD is

generally considered high if the concentration exceeds 30 mg/l, but this can vary from situation to situation. If discharged to surface waters, these wastes may depress dissolved oxygen to a critical level, and provide a nutrient source for undesirable aquatic growth. Improper disposal may also cause impacts on ground water. Nitrates are a particular concern.

Discharges of water softener regenerant and boiler blowdown may degrade surface and ground waters if improperly disposed. These wastes are high in Total Dissolved Solids, Sodium, and Chloride concentrations. Boiler blow-down may also contain organic or inorganic corrosion and scale inhibitors which could present toxicity problems if improperly disposed. Solid wastes can be a problem if improperly disposed.

Disinfectants, fungicides, and pesticides do not appear to present water quality problems based on inspections and limited sampling. These biocides can be a problem if handled improperly. Surface water runoff entering mushroom farm operations can become contaminated if runoff contacts any of the sources described above.

VIII.C.5.d. ADDITIONAL CONCERNS

Wastes can create a nuisance. Public health can be jeopardized if vectors develop among solid wastes. Further, odors resulting from storage of wastes can become offensive and may obstruct the free use of neighboring property.

VIII.C.5.e. RECOMMENDATIONS

1. Spent irrigation/washwater and compost leachate may be reused to spray compost piles.

2. Spent irrigation/washwater, compost leachate, and contaminated surface water runoff should be collected for treatment, storage, and disposal in lined ponds, unless shown by geohydrologic analysis that ground water will not be affected. If needed, aeration should be provided to stabilize organic substances and prevent odor problems. Dissolved oxygen of 1.0 mg/l or more is recommended for storage ponds.

3. Mushroom farm wastes, excluding water softener regenerant, may be used to irrigate farm crops during dry weather months. When salt is properly handled, the sodium and chloride content of these waters should be suitable for this purpose. The discharger must demonstrate to the Regional Board that irrigation water will not degrade beneficial water uses.

4. When irrigation is utilized, application rates and irrigation practices should be suitable to the crops irrigated.

5. Water softener regenerant and boiler blowdown should be disposed of separately from spent irrigation/washwater. Since its volume is small and concentration of pollutants is high, it is best to evaporate the liquid on a lined drying bed, or provide a documented test by a registered Engineer or laboratory that the soils permeability in the disposal area is 10-6 cm/sec or less. Two drying beds should be used for the purpose of holding salt/regenerant liquid and boiler blowdown waste. Discharges to beds are alternated to allow sufficient drying time.

6. Drying bed residue from any disposal pond should be disposed at a suitable solid waste disposal site.

7. As an alternative, water softener regenerant and boiler blowdown can be hauled in liquid form to a suitable disposal site, or discharged to the ocean through a suitable outfall.

8. Chemical alternatives for sanitizing footwear to replace salt pans should be investigated by farm operators.

9. If used, salt sanitation pans should be at least 4 inches deep and elevated to prevent contact between salt and water. Salt solution should remain in pans until disposed. Spent salt

should be dumped into a sealed container and disposed at a suitable site.

10. Solid waste should be routinely collected and disposed at a suitable site.

VIII.C.5.f. PROHIBITIONS

The following activities are prohibited at mushroom farms:

1. Discharge of inadequately treated waste, including leachate, high BOD, high nutrient waste, and contaminated surface water runoff to drainage ways, surface waters, and ground waters.

2. Discharge of untreated water softener regenerant and boiler blowdown waste in a manner that pollutes any non-saline surface or ground water.

3. Discharge and/or storage of waste, including spent compost, in a manner promoting nuisance and vector development.

4. Disposal of sludges, salt residues, pesticide residues, and solid waste in a manner not accepted by the Regional Board.

VIII.C.6. RANGE MANAGEMENT

Rangeland is the most extensive land use type in California, accounting for more than 40 million acres of the State's 101 million acres. As most of the rangelands are located between forested areas and major river systems, nearly all surface waters in the State flow through rangelands. Thus, rangeland activities can greatly impact water quality. In this section, grazing activities are discussed.

VIII.C.6.a. GRAZING

Grazing activities (particularly overgrazing), by contributing excessive sediment, nutrients, and pathogens, can adversely impact water quality and impair beneficial uses. Soil erosion and sedimentation are the primary causes of lowered water quality from rangelands. When grazing removes most of the vegetative cover from pastures and rangelands, the soil surface is exposed to erosion from wind and water. With runoff, eroded soil becomes sediment which can impair stream uses and alter stream channel morphology and results in decreased recharge capacity through clogging of channel bottoms. With steep slopes, highly erodible soils and interim storm events, the sediment delivery ratio (a measure of the amount of eroded soil delivery to a waterbody) on rangeland can be very high. Streambank erosion and lakeshore erosion are other sources of sediment on rangelands. Lakeshores, streambanks, and associated riparian zones are often subjected to heavy livestock use. Trampling and grazing of vegetation contribute to lakeshore and streamside instability as well as accelerated erosion.

Sediments can contribute large amounts of nutrients to surface water. Nutrients, mainly nitrogen and phosphorous, from manure and decaying vegetation also enter surface waters, particularly during runoff periods. Very critical nutrient problems can develop where livestock congregate for water, feed, salt, and shade. Pasture fertilization can also be a source of nutrients to surface waters, as well as a source of pesticides, particularly if flood irrigation techniques are used on rangelands.

Stream zone and lakeshore areas are important for water quality protection in that they can "buffer" (intercept and store nutrients which have entered surface and ground waters from upgradient areas). These "buffer zones" are more sensitive to processes which can increase nutrient discharges such as soil compaction, soil erosion, and vegetation damage than other areas of the rangeland.

Localized contamination by pathogens that could impact human health in surface water, ground water, and soils can result from livestock in pastures and rangelands. Rangeland streams can show

increased coliform bacterial levels with fecal coliform levels tending to increase as intensity of livestock use increases. Fecal coliform serve as indicators that pathogens could exist and flourish. The extent of contamination is usually determined by livestock density, sizing, and frequency of grazing, and access to the surface waters.

GRAZING CONTROL MEASURES

Grazing activities occur on both public and private lands in the Central Coast Region. Regulation of grazing on federal lands differs from that on private lands.

Federal lands -- Grazing activities on federal lands are regulated by the responsible land management agency, such as the U. S. Bureau of Land Management or the U.S. Forest Service. Through Memorandum of Understandings and Management Agency Agreements, the Regional Board recognizes the water quality authority of the U.S. Forest Service and U.S. Bureau of Land Management in range management activities on federal lands. Both these agencies require allotment management plans to be prepared for a specific area and for an individual permittee. The Regional Board relies on the water quality expertise of these agencies to include appropriate water quality measures in the allotment management plans. Most allotment management plans include specific Best Management Practices to protect water quality and existing and potential beneficial uses.

Non-federal (private) lands -- The Range Management Advisory Committee is a statutory committee which advises the California Board of Forestry on rangeland resources. The Committee has identified water quality protection as a major rangeland issue and has assumed a lead role in developing a Water Quality Management Plan for private rangelands in California. Regional Board staff is participating in the Plan's development. Sections proposed for inclusion in the Plan are status of water quality and soil stability on State rangelands, authority, mandates, and programs for water quality and watershed protection, local water quality planning guidelines, sources of assistance, development of management measures (Best Management Practices), State agency water quality responsibilities, and monitoring guidelines. Upon its completion, the Plan will be submitted to the State Board. On private lands whose owners request assistance, the U.S. Soil Conservation Service, in cooperation with the local Resource Conservation Districts, can provide technical and financial assistance for range and water quality improvement projects. A Memorandum of Understanding is in place between the U.S. Soil Conservation Service and the State Board for planning and technical assistance related to water quality actions and activities undertaken to resolve nonpoint source problems on private lands.

On both public and private lands, the Regional Board encourages grazing strategies that maintain adequate vegetative cover to reduce erosion and sedimentation. The Regional Board promotes dispersal of livestock away from surface waters as an effective means of reducing nutrient and pathogen loading. The Regional Board encourages use of Best Management Practices to improve water quality, protect beneficial uses, protect stream zone and lakeshore areas, and improve range and watershed conditions including:

- Implementing rest-rotation grazing strategies,
- Changing the season of use (on/off dates),
- Limiting the number of animals,
- Increasing the use of range riders to improve animal distribution and use of forage,
- Fencing to exclude grazing in sensitive areas,
- Developing non-lakeshore and non-stream zone watering sites,
- Constructing physical improvement projects such as check dams, and
- Restoring riparian habitat.

These same Best Management Practices may result in improved range and increased forage production, resulting in increased economic benefit to the rancher and land owner. The Regional Board also encourages land owners to develop appropriate site-specific Best Management Practices using the

technical assistance of the U.S. Soil Conservation Service and the U.S. EPA.

In addition to relying on the grazing management expertise of agencies such as the U.S. Forest Service, U.S. Bureau of Land Management, or Range Management Advisory Committee, the Regional Board can directly regulate grazing activities to protect water quality. Actions available to the Regional Board include:

1. Require that a Report of Waste Discharge be filed, that allotment management plans for specific federal lands be prepared, or that a Coordinated Resource Management Plan be adopted within one year of problem documentation. Such problems indicate impairment of beneficial uses or violation or threatened violation of water quality objectives.

2. Require that all allotment management plans (utilized for federal lands) and Coastal Resource Management Plans contain Best Management Practices necessary to correct existing water quality problems or to protect water quality so as to meet all applicable beneficial uses and water quality objectives contained in Chapters Two and Three, respectively, of this Basin Plan. Corrective measures would have to be implemented within one year of submittal of the allotment management plan or Coastal Resource Management Plan, except where staged Best Management Practices are appropriate. Implementation of a staged Best Management Practice must commence within one year of submittal of the allotment management plan or Coastal Resource Management Plan.

3. Require that each allotment management plan (utilized for federal lands) or Coastal Resource Management Plan include specific objectives, actions, and monitoring and evaluation procedures. The discussion of actions must establish the seasons of use, number of livestock permitted, grazing system(s) to be used, a schedule for rehabilitation of ranges in unsatisfactory condition, a schedule for initiating range improvements, and a schedule for maintenance of range improvements must include priorities and planned completion dates. The discussion of monitoring and evaluation must propose a method and timetable for reporting of livestock forage conditions, watershed condition, and surface and ground water quality.

4. Require that all allotment management plans and Coastal Resource Management Plans be circulated to interested parties, organizations, and public agencies.

5. Consider adoption of waste discharge requirements if an allotment management plan or Coastal Resource Management Plan is not prepared or if the Executive Officer and the landowner do not agree on Best Management Practices proposed in an allotment management plan or Coastal Resource Management Plan.

6. Decide that allotment management plans and Coastal Resource Management Plans prepared to address a documented watershed or water quality problem may be accepted by the Regional Board's Executive Officer in lieu of adoption of Waste Discharge Requirements.

7. Oversee monitoring of water quality variables and beneficial uses. Provide data interpretation.

8. Encourage the U.S. Bureau of Land Management, U.S. Forest Service, Resource Conservation District, and private landowners to develop watering sites for livestock away from Lake shores, stream zones, and riparian areas.

9. Encourage private landowners to request technical and financial assistance from U.S. Soil Conservation Service, in cooperation with the local Resource Conservation Districts, in the preparation of allotment management plans and the implementation or construction of grazing and water quality improvements.

10. Continue to coordinate with the Range Management Advisory Committee in the development of a water quality management plan for private rangelands.

VIII.D. INDIVIDUAL, ALTERNATIVE, AND COMMUNITY DISPOSAL SYSTEMS

On-site sewage disposal systems and other similar methods for liquid waste disposal are sometimes viewed as interim solutions in urbanizing areas, yet may be required to function for many years. On-site systems can be a viable long-term waste disposal method with proper siting, design, construction, and management. In establishing on- site system regulations, agencies must consider such systems as permanent, not interim systems to be replaced by public sewers. The reliability of these systems is highly dependent on land and soil constraints, proper design, proper construction, and proper operation and maintenance.

If on-site sewage treatment facilities are not carefully managed, problems can occur, including:

- odors or nuisance;
- surfacing effluent;
- disease transmission; and,
- pollution of surface and ground waters.

Odors and nuisance can be objectionable and annoying and may obstruct free use of property. Surfacing effluent (effluent which fails to percolate and rises to the ground surface) can be an annoyance, or health hazard to the resident and neighbors. In some cases, nearby surface waters may be polluted.

On-site sewage disposal systems are a potential mechanism for disease transmission. Sewage is capable of transmitting diseases from organisms which are discharged by an infected individual. These include dysentery, hepatitis, typhoid, cholera, and gastro-intestinal disorders.

Pollution of surface or ground waters can result from the discharge of on-site system wastes. Typical problem waste constituents are total dissolved solids, phosphates, nitrates, heavy metals, bacteria, and viruses. Discharge of these wastes will, in some cases, destroy beneficial surface and ground water uses.

Subsurface disposal systems may be used to dispose of wastewater from: (1) individual residences; (2) multi-unit residences; (3) institutions or places of commerce; (4) industrial sanitary sources; and, (5) small communities. All individual and multi- unit residential developments are subject to criteria in this section of the Basin Plan. Commercial, institutional, and industrial developments with a discharge flow rate less than 2500 gallons per day generally are not regulated by waste discharge requirements; therefore, they must comply with these criteria. Community systems must also comply with criteria relating to this subject within the Basin Plan. Community systems are defined for the purposes of this Basin Plan as: (1) residential wastewater treatment systems for more than 5 units or more than 5 parcels; or, (2) commercial, institutional or industrial systems to treat sanitary wastewater equal to or greater than 2500 gallons per day (average daily flow). Systems of this type and size may be subject to waste discharge requirements.

Alternatives to conventional on-site system designs have been used when site constraints prevent the use of conventional systems. Examples of alternative systems include mound and evapotranspiration systems. Remote subdivisions, commercial centers, or industries may utilize conventional collection systems with community treatment systems and subsurface disposal fields for sanitary wastes. Alternative and community systems can pose serious water quality problems if improperly managed. Failures have been common in the past and are usually attributed to the following:

- Systems are inadequately or improperly sited, designed, or constructed.
- Long-term use is not considered.
- Inadequate operation and maintenance.

VIII.D.1. CORRECTIVE ACTIONS FOR EXISTING SYSTEMS

Individual disposal systems can be regulated with relative ease when they are proposed for a particular site. For new systems, regulations generally provide for good design and construction practices. A more troublesome problem is presented by older septic tank systems where design and construction may have been less strictly controlled or where land development has intensified to an extent that percolation systems are too close together and there is no room left for replacement leaching areas. Where this situation develops to an extent that public health hazards and nuisance conditions develop, the most effective remedy is usually a sewer system. Where soil percolation rates are particularly fast, ground water degradation is possible, particularly increases in nitrate concentrations.

Sewer system planning should be emphasized in urbanizing areas served by septic tanks. A first step would be a monitoring system involving surface and ground waters to determine whether problems are developing. Where septic tank systems in urbanized areas are not scheduled for replacement by sewers and where public health hazards are not documented, septic tank maintenance procedures are encouraged to lessen the probability that a few major failures might force sewering of an area which otherwise could be retained on individual systems without compromising water quality. Often a few systems will fail in an area where more frequent septic tank pumping, corrections to plumbing or leach fields, or in-home water conservation measures could help prevent failure. Improvements of this kind should be enforced by a local septic tank maintenance district or local governing jurisdiction.

A septic tank subjected to greater hydraulic load can fail due to washout of solids into percolation areas and plugging of the infiltrative surface. In some cases, excess wash water could be diverted to separate percolation areas by in-home plumbing changes. Dishwashers, garbage grinders, and washing machines could be eliminated. Water saving toilets, faucets, and shower heads are available to encourage low water use. Water use costs may also be structured to encourage more frugal use of water.

VIII.D.2. LOCAL GOVERNING JURISDICTION ACTIONS

VIII.D.2.a. DISCLOSURE AND COMPLIANCE OF EXISTING WASTEWATER DISPOSAL SYSTEM

Local governing jurisdictions should provide programs to assure conformance with this Basin Plan and local regulations. Inspection programs should assure site suitability tests are performed as necessary, and that tests are in accordance with standard procedures. Inspection should also assure proper system installation. Proper design and construction should be certified by the inspector. Concerned homeowners can be a tremendous asset in assuring proper construction. When a septic system permit is issued by the local agency, a handout specifying proper construction techniques should be made available to the general public. Systems must be inspected by the local agency before covering (backfilling).

Local agencies can use either staff inspectors or individuals under contract with the local government. Either way, a standard detailed checklist should be completed by the inspector to certify compliance.

Site suitability determinations should specify: (1) whether approval is for the entire lot or for specific locations of the lot; (2) if further tests are necessary; and, (3) if alternatives are necessary or available.

Where agency approval is necessary from various departments, final sign-offs should be on the same set of plans.

Home owners should be aware of the nature and requirements of their wastewater disposal system. Plans should be available in city or county offices showing placement of soil absorption systems. Since this is only feasible for new construction, local agencies should require septic system as-built plans

as a condition of new construction final inspection. Plans would be kept on file for future use of property owners.

Prospective property buyers should be informed of any enforcement action affecting parcels or houses they wish to buy. For example, a parcel in a discharge prohibition area may be unbuildable for an indefinite period, or a developed parcel may be subject to significant user charges from a future sewer system. Local agencies should have prohibition area terms entered into the county record for each affected parcel. When a prospective buyer conducts a title search, terms of the prohibition would appear in the preliminary title report.

Dual leaching capabilities provide an immediate remedy in the event of system failure. For that reason, dual leachfields are considered appropriate for all systems. Furthermore, should wastewater flows increase, this area can be used until the system is expanded. But system expansion may not be possible if land is not set aside for this purpose. For these reasons, dedicated system expansion areas are also appropriate.

To protect this set-aside area from encroachment, the local agency should require restrictions on future use of the area as a condition of land division or building permit approval. For new subdivisions, Covenants, Conditions, and Restrictions (CC&R's) might provide an appropriate mechanism for protecting a set aside area. Future buyers of affected property would be notified of property use restrictions by reading CC&R's.

All on-site system owners need to be aware of proper operation and maintenance procedures. Local governing jurisdictions should mount a continuing public education program to provide home owners with on-site system operation and maintenance guidelines. Basin Plan information should be available at local agency health and building departments.

Local agencies should conduct an on-site system inspection program, particularly in areas where system failures are common or where systems with poor soils are approved. An agency inspector should periodically check each septic tank for pumping need and each system for proper operation. Homeowners should be alerted where evidence of system failure exists. Where nuisance or a potential public health hazard exists, a followup procedure should insure the situation is corrected. On-site systems should be constructed in a location that facilitates system inspection.

Another approach is periodically to mail homeowners a brochure reminding them how to maintain and inspect their on-site system. Homeowners should be notified that they should periodically check their septic tank for pumping need. Homeowners should also be notified of other problems indicative of system failure. Some examples include wet spots in drainfield area, lush grass growths, slowly draining wastewater, and sewage odors.

Many existing systems do not comply with current or proposed standards. Repairs to failing systems should be done under permit from the local agency. To the extent practicable, the local agency should require failing systems to be brought into compliance with Basin Plan recommendations. This could be a condition of granting a permit for repairs.

Land use changes on properties used for commerce, small institutions, or industries should not be approved by the local agency until the existing on-site system meets criteria of this Basin Plan and local ordinances. A land use permit or business license could be used to alert the local agency of land use changes.

VIII.D.2.b. ON-SITE WASTEWATER MANAGEMENT PLANS

On-site wastewater management should be implemented in urbanizing areas to investigate long-term cumulative impacts resulting from continued use of individual, alternative, and community on-site disposal systems. A wastewater disposal study should be conducted to determine the best Wastewater Management Plan that would provide site or basin specific wastewater re-use. This study should identify basin specific criteria to prevent water quality degradation and public health hazards and provide an evaluation of the effects of existing and proposed developments and changes in land use. These plans should be a comprehensive planning tool to specify on-site disposal system limitations to prevent ground or surface water

degradation. Wastewater management plans should:

- Contain a ground/surface water monitoring program.
- Identify sites suitable for conventional septic systems.
- Project on-site disposal system demand.
- Determine sites and methods to best meet demand.
- Project maximum population densities for each subdrainage basin to control degradation or contamination of ground or surface water.
- Recommend establishment of septic tank maintenance districts, as needed.
- Identify alternate means of disposing of sewage in the event of irreversible degradation from on-site disposal systems.

For areas where watershed-wide plans are not developed, conditions could be placed on new divisions of land or community systems to provide monitoring data or geologic information to contribute to the development of a Wastewater Management Plan.

Wastewater disposal alternatives should identify costs to each homeowner. A cost-effectiveness analysis, which considers socio-economic impacts of alternative plans, should be used to select the recommended plan.

On-site wastewater disposal zones, as discussed in Section 6950-6981 of the Health and Safety Code, may be an appropriate means of implementing on-site Wastewater Management Plans.

On-site Wastewater Management Plans shall be approved by the Regional Board.

VIII.D.2.c. SEPTIC TANK MAINTENANCE DISTRICTS

It may be appropriate for unsewered community on-site systems to be maintained by local sewage disposal maintenance districts. These special districts could be administered through existing local governments such as County Water Districts, a Community Services District, or a County Service Area.

Septic tank maintenance districts should be responsible for operation and maintenance in conformance with this Water Quality Control Plan. Administrators should insure proper construction, installation, operation, and maintenance of on-site disposal systems. Maintenance districts should establish septic tank surveillance, maintenance and pumping programs, where appropriate; provide repairs to plumbing or leachfields; and encourage water conservation measures.

VIII.D.3. CRITERIA FOR NEW SYSTEMS

On-site sewage disposal system problems can be minimized with proper site location, design, installation, operation, and maintenance. The following section recommends criteria for all new individual subsurface disposal systems and community sewage disposal systems. Local governing jurisdictions should incorporate these guidelines into their local ordinances. These recommendations will be used by the Regional Board for Regional Board regulated systems and exemptions.

Recommendations are arranged in sequence under the following categories: site suitability; system design; construction; individual system maintenance; community system design; and local agencies.

Mandatory criteria are listed in the "Individual, Alternative, and Community Systems Prohibitions" section.

VIII.D.3.a. SITE SUITABILITY

Prior to permit approval, site investigation should determine on-site system suitability:

1. At least one soil boring or excavation per on-site system should be performed to determine soil suitability, depth to ground water, and depth to bedrock or impervious layer. Soil borings are particularly important for seepage pits. Impervious material is defined as having a percolation rate slower than 120 minutes per inch or having a clay content 60 percent or greater. The soil boring or excavation should extend at least 10 feet below the drainfield1 bottom at each proposed location.

2. An excavation should be made to detect mottling or presence of underground channels, fissures, or cracks. Soils should be excavated to a depth of 4-5 feet below drainfield bottom.

3. For leachfields, at least three percolation test locations should be used to determine system acceptability. Tests should be performed at proposed subsurface disposal system sites and depths.

4. If no restrictive layers intersect, and geologic conditions permit surfacing, the setback distance from a cut, embankment, or steep slope (greater than 30 percent) should be determined by projecting a line 20 percent down gradient from the sidewall at the highest perforation of the discharge pipe. The leachfields should be set-back far enough to prevent this projected line from intersecting the cut within 100 feet, measured horizontally, of the sidewall. If restrictive layers intersect cuts, embankments or steep slopes, and geologic conditions permit surfacing, the setback should be at least 100 feet measured from the top of the cut.

5. Natural ground slope of the disposal area should not exceed 20 percent.

6. For new land divisions, lot sizes less than one acre should not be permitted.

VIII.D.3.b. SYSTEM DESIGN

On-site systems should be designed according to the following recommendations:

1. Septic tanks should be designed to remove nearly 100 percent of settleable solids and should provide a high degree of anaerobic decomposition of colloidal and soluble organic solids.

2. Tank design must allow access for inspection and cleaning. The septic tank must be accessible for pumping.

3. If curtain drains discharge diverted ground water to subsurface soils, the upslope separation from a leachfield or pit should be 20 feet and the down slope separation should be 50 feet.

4. Leachfield application rate should not exceed the following:

Percolation Rate min./in	Loading Rate g.p.d./sq.ft.
1 - 20	0.8
21 - 30	0.6
31 - 60	0.25
61 - 120	0.10

5. Seepage pit application rate should not exceed 0.3 gpd/sq. ft.

6. Drainfield[1] design should be based only upon usable permeable soil layers.

7. The minimum design flow rate should be 375 gallons per day per dwelling unit.

8. In clayey soils, systems should be constructed to place infiltrative surfaces in more permeable horizons.

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1 "Drainfield" refers to either a leachfield or seepage pit

9. Distance between drainfield trenches should be at least two times the effective trench depth.[1]

10. Distance between seepage pits (nearest sidewall to sidewall) should be at least 20 feet.

11. Dual disposal fields (200 percent of original calculated disposal area) are recommended.

12. For commercial systems, small institutions, or sanitary industrial systems, design should be based on daily peak flow.

13. For commercial and institutional systems, pretreatment may be necessary if wastewater is significantly different from domestic wastewater.

14. Commercial systems, institutional systems, or domestic industrial systems should reserve an expansion area (i.e. dual drainfields must be installed and area for replacement of drainfield must be provided) to be set aside and protected from all uses except future drainfield repair and replacement.

15. Nutrient and heavy metal removal should be facilitated by planting ground cover vegetation over shallow subsurface drainfields. The plants must have the following characteristics: (1) evergreen, (2) shallow root systems, (3) numerous leaves, (4) salt resistant, (5) ability to grow in soggy soils, and (6) low or no maintenance. Plants downstream of leaching area may also be effective in nutrient removal.

VIII.D.3.c. DESIGN FOR ENGINEERED SYSTEMS

1. Mound systems should be installed in accordance with criteria contained in Guidelines for Mound Systems by the State Water Resources Control Board.

2. Evapotranspiration systems should be installed in accordance with criteria contained in Guidelines for Evapotranspiration Systems by the State Water Resources Control Board. Exceptions are:

   a. For evapotranspiration systems, each month of the highest precipitation year and lowest evaporation year within the previous ten years of record should be used for design.

   b. Systems shall be designed by a registered civil engineer competent in sanitary engineering.

VIII.D.3.d. CONSTRUCTION

Water quality problems resulting from improper construction can be reduced by following these practices:

1. Subsurface disposal systems should have a slightly sloped finished grade to promote surface runoff.

2. Work should be scheduled only when infiltrative surfaces can be covered in one day to minimize windblown silt or rain clogging the soil.

3. In clayey soils, work should be done only when soil moisture content is low to avoid smeared infiltrative surfaces.

4. Bottom and sidewall areas should be left with a rough surface. Any smeared or compacted surfaces should be removed.

5. Bottom of trenches or beds should be level throughout to prevent localized overloading.

6. Two inches of coarse sand should be placed on the bottom of trenches to prevent compacting soil when leachrock is dumped into drainfields. Fine sand should not be used as it may lead to system failure.

7. Surface runoff should be diverted around open trenches/ pits to limit siltation of bottom area.

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1 "Effective trench depth" means depth below the bottom of the trench pipe.

8. Prior to backfilling, the distribution system should be tested to check the hydraulic loading pattern.

9. Properly constructed distribution boxes or junction fittings should be installed to maintain equal flow to each trench. Distribution boxes should be placed with extreme care outside the leaching area to insure settling does not occur.

10. Risers to the ground surface and manholes should be installed over the septic tank inspection ports and access ports.

11. Drainfield should include an inspection pipe to check water level.

Additional construction precautions are discussed within the Environmental Protection Agency's Design Manual: On-Site Wastewater Treatment and Disposal Systems.

VIII.D.3.e. INDIVIDUAL SYSTEM MAINTENANCE

Individual septic tanks should be maintained as follows:

1. Septic tanks should be inspected every two to five years to determine the need for pumping. If garbage grinders or dishwashers discharge into the septic tank, inspection should occur at least every two years.

2. Septic tanks should be pumped whenever: (1) the scum layer is within three inches of the outlet device; or (2) the sludge level is within eight inches of the bottom of the outlet device.

3. Drainfields should be alternated when drainfield inspection pipes reveal a high water level.

4. Disposal of septage (solid residue pumped from septic tanks) should be accomplished in a manner acceptable to the Executive Officer. In some areas, disposal may be to either a Class I or Class II solid waste site; in others, septage may be discharged to a municipal wastewater treatment facility.

VIII.D.3.f. COMMUNITY SYSTEM DESIGN

Community systems should be designed and maintained to accommodate the following items:

1. Capacities should accommodate build-out population.

2. Design should be based upon peak daily flow estimates.

3. Design should consider contributions from infiltration throughout the collection system.

4. Septic tanks should be pumped when sludge and scum levels are greater than 1/3 of the depth of the first compartment.

5. Operation and maintenance should be in accordance with accepted sanitary practice.

6. Maintenance manuals should be provided to system users and maintenance personnel.

7. Discharge should not exceed 40 grams per day total nitrogen, on the average, per acre of total development overlying ground water recharge areas, unless local governing jurisdictions adopt Wastewater Management Plans subsequently approved by the Regional Board.

VIII.D.3.g. LOCAL AGENCIES

Recommendations for local governing jurisdictions:

1. Adopt a standard percolation test procedure.

   The California State Water Resources Control Board Guidelines for Evapotranspiration Systems provides a percolation test method recommended for use to standardize test

results. A twelve-inch diameter percolation test hole may be used.

2. Percolation tests should be continued until a stabilized rate is obtained.

3. Percolation test holes should be drilled with a hand auger. A hole could be hand augered or dug with hand tools at the bottom of a larger excavation made by a backhoe.

4. Percolation tests should be performed at a depth corresponding to the bottom of the subsurface disposal area.

5. Seepage pits should be utilized only after careful consideration of site suitability. Soil borings or excavations should be inspected either by permitting agency or individual under contract to the permitting agency.

6. Approve permit applications after checking plans for erosion control measures.

7. Inspect systems prior to covering to assure proper construction.

8. Require replacements or repairs to failing systems to be in conformance with Basin Plan recommendations, to the extent practicable.

9. For new land divisions, protect on-site disposal systems and expansion areas from encroachment by provisions in covenants, conditions, and restrictions.

10. Inform property buyers of the existence, location, operation, and maintenance of on-site disposal systems. Prospective home or property buyers should also be informed of any enforcement action (e.g. Basin Plan prohibitions) through the County Record.

11. Conduct public education programs to provide property owners with operation and maintenance guidelines.

12. Alternative system owners shall be provided an informational maintenance or replacement document by the appropriate governing jurisdiction. This document shall cite homeowner procedures to ensure maintenance, repair, or replacement of critical items within 48 hours following failure.

13. Where appropriate, septic tank systems should be maintained by local septic tank maintenance districts.

14. Wastewater Management Plans should be prepared and implemented for urbanizing and high density areas, including applicable portions of San Martin, San Lorenzo Valley, Carmel Valley, Carmel Highland, Prunedale, El Toro, Shandon, Templeton, Santa Margarita/Garden Farms, Los Osos/Baywood Park, Arroyo Grande, Nipomo, upper Santa Ynez Valley, and Los Olivos/Ballard.

15. Ordinances should be updated to reflect Basin Plan criteria.

VIII.D.3.h. ADDITIONAL CONSIDERATIONS

1. Water conservation and solids reduction practices are recommended. Garbage grinders should not be used in homes with septic tanks.

2. Metering and water use costs should be used to encourage water conservation.

3. Grease and oil should not be introduced into the system. Bleach, solvents, fungicides, and any other toxic material should not be poured into the system.

4. Reverse osmosis unit blow-down should not be discharged to on-site wastewater treatment systems overlying usable ground water. Off-site (factory regeneration) practices are recommended for water softeners.

5. If on-site water softener regeneration is necessary, minimum salt use in water softeners is recommended. This can be accomplished by minimizing regeneration time or limiting the number of regeneration cycles.

VIII.D.3.i. INDIVIDUAL, ALTERNATIVE AND COMMUNITY SYSTEMS PROHIBITIONS

Discharges from new soil absorption systems installed after September 16, 1983 in sites with any of the following conditions are prohibited:

1. Soils or formations contain continuous channels, cracks, or fractures.1

2. For seepage pits, soils or formations containing 60 percent or greater clay (a soil particle less than two microns in size) unless parcel size is at least two acres.

3. Distances between trench bottom and usable ground water, including perched ground water, less than separation specified by appropriate percolation rate:

Percolation Rate, min/in	Distance, ft
<1	50[1]
1-4	20[1]
5-29	8
>30	5

4. For seepage pits, distances between pit bottom and usable ground water, including perched ground water, less than separation specified by appropriate soil type:

Soil	Distance,ft.
Gravels[2]	50[1]
Gravels with few fines[3]	20[1]
Other	10

5. Distances between trench/pit bottom and bedrock or other impervious layer less than ten feet.

6. For leachfields, where percolation rates are slower than 120 min/in, unless parcel size is at least two acres.

7. For leachfields, where soil percolation rates are slower than 60 min./in. unless the effluent application rate is 0.1 gpd/ft2 or less.

8. Areas subject to inundation from a ten-year flood.

9. Natural ground slope of the disposal area exceeds 30 percent.

10. Setback distances less than:

	Minimum Setback Distance, ft
Domestic water supply wells in unconfined aquifer	100
Watercourse[4] where geologic conditions permit water migration	100
Reservoir[5] spillway elevation	200
Springs, natural or any part of man-made spring	100

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1 Unless a set-back distance of at least 250 feet to any domestic water supply well or surface water is assured.

2 Gravels - Soils with over 95 percent by weight coarser than a No. 200 sieve and over half of the coarse fraction larger than a No. 4 sieve.

3 Gravels with few fines - Soils with 90 percent to 94 percent coarse fraction larger than a No. 4 sieve.

4 Watercourse - (1) A natural or artificial channel for passage of water. (2) A running stream of water. (3) A natural stream fed from permanent or natural sources, including rivers, creeks, runs, and rivulets. There must be a stream, usually flowing in a particular direction (though it need not flow continuously) in a definite channel, having a bed or banks and usually discharging into some stream or body of water.

5 Reservoir- A pond, lake, tank, basin, or other space either natural or created in whole or in part by the building of engineering structures, which is used for storage, regulation, and control of water, recreation, power, flood control, or drinking.

11. While new septic tank systems should generally be limited to new divisions of land having a minimum parcel size of one acre, where soil and other physical constraints are particularly favorable, parcel size shall not be less than one-half acre.

12. Within a reservoir[1] watershed where the density for each land division is less than 2.5 acres for areas without approved Wastewater Management Plans.

13. For individual systems on new land divisions, and commercial, institutional, and sanitary industrial systems without an area set aside for dual leachfields (100 percent replacement area).

14. Commercial, institutional, or sanitary industrial systems not basing design on daily peak flow estimate.

15. Any site unable to maintain subsurface disposal.

16. Any subdivision unless the subdivider clearly demonstrates the use of the system will be in the best public interest, that beneficial water uses will not be adversely affected, and compliance with all Basin Plan prohibitions is demonstrated.

17. Lot sizes, dwelling densities or site conditions causing detrimental impacts to water quality.

18. Any area where continued use of on-site systems constitutes a public health hazard, an existing or threatened condition of water pollution, or nuisance.

Discharges from community subsurface disposal systems (serving more than five parcels or more than five dwelling units) are prohibited unless:

1 Seepage pits have at least 15 vertical feet between pit bottom and highest usable ground water, including perched ground water.

2. Sewerage facilities are operated by a public agency. (If a demonstration is made to the Regional Board that an existing public agency is unavailable and formation of a new public agency is unreasonable, a private entity with adequate financial, legal, and institutional resources to assume responsibility for waste discharges may be acceptable).

3. Dual disposal systems are installed (200 percent of total of original calculated disposal area).

4. An expansion area is included for replacement of the original system (300 percent total).

5. Community systems provide duplicate individual equipment components for components subject to failure.

6. Discharge does not exceed 40 grams per day of total nitrogen, on the average, per 1/2 acre of total development overlying ground water recharge areas excepting where a local governing jurisdiction has adopted a Wastewater Management Plan subsequently approved by the Regional Board.

In order to achieve water quality objectives, protect present and future beneficial water uses, protect public health, and prevent nuisance, discharges are prohibited in the following areas:

1. Discharges from individual sewage disposal systems are prohibited in portions of the community of Nipomo, San Luis Obispo County, which are particularly described in Appendix A-27.

2. Discharges from individual sewage disposal systems within the San Lorenzo River Watershed shall be managed as follows:

   a. Discharges shall be allowed, providing the County of Santa Cruz, as lead agency, implements the "Wastewater Management Plan for the San Lorenzo River Watershed, County of Santa Cruz, Health Services Agency, Environmental Health Service", February 1995 and "San Lorenzo Nitrate Management Plan, Phase II Final Report", February 1995, County of Santa Cruz, Health Services Agency, Environmental Health Service (Wastewater Management Plan) and assures the Regional Board that areas of the San Lorenzo River Watershed are serviced by wastewater disposal systems to protect and enhance water quality, to protect and restore beneficial uses of water, and to abate and prevent nuisance, pollution, and contamination.

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1 Reservoir – A pond, lake, tank, basin, or other space either natural or created in whole or in part by the building of engineering structures, which is used for storage, regulation, and control of water, recreation, power, flood control, or drinking.

In fulfilling the responsibilities identified above, the County of Santa Cruz shall submit annual reports beginning on January 15, 1996. The report shall state the status and progress of the Wastewater Management Plan in the San Lorenzo River Watershed. The County of Santa Cruz annual report shall document the results of:

a. Existing disposal system performance evaluations,
b. Disposal system improvements,
c. Inspection and maintenance of on-site systems,
d. Community disposal system improvements,
e. New development and expansion of existing system protocol and standards,
f. Water quality monitoring and evaluation,
g. Program administration management, and
h. Program information management.

The report shall also document progress on each element of the Nitrate Management Plan, including:

a. Parcel size limit,
b. Wastewater Management Plan implementation,
c. Boulder Creek Country Club Wastewater Treatment Plant Upgrade,
d. Shallow leachfield installation,
e. Enhanced wastewater treatment for sandy soils,
f. Enhanced wastewater treatment for large on-site disposal systems,
g. Inclusion of nitrogen reduction in Waste Discharge Permits,
h. Livestock and stable management,
i. Protection of ground water recharge areas,
j. Protection of riparian corridors and erosion control,
k. Nitrate control for new uses,
l. Scotts Valley nitrate discharge reduction, and
m. Monitoring for nitrate in surface and ground water.

3. Discharges from individual and community sewage disposal systems are prohibited effective November 1, 1988, in the Los Osos/Baywood Park area depicted in the Prohibition Boundary Map included as Attachment "A" of Resolution No. 83-13 which can be found in Appendix A-30.

VIII.D.3.j. SUBSURFACE DISPOSAL EXEMPTIONS

The Regional Board or Executive Officer may grant exemption to prohibitions for: (1) engineered new on- site disposal systems for sites unsuitable for standard systems; and (2) new or existing on-site systems within the specific prohibition areas cited above. Such exemptions may be granted only after presentation by the discharger of sufficient justification, including geologic and hydrologic evidence that the continued operation of such system(s) in a particular area will not individually or collectively, directly or indirectly, result in pollution or nuisance, or affect water quality adversely.

Individual, alternative, and community systems shall not be approved for any area where it appears that the total discharge of leachate to the geological system, under fully developed conditions, will cause: (1) damage to public or private property; (2) ground or surface water degradation; (3)nuisance condition; or, (4) a public health hazard. Interim use of septic tank systems may be permitted where alternate parcels are held in reserve until sewer systems are available.

Requests for exemptions will not be considered until the local entity has reviewed the system and submitted the proposal for Regional Board review. Dischargers requesting exemptions must submit a Report of Waste Discharge. Exemptions will be subject to filing fees as established by the State Water Code.

Engineered systems shall be designed only by registered engineers competent in sanitary engineering. Engineers should be responsible for proper system operation. Engineers should be responsible for educating system users of proper operation and maintenance. Maintenance schedules should be established. Engineered systems should be inspected by designer during installation to insure conformance with approved plans.

Some engineered systems may be considered experimental by the Regional Board. Experimental systems will be handled with caution. A trial period of at least one year should be established whereby proper system operation must be demonstrated. Under such an approach, experimental systems are granted a one year conditional approval.

Further information concerning individual, alternative, or community on-site sewage disposal systems can be found in Chapter 5 in the Management Principals and Control Actions sections. State Water Resources Control Board Plans and Policies, Discharge Prohibitions, and

Regional Board Policies may also apply depending on individual circumstances.

VIII.E. LAND DISTURBANCE ACTIVITIES

Construction, mining, and other soil disturbance activities which may disturb or expose soil or otherwise increase susceptibility of land areas to erosion are difficult to regulate effectively. Construction or timber harvesting may often begin and end with no obvious impairment of stream quality; however, erosion or land slides the following winter may be directly related to earlier land disturbance or tree cutting. Mining and quarrying activities are generally longer in duration.

Under contract with the Regional Board, the California Association of Resource Conservation Districts completed a study entitled, "Erosion and Sediment in California Central Coast Watersheds - A study of Best Management Practices" (Erosion Study), dated June, 1979. This Erosion Study, funded under Section 208 of the Clean Water Act, assesses impacts of erosion and sedimentation on water quality and beneficial uses in nondesignated planning areas (San Benito, San Luis Obispo, and Santa Barbara Counties) of the Central Coast Region. This Erosion Study and supporting documents have been used by the Regional Board in developing erosion and sedimentation control policy.

Nonpoint source pollution in the remainder of the Region is addressed by designated planning agencies through their respective Area wide Waste Treatment Management Plans. Designated agencies and the areas affected within this Region include: Association of Bay Area Governments (portions of San Mateo and Santa Clara Counties), Association of Monterey Bay Area Governments (Santa Cruz and Monterey Counties), and Ventura County Board of Supervisors (portion of Ventura County). The policy herein described is compatible with those plans and is within the scope of the Regional Board authority.

The Erosion Study and Area wide Waste Treatment Management Plans identify examples of accelerated erosion resulting from insufficient land management of soil cultivation, grazing, silvaculture, construction, and off-road vehicle activities, as well as wildfires.

Adverse impacts of sediment are identified, in part, as: impairment of water supplies and ground water recharge, siltation of streams and reservoirs, impairment of navigable waters, loss of fish and wildlife habitat, degradation of recreational waters, transport of pathogens and toxic substances, increased flooding, increased soil loss, and increased costs associated with maintenance and operation of water storage and transport facilities. Recommendations based on conclusions of the Erosion Study and practices recommended in Area wide Waste Treatment Management Plans are a means to reduce unnecessary soil loss due to erosion and to minimize adverse water quality impacts resulting from sediment.

When a practice or combination of practices is found to be the most effective, practical (including technological, economic, and institutional considerations) means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals, it is designated a Best Management Practice (BMP). BMPs are determined only after problem assessment, examination of alternative practices, and appropriate public participation in the BMP development process.

General recommendations based on conclusions of the Erosion Study are discussed below. These recommendations are considered to be Best Management Practices (BMPs) by the Regional Board as are the Area wide approved water quality management plans.

1. Soil conservation control measures should be used to minimize impacts that would otherwise result from soil erosion. Control measures are identified according to systems, which are then broken down into subsystems of erosion control techniques or component measures.

   For example, a system for control of erosion from construction sites would identify component measures such as debris basins, access roads, hillside ditches, etc. Other conservation control systems include: conservation cropping, conservation irrigation, roadside erosion control, critical area treatment, diversions and ditches, grade stabilization, pasture and range management, runoff and sediment control ponds and basins, stream bank and channel protection, and watershed, wildlife, and recreation land

improvement. These control measures are comparable to the USDA Soil Conservation Services' Resource Management Subsystem approach as referenced in AMBAG's "Water Quality Management Plan for the Monterey Bay Region," dated July 1978, and in ABAG's, "Handbook of Best Management Practices, "dated October 1977.

Experience has shown that no one control measure best solves an existing, or prevents a potential, pollution problem - especially in the area of soil erosion and sedimentation. As land use, the land user, and various situations change, so does the need for control measures. Before application, an on-site investigation with the land user is necessary to determine which practice or set of practices will be most effective and acceptable.

2. Erosion control should be implemented in a reasonable manner with as much implementation responsibility remaining with existing local entities and programs as is possible and consistent with water quality goals.

3. The Regional Board and local units of government should establish a clear policy for control of erosion, including consideration of off-site and cumulative impacts and the imposition of performance standards according to the sensitivity of the area where land is to be disturbed.

4. Effective ordinances and regulatory programs should be adopted by local units of government. Effective programs would allow only land disturbance actions consistent with the waste load capacity of the watershed, require preparation of erosion and sediment control plans with specific contents and with attention to both offsite/on-site impacts, identify performance standards, be at least comparable to the model ordinance in the "Erosion and Sediment Control Handbook," dated May 1978, and have provisions for inspection follow-up, enforcement, and referral.

5. Watersheds with critical erosion and sediment problems should be identified by one or more concerned agencies such as the California Department of Fish and Game, the Regional Board, the local Environmental Health, Planning, or Engineering Departments, the local Flood Control District, or the local Resource Conservation District, and then referred to the remaining agencies by a designated local coordinating agency for determining the scope, nature, and significance of the identified problem. The designated local agency would evaluate the adequacy and appropriateness of the total assessment, including an assessment of the problem and causes, alternatives considered, recommended interim and permanent control measures, and the amount and sources of funding. The evaluation would then be submitted as an Impact Findings Report for consideration and decision by the local governing body.

6. Comprehensive and continuous training should be mandatory for building and grading inspectors, engineers, and planners involved in approving, designing, or inspecting erosion control plans and on-site control measures. The training program would preferably be conducted on an inter-county/agency basis and be administered through a USDA Soil Conservation Service cooperative training arrangement or through seminars conducted by the USDA Soil Conservation Service and the University of California Cooperative Extension seminars. The Soil Conservation Society of America should be requested to assist in establishing an effective training program, including public education to heighten awareness of the adverse affects of erosion and sediment on soil and water resources.

7. More intensive erosion controls should be considered within four watersheds (Lauro Reservoir and Devereaux Ranch Slough in Santa Barbara County and Pismo Lake and Morro Bay in San Luis Obispo County) with apparent critical erosion and sediment problems. Alternative practices that may be implemented to effect the necessary level of control are assigned a relative priority.

VIII.E.1. LAND DISTURBANCE PROHIBITIONS

The discharge or threatened discharge of soil, silt, bark, slash, sawdust, or other organic and earthen materials into any stream in the basin in violation of best management practices for timber harvesting, construction, and other soil disturbance activities and in quantities deleterious to fish, wildlife, and other beneficial uses is prohibited.

The placing or disposal of soil, silt, bark, slash, sawdust, or other organic and earthen materials from timber harvesting, construction, and other soil disturbance activities at locations above the anticipated high water line of any stream in The basin where they may be washed into said waters by rainfall or runoff in quantities deleterious to fish, wildlife, and other beneficial uses is prohibited.

Soil disturbance activities not exempted pursuant to Regional Board Management Principles contained in Chapter Five are prohibited:

1. In geologically unstable areas,

2. On slopes in excess of thirty percent (excluding agricultural activities), and

3. On soils rated a severe erosion hazard by soil specialists (as recognized by the Executive Officer) where water quality may be adversely impacted;

Unless,

a. In the case of agriculture, operations comply with a Farm Conservation or Farm Management Plan approved by a Resource Conservation District or the USDA Soil Conservation Service;

b. In the case of construction and land development, an erosion and sediment control plan or its equivalent (e.g., EIR, local ordinance) prescribes best management practices to minimize erosion during the activity, and the plan is certified or approved, and will be enforced by a local unit of government through persons trained in erosion control techniques; or,

c. There is no threat to downstream beneficial uses of water, as certified by the Executive Officer of the Regional Board.

The controllable discharge of soil, silt, or earthen material from any grazing, farm animal and livestock, hydromodification, road, or other activity of whatever nature into waters of the State within the Pajaro River watershed is prohibited.

The controllable discharge of soil, silt, or earthen material from any grazing, farm animal and livestock, hydromodification, road, or other activity of whatever nature to a location where such material could pass into waters of the State within the Pajaro River watershed is prohibited.

The above two prohibitions do not apply to any discharge regulated by National Pollutant Discharge Elimination System permits, Waste Discharge Requirements or waivers of Waste Discharge Requirements.

The above two prohibitions do not apply to any grazing, farm animal and livestock, hydromodification, or road activity if the owner or operator:

i. Submits a Nonpoint Source Pollution Control Implementation Program, consistent with the *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program, May 20, 2004*, that is approved by the Executive Officer, or

ii. Demonstrates there is no activity that may cause soil, silt, or earthen material to pass into waters of the state within the Pajaro River watershed, as approved by the Executive Officer.

This Land Disturbance Prohibition takes effect three years following approval of the TMDL by the U.S. Environmental Protection Agency.

VIII.E.2. CONSTRUCTION ACTIVITIES

Road construction is often a cause of water quality impairment; all too often roads are located near streams, estuaries, or ocean waters where side fills may be eroded by flood waters. Construction within stream beds will inevitably cause turbidity; however, the timing of such activities should be established with reference to environmental sensitivity factors such as fish migrations, spawning or hatching, and

minimum stream flow conditions. Sediment loads can be reduced by proper timing, bank and channel protection, and use of settling ponds to catch silt.

Construction debris should not be left in the flood plain; revegetation of cuts and fills should be encouraged. California Department of Transportation (CALTRANS) has prepared a document entitled “Best Management Practices for Control of Water Pollution (Transportation Activities)," that sets forth procedures used by CALTRANS to address transportation activities which might impact water quality. These procedures are summarized under "Control Actions" in the Plans and Policies chapter. Past and potential impacts from CALTRANS activities may result from the above problems and may include impacts resulting from questionable maintenance practices, chemical spills, and discharges of silt and cement.

Land development projects in sensitive areas should be scheduled so as to minimize the areal extent of land exposed to erosive forces. Where water quality impairment is likely, permits should be issued by the Regional Water Quality Control Board which will insure against water quality degradation. Cooperation of local approving agencies should be obtained in order that approvals of significant subdivisions in environmentally sensitive areas, particularly the upper reaches of watersheds and lands near riparian habitats, are appropriately conditioned. For example, proposed subdivisions of 50 lots or more in such areas should be (1) covered by environmental impact reports on the development and its impact on waste loads and water quality, (2) be in conformance with regional or county master plans, and (3) include provisions for establishment of a public agency responsible for environmental monitoring and maintenance where such subdivisions are outside other appropriate public jurisdictions.

VIII.E.3. MINING ACTIVITIES

Pollution control at the hundreds of inactive mine sites riddling the Coast Ranges is in its infancy. Accurate regional inventories are being compiled, isolated mine cases are addressed individually, and several polluting mines are under direct regulation. Regional Board assistance and consultation are aiding several proactive responsible parties and focused study of inactive mine effects on four Central Coast watersheds has been funded by the Clean Water Act, Water Quality Planning Program.

About a decade ago Toxic Substances Monitoring Program data revealed elevated mercury concentrations in Lake Nacimiento, a high priority municipal and agricultural water storage reservoir in San Luis Obispo County. The Lake is fed by the Las Tablas Creek system (among others), which receives discharge water from the Buena Vista Mine, a mercury mine inactive since 1970 or 1971. An academic study (conducted by respected Cal Poly scientists -- team leader, Dr. Thomas J. Rice) of lake Nacimiento mercury sources recently concluded up to 78% of the fluvial mercury transport to the Lake is contributed by the Las Tablas Creek system. Further, the inactive Buena Vista and Klau Mines were identified as the primary point sources of Las Tablas Creek mercury. Based on these conclusions and other independent supporting data, the Regional Board on May 14, 1993, adopted four orders requiring strict implementation of NPDES surface water discharge standards and California Code of Regulations Title 23 mine waste management and mine closure standards at the Buena Vista Mine and the adjacent Klau Mine.

The U. S. Bureau of Land Management and Forest Service are addressing several inactive mercury mines on their properties pursuant to the federal "Superfund" process. Sample analyses data generated by Regional Board staff have been instrumental in aiding these investigations.

Two sequential studies of inactive mines in four watersheds of northwest San Luis Obispo County are underway. Funded partially by the Clean Water Act Water Quality Planning Program, the studies address all inactive mines in the Las Tablas Creek, Santa Rosa Creek, San Simeon Creek (all primarily mercury mines), and Chorro Creek (primarily chromium) watersheds. The primary goals of the watershed studies are:

- identification of all inactive mines
- attribution of specific water quality problems to specific mines, and
- determinations of the best methods of abating contaminant sources and remediating already emplaced surface contamination, based on field and possibly lab experiments.

These are considered pilot studies and the Regional Board ultimately plans to conduct such studies for the complete Region and to implement the findings, resulting in abatement of inactive mines as surface and ground water contaminant sources and remediation of contaminated media.

VIII.E.4. TIMBER HARVESTING ACTIVITIES

The Regional Board has regulatory responsibility to prevent adverse water quality impacts from timber harvest activities. Impacts usually consist of temperature, turbidity, and siltation effects caused by logging and associated activities. These can have deleterious impacts on fish and water flow.

Sensitivity of all watercourses, lakes, estuaries, or ocean waters in the basin to timber harvesting operations should be identified following rigorous analysis of geological, pedological, hydrological, and biological data as confirmed by field inspections. Relative sensitivity could then be portrayed on a large map. The sensitivity would also reflect beneficial uses which are not directly associated with ecological systems.

Upon receiving a timber harvest plan, the Regional Board staff could locate the operation on the sensitivity map and determine the relative risk involved. This information could enable the board to better evaluate the proposed method of operation and the adequacy of proposed mitigation actions or other special considerations. The success of this process depends upon the degree of cooperation provided by the Department of Forestry. Timber harvest plans must contain sufficient detail for evaluation, and the Regional Board must be allowed an ample amount of time for review before start of timber harvesting operations.

The timber yarding and road building methods used at each operation is a function of the terrain, soils, species and other timber considerations including economics. The aforementioned are usually compatible with water quality management, but in cases where water quality may be degraded, mitigating measures to preserve the character and quality of the water course must be taken. Since the Department of Forestry is familiar with the limitations and relative degradation potential of the various harvest methods, it has the lead role in incorporating necessary mitigation measures into the permits and seeing that they are enforced.

The Department of Forestry administers provisions of the Z'berg-Nejedly Forest Practice Act of 1973. The Act provides an opportunity for Regional Boards involved with timber harvesting activities to participate on the Timber Harvest Plan permit process review team. A 1987 Clean Water Act amendment requires States to implement Water Quality Management Plans to control nonpoint sources of pollution, including silviculture. As part of that directive, the State Board has executed a Management Agency Agreement (MAA) with the Board of Forestry and Department of Forestry. It provides a better opportunity for water quality concerns to be incorporated into timber harvesting practices and regulations.

Several possibilities exist to deal with negligent or incompetent operators. The Department of Forestry can revoke the Registered Professional Foresters or Licensed Timber Operator's License. The Regional Board can also implement enforcement action. While these actions can be necessary and effective, they are after-the-fact methods rather than for deterring roles. Thus, the major emphasis must be placed on control measures rather than enforcement actions.

VIII.E.5. AGENCY ACTIVITIES

To insure that impacts on water quality from nonpoint sources of pollution are held to a minimum and that goals and management principles of the Regional Board are met, water quality management programs for implementation by land managing agencies have been developed through the Area wide planning process. For nonpoint sources of pollution, this required identification of Best Management Practices (BMP's).

Within the Central Coast Region, federal and State agencies control substantial portions of land. All retain their own land management programs, but are required by regulation to cooperate and give support to State planning agencies in formulating and implementing water quality management plans. Federal law also directs federal agencies to comply with requirements formulated to meet the objectives of the federal act.

Practices and procedures in the U. S. Forest Service's, U.S. Bureau of Land Management's (BLM's) and California Department of Transportation's (CALTRANS') 208 reports described below constitute proper management for water quality protection and are considered BMP's. Further, these agencies have expressed a willingness and capability to implement practices and to revise practices which are currently inadequate. Management agency agreements have been prepared between the State Board and each of these agencies which designates the Forest Service, the BLM, and CALTRANS as management agencies

responsible for implementing BMPs for water quality protection on lands under the control of each of these respective agencies. The management agency agreement further provides for State/Regional Board working relationships with each agency and establishes a mechanism by which the State and Regional Boards will, on a continuing basis and in conjunction with each of these agencies, identify and address water quality management issues of concern to all parties.

The management agency agreements, as approved by the State Water Resources Control Board and each of the agencies, are a part of this Water Quality Control Plan by reference. Management agency agreements will be reviewed and updated periodically to reflect recent achievements, new information, and new concerns.

VIII.E.5.a. UNITED STATES FOREST SERVICE

The United States Forest Service has prepared a report entitled, "Water Quality Management Plan for the National Forest Systems Lands Within the Non-designated Planning Areas of California," dated April, 1979. The report assesses water quality problems, evaluates current practices, and sets forth procedures used by the Forest Service to address activities that might affect water quality. About 72 percent of Los Padres National Forest (which encompasses 1,964,408 gross acres) is within the Central Coast Region. Water and watershed protection were the chief reasons the forest was established. Approximately 1.5 million acre feet of water per year are used by people living adjacent to the forest for domestic and agricultural purposes. Less than five percent of the area is commercial forest land and most wood production is fuel wood sales.

A qualitative assessment of water quality problems on National Forest lands within the Central Coast Region was conducted primarily from information gathered by Forest Service and Regional Board staff. Fire management and recreation are activities with the greatest influence on water quality. Other major activities with potential impact on water quality include road construction, road maintenance, and grazing. Fire management can cause degradation from sediments, nutrients, and bacteria, but the major cause might well be off-road vehicles and misuse of unimproved roads by all vehicles. Road construction has been a source of problems along the Cuyama River. No significant affects from overgrazing or silvacultural practices were noted.

During preparation of the Forest Service's "Water Quality Management Plan for the National Forest Systems Lands Within the Nondesignated Planning Area of California," adopted April, 1979, Forest Service manuals, guidelines, regulations, etc., were reviewed for identification of those practices which are directly or indirectly for the purpose of protecting water quality. The report identifies and discusses ninety-eight such practices in eight activity categories (i.e., timber harvesting, road and building site construction, mining, recreation, vegetative manipulation, fire supervision and prescribed burning, watershed management, and grazing). Ninety-four of the practices are presented as BMPs, while four practices need improvement, and four practices need development. A course of action for improving inadequacies of current practices and for development of new practices is identified.

The practices/procedures contained in the Forest Service 208 plan are at a level of detail appropriate for all Forest Service operations statewide. These practices must be flexible to account for varying geographic conditions. The plan also includes a description of the "decision- making" process which leads to the actual selections of management solutions on a project-specific basis. There are several steps in this process at which Regional Boards can be involved and there is a public involvement program to identify and respond to concerns of interested public. The most critical point of involvement is Step 1, identification of issues, concerns, and opportunities. Once this step is completed, the need for and time of future involvement in subsequent steps can be identified.

VIII.E.5.b. UNITED STATES BUREAU OF LAND MANAGEMENT

The United States Department of the Interior, Bureau of Land Management (BLM), has management responsibility for approximately 320,000 acres within the Central Coast Region. Management

activities occurring on this land have potential for significantly affecting water quality (e.g., mining, grazing, recreation, road construction, off-road vehicles, etc.). The BLM prepared and submitted to the State a report entitled, "BLM California 208 Report." The report includes: (a) a discussion of existing or potential water quality problems on BLM lands, (b) a discussion of current BLM practices and policies including a description of the BLM planning process, (c) a description of the "decision-making process" which leads to the actual selection of management solutions on a project-specific basis, and (d) general policies.

The problem assessment identifies nonpoint sources of water pollution originating on lands administered by the BLM. Problems were qualitatively assessed by BLM with information provided primarily by Regional Board staff. Most of the identified water quality problems on BLM lands within the Central Coast Region result from recreation.

There is improper grazing management on the Temblor range in east San Luis Obispo County (BLM's Bakersfield District) that is causing sedimentation of retention structures for beneficial uses.

The process for determining management practices on a site- specific basis applies to all BLM activities and is divided into three major phases; (1) consideration of site characteristics and water quality concerns, (2) definition and application of BMP's through contract clauses, leases, stipulations, etc., and (3) evaluation of BMP effectiveness and practice modification, if necessary.

VIII.E.5.c. CALIFORNIA DEPARTMENT OF TRANSPORTATION

WATER QUALITY STUDIES

In developing control measures for CALTRANS projects, three basic types of studies are conducted for water quality protection:

1. Transportation System Planning - Emphasizes broad scale water quality problems. The focus is on regional factors such as variations in regional surface and ground water hydrology, existing water quality, and land use. Such studies are not site- specific.

2. Project Level Planning - Emphasis is on runoff associated problems (erosion and sedimentation). Detailed hydrologic and hydraulic analyses are made where warranted. Information is used in selecting project alternatives.

3. Construction - This type is usually associated with waste discharge requirements (issued by Regional Board). The intent is to monitor and control the contractor's operations.

CONSTRUCTION CONTROL

Standard specifications for water pollution control have been prepared by CALTRANS, are set forth in CALTRANS' BMP document, and are incorporated as part of project design. Where warranted, special specifications are prepared by CALTRANS on a project- by-project basis. For every project, contractors must submit a plan for water pollution control to the CALTRANS resident engineer. During the course of any construction project, operations may be temporarily halted if inadequate provision has been made for water quality protection. Remedial work may be required.

In addition to CALTRANS specifications, federal and State permits (including waste discharge requirements) are made a part of project requirements.

OPERATION AND MAINTENANCE

1. Accidental Chemical Spills - A procedural manual has been developed by each CALTRANS district to standardize cleanup procedures. CALTRANS maintenance personnel are equipped and trained to handle such situations.

2. Erosion Control - Where slopes show evidence of erosion, remedial stabilization measures must be taken. Debris is disposed of at approved disposal site.

VIII.E.5.d. OTHER AGENCIES PROGRAMS

Resource Conservation Districts (RCD's) and the U.S.D.A. Soil Conservation Service are organizations that assist property owners in applying effective conservation and land management practices. The program includes technical, educational, and planning services to property owners and local governments who request assistance. It has been relatively successful considering its voluntary nature and resource limitations. The Soil Conservation Service has a major role in the Rural Clean Water Program.

The U.S.D.A. Agricultural Stabilization and Conservation Service administers the cost-sharing aspects of the Agricultural Conservation Program, allocating available monies to farmers and ranchers for erosion and sedimentation control and water conservation projects.

Cities and Counties, as general purpose governments, have broad powers to adopt specific and general plans; to regulate land use, subdividing, grading, and private construction; and to construct and operate public works facilities. Local authority to regulate existing and potential discharges of sediment has been exercised to varying degrees throughout the region.

Many cities and counties within the coastal zone have developed Local Coastal Programs. These programs may include land use and grading restrictions designed to protect long-term productivity of soils and waters within the coastal zone. Regulation by the California Coastal Commission provides this protection where Local Coastal Programs are inadequate.

The State Department of Fish and Game promotes the protection and improvement of streams, lakes, and natural habitat areas for fish and wildlife. It also regulates stream alteration and compels cleanup of fouled streams.

VIII.E.6. WATSONVILLE SLOUGH WATERSHED LIVESTOCK WASTE DISCHARGE PROHIBITION

1. The direct or indirect discharge of livestock animal waste from any grazing operations, non-sterile manure application, farm animal and livestock facilities including paddocks, pens, corrals, barns, sheds, or other activity of whatever nature into waters of the State within the Watsonville Slough Watershed is prohibited.

   The above prohibition does not apply to any farm animal or livestock facility and/or any facility where non-sterile manure is applied if the owner or operator:

   i. Submits a Nonpoint Source Pollution Control Implementation Program, consistent with the *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program*, that is approved by the Executive Officer, or

   ii. Demonstrates to the satisfaction of the Executive Officer that its activities do not cause livestock waste to pass into waters of the state within the Watsonville Slough Watershed, or

   iii. Is regulated under Waste Discharge Requirements or an NPDES permit, or a conditional waiver of waste discharge requirements that explicitly addresses compliance with the Watsonville Slough TMDL for Pathogens.

This Livestock Waste Discharge Prohibition takes effect two years following approval of the TMDL by the U.S. Environmental Protection Agency.

IX. TOTAL MAXIMUM DAILY LOADS

IX. A. MORRO BAY TOTAL MAXIMUM DAILY LOAD FOR SEDIMENT (INCLUDING CHORRO CREEK, LOS OSOS CREEK AND THE MORRO BAY ESTUARY)

This TMDL was adopted by the Regional Water Quality Control Board on May 16, 2003.
This TMDL was approved by:
The State Water Resources Control Board on September 16, 2003.
The California Office of Administrative Law on December 3, 2003 (effective date).
The U.S. Environmental Protection Agency on January 20, 2004.

TMDL ELEMENTS

Element	
Problem Statement	Over time, all estuaries eventually fill with sediment due to the natural processes of erosion and sedimentation. In Morro Bay these natural processes have been accelerated due to anthropogenic watershed disturbances, resulting in impairment of Beneficial Uses, principally biological resources, but also recreational uses, including: RARE, MIGR, SPWN, WILD, EST, MAR, BIOL, REC1, REC2, NAV. This impairment indicates an exceedance of the Basin Plan narrative objective for sediment, which states that: “the suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.”

Numeric Targets	Parameter	Numeric Target
	Chorro and Los Osos Creeks and Tributaries Streambed Sediment	
	Residual Pool Volume[1]	V* (a ratio) = Mean values ≤ 0.21 (mean of at least 6 pools per sampling reach) Max values ≤ 0.45
	Median Diameter (D_{50}) of Sediment Particles in Spawning Gravels	D_{50} = Mean values ≥ 69 mm Minimum values ≥ 37 mm
	Percent of Fine Fines (< 0.85 mm) in Spawning Gravels	Percent fine fines ≤ 21%
	Percent of Coarse Fines (all fines < 6.0 mm) in Spawning Gravels	Percent coarse fines ≤ 30%
	Morro Bay and Estuary	
	Tidal Prism Volume	4,200 acre-feet

Loading Allocations[2] (TMDL expressed as annual load)	Watershed	Total (tons/year, rounded to nearest ton)
	Chorro Creek at Reservoir	6,541
	Dairy Creek	440
	Pennington Creek	966
	San Luisito Creek	7,315
	San Bernardo Creek	10,270
	Minor Tributaries	4,489
	Chorro Creek	30,021
	Los Osos Creek	3,052
	Warden Creek and Tributaries	1,812
	Los Osos Creek	4,864
	Morro Bay Watershed	34,885

1 Residual Pool Volume refers to the portion of a pool in a stream that is available for fish to occupy. Pool habitat is the primary habitat for steelhead in summer. Overwintering habitat requirements include deeper pools, undercut banks, side channels, and especially large, unembedded rocks, which provide shelter for fish against the high flows of winter. V* gives a direct measurement of the impact of sediment on pool volume. It is the ratio of the amount of pool volume filled in with fine, mobile sediment, to total scour pool volume. Qualifying pools are those having a gradient less than 5%, a minimum depth twice the riffle-crest depth, a fairly even spacing between tributaries, and are located on streams fifth order or smaller.

2 These loading allocations are 50% of the estimated current sediment loading to Morro bay.

Implementation	The sediment load to Morro Bay, Los Osos Creek and Chorro Creek derives from nonpoint sources (NPS) and point sources. As such, implementation will rely on the State's Plan for NPS pollution control (CWC §13369) and continued implementation of existing regulatory controls as appropriate for point sources, including storm water pursuant to NPDES surface water discharge regulations and Waste Discharge Requirements (Porter Cologne). At this time, implementation emphasizes the activities of the Morro Bay National Estuary Program, Coastal San Luis Resources Conservation District, and other public and private groups that are not currently identified as dischargers responsible for sediment loading, to implement self-determined activities (see Table: Trackable Implementation Actions). Other actions, currently required because of another program, will be evaluated to make sure progress is taking place (see Table: Trackable Implementation Actions identifying Responsible Dischargers). Regional Board Staff will meet annually with the implementing parties identified in the list of Trackable Implementation Actions to provide technical assistance and to evaluate and track progress (see Implementation Schedule for details). If at the end of year three, implementing parties fail to complete these self-determined activities or resulting management practices fail to reduce sediment loads, then Regional Board staff may conduct inspections and investigations to identify individual responsible dischargers (e.g., landowners or public agencies). Regional Board staff may rely on Section 13267 of the California Water Code or other appropriate authorities for investigation and identification of individual responsible dischargers. Regional Board staff will also rely on Section 13267 of the California Water Code to require reporting and/or monitoring to determine the level of implementation of identified activities to reduce erosion and sediment. If necessary, the Regional Board may rely on enforcement authority, pursuant to California Water Code Section 13304, to require dischargers to clean-up and abate sediment discharges and/or prevent the threat of discharges on a case-by case basis. Additionally, Implementation Actions (in the Table of Implementation Actions) may be required as conditions of compliance with storm water permits and Waste Discharge Requirements. If at the end of the third year, self-determined actions have not been completed, staff will develop a regulatory approach (rather than a self-determined approach) and present a revised implementation plan to the Regional Board as a Basin Plan Amendment. Direct measurement of sediment loading is not proposed for this TMDL. Numeric Targets, which characterize the effect of loading are to be measured in lieu of loadings. The 50-year schedule for achieving the TMDL acknowledges that implementation actions taken in the near term are expected to take years to produce a response as measured through Numeric Target monitoring. Allocations will achieve the targets because over the long term, these allocated sediment loads are expected to result in changes in sediment distributions in the channel and the estuary that meet water quality objectives. Numeric targets and other parameters will be monitored to ensure that numeric targets are met. The Regional Board will rely on existing or planned efforts for this monitoring (e.g., Morro Bay National Estuary Program, Central Coast Ambient Monitoring Program).
Margin of Safety	An implicit margin of safety has been incorporated into this TMDL through the use of conservative assumptions throughout the source analysis and characterization of beneficial use impacts. The margin of safety is required due to uncertainty in calculations of sediment loading and of the effects of this loading on beneficial uses of the Morro Bay Estuary, Chorro Creek and Los Osos Creek.

Trackable Implementation Actions

PROJECT NAME		ACTION	SCHEDULE	IMPLEMENTING PARTY
1	Hollister Ranch Acquisition	Design and construct floodplain restoration project	January 2002-May 2005	CSLRCD and MBNEP
2	Los Osos Creek Wetland Restoration Project	Design and construct Los Osos Creek wetland restoration project	Fall 2000-Spring 2004	CSLRCD and MBNEP
3	Watershed Crew Curriculum	Develop a curriculum that will provide training for a year-round crew of Civilian Conservation Corps	Winter 2001-Fall 2001	CCC
4	Catalogue of Erosion Control Projects	Develop a list of areas in need of erosion control projects	Spring 2001-Fall 2001; on-going	MBNEP
5	Project Clearwater	Provide technical assistance and cost sharing to install BMPs	2001-June 2004; on-going	CSLRCD
6	Agricultural Water Quality Program	Develop and implement a voluntary, cost-effective, and landowner/manager-directed program	2001-2002; on-going	Farm Bureau
7	Land Acquisitions and Conservation Easements	Acquire or otherwise protect lands in cooperation with willing land owners	2000-2010; on-going	MBNEP
8	Fire Management Plan	Develop and implement a Fire Management Plan	2001-2006; on-going	CDF
9	Maintenance of Sediment Basins Above Chorro Reservoir	Continue maintenance of the sediment basins above Chorro Reservoir	on-going	California Army National Guard
10	Road Maintenance	Increase the use of management measures for road maintenance and construction	2001-2006; on-going	County of San Luis Obispo, Public and Private Landowners; California Department of Transportation
11	Sediment Traps	Install sediment traps	2000-2007; on-going	CSLRCD; Natural Resource Conservation Service; DFG; Public and Private Land Owners
PROJECT NAME		ACTION	SCHEDULE	RESPONSIBLE DISCHARGERS
12	Primera Mine Rehabilitation and Erosion Control	Remediation of Primera Mine	2003	California Army National Guard
13	Stormwater Sediment Control on Roads	Include specific road sediment control measures in County stormwater management plan prior to enrollment in Stormwater Permit; track implementation of BMPs	Prior to March 2003; on-going	County of San Luis Obispo
14		Track implementation of BMPs in Stormwater Permit	On-going	Caltrans
15	Water Quality Management Plans on Chorro Creek Ranches	Implement Waste Discharge Requirements to address Chorro Creek Ranches	Fall 2002-Fall 2003	California Polytechnic State University

Implementation Schedule

At End of Implementation Year:	IMPLEMENTATION MILESTONE			MONITORING ACTIVITY		
	Chorro Creek	*Los Osos Creek*	*Morro Bay*	*Chorro Creek*	*Los Osos Creek*	*Morro Bay*
1	RB and MBNEP Staff meet to review progress. RB and County Staff meet to review inclusion of road erosion control measures in Stormwater Management Plan.			Baseline Streambed Parameters3, Turbidity		
2	*As above*					
3	RB and MBNEP Staff meet to review progress; RB requests implementation tracking report from Implementing Parties if not provided; RB staff consider modifications to Trackable Implementation Actions			Baseline Streambed Parameters, Turbidity		
4	RB and MBNEP Staff meet to review progress			Baseline Streambed Parameters, Turbidity		
5	RB and MBNEP Staff meet to review progress		RB Staff calculate: 5-year changes to Bay area and volume	Baseline Streambed Parameters, Turbidity		Bathymetry survey
6	RB and MBNEP Staff meet to review progress; RB request implementation tracking report from Implementing Parties if not provided; RB staff consider modifications to Trackable Implementation Actions			Baseline Streambed Parameters, Turbidity		
7	RB and MBNEP Staff meet to review progress			Baseline Streambed Parameters, Turbidity		
8	*As above*					
9	RB and MBNEP Staff meet to review progress; RB request implementation tracking report from Implementing Parties if not provided; RB staff consider modifications to Trackable Implementation Actions			Baseline Streambed Parameters, Turbidity		
10	RB and MBNEP Staff meet to review progress; RB Staff calculate 10-year rolling average of Streambed Sediment data		RB Staff calculate: 5-year changes to Bay area and volume	Baseline Streambed Parameters, Turbidity		Bathymetry survey
11	RB and MBNEP Staff meet to review progress; RB Staff calculate 10-year rolling average of Streambed Sediment data			Streambed Parameters, Turbidity		
12	RB and MBNEP Staff meet to review progress; RB Staff calculate 10-year rolling average of Streambed Sediment data; RB request implementation tracking report from Implementing Parties if not provided; RB staff consider modifications to Trackable Implementation Actions			Streambed Parameters, Turbidity		
13	RB and MBNEP Staff meet to review progress; RB Staff calculates 10-year rolling average of Streambed Sediment data			Streambed Parameters, Turbidity		
14	As above					

3 Streambed Parameters, which are the Numeric Targets, include Residual Pool Volume, Median Diameter of Sediment Particles, Percent Fine Sediment, and Percent Coarse Sediment.

At End of Implementation Year:	IMPLEMENTATION MILESTONE		MONITORING ACTIVITY	
15	RB and MBNEP Staff meet to review progress; RB Staff calculate 10-year rolling average of Streambed Sediment data; RB request implementation tracking report from Implementing Parties if not provided; RB staff consider modifications to Trackable Implementation Actions	RB Staff calculate: 5-year changes to Bay area and volume	Streambed Parameters Turbidity	Bathymetry survey
16-49	Repeat as above with 3-, 5- and 10-year milestones.			
50	Numeric targets achieved; load reduction achieved			

IX. B. SAN LORENZO RIVER TOTAL MAXIMUM DAILY LOAD FOR SEDIMENT (INCLUDING CARBONERA CREEK, LOMPICO CREEK, AND SHINGLE MILL CREEK)

This TMDL was adopted by the Regional Water Quality Control Board on May 16, 2003.
This TMDL was approved by:
The State Water Resources Control Board on September 16, 2003.
The California Office of Administrative Law on December 18, 2003.
The U.S. Environmental Protection Agency on February 19, 2004.

TMDL ELEMENTS

Problem Statement:
The natural processes of erosion and sedimentation in the San Lorenzo River Watershed have been accelerated due to anthropogenic watershed disturbances. Studies conducted by various authors have concluded that erosion rates were two to four times natural rates. These studies have also documented and quantified the decline in anadromous fisheries and the quality of fish habitat. Excessive Sedimentation has interfered with the beneficial uses of these waterbodies including, Fish and Wildlife (RARE, MIGR, SPWN, WILD).

Numeric Targets (interpretation of the narrative water quality objectives for settleable solids and sediment):
Because the sediment objectives in the Basin Plan are narrative, rather than numeric, this Basin Plan amendment establishes numeric targets as indicators of water quality that are supportive of beneficial uses. The numeric targets serve to interpret the narrative water quality objectives and provide a measure with which to determine if the objectives and the TMDL are being met. The combination of these parameters is considered an effective approach in lieu of directly measuring sediment loading to the listed waterbodies. Attainment of Numeric Targets will be measured over a ten-year rolling time period. Numeric targets for the listed waterbodies and compliance points on tributaries are as follows:

Parameter	Numeric Target[1]
Residual Pool Volume[2]	V* = Mean values $\leq$ 0.21 Max values $\leq$ 0.45
Median Diameter (D_{50}) of Sediment Particles in Spawning Gravels	D_{50} = Mean values $\geq$69 mm Minimum values $\geq$ 37 mm
Percent of Fine Fines (< 0.85 mm) in Spawning Gravels	Percent fine fines $\leq$ 21%
Percent of Coarse Fines (< 6.0 mm) in Spawning Gravels	Percent coarse fines $\leq$ 30%

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1 Target values are for sampling reach(es) within an individual waterbody.

2 Residual Pool Volume refers to the portion of a pool in a stream that is available for fish to occupy. Pool habitat is the primary habitat for steelhead in summer. Overwintering habitat requirements include deeper pools, undercut banks, side channels, and especially large, unembedded rocks, which provide shelter for fish against the high flows of winter. V* gives a direct measurement of the impact of sediment on pool volume. It is the ratio of the amount of *pool volume filled by fine, mobile sediment*, to *total pool volume*. Qualifying pools are those having a gradient less than 5%, a minimum depth twice the riffle-crest depth, a fairly even spacing between tributaries, and are located on streams fifth order or smaller.

Total Maximum Daily Load and Load Allocations

The Total Maximum Daily Load (expressed here as an annual load) was based on reductions necessary to achieve desired conditions of streambed sediment parameters (embeddedness and fraction of sediment particles less than 4mm in diameter). Desired conditions taken from values published in the scientific literature were 27% lower on average for the San Lorenzo River, Carbonera Creek and Shingle Mill Creek, and 24% lower on Lompico Creek, than measured values in these waterbodies, respectively. Load allocations were based on percent attainable reductions in each sediment source category.

Natural background sediment load was not calculated as a separate allocation of the TMDL. The Mass Wasting and Channel/Bank Erosion categories account for natural and anthropogenic loads associated with these processes. The load from Timber Harvest Plan Roads, Public/Private Roads, Timber Harvest Plan Lands and Other Urban and Rural Lands is assumed to be entirely anthropogenically derived and controllable.

Sediment Source Category	Allocations (tons/year)			
	Shingle Mill Creek	Carbonera Creek	Lompico Creek	San Lorenzo River
Upland Timber Harvest Plan (THP) Roads	0	420	362	25,215
Streamside THP Roads on Steep Slopes	0	182	164	10,949
Upland Public/Private Roads	146	1,233	367	13,835
Streamside Public/Private Roads on Steep Slopes	77	135	239	6,178
THP Land	0	23	16	1,057
Other Urban and Rural Land	310	2,622	965	43,368
Mass Wasting	0	4,082	6,440	157,388
Channel/Bank Erosion	324	3,030	989	48,149
Total Allocation = TMDL[3]	857	11,728	9,542	306,139

Implementation Plan

The sediment load to the San Lorenzo River, Lompico Creek, Carbonera Creek, and Shingle Mill Creek derives from nonpoint sources (NPS) and point sources. As such, implementation to achieve the TMDL will rely on the State's Plan for NPS pollution control (CWC §13369) and on existing and anticipated independent regulatory programs for regulated storm water discharges.

At this time implementation emphasizes the activities of the Santa Cruz County Departments of Planning and Public Works, the Santa Cruz County Resource Conservation District, and other public and private groups, not currently identified as dischargers responsible for causing erosion, to implement self-determined activities (Implementation Actions C through R, see following list, Trackable Implementation Actions). Regional Board staff will meet annually with these "Implementing Parties" identified in the list of Trackable Implementation Actions to provide technical assistance, and to evaluate and track progress (See following Implementation Compliance Schedule).

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3 The term "Total Maximum Daily Load" or "TMDL" is used here for familiarity. The allowable loads for the San Lorenzo River and its tributaries are actually expressed as a Total Annual Loads (tons/year). This expression of load accounts for seasonal variation in sediment loads explained by the seasonality of rainfall in this region of the Central Coast.

By the end of the first year of implementation, the Regional Board and the implementing parties will establish a time schedule for completion of Trackable Implementation Actions C through R. If these entities fail to complete these Tier 1, self-determined activities or resulting management practices to reduce sedimentation per the time schedule established, Regional Board staff intends to conduct inspections and investigations to identify individual responsible dischargers (e.g., landowners or regulated public agencies). Regional Board staff may rely on Section 13267 of the California Water Code for investigation and identification of individual responsible dischargers. Regional Board staff will also rely on Section 13267 of the California Water Code to require reporting and/or monitoring to determine the level of implementation of management practices to reduce sedimentation. If necessary, the Regional Board may rely on enforcement authority, pursuant to California Water Code Section 13304, to require dischargers to clean up and abate sediment discharges and/or prevent the threat of discharges. The Implementation Actions identified in this Implementation Plan do not identify the specific management practices that will result in sediment reduction. As such the management practices developed through pursuit of the Implementation Actions are not intended to be independently enforceable by the Regional Board. Therefore, the Regional Board will rely on scheduled 3-year reviews to track Implementation Actions and the effectiveness of management practices to determine whether to continue with Tier 1, self-determined implementation. This portion of the implementation program currently relies on voluntary compliance and so is not regulatory. If, in future years, evaluation of progress indicates regulatory mechanisms are needed to implement actions that will result in attainment of the numeric targets, this will be achieved on a case-by-case basis using existing authority or if necessary, by amending the TMDL implementation program through a Basin Plan amendment.

To regulate sediment discharges derived from regulated storm water discharges, implementation relies on National Pollutant Discharge Elimination System (NPDES) general permits covering municipalities and construction activities anticipated to be in place by March 2003. Implementation Actions S, T and U (see following list, Trackable Implementation Actions) identify actions that will be required of entities enrolling in these general permits. These entities are identified as “Responsible Dischargers” on this list. These actions will be required pursuant to the terms of the general permits, so this portion of the implementation program also does not impose any new regulatory requirements. To the extent the discharge is addressed by a Storm Water Permit, the Regional Board anticipates that management practices developed from any of the Implementation Actions (in the list of Trackable Implementation Actions) will be included in Storm Water Management Plans and Storm Water Pollution Prevention Plans. If the management practices are not included in these Plans, the Regional Board will work with dischargers to condition the Plans on an individual basis, will consider issuing individual Storm Water permits or waste discharge requirements, and/or, if necessary take actions to enforce the terms of the permits or waste discharge requirements. The Regional Board will take any such actions on a case-by-case basis using existing authority or if necessary, by amendment of the TMDL implementation program.

Margin of Safety

A margin of safety has been established implicitly in the TMDL calculation through conservative assumptions used in establishing the percent reduction from existing loads necessary to protect beneficial uses.

Monitoring

The TMDL will be evaluated by monitoring the four numeric targets specified above, as well as by tracking progress in implementation of voluntary and required implementation actions. Responsibility for tracking, reporting status, and evaluating the effectiveness of voluntary implementation actions, is shared by the Regional Board and participating members of the San Lorenzo River Technical Advisory Committee. Initially the Regional Board will be responsible for monitoring numeric targets. Any monitoring undertaken by members of the Committee, including turbidity monitoring by the San Lorenzo Valley Water District and the City of Santa Cruz Water Agency, as well as “comprehensive” monitoring of parameters affecting cold water fisheries conducted by various agencies, will be on a voluntary basis. Monitoring efforts pursuant to existing or anticipated regulatory programs or other voluntary efforts will be evaluated along with monitoring for numeric targets. The Board will evaluate progress on implementation actions in consultation with the San Lorenzo River Technical Advisory Committee. As more information is obtained concerning sources, locations and rates of sedimentation, TMDL numeric targets and implementation projects may be amended or modified through an amendment to the Basin Plan, as appropriate.

Trackable Implementation Actions to Address Sources of Erosion and Sedimentation

Source Category	Implementation Action	Implementing Party
Roads: Upland and Streamside Timber Harvest Plans	A Increase presence at Pre-Harvest Inspections to 100% of Class I and Class II watercourses (watercourses supporting use for domestic water supply, fish, and/or aquatic habitat for non-fish aquatic species).	Regional Water Quality Control Board (RWQCB)
	B Perform Post-Harvest Inspections 3 to 5 years after harvest on Timber Harvest Plans with Class I and Class II watercourse crossings.	RWQCB
	C Convene a Working Group of federal, state, and local agencies, and timberland owners and foresters to develop specific timber harvesting management practices for the San Lorenzo River Watershed.	National Marine Fisheries Service (NMFS), California Department of Forestry and Fire Protection (CDF), Santa Cruz County (County) Planning, RWQCB, Timber Owners and Foresters
	D Enforce erosion control ordinance following 3-year Timber Harvest Plan maintenance period.	County Planning
	E Develop strategy for more effective enforcement of County code violations pertaining to erosion control and sedimentation prevention throughout the San Lorenzo Watershed.	County Planning
	F RWQCB will review evidence of Timber Harvest Plan Best Management Practices developed pursuant to Section 916.9 of 2001 Forest Practices Act during Pre-Harvest and Post-Harvest Inspections.	CDF, Timber Harvest Plan Submitter, RWQCB
Roads: Upland and Streamside Public/Private	E See above	
	G Create public road database to inventory and prioritize problems for correction.	County Public Works, Caltrans, Cities of Santa Cruz and Scotts Valley
	H Develop a Public Road Maintenance Best Management Practices (BMP) Program.	County Public Works and Planning
	I Improve public road spoils management and disposal: develop spoils disposal site(s) in or near the San Lorenzo Watershed.	County Public Works and Caltrans
	J Assess State Park roads and trails for erosion into San Lorenzo River and tributaries. Develop a program for funding and addressing any identified problems.	California Department of Parks and Recreation
	K Develop and implement private road improvement program.	Santa Cruz Resource Conservation District (RCD)-lead, Natural Resources Conservation Service, County Department of Environmental Health, RWQCB, California Department of Fish and Game, landowners
Developed Parcels: THP Lands	A-F See above	
	E See above	

Source Category	Implementation Action		Implementing Party
Developed Parcels: Other Urban and Rural Land	L	Evaluate need to revise erosion control provisions in County Grading Regulations and Erosion Control Ordinance to better protect sandy-soil areas.	County Planning
	M	Evaluate need to revise erosion control provisions in City of Scotts Valley Grading Regulations and Erosion Control Ordinance to better protect sandy-soil areas.	City of Scotts Valley
	N	Evaluate need to revise erosion control provisions in City of Santa Cruz Grading Regulations and Erosion Control Ordinance to better protect sandy-soil areas.	City of Santa Cruz
	O	Promote improved livestock management practices to reduce discharge of sediment.	RCD, Santa Cruz Horsemen, County Planning, County Environmental Health Services, Livestock Owners
	P	Implement education programs and modify policies and procedures to improve riparian corridor protection, maintain channel integrity, implement alternatives to hard bank protection, and retain woody material.	County Planning, DFG, Cities
Mass Wasting	Q	Develop strategy to reduce erosion from discrete sources, including Mount Hermon slide, Bean Creek Road slides, McEnery Road, Skypark, Rancho Rio and Monte Fiore.	County, City of Scotts Valley
	R	Develop strategy to address accelerating the mitigation of quarry impacts at Hanson Aggregates site.	County Planning, California Division of Mines and Geology
Streambanks	A-H, J-N, P *See above*		
Source Category	Implementation Action		Responsible Dischargers
All Roads, Developed, and Developing Parcels	S	Develop and implement Storm Water Management Plans (SWMPs) and Storm Water Pollution Prevention Plans (SWPPPs) consistent with NPDES Phase II Storm Water regulations.	County Planning and Public Works, City of Santa Cruz, City of Scotts Valley, construction site operators and owners.
	T	Identify the San Lorenzo River Watershed as a priority for site inspection and enforcement of control measures in SWMPs and SWPPPs. Establish mechanism by which operators and owners of one-acre and greater construction projects are notified of the requirement to prepare SWPPPs.	County Planning and Public Works, City of Santa Cruz, City of Scotts Valley, construction site operators and owners.
	U	Consider incorporation of sediment control programs/projects into SWMPs and SWPPPs.	County Planning and Public Works, City of Santa Cruz, City of Scotts Valley, construction site operators and owners.

Implementation Compliance Schedule

At End of Implementation Year:	IMPLEMENTATION MILESTONE	MONITORING ACTIVITY[4]
	San Lorenzo River Mainstem and Tributaries	***San Lorenzo River Mainstem and Tributaries***
1	Regional Board (RB) staff and San Lorenzo River Technical Advisory Committee (SLR TAC) meet to: a) review progress on implementation actions; b) adopt Comprehensive Monitoring Program; and c) establish time schedules for Implementation Actions. RB and County staff meet to review inclusion of high priority status of San Lorenzo Watershed in Stormwater Management Plan.	Refine sampling strategy for comprehensive monitoring plan; Turbidity by water agencies.
2	RB staff and SLR TAC meet to review progress on implementation actions and monitoring.	Full suite of Numeric Target Parameters at compliance points; Turbidity by water agencies.
3	Implementing Parties submit report on progress of actions; RB staff and SLR TAC meet to review progress on implementation actions and monitoring; RB staff consider modifications to Trackable Implementation Actions; RB requests implementation tracking report from Implementing Parties if not provided;	Turbidity by water agencies.
4	RB staff and SLR TAC meet to review progress on implementation actions;	Turbidity by water agencies.
5	RB staff and SLR TAC meet to review progress on implementation actions;	Full suite of Numeric Target Parameters at compliance points; Turbidity by water agencies.
6	Implementing Parties submit report on progress of actions; RB staff and SLR TAC meet to review progress on implementation actions and monitoring; RB staff consider modifications to Trackable Implementation Actions; RB requests implementation tracking report from Implementing Parties if not provided;	Turbidity by water agencies.
7	RB staff and SLR TAC meet to review progress on implementation actions;	Turbidity by water agencies.
8	RB staff and SLR TAC meet to review progress on implementation actions;	Full suite on compliance points; Turbidity by water agencies.
9	Implementing Parties submit report on progress of actions; RB staff and SLR TAC meet to review progress on implementation actions and monitoring; RB staff consider modifications to Trackable Implementation Actions; RB requests implementation tracking report from Implementing Parties if not provided;	Turbidity by water agencies.
10	RB staff and SLR TAC meet to review progress on implementation actions;	Turbidity by water agencies.
11	RB staff and SLR TAC meet to review progress on implementation actions; RB staff calculate 10-year rolling average of streambed sediment data and turbidity;	Full suite of Numeric Target Parameters at compliance points; Turbidity by water agencies.

4 Direct measurement of sediment loading is not proposed for this TMDL. Parameters characterizing the effect of loading are to be measured instead, and are identified as Numeric Targets. This 25-year schedule for achieving the TMDL acknowledges that implementation actions taken in the near term are expected to take years to produce a response as measured through Numeric Target monitoring.

At End of Implementation Year:	IMPLEMENTATION MILESTONE	MONITORING ACTIVITY[4]
12	Implementing Parties submit report on progress of actions; RB staff and SLR TAC meet to review progress on implementation actions and monitoring; RB staff consider modifications to Trackable Implementation Actions; RB requests implementation tracking report from Implementing Parties if not provided; RB staff calculate 10-year rolling average of streambed sediment data and turbidity;	Turbidity by water agencies.
13	RB staff and SLR TAC meet to review progress on implementation actions; RB staff calculate 10-year rolling average of streambed sediment data and turbidity;	Turbidity by water agencies.
14	RB staff and SLR TAC meet to review progress on implementation actions; RB staff calculate 10-year rolling average of streambed sediment data and turbidity;	Full suite of Numeric Target Parameters at compliance points; Turbidity by water agencies.
15	Implementing Parties submit report on progress of actions; RB staff and SLR TAC meet to review progress on implementation actions and monitoring; RB staff consider modifications to Trackable Implementation Actions; RB requests implementation tracking report from Implementing Parties if not provided; RB staff calculate 10-year rolling average of streambed sediment data and turbidity;	Turbidity by water agencies.
16-24	*Repeat as above with 1- and 3-year milestones*	
25	Numeric Targets Achieved; Load reduction Achieved	

IX. E. TOTAL MAXIMUM DAILY LOADS FOR PATHOGENS FOR MORRO BAY AND CHORRO AND LOS OSOS CREEKS

The Regional Water Quality Control Board adopted this TMDL on May 16, 2003.
This TMDL was approved by:
The State Water Resources Control Board on September 16, 2003.
The California Office of Administrative Law on November 11, 2003.
The U.S. Environmental Protection Agency on January 20, 2004.

TMDL Elements

<table>
<tr><th>Element</th><th></th></tr>
<tr><td>Problem Statement</td><td>Numeric water quality objectives for fecal coliform set by the Regional Board and standards enforced by the California Department of Health Services (DHS) pursuant to the United States Department of Health Services Food and Drug Administration's National Shellfish Sanitation Program have been exceeded for shellfish harvesting and water contact recreation in Morro Bay. Elevated levels of fecal coliform in Morro Bay and Chorro and Los Osos Creeks indicate that pathogens are impairing water contact recreation and shellfish harvesting in these water bodies. High levels of pathogens may cause disease in humans and may also adversely affect marine animals. Portions of Morro Bay have been closed by DHS for commercial shellfish harvesting since 1996, and advisories have been posted to warn the public to avoid water contact activities. Morro Bay was identified as impaired for pathogens on the 1998 Clean Water Act Section 303(d) list of impaired water bodies.</td></tr>
<tr><td>Numeric Targets</td><td>Numeric targets for Morro Bay, based on regulations[1] that DHS follows
<table>
<tr><th colspan="2">Fecal Coliform</th></tr>
<tr><td>Geometric Mean</td><td>Maximum</td></tr>
<tr><td>14 MPN/100 mL[a]</td><td>43 MPN/100 mL[b]</td></tr>
</table>
a: Based on the geometric mean of monthly sampling
b: No more than 10% of total samples may exceed this number

Numeric targets for Chorro and Los Osos Creeks and fresh water seeps[2] to Morro Bay, based on Basin Plan objective
<table>
<tr><th colspan="2">Fecal Coliform</th></tr>
<tr><td>Geometric Mean</td><td>Maximum</td></tr>
<tr><td>200 MPN/100 mL[a]</td><td>400 MPN/100 mL[b]</td></tr>
</table>
a: Geometric mean of not less than five samples over a period of 30 days
b: Not more than 10% of total samples during a period of 30 days exceed</td></tr>
</table>

1 National Shellfish Sanitation Program, Model Ordinance. Chapter IV, 0.02, D
2 Seeps are defined as any surfacing ground water flowing into Morro Bay from the east shore of the Bay, south of Los Osos Creek.

Allocations and TMDL	This TMDL is expressed as concentrations that are equal to the numeric targets. For Bay waters, a geometric mean of 14 MPN/100 mL must be achieved and no more than 10% of the samples may be over 43 MPN/100 mL for fecal coliform. For tributaries (Chorro and Los Osos Creeks and fresh water seeps) to the Bay, the geometric mean shall not exceed 200 MPN/100 mL over a 30-day period nor shall 10% of the samples exceed 400 MPN/100 mL over any 30-day period for fecal coliform. Point and nonpoint sources cannot exceed the concentrations specified above. Therefore, the wasteload allocations and load allocations, which include background levels, are also equal to the numeric targets.
Margin of Safety	A margin of safety has been established implicitly through the use of protective numeric targets.
Linkage Analysis	Allocations are equal to the numeric targets which equal the water quality objectives.
Implementa-tion	The bacterial load to Morro Bay derives from nonpoint sources (NPS) and point sources. As such, implementation will rely on the State's Plan for NPS pollution control (CWC §13369) and continued implementation of existing regulatory controls as appropriate for point sources, including storm water pursuant to NPDES surface water discharge regulations and Waste Discharge Requirements (Porter Cologne). Implementation emphasizes the activities of the Morro Bay National Estuary Program, Coastal San Luis Resources Conservation District, Farm Bureau, University of California Cooperative Extension, Natural Resources Conservation Service, Public/Private Landowners, Morro Bay Harbor Department, California Department of Fish and Game, City of Morro Bay, United States Coast Guard, San Luis Obispo County, Division of Animal Services, all of whom are not currently identified as dischargers responsible for bacterial loading, to implement self-determined activities (see Table: Trackable Implementation Actions (self-determined)). Other actions, currently required because of another Regional Water Quality Control Board (Regional Board) regulatory program, will be evaluated to make sure progress is taking place (see Table: Trackable Implementation Actions identified under existing regulatory programs). Regional Board Staff will meet annually with the implementing parties identified in the list of Trackable Implementation Actions Tables to provide technical assistance and to evaluate and track progress (see Table: Morro Bay TMDL for Pathogens Implementation Schedule for details). If at the end of year three, implementing parties fail to complete these self-determined activities and/or resulting management practices fail to reduce bacterial loads and/or the numeric targets are not being met, then Regional Board staff will conduct inspections and investigations to identify individual responsible dischargers (e.g., landowners or public agencies). Regional Board staff may rely on Section 13267 of the California Water Code for investigation and identification of individual responsible dischargers. Regional Board staff will also rely on Section 13267 of the California Water Code to require reporting and/or monitoring to determine the level of implementation of identified activities to reduce bacteria. If necessary, the Regional Board may rely on enforcement authority, pursuant to California Water Code Section 13304, to require dischargers to clean-up and abate bacterial discharges and/or prevent the threat of discharges on a case-by case basis. Additionally, Implementation Actions (in the Table of Implementation Actions) may be identified as conditions of compliance with storm water permits and Waste Discharge Requirements. If at the end of the third year, self-determined actions have not been initiated, staff will develop a regulatory approach (rather than a self-determined approach) and present a revised implementation plan to the Regional Board as a Basin Plan Amendment.
Monitoring	Monitoring will be performed and evaluated by the DHS according to their regulations, the Morro Bay National Estuary Volunteer Program and the Regional Board to ensure

	that numeric targets are met and implementation actions are taking place. Should the Morro Bay National Estuary Volunteer Program be unable to sample, the Regional Board will sample to the extent practicable. Regional Board staff will review data on a triennial basis, at a minimum, and determine if progress towards fecal coliform reduction is adequate and whether changes to implementation actions are warranted (as described above).

Trackable Implementation Actions (self-determined)

PROJECT NAME	ACTION	SCHEDULE	IMPLEMENTING PARTIES
Grazing Management	Implement grazing management measures that reduce bacterial levels	Ongoing - 2012	MBNEP, CSLRCD, Farm Bureau, UCCE, NRCS, Public/Private Landowners
Boat Management, Pump-outs	Upgrade pump-out facilities, provide new facilities, improve accessibility	2002-2005	MBHD
Remove unpermitted moorings	Remove illegal moorings and prevent future ones	Ongoing - 2007	CDFG, MBNEP
Remove derelict boats	Remove abandoned, derelict boats and vessels in back bay	Ongoing - 2007	CDFG, MBNEP
Manage live aboard boating situation	Continue issuing permits to live aboards, continue with inspections	Ongoing - 2012	City of Morro Bay, USCG, CDFG, MBHD
Educate Public about proper boat waste disposal	Educate public about proper waste disposal	Ongoing - 2012	MBNEP, MBHD
Pet waste management	Create an off leash dog park, provide supplies to pick-up pet waste, ordinance	Ongoing - 2012	MBNEP, City of Morro Bay, San Luis Obispo County
Septic System Maintenance	Inspect and maintain all septic systems throughout the watershed	2004 - continuous	San Luis Obispo County, LOCSD
Spay/neuter pets	Educate public to promote spaying and neutering pets	Ongoing - 2012	Division of animal services
Reduce the number of feral dogs/cats	Reduce the number of feral dogs/cats	Ongoing - 2012	Division of animal services, feral cat caretakers

CDFG – California Department of Fish and Game
CSLRCD – Coastal San Luis Resources Conservation District
MBHD – Morro Bay Harbor Department
MBNEP – Morro Bay National Estuary Program
NRCS – Natural Resources Conservation Service
UCCE – University of California Cooperative Extension
USCG – United States Coast Guard
LOCSD – Los Osos Community Services District

Trackable Implementation Actions (under existing regulatory programs)

PROJECT NAME	ACTION	SCHEDULE	RESPONSIBLE DISCHARGERS
Phase II stormwater permit	Incorporate actions to reduce bacteria loading into Morro Bay by implementing a stormwater management plan for the City of Morro Bay and the Community of Los Osos	March 2003 - 2008	City of Morro Bay LOCSD, San Luis Obispo County
Los Osos Community Waste Water Treatment Plant	Construct and maintain a wastewater treatment plant pursuant to Waste Discharge Requirements, R3-2003-0007, Waste Discharge Identification no. 3 401078001	Ongoing - 2007	LOCSD

Implementation Schedule for Morro Bay TMDL for Pathogens

At End of Implementation Year:	IMPLEMENTATION MILESTONE	MONITORING ACTIVITY	Chorro Creek TMDL	Los Osos Creek TMDL	Morro Bay TMDL
1	• RWQCB evaluates data collected over past year, evaluates progress on actions • Meet with VMP, MBNEP, LOCSD, City of MB, County of SLO, DHS, MBHD, State Parks, CDFG, Farm Bureau to discuss progress • LOCSD waste water treatment plant WDR issued • Submittal of stormwater management plan and permit coverage (City of MB, LOCSD)	Fecal coliform			
2	• RWQCB evaluates data collected; evaluates progress on actions				
3	• RWQCB evaluates data collected; evaluates progress on actions • Regional Board evaluates the monitoring of septic system maintenance in the watershed with the County of San Luis Obispo • RWQCB, MBNEP, VMP, LOCSD, City of MB, County of SLO, DHS, MBHD, State Parks, CDFG, Farm Bureau meet to determine TMDL progress.				
4	• RWQCB evaluates data collected; evaluates progress on actions				
5	• RWQCB evaluates data collected; evaluates progress on actions				
6	• RWQCB evaluates data collected; evaluates progress on actions • LOCSD sewer installed • RWQCB, MBNEP, VMP, LOCSD, City of MB, County of SLO, DHS, MBHD, State Parks, CDFG, Farm Bureau meet to determine TMDL progress				
7	• RWQCB evaluates data collected; evaluates progress on actions				
8	• RWQCB evaluates data collected and evaluates progress on actions				
9	• RWQCB evaluates data collected and evaluates progress on actions • RWQCB, MBNEP, VMP, LOCSD, City of MB, County of SLO, DHS, MBHD, State Parks, CDFG, Farm Bureau meet to determine TMDL progress		REC-1 standards achieved	REC-1 standards achieved	DHS Stan-dards, SHELL achieved
10	• RWQCB evaluates data collected and evaluates progress on actions				
	Load Reduction Achieved; Numeric Targets Achieved				

CDFG – California Department of Fish and Game
DHS – Department of Health Services
LOCSD – Los Osos Community Services District
MB – Morro Bay
MBHD – Morro Bay Harbor Department
MBNEP – Morro Bay National Estuary Program
RWQCB – Regional Water Quality Control Board
SLO – San Luis Obispo
VMP – Volunteer Monitoring Program
WDR – Waste Discharge Requirements

IX. G. TOTAL MAXIMUM DAILY LOAD FOR PATHOGENS FOR SAN LUIS OBISPO CREEK

The Regional Water Quality Control Board adopted this TMDL on December 3, 2004.
This TMDL was approved by:

The State Water Resources Control Board on May 19, 2005.
The California Office of Administrative Law on July 25, 2005. (*Effective date*)
The U.S. Environmental Protection Agency on September 23, 2005.

Problem Statement
The beneficial uses of non-contact water recreation and water contact recreation are not being supported because fecal coliform concentration in San Luis Obispo Creek exceeds existing Basin Plan numeric objectives protecting these beneficial uses.

Numeric Target
Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100mL, nor shall more than ten percent of total samples collected during any 30-day period exceed 400 MPN per 100mL.

Source Analysis
The fecal coliform sources contributing to the problems identified in the Problem Statement are, in decreasing order of contribution: urban, human, birds and bats roosting in the tunnel, livestock, and background. DNA analysis of samples drawn between sites 10.3 and 10.9 (see map in Figure-1) in San Luis Obispo Creek indicate that the following sources and corresponding frequencies are present: human (41%), avian (17%), combined sewer overflow (15%), canine (11%), rodent (5%), dog (4%), raccoon (3%), feline (3%), opossum (1%).

TMDL and Allocations
The TMDL is a receiving water concentration equal to the numeric target. The TMDL is considered achieved when the allocations assigned to individual reaches are consistently met or numeric targets are consistently met in all reaches.

Allocations are expressed as receiving water fecal coliform concentration. Table-1 shows the allocations with respect to location and responsible party. The reaches referred to in Table-1 are illustrated in Figure-1.

Locations of the sites illustrated in Figure-1 are described as follows:

- Site 10.0: located along the main stem of San Luis Obispo Creek (Creek) at the bridge crossing the Creek on Marsh Street. This location is downstream of the confluence of the main stem of the Creek with Stenner Creek.
- Site 10.3: located along the main stem of the Creek at Mission Plaza, immediately downstream of the downstream end of the tunnel.
- Site 10.9: located along the main stem of the Creek at the upstream end of the tunnel.
- STEN0.0: located at the mouth of Stenner Creek before its confluence with San Luis Obispo Creek.
- STEN1.5: located in Stenner Creek at its crossing with Highland Drive on the campus of Cal Poly.
- BRIZ1.0: located in Brizziolari Creek at its crossing with Via Carte Drive on Cal Poly campus; this site is located downstream of the bull-test animal unit.
- Site 12.5: located along the main stem of the Creek at Cuesta Park near the Highway 101 bridge.

Waste Load Allocations: Allocations to the City of San Luis Obispo are waste load allocations (WLAs). The WLAs will be implemented by the City's NPDES permit for the Water Reclamation Facility for control of sewer sources. The WLAs will also be implemented by the City's General Municipal Stormwater permit for the control of urban sources as well as animal sources from the tunnelized area of the Creek.

Allocations to the County of San Luis Obispo are WLAs. The WLAs will be implemented by the County's General Municipal Stormwater permit for the control of urban sources.

A portion of the total allocation to California Polytechnic State University, San Luis Obispo (Cal Poly) is a WLA. The allocation at site STEN1.5 shown in Table-1 is a WLA. The WLA will be implemented by Cal Poly's General Municipal Stormwater permit for the control of urban sources.

Load Allocations: Cal Poly is allocated a load allocation (LA) for the livestock sources along Brizziolari Creek. The LA will be implemented by Cal Poly's WDR permit for the control of animal sources (see site BRIZ1.0 in Table-1).

Allocation for Background: The allocation to Background is included in the WLAs and LA. The background allocation is a receiving water concentration of 81 MPN/100 mL. Therefore, the allocations in Table-1 include the allocation to background.

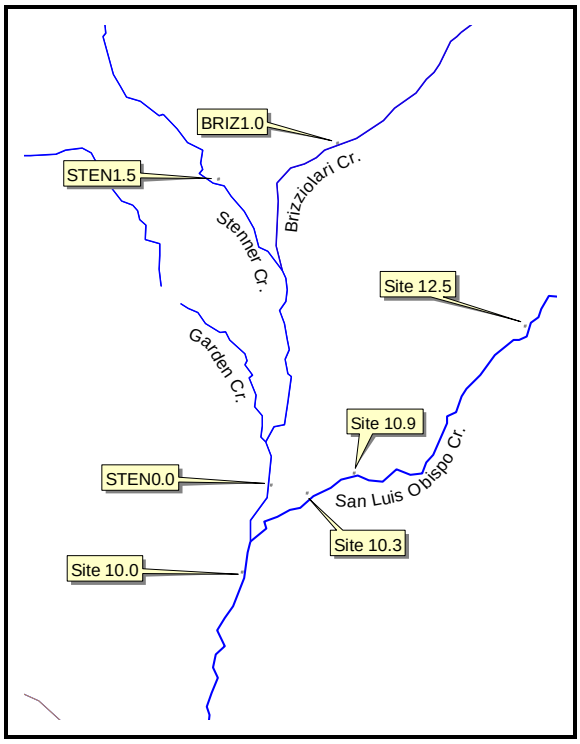

Figure-1: Allocation Sites

Table-1 ALLOCATIONS AND RESPONSIBLE PARTIES				
Allocations in San Luis Obispo Creek				Receiving Water Fecal Coliform Concentration (MPN/100mL)[1]
From Site:	To Upstream Site:	Responsible Party [2, 3, 4]	Allocation Type[5]	
12.5	All upstream sites	County	WLA	≤200
10.9	12.0	City	WLA	≤200
10.0	10.9	City	WLA	≤200
Allocations in Stenner and Brizziolari Creeks				Receiving Water Fecal Coliform Concentration (MPN/100mL)[1]
From Site:	To Upstream Site:	Responsible Party [2, 3, 4]	Allocation Type[5]	
STEN1.5	All upstream sites	Cal Poly	WLA	≤200
STEN0.0	STEN1.5	City	WLA	≤200
BRIZ1.0	All upstream sites	Cal Poly	LA	≤200
Allocations for reaches not specifically noted above: For stream reaches not specifically noted above, the allocation for any discharge loading fecal coliform into San Luis Obispo Creek or any of its tributaries is as follows: Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100mL, nor shall more than 10% of the total samples during any 30-day period exceed 400 MPN per 100mL.				
[1] As log mean of 5 samples taken in a 30-day period occurring within each season. [2] County implies County of San Luis Obispo [3] City implies City of San Luis Obispo [4] Cal Poly implies California Polytechnic State University, San Luis Obispo Campus [5] WLA implies Waste Load Allocation, LA implies Load Allocation				

Margin of Safety

A margin of safety is incorporated in the TMDL through conservative assumptions. The conservative assumptions include: 1) assumption of zero bacterial die-off, 2) TMDL and allocation calculations are predominantly based on data collected during low-flow conditions, which, in the case of San Luis Obispo Creek, skews towards a worst-case scenario.

IMPLEMENTATION

The following actions will occur within one year of TMDL approval by the Office of Administrative Law.

HUMAN SOURCES

The City will implement actions described in Table 3, item 1F, to control human sources as currently required by the NPDES permit for the Water Reclamation Facility (WRF).

The Executive Officer (EO) or the Regional Board will amend the Monitoring and Reporting Program (M&RP) of the City's NPDES permit for the WRF to incorporate stream monitoring for fecal coliform. The EO or Regional Board will also amend the M&RP to incorporate reporting of such stream monitoring activities.

URBAN SOURCES

The City will amend its Storm Water Management Plan (SWMP) to include actions described in Table-3, items 1A, 1B, 1C, 1D, and 1E, pursuant to Section D of State Board Order No. 2003-005, NPDES General Permit No. CAS000004 for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (Small MS4 Permit). The City will then describe the actions taken in Table-3 as part of its annual report required by the Small MS4 Permit. If the City does not make these changes by submittal of the next annual report, the Executive Officer will require such changes.

The Executive Officer or the Regional Board will amend the Monitoring and Reporting Program of the City's small MS4 Permit to incorporate stream monitoring of fecal coliform and reporting of such monitoring, if additional monitoring-beyond that amended to the Monitoring and Reporting Program for the City's NPDES Permit for the WRF-is necessary.

Cal Poly will amend their SWMP to include specific actions described in Table-3, items 3A, 3B, and 3D. Cal Poly will then describe actions taken in Table-3 as part of their annual report required by the Small MS4 Permit. If Cal Poly does not make these changes by submittal of next annual report for this permit, the Executive Officer will require such changes.

The County of San Luis Obispo (County) will amend its SWMP to include specific actions described in Table-3, items 2A, 2B, 2C, and 2D, pursuant to Section D of the Small MS4 Permit. The County will then describe actions taken in Table-3 as part of its annual report required by the Small MS4 Permit. If the County does not make these changes by submittal of next annual report for this permit, the Executive Officer will require such changes.

LIVESTOCK SOURCES

Cal Poly will eliminate discharges of animal waste from seepage to surface waters from irrigated wastewater and flow to surface waters from confined animal operations, as currently required by Cal Poly's Waste Discharge Requirements.

Cal Poly has agreed to use management practices described in Table-3, item 3C, as described in its Water Quality Management Plan.

Cal Poly will conduct stream monitoring and report results as currently required by the M&RP of Cal Poly's Waste Discharge Requirements.

Additionally, the EO will amend the M&RP associated with Cal Poly's Waste Discharge Requirements to require annual reporting of specific measures that have been identified in the Water Quality Management Plan and have been and/or will be taken to reduce fecal coliform loading from livestock and urban sources.

THREE-YEAR REVIEWS

Regional Board staff will conduct a review every three years beginning three years after TMDL approval by the Office of Administrative Law. Regional Board staff will utilize Annual Reports, as well as other available information, to review water quality data and implementation efforts of responsible parties and progress being made towards achieving the allocations and the numeric target. Regional Board staff may conclude and articulate that ongoing implementation efforts may be insufficient to ultimately achieve the allocations and numeric target. If staff makes this determination, staff will recommend that additional reporting, monitoring, or implementation efforts be required either through approval by the Executive Officer (e.g. pursuant to CWC section 13267 or section 13383) or by the Regional Board (e.g. through revisions of existing permits and/or a Basin Plan Amendment). Regional Board staff may conclude and articulate that to date, implementation efforts and results are likely to result in achieving the allocations and numeric target, in which case existing and anticipated implementation efforts should continue.

Three-year reviews will continue until the TMDL is achieved. The target date to achieve the TMDL is ten years after implementation commences.

Table-3 IMPLEMENTATION ACTIONS OF RESPONSIBLE PARTIES			
Responsible Party	Item	**Best Management Practice**	**Discussion**
City of San Luis Obispo	1A	Public Participation and Outreach	Educate the public regarding sources of fecal coliform and associated health risks of fecal coliform in surface waters. Educate the public regarding actions that individuals can take to reduce loading.
	1B	Pet Waste Management	Develop and implement enforceable means (e.g. an ordinance) of reducing/eliminating fecal coliform loading from pet waste.
	1C	Wild Animal Waste Management	Develop and implement strategies to reduce/eliminate fecal coliform loading from wild animals inhabiting the tunnelized area of the Creek.
	1D	Illicit Discharge Detection and Elimination	Develop and implement strategies to detect and eliminate illicit discharges (whether mistaken or deliberate) of sewage to the Creek.
	1E	Pollution Prevention and Good Housekeeping	Develop and implement strategies to reduce/eliminate fecal coliform loading from streets, parking lots, sidewalks, and other urban areas potentially collecting and discharging fecal coliform to the Creek.
	1F	Human Source Elimination and Prevention	Maintain the sewage collection system, including identification of sewage leaks, the correction of sewage leaks, and prevention of sewage leaks.
County of San Luis Obispo	2A	Public Participation and Outreach	Educate the public regarding sources of fecal coliform and associated health risks of fecal coliform in surface waters. Educate the public regarding actions that individuals can take to reduce loading.
	2B	Pet Waste Management	Develop and implement enforceable means (e.g. an ordinance) of reducing/eliminating fecal coliform loading from pet waste.
	2C	Illicit Discharge Detection and Elimination	Develop and implement strategies to detect and eliminate illicit discharges (whether mistaken or deliberate) of sewage to the Creek.
	2D	Pollution Prevention and Good Housekeeping	Develop and implement strategies to reduce/eliminate fecal coliform loading from streets, parking lots, sidewalks, and other urban areas potentially collecting and discharging fecal coliform to the Creek.
Cal Poly State University	3A	Public Participation and Outreach	Educate the public regarding sources of fecal coliform and associated health risks of fecal coliform in surface waters. Educate the public regarding actions that individuals can take to reduce loading.
	3B	Pet Waste Management	Develop and implement enforceable means of reducing/eliminating fecal coliform loading from pet waste.
	3C	Grazing Management	Develop and implement strategies to reduce/eliminate fecal coliform loading from livestock grazing.
	3D	Pollution Prevention and Good Housekeeping	Develop and implement strategies to reduce/eliminate fecal coliform loading from streets, parking lots, sidewalks, and other urban areas potentially collecting and discharging fecal coliform to the Creek.

IX. G. SAN LUIS OBISPO CREEK TOTAL MAXIMUM DAILY LOAD AND IMPLEMENTATION PLAN FOR NITRATE-NITROGEN

The Regional Water Quality Control Board adopted this TMDL on September 9, 2005.
This TMDL was approved by:
The State Water Resources Control Board on June 21, 2006.
The California Office of Administrative Law on August 4, 2006. (*Effective date*)
The U.S. Environmental Protection Agency on January 10, 2007.

Problem Statement
The municipal and domestic supply of water beneficial use (MUN) is not being supported because nitrate-N concentrations in San Luis Obispo Creek exceed the existing Basin Plan numeric objective protecting the MUN beneficial use.

Numeric Target
The numeric target used to calculate the TMDL is a nitrate-N concentration of 10 mg/L-N.

Source Analysis
Nitrate-N sources contributing to the problem identified in the Problem Statement are, in decreasing order of contribution: City of San Luis Obispo Water Reclamation Facility (WRF), croplands, background, reservoirs, and residential areas.

TMDL and Allocations
The TMDL is a receiving water nitrate-N concentration equal to the numeric target. The following allocations are necessary to achieve the TMDL.

Wasteload Allocations:

- City of San Luis Obispo WRF effluent: The monthly mean nitrate-N concentration of effluent shall not exceed 10 mg/L-N.

Load Allocations:
- Croplands in Prefumo Creek Watershed: shall not cause nitrate-N concentration in receiving waters to exceed 10 mg/L-N.
- Background: Nitrate concentration of 0.1 mg/L-N.

Load and wasteload allocations to sources currently meeting water quality standards:
- The following wasteload and load allocations ensure that the receiving water will achieve compliance with water quality standards at the earliest possible date, continue to meet water quality standards after the above wasteload and load allocations are attained, and comply with state and federal anti-degradation requirements.
    - Residential Sources Wasteload Allocation:
        - Storm water discharge shall not cause an increase in receiving water nitrate-N concentration greater than the current increase in nitrate-N concentration resulting from the discharge.

    - Reservoir Sources Load Allocation (Laguna Lake):
        - Reservoir discharge shall not cause an increase in receiving water nitrate-N concentration greater than the current increase in nitrate-N concentration resulting from the discharge.

Margin of Safety: Nitrate concentration of 2.2 mg/L-N.

IMPLEMENTATION

The following actions will be taken to implement the TMDL.

WRF Source:

- The Central Coast Water Board will incorporate an effluent limit for nitrate-N in the City of San Luis Obispo's National Pollutant Discharge Elimination System permit (NPDES permit) for the WRF, consistent with the allocations described in the Wasteload Allocations section above. The effluent limit will be incorporated in the NPDES permit at the first permit renewal following TMDL approval by the Central Coast Water Board (expected in May 2007).
- The Central Coast Water Board intends to issue a Cease and Desist Order (CDO) or Time Schedule Order to the WRF concurrently with the NPDES permit, requiring the WRF to reduce nitrate-N concentration in the effluent. The CDO will contain a time schedule establishing the time allowed to comply with the order.
- The Central Coast Water Board will consider a revision of the wasteload allocation and corresponding effluent limit for the WRF if an amendment to the Basin Plan removing or revising the MUN beneficial use and corresponding numeric objective for nitrate is approved by USEPA.

Residential Source (Storm water):

- The City of San Luis Obispo, the County of San Luis Obispo, and Cal Poly State University will implement management practices consistent with and required by Small MS4 Permits regulating storm water discharge in San Luis Obispo Creek watershed, and will submit annual reports as required by such permits. If implementation actions are insufficient to achieve the TMDL, additional implementation actions will be required through approval by the Executive Officer (e.g., pursuant to CWC section 13267 or section 13383) or by the Central Coast Water Board (e.g., by requiring revisions of existing storm water management plans and/or a Basin Plan Amendment).

Reservoir Source

- Implementation measures to achieve the allocation to the reservoir source are carried out through the Residential Source (Storm water) implementation actions.

Cropland Source:

- Landowners and operators of irrigated lands in Prefumo Creek watershed will implement actions needed to achieve the allocations to croplands pursuant to the Conditional Waiver of Waste Discharge Requirements for Discharges to Irrigated Lands (Conditional Waiver). Implementation and monitoring requirements for parties engaged in agricultural activities are consistent with, and rely upon, the Conditional Waiver.
- Monitoring reports and data associated with the Conditional Waiver, as well as other information, will be used to determine whether management measures being taken are sufficient to achieve the TMDL by the year 2012. Central Coast Water Board staff will make this determination every three years as described in the Tracking and Monitoring section below. If implementation actions are insufficient to achieve the TMDL, additional implementation actions will be required through approval by the Executive Officer (e.g., pursuant to CWC section 13267 or section 13383) or by the Central Coast Water Board; the Executive Officer or the Central Coast Water Board will approve of additional actions as soon as practicable.

Monitoring

The following actions will be taken to implement monitoring requirements.

- The Executive Officer (EO) or the Central Coast Water Board will amend the Monitoring and Reporting Program (M&RP) of the City's NPDES permit for the WRF to incorporate effluent and stream monitoring for nitrate-N, and to incorporate reporting of these monitoring activities. The City of San Luis Obispo will comply with the amended M&RP as soon as the EO or the Water Board issues the revised program (anticipated to occur at the next permit renewal following TMDL approval by the Central Coast Water Board [expected in May 2007]).
- Implementation and monitoring requirements for parties engaged in agricultural activities are consistent with, and rely upon, the Conditional Waiver.

Tracking and Monitoring

- Central Coast Water Board staff will conduct a review of implementation activities every three years, beginning three years after TMDL approval by the Office of Administrative Law, unless funding is unavailable. Central Coast Water Board staff will utilize annual reports associated with Small MS4 permits, as well as other available information, to review water quality data and implementation efforts of implementing parties and progress being made towards achieving the allocations and the numeric target. Central Coast Water Board staff may conclude that ongoing implementation efforts may be insufficient to ultimately achieve the allocations and numeric target. If staff makes this determination, staff will recommend that additional reporting, monitoring, or implementation efforts be required either through approval by the Executive Officer (e.g., pursuant to CWC section 13267 or section 13383) or by the Central Coast Water Board (e.g., through revisions of existing permits and/or a Basin Plan Amendment). Central Coast Water Board staff may conclude that to date, implementation efforts and results are likely to result in achieving the allocations and numeric target, in which case existing and anticipated implementation efforts will continue.

  Three-year reviews will continue until the TMDL is achieved, unless funding is unavailable. The target date to achieve the TMDL is during or before the year 2012.

IX. H. PAJARO RIVER TOTAL MAXIMUM DAILY LOADS FOR SEDIMENT INCLUDING LLAGAS CREEK, RIDER CREEK, AND SAN BENITO RIVER

The Regional Water Quality Control Board adopted this TMDL on December 2, 2005.
This TMDL was approved by:

The State Water Resources Control Board on September 21, 2006.
The California Office of Administrative Law on November 27, 2006. (*Effective date*)
The U.S. Environmental Protection Agency on May 3, 2007.

Problem Statement

Anthropogenic watershed disturbances have accelerated the natural processes of erosion and sedimentation in the Pajaro River, including Llagas Creek, Rider Creek, and San Benito River. Special studies have identified a variety of watershed conditions that have lead to excessive sedimentation. Excessive sedimentation has caused an exceedance of the narrative, general water quality objective for sediment because sediment load and rate have interfered with the beneficial uses of these waterbodies including, fish and wildlife (COLD, MIGR, and SPWN).

The narrative objective states, “the suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.”

Numeric Targets (interpretation of the narrative water quality objective)

This TMDL establishes numeric targets as indicators of the narrative, general water quality objective for sediment. This TMDL uses two types of numeric targets: suspended sediment concentration-duration and streambed characteristics. Numeric targets for suspended sediment concentration-duration are presented in Table 1. Numeric targets for streambed characteristics are presented in Table 2.

Table 1 - Numeric Targets for Suspended Sediment Conditions

Major Subwatershed [a]	Exposure Category [b]		Exceedance Event Criteria		Numeric Targets [c]	
	Duration (consecutive days)	Suspended Sediment Concentration Range (mg/L) [d]	Duration (consecutive days)	Suspended Sediment Concentration (mg/L)	Maximum Number of Exceedance Events	Maximum Duration of any given Exceedance Event (consecutive days)
Tres Pinos	1	666 – 1808	2	>1808	15	22
	2	245 – 665	3	>665	42	44
	6	91 – 244	7	>244	36	51
	14	91 – 244	15	>244	20	51
	49	33 – 90	50	>90	5	108
San Benito	1	666 – 1808	2	>1808	9	9
	2	245 – 665	3	>665	30	21
	6	91 – 244	7	>244	29	35
	14	91 – 244	15	>244	14	35
	49	33 – 90	50	>90	2	60
Llagas	1	666 – 1808	2	>1808	0	0
	2	245 – 665	3	>665	0	1
	6	91 – 244	7	>244	9	15
	14	91 – 244	15	>244	1	15
	49	33 – 90	50	>90	0	28
Uvas	1	666 – 1808	2	>1808	1	3
	2	245 – 665	3	>665	12	8
	6	91 – 244	7	>244	12	15
	14	91 – 244	15	>244	1	15
	49	33 – 90	50	>90	0	18
Upper Pajaro	1	666 – 1808	2	>1808	0	1
	2	245 – 665	3	>665	3	3
	6	91 – 244	7	>244	2	9
	14	91 – 244	15	>244	0	9
	49	33 – 90	50	>90	0	33
Corralitos (includes Rider Creek)	1	666 – 1808	2	>1808	0	1
	2	245 – 665	3	>665	0	2
	6	91 – 244	7	>244	8	11
	14	91 – 244	15	>244	0	11
	49	33 – 90	50	>90	0	36
Mouth of Pajaro	1	666 – 1808	2	>1808	0	1
	2	245 – 665	3	>665	0	2
	6	91 – 244	7	>244	8	11
	14	91 – 244	15	>244	0	11
	49	33 – 90	50	>90	0	36

[a] Major subwatersheds of the Pajaro River.

[b] Five exposure categories per major subwatershed. Each exposure category is comprised two components: a duration (consecutive days) and a suspended sediment concentration (SSC) range in milligrams per liter (mg/L).

[c] Numeric targets are comprised of two components: a maximum number of exceedance events that may occur in any consecutive 15 years after development of the monitoring program and the maximum duration (consecutive days) in which the maximum SSC value for each range can be exceeded in 15 years. Exceedance events are specific to each exposure category and consist of consecutive days in which the duration and the maximum SSC value for each range is exceeded. Using the exposure category of 1-day, 666-1,808 mg/l SSC range for Tres Pinos as an example; the maximum number of exceedance events (e.g. 2-days or longer and greater than 1,808 mg/L) is 15. The maximum duration is 22 days. Using the same Tres Pinos example, numeric targets are not met if the number of exceedance events is 16 (or more) or if the maximum duration of any event is 23 consecutive days or longer.

[d] Numbers rounded to show measurable break in the range.

Table 2 - Numeric Targets for Streambed Characteristics

Parameter	**Numeric Target**[1]
Residual Pool Volume[2]	V* = Mean values $\leq$ 0.21 Max values $\leq$ 0.45
Median Diameter (D_{50}) of Sediment Particles in Spawning Gravels	D_{50} = Mean values $\geq$ 69 mm Minimum values $\geq$ 37 mm
Percent of Fine Fines (< 0.85 mm) in Spawning Gravels	Percent fine fines $\leq$ 21%
Percent of Coarse Fines (< 6.0 mm) in Spawning Gravels	Percent coarse fines $\leq$ 30%

1 Target values are for sampling reach(es) within an individual waterbody.

2 Residual Pool Volume refers to the portion of a pool in a stream that is available for fish to occupy. Pool habitat is the primary habitat for steelhead in summer. Overwintering habitat requirements include deeper pools, undercut banks, side channels, and especially large, unembedded rocks, which provide shelter for fish against the high flows of winter. V* gives a direct measurement of the impact of sediment on pool volume. It is the ratio of the amount of *pool volume filled by fine, mobile sediment*, to *total pool volume*. Qualifying pools are defined by Regional Board sampling protocol (2002).

Source Analysis

Sources of sediment include the following nonpoint and point source discharge activities occurring within the respective land use source categories. Nonpoint sources include irrigated agriculture activities upon crop, fallow and orchard lands; timber harvesting activities upon forested lands; grazing activities upon pasture and range lands; urban and rural residential development, roads, farm animal and livestock boarding upon urban lands; unpaved roads in the San Benito watershed, and paved and unpaved roads in the Corralitos Creek and Rider Creek watersheds upon lands in the roads landuse category; hydromodification-related activities upon all types of land use; off-road recreational vehicle areas; sand and gravel mining; as well as natural erosion and landslides. Point sources include the small Municipal Separate Storm Sewer Systems (MS4s) of Watsonville, Hollister, Gilroy, and Morgan Hill.

TMDLs and Allocations

TMDLs and load allocations are assigned to sources for seven watersheds as represented in Table 3. These allocations are modeled load values that are necessary to meet the suspended sediment concentration-duration targets. The Regional Board will determine that the TMDL is attained when the numeric targets are achieved. When numeric targets are achieved, the Regional Board will assume that these loads are met.

Margin of Safety

The total load includes an implicit margin of safety that was derived through conservative assumptions.

Table 3 – TMDLs and Load Allocations

		Source Category							
Major Subwatershed	Allocations[1] (LA/WLA)	Crop, Fallow, and Orchard	Forest [2]	Pasture and Range	Urban Lands [3]	Roads	Barren [2]	Sand and Gravel Mining	Total Load
Tres Pinos	LA	477	352	41085	312		11551		53,778
	WLA				1				
San Benito	LA	1971	2083	19863	327	1180	14128	27	39,679
	WLA				100				
Llagas	LA	596	326	6978	354		144	0	9,185
	WLA				787				
Uvas	LA	946	989	12454	280		369		15,177
	WLA				139				
Upper Pajaro	LA	4114	1228	37664	356		425	3	43,951
	WLA				161				
Corralitos (including Rider Creek)	LA	3544	4536	2427	443	79	73	2	11,389[4]
	WLA				284				
Mouth of Pajaro	LA	3047	58	3055	383		500	35	7,268[4]
	WLA				191				

Notes:
1 Annual load allocations (LA) and waste load allocations (WLA) expressed in metric tons (1 metric ton equals 1,000 kilograms). Blank cells indicate no allocations for specified source category.
2 Forest includes loads from natural sources and from timber harvesting operations; Barren includes loads from natural sources only.
3 Load allocations for urban lands outside of NPDES Phase 2 urban boundaries. Waste load allocations for urban lands within NPDES Phase 2 urban boundaries.
4 Number rounded.

Implementation
The following actions will be taken to reduce sediment discharges from activities that occur within each of the land use source categories (headings) below. Regional Board staff intends to identify and notify the parties responsible for the activities according to the schedule below; however, if staff resources are insufficient or other water quality priorities emerge, this schedule will be modified.

Crop, Fallow, and Orchard Lands
Landowners and operators of crop, fallow, and orchard lands, where irrigated agricultural activities are conducted, will implement agricultural management measures and perform monitoring and reporting pursuant to the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands and the Monitoring and Reporting Program, Order No. R3-2004-0117. This is an existing, on-going activity.

Forest Lands
Landowners and operators of forest lands, where timber harvest activities are conducted, will implement timber harvest management measures and perform monitoring and reporting pursuant to the General Conditional Waiver

of Waste Discharge Requirements for Timber Harvest Activities and the Monitoring and Reporting Program, Order No. R3-2005-0066. This is an existing, on-going activity.

Pasture and Range

Owners and operators of pasture and range lands, where grazing activities occur, must comply with the land disturbance prohibition.

Within one year following approval of the TMDLs by the Office of Administrative Law, the Executive Officer will notify the owners and operators of pasture and range lands of the prohibition and conditions for compliance with the prohibition. The Executive Officer will review and approve, or request modification of, the Nonpoint Source Pollution Control Implementation Program (Program) or documentation submitted in compliance with the prohibition within six months of the submittal date. Should the Program or documentation require modification, or if a party fails to submit a Program or documentation, the Executive Officer may issue a civil liability complaint pursuant to section 13268 or 13350 of the CWC, or alternatively, propose individual or general waste discharge requirements to assure compliance with the prohibition.

Urban Lands

Urban lands include the small communities of Watsonville, Hollister, Gilroy, and Morgan Hill (cities), rural properties throughout the watershed with farm animals or livestock boarding (rural properties), and roads throughout the watershed. These lands do not include unpaved roads in San Benito River watershed, and paved and unpaved roads within the Corralitos Creek and Rider Creek subwatersheds (See Roads below).

The cities must obtain a Municipal Separate Storm Sewer System (MS4) permit. Their Storm Water Management Programs must include specific actions to reduce sediment discharges pursuant to Clean Water Act Section 402(p)(3)(B) and Section D of State Board Order No. 2003-005, NPDES General Permit No. CAS000004 for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems. The cities will then describe the actions taken as part of their annual report. If necessary, the Regional Board's Executive Officer can require more stringent sediment controls. This is an existing requirement and an on-going activity.

Owners and operators of rural properties and roads must comply with the land disturbance prohibition.

Within one year following approval of the TMDLs by the Office of Administrative Law, the Executive Officer will notify the owners and operators of rural properties and roads of the prohibition and conditions for compliance with the prohibition. The Executive Officer will review and approve, or request modification of, the Program or documentation submitted in compliance with the prohibition within six months of the submittal date. Should the Program or documentation require modification, or if a party fails to submit a Program or documentation, the Executive Officer may issue a civil liability complaint pursuant to section 13268 or 13350 of the CWC, or alternatively, propose individual or general waste discharge requirements to assure compliance with the prohibition.

Roads

Within one year following approval of the TMDLs by the Office of Administrative Law, the Executive Officer will notify the owners and operators of unpaved roads within the San Benito River watershed and paved and unpaved roads within the Corralitos Creek and Rider Creek watersheds of the prohibition and conditions for compliance with the prohibition. The Executive Officer will review and approve, or request modification of, the Program or documentation submitted in compliance with the prohibition within six months of the submittal date. Should the Program or documentation require modification, or if a party fails to submit a Program or documentation, the Executive Officer may issue a civil liability complaint pursuant to section 13268 or 13350 of the CWC, or alternatively, propose individual or general waste discharge requirements to assure compliance with the prohibition.

Sand and Gravel Mining

Within six months following approval of the TMDLs by the Office of Administrative Law and pursuant to Section 13263(e) of the CWC, Regional Board staff will review existing waste discharge requirements (WDRs) for sand and gravel mining operations and revise or require activities to: 1) assess cumulative impacts, including fluvial geomorphic impacts, upon the beneficial uses of the San Benito River; 2) mitigate the impacts identified; and 3) monitor the effectiveness of mitigation activities. One year following approval of the TMDLs by the Office of Administrative Law, pursuant to Section 13267 of the CWC, the Executive Officer will require owners and operators of sand and gravel mining operations to submit a plan to assess cumulative impacts, including fluvial

geomorphic impacts, upon the beneficial uses of the San Benito River. The Executive Officer will comply with the requirements of section 13267 when issuing the orders. Regional Board staff will encourage sand and gravel mining operators to conduct the cumulative impacts assessment cooperatively.

Streambank Erosion

Owners and operators of properties where hydromodification activities occur must comply with the land disturbance prohibition.

Within one year following approval of the TMDLs by the Office of Administrative Law, the Executive Officer will notify the owners and operators of properties where hydromodification activities occur of the prohibition and conditions for compliance with the prohibition. The Executive Officer will review and approve, or request modification of, the Program or documentation submitted in compliance with the prohibition within six months of the submittal date. Should the Program or documentation require modification, or if a party fails to submit a Program or documentation, the Executive Officer may issue a civil liability complaint pursuant to section 13268 or 13350 of the CWC, or alternatively, propose individual or general waste discharge requirements to assure compliance with the prohibition.

Monitoring

Regional Board staff will develop a monitoring program to measure in-stream numeric targets within five years following TMDL approval. The program will be consistent with other Central Coast Region sediment TMDLs, regional sediment monitoring programs, and in cooperation with implementing parties. If Regional Board staff concludes that sediment contributions from individual landowners should be monitored in addition to in-stream numeric targets, the Executive Officer will establish such monitoring requirements in compliance with section 13267.

Tracking and Evaluation

Regional Board staff will conduct a review every three years beginning three years after TMDL approval by the Office of Administrative Law. Regional Board staff will utilize required reports, as well as other available information, to review implementation efforts of responsible parties and progress being made towards achieving the allocations. Regional Board staff will also review numeric target monitoring (see above) to determine progress towards TMDL achievement in the waterbody. The numeric targets, not actual loads or reductions in loads, will be measured, as they are a more direct indicator of beneficial use protection. Regional Board staff may conclude and articulate that ongoing implementation efforts may ultimately be insufficient to achieve the allocations and numeric targets. If staff makes this determination, staff will recommend that additional reporting, monitoring, or implementation efforts be required either by the Executive Officer (e.g. pursuant to CWC section 13267 or section 13383) or by the Regional Board (e.g. through revisions of existing permits and/or a Basin Plan Amendment). At any particular date, Regional Board staff may conclude and articulate that implementation efforts and results are likely to result in achieving the allocations and numeric target, in which case existing and anticipated implementation efforts should continue.

Three-year reviews will continue until the TMDLs are achieved. The target date to achieve the TMDLs is forty-five years after implementation commences.

IX. I. TOTAL MAXIMUM DAILY LOAD FOR PATHOGENS FOR WATSONVILLE SLOUGH

The Regional Water Quality Control Board adopted this TMDL on March 24, 2006.
This TMDL was approved by:

The State Water Resources Control Board on September 21, 2006.
The California Office of Administrative Law on November 20, 2006. (*Effective date*)
The U.S. Environmental Protection Agency on July 19, 2007.

Problem Statement

The beneficial uses of water contact recreation (REC-1) and non-contact water recreation (REC-2) are not supported in Watsonville Slough or its tributaries, Struve, Hanson, Harkins and Gallighan Sloughs, because fecal coliform concentrations there exceed existing Basin Plan numeric water quality objectives protecting these beneficial uses.

Numeric Target

Fecal coliform concentration, based on a minimum of five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100mL, nor shall more than ten percent of total samples collected during any 30-day period exceed 400 MPN per 100mL.

Source Analysis

Controllable sources of fecal coliform bacteria in Watsonville Slough and its tributaries include humans, pets, livestock, and land-applied non-sterile manure in irrigated agriculture. Genetic data indicate that the major sources of fecal coliform causing exceedance of the REC-1 standard are natural avian populations. Genetic analysis of Watsonville Slough water samples from both winter and summer periods confirmed birds, cows, and dogs (with birds contributing the most and dogs the least); human fecal coliform bacteria was confirmed in Harkins and Struve Sloughs, but in lower amounts than cow, bird and dog fecal coliform.

TMDL and Allocations

The TMDL for pathogens in Watsonville Slough is a receiving water concentration equal to the numeric target for fecal coliform. The allocation to each responsible party is the receiving water fecal coliform concentration equal to the TMDL. These allocations focus on reducing or eliminating the controllable sources of fecal coliform. The table below shows the allocations with respect to responsible party and waterbody.

The allocation to background (including natural sources from birds) is also the receiving water fecal coliform concentration equal to the TMDL. The parties responsible for the allocation to controllable sources are not responsible for the allocation to natural sources.

ALLOCATIONS AND RESPONSIBLE PARTIES

WASTE LOAD ALLOCATIONS		Receiving Water Fecal Coliform (MPN/100mL)[1]
Waterbody	**Responsible Party**	
Watsonville, Struve, Harkins Sloughs	Santa Cruz County (Urban Stormwater)	≤200
Watsonville, Struve, Harkins, Gallighan, Hanson Sloughs	City of Watsonville (Urban Stormwater)	≤200
Harkins Slough	Santa Cruz Co. Freedom Sanitation District (Sanitary Sewer Collection System)	≤200
Watsonville & Struve Sloughs	City of Watsonville (Sanitary Sewer Collection System)	≤200
Gallighan Slough	Santa Cruz County (Landfill Stormwater)	≤200
LOAD ALLOCATIONS		**Receiving Water Fecal Coliform (MPN/100mL)[1]**
Watsonville & Harkins Sloughs	Operators or owners of irrigated lands who land-apply non-sterile manure	≤200
Watsonville & Harkins Sloughs	Operators or owners of livestock facilities and animals	≤200
[1] As log mean of five (5) samples taken in a 30-day period occurring within each season.		

The TMDL is considered achieved when the allocations assigned to the controllable and natural sources are met, or when the numeric targets are consistently met in all tributaries and Watsonville Slough.

Margin of Safety
A margin of safety is incorporated in the TMDL through conservative assumptions.

Implementation and Monitoring

Landfill Stormwater Monitoring
Within six months following adoption of this TMDL by the Office of Administrative Law, the Executive Officer will require the County of Santa Cruz to include fecal coliform monitoring in the Buena Vista Landfill Waste Discharge Requirements (Order No. 94-29), per Section 13267 of the CWC.

THE FOLLOWING ACTIONS WILL REDUCE FECAL COLIFORM BACTERIA LOADING FROM HUMANS AND PETS:

Urban Stormwater
The City of Watsonville (City) and County of Santa Cruz (County) must revise their Stormwater Management Plans to indicate how and when they will conduct public participation and outreach regarding specific actions that individuals can take to reduce pathogen loading and to indicate how and when they will develop and implement an enforceable means of reducing fecal coliform loading from pet waste (e.g., an ordinance). Within six months following adoption of this TMDL by the Office of Administrative Law, the Executive Officer will (i) issue a letter pursuant to Section 13383 of the California Water Code (CWC), requiring these changes to be described in the annual report required by the Small MS4 Permit (State Board Order No. 2003-005, NPDES General Permit No.CAS000004 for Municipal Separate Storm Sewer Systems) and (ii) require appropriate modifications to the Stormwater Management Plans pursuant to Section G of the General Permit.

The City and County public participation and outreach efforts must include the following tasks:

a. Educating the public about sources of fecal coliform and its associated health risks in surface waters.
b. Identifying and promoting specific actions that responsible parties can implement to reduce pathogen loading from sources such as homeless encampments, agricultural field workers, and homeowners who contribute waste from domestic pets.

The City and County must monitor receiving water and stormwater outfalls that may be contributing fecal coliform to the sloughs. Within six months following adoption of this TMDL by the Office of Administrative Law, the

Executive Officer will issue a letter pursuant to Section 13267 and/or 13383 of the CWC, requiring a technical report that describes a monitoring plan and schedule that includes sampling sites in receiving water and at stormwater outfalls. The City and County may submit the monitoring results in subsequent annual reports already required by the Small MS4 Permit or submit them in a separate technical report.

Sanitary Sewer Collection System

The City and County are required to improve maintenance of their sewage collection systems, including identification, correction, and prevention of sewage leaks, in portions of the collection systems that run through, or adjacent to, tributaries to Watsonville Slough (Action 1B, Table 1). Within six months following adoption of this TMDL by the Office of Administrative Law, the Executive Officer will issue a letter pursuant to Section 13267 of the CWC, requiring a technical report that describes how and when they will conduct improved system maintenance in portions of the system most likely to affect the Sloughs. One year following adoption of this TMDL by the Office of Administrative Law, Water Board staff will evaluate proposed sewer system maintenance for the City and the County of Santa Cruz Freedom Sanitation District as described in the technical report and determine whether appropriate changes to the maintenance have been made or whether any changes to the Waste Discharge Requirements (currently, Order No. R3-2003-0041, and No. R3-2003-0040, respectively) are warranted.

THE FOLLOWING ACTIONS WILL REDUCE FECAL COLIFORM BACTERIA LOADING FROM LIVESTOCK AND LAND-APPLIED NON-STERILE MANURE:

Livestock Sources

Operators or owners of livestock facilities and animals must comply with the proposed Watsonville Slough Watershed Livestock Waste Discharge Prohibition to implement their load allocations. Within one year following approval of the TMDL by the Office of Administrative Law, the Executive Officer will notify the owners and operators of livestock facilities, and the owners of animals, of the proposed Watsonville Slough Watershed Livestock Waste Discharge Prohibition and conditions for compliance with the prohibition. The Executive Officer will review and approve, or request modification of, the Nonpoint Source Pollution Control Implementation Program (Program) or documentation submitted in compliance with the prohibition within six months of the submittal date. Should the Program or documentation require modification, or if a party fails to submit a Program or documentation, the Executive Officer may issue a civil liability complaint pursuant to section 13268 or 13350 of the CWC, or alternatively, propose individual or general waste discharge requirements to assure compliance with the prohibition. Alternatively, dischargers may comply by immediately ceasing all discharges in violation of the Prohibition.

Responsible parties must submit monitoring data or other evidence that demonstrates compliance with the Watsonville Slough Watershed Livestock Waste Discharge Prohibition. The Executive Officer will determine whether the information submitted demonstrates compliance.

Irrigated Land Sources

Operators or owners of irrigated lands where non-sterile manure is applied must comply with the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands to implement their load allocations. Staff expects management measures implemented pursuant to this waiver for irrigated lands will be adequate to reduce or eliminate pathogen discharges where farmers apply non-sterile manure to the land. However, compliance with the conditions in the waiver does not meet all of the requirements of the proposed Watsonville Slough Watershed Livestock Waste Discharge Prohibition. Since the Conditional Waiver does not include any regulation or monitoring of pathogen discharges, operators or owners of irrigated lands where non-sterile manure is applied must also submit reports that demonstrate that they do not discharge pathogens, or explain how pathogen discharges are being addressed.

Within six months following approval of the TMDL by the Office of Administrative Law, the Executive Officer will notify responsible parties of the proposed Watsonville Slough Watershed Livestock Waste Discharge Prohibition and conditions for compliance with the prohibition. The Executive Officer will review and approve, or request modification of, the Nonpoint Source Pollution Control Implementation Program (Program), or other documentation submitted in compliance with the prohibition, within six months of the submittal date. Should the Program or documentation require modification, or if a responsible party fails to submit a Program or documentation, the Executive Officer may issue an administrative civil liability complaint pursuant to section 13268 or 13350 of the CWC, or alternatively, propose individual or general waste discharge requirements or

conditional waivers to assure compliance with the prohibition. Alternatively, dischargers may comply by immediately ceasing all discharges in violation of the Prohibition.

Tracking and Evaluation

Water Board staff will conduct a review every three years beginning three years after TMDL approval by the Office of Administrative Law. Water Board staff will use Annual Reports and any other available information to determine progress toward compliance. Water Board staff may conclude that ongoing implementation efforts are insufficient to ultimately achieve the allocations and numeric target. If staff makes this determination, staff will recommend that additional reporting, monitoring, or implementation efforts be required either through authority of the Executive Officer (e.g. pursuant to CWC section 13267 or section 13383) or the Water Board (e.g. through revisions of existing permits and/or a Basin Plan Amendment). Water Board staff may also conclude that implementation efforts are likely to achieve compliance, and therefore existing implementation efforts should continue.

Responsible parties will continue monitoring according to this plan for at least three years, at which time Water Board staff will determine the need for continuing or otherwise modifying the monitoring requirements. Responsible parties may also demonstrate that controllable sources of pathogens are not contributing to exceedance of water quality objectives in receiving waters. If this is the case, staff may consider re-evaluating the targets and allocations. For example, staff may propose a site-specific objective for Watsonville Sloughs, to be approved by the Water Board. The site-specific objective would be based on evidence that natural, or "background" sources alone were the cause of exceedances of the Basin Plan water quality objective for fecal coliform.

Three-year reviews will continue until the TMDL is achieved. The target date to achieve the TMDL is ten years after implementation commences.

Table 1. Implementation Actions of Responsible Parties

Responsible Party	Source Category	Management Measure	Action
County of Santa Cruz and City of Watsonville	1A Human	Public Participation and Outreach	Educate the public, including the homeless, regarding sources of fecal coliform and associated health risks of fecal coliform in surface waters of the Watsonville Slough Watershed. Educate the public regarding actions that individuals can take to reduce pathogen loading in the Watershed. Revise Stormwater Management Plan and submit to Water Board for approval, monitor, and report.
	1B Human	Human Source Elimination and Prevention	Maintain the sewage collection system, including identification, correction, and prevention of sewage leaks into tributaries to Watsonville Slough. Revise Sewer System Management Plan and submit to Water Board for approval, monitor, and report.
	1C Pets	Pet Waste Management	Develop and implement enforceable means (e.g., an ordinance) of reducing/eliminating fecal coliform loading from pet waste. Educate the public regarding actions that individuals can take to reduce loading in the Watershed. Revise Stormwater Management Plan and submit to Water Board for approval, monitor, and report.
Operators or owners of livestock facilities and animals	2A Livestock	Farm Animal and Livestock Facilities Management	Develop and implement strategies to reduce/eliminate fecal coliform loading from farm animal and livestock facilities (e.g., pens, corrals, barns) into surface waters of the Watsonville Slough Watershed. Submit *Nonpoint Source Control Implementation Program* to the Executive Officer of the Water Board and monitor and report, or, document and report to the Water Board that no discharge is occurring from animal facilities.
	2B Livestock	Grazing Management	Protect sensitive areas (including streambanks, sloughs, wetlands, and riparian zones) by reducing direct loadings of animal wastes from grazing areas into surface waters of the Watsonville Slough Watershed. Submit *Nonpoint Source Control Implementation Program* to the Executive Officer of the Water Board and monitor and report, or, document and report to the Water Board that no discharge is occurring from grazing activities.
Operators or owners of irrigated lands who land-apply non-sterile manure	3 Land-Applied Non-Sterile Manure on Irrigated lands	Irrigated Land Management	Develop, implement and report on measures to reduce/eliminate fecal coliform loading from land-applied non-sterile manure into surface waters of the Watsonville Slough Watershed. Document and report to the Water Board that measures are in place and monitor to demonstrate effectiveness.

IX. J. TOTAL MAXIMUM DAILY LOADS FOR PATHOGENS IN SAN LORENZO ESTUARY, SAN LORENZO RIVER, BRANCIFORTE CREEK, CAMP EVERS CREEK, CARBONERA CREEK, AND LOMPICO CREEK

The Regional Water Quality Control Board adopted these TMDLs on May 8, 2009.
These TMDLs were approved by:

The State Water Resources Control Board on: March 1, 2011.
The California Office of Administrative Law on: June 6, 2011.
The U.S. Environmental Protection Agency on: July 20, 2011.

Problem Statement

The beneficial use of water contact recreation is not protected in the impaired reaches of the San Lorenzo River Estuary (also known as San Lorenzo River Lagoon), San Lorenzo River , Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek because fecal coliform concentrations exceed existing Basin Plan numeric water quality objectives protecting this beneficial use. All reaches in these waterbodies are impaired with the exception of Carbonera Creek, where the impairment extends from the mouth of Carbonera Creek upstream to its intersection with Bethany Road.

Numeric Targets

The numeric targets used to develop the TMDLs and allocations are as follows:

Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL**.**

Source Analysis

San Lorenzo River Estuary
The relative order of controllable sources, in descending order, is:
1) City of Santa Cruz sanitary sewer collection system spills and leaks (including private laterals connected to municipal sanitary sewer collection systems), 2) storm drain discharges to municipally owned and operated separate storm sewer systems (MS4s) required to be covered by an NPDES permit, 3) pet waste in areas that do not drain to MS4s, 4) homeless person/encampment discharges in areas that do not drain to MS4s, 5) onsite wastewater disposal system discharges, and 6) farm animal and livestock discharges.

San Lorenzo River, and Lompico Creek
The relative order of controllable sources, in descending order, is:
1) Onsite wastewater disposal system discharges, 2) storm drain discharges to MS4s required to be covered by an NPDES permit, 3) City of Santa Cruz sanitary sewer collection system spills and leaks (including private laterals connected to municipal sanitary sewer collection systems) within the City limits of Santa Cruz [does not include Lompico Creek], 4) pet waste in areas that do not drain to MS4s, 5) homeless person/encampment discharges in areas that do not drain to MS4s, and 6) farm animal and livestock discharges.

Branciforte Creek,
The relative order of controllable sources, in descending order, is:
1) Storm drain discharges to MS4s required to be covered by an NPDES permit, 2) pet waste in areas that do not drain to MS4s, 3) City of Santa Cruz sanitary sewer collection system spills and leaks (including private laterals connected to municipal sanitary sewer collection systems) within the City limits of Santa Cruz, 4) homeless

person/encampment discharges in areas that do not drain to MS4s, 5) onsite wastewater disposal system discharges, and 6) farm animal and livestock discharges.

Carbonera and Camp Evers Creeks:
The relative order of controllable sources, in descending order, is:
1) Storm drain discharges to MS4s required to be covered by an NPDES permit, 2) pet waste in areas that do not drain to MS4s, 3) homeless person/encampment discharges in areas that do not drain to MS4s, 4) onsite wastewater disposal system discharges (only for Carbonera Creek) 5) farm animal and livestock discharges, and 6) City of Santa Cruz sanitary sewer collection system spills and leaks (including private laterals connected to municipal sanitary sewer collection systems; only for Carbonera Creek).

TMDLs and Allocations

The TMDLs are for the impaired reaches of the following water bodies, and are applicable for each day for all seasons:

San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek. TMDLs:

Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.

The allocations to responsible parties are shown in Table IX J-1.

Table IX J-1. Allocations and Responsible Parties

WASTE LOAD ALLOCATIONS		
Waterbody Assigned Allocation[1]	**Responsible Party** **(Source)** **NPDES/Order number**	**Receiving Water Fecal Coliform (MPN/100mL)**
San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, and Carbonera Creek	City of Santa Cruz (Storm drain discharges to MS4s required to be covered by an NPDES permit) NPDES No. CAS000004	Allocation-1[a]
Camp Evers Creek and Carbonera Creek	City of Scotts Valley (Storm drain discharges to MS4s required to be covered by an NPDES permit) NPDES No. CAS000004	Allocation-1[a]
San Lorenzo River, Branciforte Creek, Lompico Creek, and Carbonera Creek	Santa Cruz County (Storm drain discharges to MS4s required to be covered by an NPDES permit) NPDES No. CAS000004	Allocation-1[a]
San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, and Carbonera Creek	City of Santa Cruz (Sanitary sewer collection system spills and leaks) NPDES No. CA 0048194, Order R3-2005-003	Allocation-2[b]
San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Carbonera Creek , and Lompico Creek	Owners of onsite wastewater disposal systems residing in the County of Santa Cruz (Onsite wastewater disposal system discharges)	Allocation-2[b]
LOAD ALLOCATIONS		
Waterbody	**Responsible Party** **(Source)**	**Receiving Water Fecal Coliform (MPN/100mL)**
San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Carbonera Creek , and Lompico Creek	Owners of onsite wastewater disposal systems residing in the County of Santa Cruz (Onsite wastewater disposal system discharges)	Allocation-2[b]
San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek , and Lompico Creek	Owners/operators of land used for/containing pets (Pet waste not draining to MS4s)	Allocation-1[a]
San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Carbonera Creek, Camp Evers Creek, and Lompico Creek	Owners/operators of land used for/containing farm animals and livestock (Farm Animals and Livestock discharges)	Allocation-1[a]

San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Lompico Creek, Camp Evers Creek, and Carbonera Creek	Owners and/or operators of land that include homeless persons/encampments (Discharges from homeless persons/encampments not regulated by a permit for storm water discharges)	Allocation-2[b]
San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Lompico Creek, Camp Evers Creek, and Carbonera Creek	No responsible party (Natural sources)	Allocation-1[a]

1 All reaches of the following water bodies are assigned allocations, excepting Carbonera Creek, where the allocations are assigned from the mouth to the intersection with Bethany Road.

a Allocation-1 = Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN/100mL, nor shall more than ten percent of total samples during any 30-day period exceed 400 MPN/100 mL.

b Allocation-2= Allocation of zero; no loading allowed from this source.

The parties responsible for the allocation to controllable sources are not responsible for the allocation to natural sources.

The TMDLs are considered achieved when the allocations assigned to all individual responsible parties are met or when the numeric targets are consistently met in the San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek.

Margin of Safety

A margin of safety is incorporated implicitly in the TMDLs through conservative assumptions.

Implementation Plan

SANITARY SEWER COLLECTION SYSTEM LEAKS

Entities with jurisdiction over sewer collection systems can demonstrate compliance with these TMDL allocations through Waste Discharge Requirements and/or NPDES permits.

The City of Santa Cruz and City of Scotts Valley must continue to implement their sewer Collection System Management Plans as required by their respective NPDES permits and Waste Discharge Requirements (WDR) (City of Santa Cruz NPDES No. CA 0048194 and WDR Order R3-2005-003; City of Scotts Valley NPDES No. CA 0048828, WDR Order R3 2002-0016).

In addition, the City of Santa Cruz is required to improve maintenance of their sewage collection system, including identification, correction, and prevention of sewage spills and leaks in portions of the collection systems that run through or adjacent to, impaired surface waters within the San Lorenzo River Estuary or San Lorenzo River. To this end, within six months following approval of these TMDLs by the Office of Administrative Law, the Executive Officer will issue a letter pursuant to Section 13267 of the California Water Code requiring: 1) submittal within one year of a technical report that describes how and when the City of Santa Cruz will conduct improved collection system maintenance in portions of the collection system most likely to affect impaired surface water bodies, with the end result being compliance with its TMDL allocation, 2) stream monitoring for fecal coliform or another fecal indicator bacteria and reporting of these monitoring activities, and 3) annual reporting of self-assessment as to whether the City of Santa Cruz is in compliance with the TMDL allocation.

PRIVATE LATERALS TO THE SANITARY SEWER COLLECTION SYSTEMS

The Central Coast Water Board has identified leaks from private laterals located in the City of Santa Cruz as a source of fecal indicator bacteria in municipal separate storm sewer systems (MS4s). Therefore, enrollees for the City of Santa Cruz' General Permit for the Discharges of Storm Water from Small Municipal Separate Storm

Sewer Systems will address fecal indicator bacteria from private lateral leaks in the Wasteload Allocation Attainment Program (as described in the following section).

STORM DRAIN DISCHARGES TO MUNICIPALLY OWNED AND OPERATED SEPARATE STORM SEWER SYSTEMS

The Central Coast Water Board will address fecal indicator bacteria (FIB), e.g., fecal coliform and/or other indicators of pathogens, discharged from the County of Santa Cruz and the Cities of Santa Cruz and Scotts Valley municipal separate storm sewer systems (MS4 entities) by regulating the MS4 entities under the provisions of the State Water Resources Control Board's General Permit for the Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems (General Permit) (NPDES No. CAS000004). As enrollees under the General Permit, the MS4 entities must develop and implement Storm Water Management Plans (SWMPs) that control urban runoff discharges into and from their MS4s. To address the MS4 entities' TMDL wasteload allocations, the Central Coast Water Board will require the MS4 entities to specifically target FIB in urban runoff through incorporation of Wasteload Allocation Attainment Programs in their SWMPs.

The Central Coast Water Board will require the Wasteload Allocation Attainment Program to include descriptions of the actions that will be taken by the MS4 entities to attain the TMDL wasteload allocations, and specifically address:

1. Development of an implementation and assessment strategy;
2. Source identification and prioritization (including leaks to storm sewers from private laterals);
3. Best management practice identification, prioritization, implementation schedule, analysis, and effectiveness assessment;
4. Monitoring program development and implementation;
5. Reporting, including evaluation whether current best management practices are progressing towards achieving the wasteload allocations within thirteen years of the date that the TMDLs are approved by the Office of Administrative Law.
6. Coordination with stakeholders; and
7. Other pertinent factors.

The Wasteload Allocation Attainment Program will be required by the Central Coast Water Board to address each of these TMDLs that occur within the MS4 entities' jurisdictions.

The Central Coast Water Board will require the Wasteload Allocation Attainment Program to be submitted at one of the following milestones, whichever occurs first:

1. Within one year of approval of the TMDLs by the Office of Administrative Law;
2. When required by any other Central Coast Water Board-issued storm water requirements (e.g., when the Phase II Municipal Storm Water Permit is renewed).

For those MS4 entities that are enrolled under the General Permit at the time of Wasteload Allocation Attainment Program submittal, the Wasteload Allocation Attainment Program must be incorporated into the SWMPs when they are submitted. For those MS4 entities that are not enrolled under the General Permit at the time of Wasteload Allocation Attainment Program submittal, the Wasteload Allocation Attainment Program must be incorporated into the SWMPs when the SWMPs are approved by the Central Coast Water Board.

The Executive Officer or the Central Coast Water Board will require information that demonstrates implementation of the actions described above, pursuant to applicable sections of the California Water Code and/or pursuant to authorities provided in the General Permit for storm water discharges.

PET WASTE, FARM ANIMALS AND LIVESTOCK DISCHARGES

Owners and/or operators of lands containing domestic animals (including pets, farm animals, and livestock) in the San Lorenzo River Watershed must comply with the Domestic Animal Waste Discharge Prohibition; compliance with the Domestic Animal Waste Discharge Prohibition implies compliance with the load allocation for these TMDLs.

Within three years of approval of these TMDLs by the Office of Administrative Law, the Executive Officer will notify owners and/or operators of lands used for/containing domestic animals of the requirement to comply with the Domestic Animal Waste Discharge Prohibition. In his notification, the Executive Officer will also describe the options owners/operators of lands containing domestic animals have for demonstrating compliance with the Domestic Animal Waste Discharge Prohibition. Pursuant to California Water Code section 13267 and within six months of the notification by the Executive Officer, owners/operators of lands containing domestic animals will be required to submit one of the following for approval by the Executive Officer or the Central Coast Water Board:

1) Clear evidence that the owner/operator of lands containing domestic animals is and will continue to be in compliance with the Domestic Animal Waste Discharge Prohibition; clear evidence could be documentation submitted by the owner/operator to the Executive Officer validating current and continued compliance with the Prohibition.
2) A plan for compliance with the Domestic Animal Waste Discharge Prohibition. Such a plan must include a list of specific management practices that will be implemented to control discharges containing fecal material from domestic animals. The plan must also describe how implementing the identified management practices are likely to progressively achieve the load allocations to domestic animals, with the ultimate goal of achieving the load allocations no later than thirteen years after Office of Administrative Law approval of the TMDL. The plan must include monitoring and reporting to the Central Coast Water Board, demonstrating the progress towards achieving load allocations for discharges from domestic animals, and a self-assessment of this progress. The plan may be developed by an individual discharger or by or for a coalition of dischargers in cooperation with a third-party representative, organization, or government agency acting as the agents of owners/operators of lands containing domestic animals.
3) Submittal of a Report of Waste Discharge pursuant to California Water Code Section 13260 (as an application for waste discharge requirements).

ONSITE WASTEWATER DISPOSAL SYSTEM DISCHARGES

Owners of onsite wastewater disposal systems in the San Lorenzo River Watershed must comply with the Human Fecal Material Discharge Prohibition.

Owners of onsite wastewater disposal systems must demonstrate to the satisfaction of the Executive Officer or the Central Coast Water Board that they are in compliance with the Human Fecal Material Discharge Prohibition; compliance with the Human Fecal Material Discharge Prohibition implies compliance with the load allocation for these TMDLs.

Within three years of approval of these TMDLs by the Office of Administrative Law, the Executive Officer will either 1) determine that the County of Santa Cruz is making adequate progress towards implementing an approved Santa Cruz County Onsite Wastewater Management Plan (or another Implementation Program to address onsite wastewater disposal systems) as it pertains to controlling the waste loads from onsite wastewater disposal systems in the San Lorenzo River Watershed, or 2) notify owners of onsite wastewater disposal systems (owners) in the area described above of the requirement to comply with the Human Fecal Material Discharge Prohibition. In his notification, the Executive Officer will also describe owners' options for demonstrating compliance with the Human Fecal Material Discharge Prohibition. Pursuant to California Water Code 13267 and within six months of the notification by the Executive Officer, owners will be required to submit one of the following for approval by the Executive Officer or the Central Coast Water Board:

1) Clear evidence that the owner is and will continue to be in compliance with the Human Fecal Material Discharge Prohibition; clear evidence could be verification by the County of Santa Cruz, or similar, that the owner's onsite wastewater disposal system is in compliance with the Human Fecal Material Discharge Prohibition.
2) A schedule for compliance with the Human Fecal Material Discharge Prohibition. The compliance schedule must include a monitoring and reporting program and milestone dates demonstrating progress towards compliance with the Human Fecal Material Discharge Prohibition, with the ultimate milestone being compliance with the Human Fecal Material Discharge Prohibition no later than three years from the date of the Executive Officer's notification to the owner requiring compliance.
3) Submittal of a Report of Waste Discharge pursuant to California Water Code Section 13260 (as an application for waste discharge requirements; WDRs).

4) Clear evidence of current or scheduled compliance with the Human Fecal Material Discharge Prohibition (as described in number 1 and number 2 above, respectively) through the submittal of the required information by the County of Santa Cruz, acting as the voluntary agents of owners of onsite wastewater disposal systems. Note that an owner of an onsite wastewater disposal system cannot demonstrate compliance with the Human Fecal Material Discharge Prohibition through this option if: 1) the County of Santa Cruz is not their voluntary agent, 2) if the owner of the onsite wastewater disposal system does not choose the County of Santa Cruz as their agent, or 3) the Executive Officer or Central Coast Water Board does not approve the evidence submitted by the County of Santa Cruz on behalf of the owners of onsite wastewater disposal systems.

HOMELESS PERSONS/ENCAMPMENT DISCHARGES NOT REGULATED BY A PERMIT FOR STORM WATER DISCHARGES

Owners of land that contain homeless persons and/or homeless encampments in the San Lorenzo River Watershed must comply with the Human Fecal Material Discharge Prohibition.

Owners of land with homeless persons must demonstrate to the satisfaction of the Executive Officer or the Central Coast Water Board that they are in compliance with the Human Fecal Material Discharge Prohibition; compliance with the Human Fecal Material Discharge Prohibition implies compliance with the load allocation for these TMDLs.

Within three years of approval of these TMDLs by the Office of Administrative Law, the Executive Officer will notify owners of land containing homeless persons of the requirement to comply with the Human Fecal Material Discharge Prohibition. In his notification, the Executive Officer will also describe owners' options for demonstrating compliance with the Human Fecal Material Discharge Prohibition. Pursuant to California Water Code 13267 and within six months of the notification by the Executive Officer, owners will be required to submit one of the following for approval by the Executive Officer or the Central Coast Water Board:

1) Clear evidence that the owner is and will continue to be in compliance with the Human Fecal Material Discharge Prohibition; clear evidence could be documentation submitted by the owner to the Executive Officer validating current and continued compliance with the Prohibition.
2) A plan for compliance with the Human Fecal Material Discharge Prohibition. Such a plan must include a list of specific management practices that will be implemented to control discharges containing fecal material from homeless persons. The Plan must also describe how implementing the identified management practices are likely to progressively achieve the load allocation for homeless persons, with the ultimate goal of achieving the load allocation no later than three years from the date of the Executive Officer's notification to the owner requiring compliance. The plan must include monitoring and reporting to the Central Coast Water Board, demonstrating the progress towards achieving load allocations for discharges from homeless persons, and self-assessment of this progress.
3) Submittal of a Report of Waste Discharge pursuant to California Water Code Section 13260 (as an application for waste discharge requirements).

Tracking and Evaluation

Every three years, beginning three years after TMDLs are approved by the Office of Administrative Law, the Central Coast Water Board will perform a review of implementation actions, monitoring results, and evaluations submitted by responsible parties of their progress towards achieving their allocations. The Central Coast Water Board will use annual reports, nonpoint source pollution control implementation programs, evaluations submitted by responsible parties, and other available information to determine progress toward implementing required actions and achieving the allocations and the numeric target.

Responsible parties will continue monitoring and reporting according to this plan for at least three years, at which time the Central Coast Water Board will determine the need for continuing or otherwise modifying the monitoring requirements. Responsible parties may also demonstrate that although water quality objectives are not being achieved in receiving waters, controllable sources of pathogens are not contributing to the exceedance. If this is the case, the Central Coast Water Board may re-evaluate the numeric target and allocations. For example, the Central Coast Water Board may pursue and approve a site-specific objective based on evidence that natural or background sources alone were the cause of exceedances of the Basin Plan water quality objective for fecal indicator bacteria.

Three-year reviews will continue until the water quality objectives are achieved. The compliance schedule for achieving the TMDL numeric target is 13 years after the date of approval by the Office of Administrative Law.

IX. K. TOTAL MAXIMUM DAILY LOADS FOR PATHOGENS IN SOQUEL LAGOON, SOQUEL CREEK, AND NOBLE GULCH

The Regional Water Quality Control Board adopted these TMDLs on May 8, 2009.
These TMDLs were approved by:

The State Water Resources Control Board on: July 6, 2010.
The California Office of Administrative Law on: September 5, 2010.
The U.S. Environmental Protection Agency on: November 17, 2010.

Problem Statement

The beneficial use of water contact recreation is not protected in the impaired reaches of Soquel Lagoon, Soquel Creek, and Noble Gulch because fecal coliform concentrations exceed water quality objectives protecting this beneficial use. The impaired reaches are:

1) Soquel Lagoon and Soquel Creek: beginning from the mouth of Soquel Lagoon, upstream and along Soquel Creek to the bridge at Porter Street.
2) All reaches of Noble Gulch.

Numeric Targets

The numeric targets used to develop the TMDLs and allocations are as follows:

Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.

Source Analysis

The controllable sources of fecal coliform contributing to impairment in Soquel Lagoon, Soquel Creek, and Noble Gulch are, in decreasing order of contribution:

1. Storm drain discharges to municipally owned and operated separate storm sewer systems (MS4s) required to be covered by an NPDES permit (including but not limited to discharges of fecal material from domestic animals and humans).
2. Sanitary sewer collection system spills and leaks (including but not limited to discharges from private laterals connected to municipal sanitary sewer collection systems).
3. Domestic animal waste discharges in areas that do not drain to MS4s (including but not limited to farm animals, livestock and pets).
4. Homeless person/encampment discharges in areas that do not drain to MS4s.

Total Maximum Daily Load (TMDL)

The TMDLs for the impaired reaches of the following water bodies are concentration based TMDLs applicable for each day for all seasons and are equal to the following:

Soquel Lagoon, Soquel Creek, and Noble Gulch:

Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.

Allocations and Responsible Parties

The allocations to responsible parties are shown in Table IX K-1.

Table IX K-1. Allocations to Responsible Parties

Waste Load Allocations		
Waterbody Subject to Allocation	**Responsible Party (Source) NPDES/ORDER Number**	**Receiving Water Fecal Coliform (MPN/100mL)**
Soquel Lagoon[1]	City of Capitola (Storm drain discharges to MS4s required to be covered by an NPDES permit) Storm Water General Permit NPDES No. CAS000004	Allocation-1[a]
Soquel Creek [2] Noble Gulch[3]	County of Santa Cruz and City of Capitola (Storm drain discharges to MS4s required to be covered by an NPDES permit) Storm Water General Permit NPDES No. CAS000004	Allocation-1[a]
Soquel Lagoon[1] Soquel Creek [2] Noble Gulch[3]	Santa Cruz County Sanitation District (Sanitary sewer collection system spills and leaks) Order No. R3-2005-0043	Allocation-2[b]
Load Allocations		
Waterbody Subject to Allocation	**Responsible Party (Source)**	**Receiving Water Fecal Coliform (MPN/100mL)**
Soquel Lagoon[1] Soquel Creek [2] Noble Gulch[3]	Owners and operators of land used for/containing pets (Pet waste not draining to MS4s)	Allocation-1[a]
Noble Gulch[3]	Owners and operators of land used for/containing farm animals and livestock (Farm Animals and Livestock discharges)	Allocation-1[a]
Soquel Lagoon[1] Soquel Creek [2] Noble Gulch[3]	Owners/operators of land that include homeless persons/encampments (Homeless person/encampment discharges not draining to MS4s)	Allocation-2[b]
Soquel Lagoon[1] Soquel Creek [2] Noble Gulch[3]	No responsible party (Natural sources)	Allocation-1[a]

1 All waters of the Soquel Lagoon.
2 Beginning and including the downstream most reach of Soquel Creek, up to and including Soquel Creek at the bridge crossing at Porter Street.

3 All reaches of Noble Gulch. a Allocation-1: Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL. b Allocation 2: Allocation of zero; no loading allowed from this source.

The parties responsible for the allocations to controllable sources are not responsible for the allocation to natural sources.

The TMDLs are considered achieved when the numeric target is consistently met in the impaired waters of Soquel Lagoon, Soquel Creek, and Noble Gulch.

Margin of Safety

A margin of safety is incorporated implicitly in the TMDLs through conservative assumptions.

Implementation Plan

STORM DRAIN DISCHARGES:

The Central Coast Water Board will address fecal indicator bacteria (FIB), e.g., fecal coliform and/or other indicators of pathogens, discharged from the County of Santa Cruz and the City of Capitola by regulating the MS4 entities under the provisions of the State Water Resources Control Board's General Permit for the Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems (General Permit) (NPDES No. CAS000004). As enrollees under the General Permit, the MS4 entities must develop and implement Storm Water Management Plans (SWMPs) that control urban runoff discharges into and from their MS4s. To address the MS4 entities' TMDL wasteload allocations, the Central Coast Water Board will require the MS4 entities to specifically target FIB in urban runoff through incorporation of Wasteload Allocation Attainment Programs in their SWMPs.

The Central Coast Water Board will require the Wasteload Allocation Attainment Programs to include descriptions of the actions that will be taken by the MS4 entities to attain the TMDL wasteload allocations, and specifically address:

1. Development of an implementation and assessment strategy;
2. Source identification and prioritization (including leaks to storm sewers from private laterals);
3. Best management practice identification, prioritization, implementation schedule, analysis, and effectiveness assessment;
4. Monitoring program development and implementation;
5. Reporting; including evaluation whether current best management practices are progressing towards achieving the wasteload allocations within thirteen years of the date that the TMDLs are approved by the Office of Administrative Law;
6. Coordination with stakeholders; and
7. Other pertinent factors.

The Wasteload Allocation Attainment Program will be required by the Central Coast Water Board to address each of these TMDLs that occur within the MS4 entities' jurisdictions.

The Central Coast Water Board will require the Wasteload Allocation Attainment Program to be submitted at one of the following milestones, whichever occurs first:

1. Within one year of approval of the TMDLs by the Office of Administrative Law;
2. When required by any other Water Board-issued storm water requirements (e.g., when the Phase II Municipal Storm Water Permit is renewed).

For those MS4 entities that are enrolled under the General Permit at the time of Wasteload Allocation Attainment Program submittal, the Wasteload Allocation Attainment Program must be incorporated into the SWMPs when they are submitted. For those MS4 entities that are not enrolled under the General Permit at the time of Wasteload Allocation Attainment Program submittal, the Wasteload Allocation Attainment Program must be incorporated into the SWMPs when the SWMPs are approved by the Central Coast Water Board.

The Executive Officer or the Central Coast Water Board will require information that demonstrates implementation of the actions described above, pursuant to applicable sections of the California Water Code and/or pursuant to authorities provided in the General Permit for storm water discharges.

SANITARY SEWER COLLECTION SYSTEM SPILLS AND LEAKS:

Entities with jurisdiction over sewer collection systems can demonstrate compliance with these TMDL load allocations through Waste Discharge Requirements and/or NPDES permits.

The Santa Cruz County Sanitation District (SCCSD) must continue to implement their Collection System Management Plan, as required by Waste Discharge Requirements (WDRs) (Order No. R3-2005-0043).

In addition, the SCCSD is required to improve maintenance of their sewage collection system, including identification, correction, and prevention of sewage leaks in portions of the collection systems that run through, or adjacent to, impaired surface waters within the Soquel Lagoon Watershed.

To this end, within six months following approval of these TMDLs by the Office of Administrative Law, the Executive Officer will issue a letter pursuant to Section 13267 of the California Water Code requiring: 1) submittal within one year of a technical report that describes how and when the SCCSD will conduct improved collection system maintenance in portions of the collection system most likely to affect impaired surface water bodies, with the end result being compliance with its TMDL allocation, 2) stream monitoring for fecal coliform or another fecal indicator bacteria and reporting of these monitoring activities, and 3) annual reporting of self-assessment as to whether the SCCSD is in compliance with the TMDL allocation.

PRIVATE LATERALS TO THE SANITARY SEWER COLLECTION SYSTEM:

The Central Coast Water Board has identified leaks from private laterals located in the City of Capitola and County of Santa Cruz as a source of fecal indicator bacteria in Municipal Separate Storm Sewer Systems (MS4s). Therefore, enrollees for the City of Capitola and County of Santa Cruz General Permit for the Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems will address fecal indicator bacteria from private lateral leaks in the Wasteload Allocation Attainment Program (as described in the Storm Drain Discharges section).

DOMESTIC ANIMALS NOT REGULATED BY WQ ORDER NO. 2003-0005-DWQ [STORM WATER GENERAL PERMIT]:

Owners and/or operators of lands containing domestic animals (including pets, farm animals, and livestock) in the Soquel Lagoon Watershed must comply with the Domestic Animal Waste Discharge Prohibition; compliance with the Domestic Animal Waste Discharge Prohibition implies compliance with the load allocation for these TMDLs.

Within three years of approval of these TMDLs by the Office of Administrative Law, the Executive Officer will notify owners and/or operators of lands used for/containing domestic animals of the requirement to comply with the Domestic Animal Waste Discharge Prohibition. In his notification, the Executive Officer will also describe the options owners/operators of lands containing domestic animals have for demonstrating compliance with the Domestic Animal Waste Discharge Prohibition. Pursuant to California Water Code section 13267 and within six months of the notification by the Executive Officer, owners/operators of lands containing domestic animals will be required to submit one of the following for approval by the Executive Officer or the Central Coast Water Board:

1) Clear evidence that the owner/operator of lands containing domestic animals is and will continue to be in compliance with the Domestic Animal Waste Discharge Prohibition; clear evidence could be documentation submitted by the owner/operator to the Executive Officer validating current and continued compliance with the Prohibition.
2) A plan for compliance with the Domestic Animal Waste Discharge Prohibition. Such a plan must include a list of specific management practices that will be implemented to control discharges containing fecal material from domestic animals. The plan must also describe how implementing the identified management practices are likely to progressively achieve the load allocations to domestic animals, with the ultimate goal of achieving the load allocations no later than thirteen years after Office of Administrative Law approval of these TMDLs. The plan must include monitoring and reporting to the

Central Coast Water Board, demonstrating the progress towards achieving load allocations for discharges from domestic animals, and a self-assessment of this progress. The plan may be developed by an individual discharger or by or for a coalition of dischargers in cooperation with a third-party representative, organization, or government agency acting as the agents of owners/operators of lands containing domestic animals.

3) Submittal of a Report of Waste Discharge pursuant to California Water Code Section 13260 (as an application for waste discharge requirements).

HOMELESS PERSON/ENCAMPMENT DISCHARGES NOT REGULATED BY WQ ORDER NO. 2003-0005-DWQ [STORM WATER GENERAL PERMIT:

Owners of land that contain homeless persons and/or homeless encampments in the Soquel Lagoon Watershed must comply with the Human Fecal Material Discharge Prohibition.

Owners of land with homeless persons must demonstrate to the satisfaction of the Executive Officer or the Central Coast Water Board that they are in compliance with the Human Fecal Material Discharge Prohibition; compliance with the Human Fecal Material Discharge Prohibition implies compliance with the load allocation for these TMDLs.

Within three years of approval of these TMDLs by the Office of Administrative Law, the Executive Officer will notify owners of land containing homeless persons of the requirement to comply with the Human Fecal Material Discharge Prohibition. In his notification, the Executive Officer will also describe the options owners have for demonstrating compliance with the Human Fecal Material Discharge Prohibition. Pursuant to California Water Code 13267 and within six months of the notification by the Executive Officer, owners will be required to submit one of the following for approval by the Executive Officer or the Central Coast Water Board:

1) Clear evidence that the owner is and will continue to be in compliance with the Human Fecal Material Discharge Prohibition; clear evidence could be documentation submitted by the owner to the Executive Officer validating current and continued compliance with the Prohibition.
2) A plan for compliance with the Human Fecal Material Discharge Prohibition. Such a plan must include a list of specific management practices that will be implemented to control discharges containing fecal material from homeless persons. The Plan must also describe how implementing the identified management practices are likely to progressively achieve the load allocation for homeless persons, with the ultimate goal of achieving the load allocation no later than three years from the date of the Executive Officer's notification to the owner requiring compliance. The plan must include monitoring and reporting to the Central Coast Water Board, demonstrating the progress towards achieving load allocations for discharges from homeless persons, and self-assessment of this progress.
3) Submittal of a Report of Waste Discharge pursuant to California Water Code Section 13260 (as an application for waste discharge requirements).

Tracking and Evaluation

Every three years, beginning three years after TMDLs are approved by the Office of Administrative Law, the Central Coast Water Board will perform a review of implementation actions, monitoring results, and evaluations submitted by responsible parties of their progress towards achieving their allocations. The Central Coast Water Board will use annual reports, nonpoint source pollution control implementation programs, evaluations submitted by responsible parties, and other available information to determine progress toward implementing required actions and achieving the allocations and the numeric target.

Responsible parties will continue monitoring and reporting according to this plan for at least three years, at which time the Central Coast Water Board will determine the need for continuing or otherwise modifying the monitoring requirements. Responsible parties may also demonstrate that although water quality objectives are not being achieved in receiving waters, controllable sources of pathogens are not contributing to the exceedance. If this is the case, the Central Coast Water Board may re-evaluate the numeric target and allocations. For example, the Central Coast Water Board may pursue and approve a site-specific objective. The site-specific objective would be based on evidence that natural or background sources alone were the cause of exceedances of the Basin Plan water quality objective for fecal indicator bacteria.

Three-year reviews will continue until the water quality objectives are achieved. The compliance schedule for achieving the allocations and numeric target required under these TMDLs is 13 years after the date of approval by the Office of Administrative Law.

IX. L. TOTAL MAXIMUM DAILY LOADS FOR PATHOGENS IN APTOS CREEK, VALENCIA CREEK, AND TROUT GULCH

The Regional Water Quality Control Board adopted these TMDLs on May 8, 2009.
These TMDLs were approved by:

The State Water Resources Control Board on August 3, 2010.
The California Office of Administrative Law on October 29, 2010.
The U.S. Environmental Protection Agency on January 20, 2011.

Problem Statement

The beneficial use of water contact recreation is not being attained in Aptos Creek, Valencia Creek and Trout Gulch because fecal coliform concentrations exceed existing Basin Plan numeric water quality objectives protecting this beneficial use. Staff concluded Aptos Creek was impaired below the confluence with Valencia Creek. The entire reach of Trout Gulch was considered impaired. Staff also considered Valencia Creek impaired from its confluence with Aptos Creek, upstream to both the east and west forks. The east fork was impaired upstream to the intersection of McKay and Cox Roads. The west fork was impaired upstream to its intersection with Valencia Road.

Numeric Targets

The numeric targets used to develop the TMDLs and allocations are as follows:

> Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.

Source Analysis

The relative order of controllable sources, in descending order, contributing pathogens to Aptos Creek, Valencia Creek, and Trout Gulch are: (1) storm drain discharges to municipally owned and operated separate storm sewer systems (MS4s) required to be covered by an NPDES permit, (2) pet waste in areas that do not drain to MS4s, (3) County of Santa Cruz Sanitation District sanitary sewer collection system spills and leaks, (4) private sewer laterals connected to municipal sanitary sewer collection systems, and (5) farm animals and livestock discharges.

TMDLs and Allocations

The TMDLs for all impaired waters of Aptos Creek, Valencia Creek, and Trout Gulch are concentration based TMDLs applicable to each day of all seasons and are equal to the following:

Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.

The allocations to responsible parties are shown in Table IX-L-1.

Table IX – L - 1. Allocations and Responsible Parties

WASTE LOAD ALLOCATIONS		Receiving Water Fecal Coliform (MPN/100mL)
Waterbody	**Responsible Party** **(Source)** **NPDES/Order number**	
Aptos Creek[1], Trout Gulch[2], Valencia Creek[3]	Santa Cruz County (Storm drain discharges to MS4s required to be covered by an NPDES permit) Storm Water General Permit NPDES No. CAS000004	Allocation 1[a]
Aptos Creek[1], Trout Gulch[2], Valencia Creek[3]	Santa Cruz County Sanitation District (Sanitary sewer collection system spills and leaks) Order No. R3-2005-0043	Allocation 2[b]
LOAD ALLOCATIONS		**Receiving Water Fecal Coliform (MPN/100mL)**
Waterbody	**Responsible Party (Source)**	
Aptos Creek[1], Trout Gulch[2], Valencia Creek[3]	Owners/Operators of land used for/containing pets (Pet waste not draining to MS4s)	Allocation 1[a]
Aptos Creek[1], Trout Gulch[2], Valencia Creek[3]	Owners/Operators of land used for/containing farm animals and livestock (Farm Animals and Livestock discharges)	Allocation 1[a]
Aptos Creek[1], Trout Gulch[2], Valencia Creek[3]	Natural sources	Allocation 1[a]

1 Aptos Creek from the Pacific Ocean to the confluence of Aptos and Valencia Creeks
2 All reaches of Trout Gulch
3 Valencia Creek from the confluence with Aptos Creek upstream to the west fork, where it intersects with Valencia Road, and to the east fork at the intersection of McKay and Cox Roads.

a Allocation 1: Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN/100mL, nor shall more than ten percent of total samples during any 30-day period exceed 400 MPN/100 mL.

b Allocation 2: Allocation of zero; no loading allowed from this source.

The parties responsible for the allocations to controllable sources are not responsible for the allocation to natural sources.

The TMDLs are considered achieved when the allocations assigned to all individual responsible parties are met, or when the numeric targets are consistently met in Aptos Creek, Valencia Creek, and Trout Gulch.

Margin of Safety

A margin of safety is incorporated implicitly in the TMDLs through conservative assumptions.

Implementation Plan

STORM DRAIN DISCHARGES

The Central Coast Water Board will address fecal indicator bacteria (FIB), e.g. fecal coliform and/or other indicators of pathogens, discharged from the County of Santa Cruz' municipal separate storm sewer system (MS4) by regulating the MS4 under the provisions of the State Water Resources Control Board's General Permit for the Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems (General Permit) (NPDES No. CAS000004). As an enrollee under the General Permit, the MS4 must develop and implement a Storm Water Management Plan (SWMP) that controls urban runoff discharges into and from its MS4. To address the MS4's TMDL wasteload allocations, the Central Coast Water Board will require the MS4 to specifically target FIB in urban runoff through incorporation of a Wasteload Allocation Attainment Program in its SWMP.

The Central Coast Water Board will require the Wasteload Allocation Attainment Program to include descriptions of the actions that will be taken by the MS4 to attain the TMDL wasteload allocations, and specifically address:

1. Development of an implementation and assessment strategy;
2. Source identification and prioritization (including leaks to storm sewers from private laterals);
3. Best management practice identification, prioritization, implementation schedule, analysis, and effectiveness assessment;
4. Monitoring program development and implementation;
5. Reporting, including evaluation whether current best management practices are progressing towards achieving the wasteload allocations within thirteen years of the date that the TMDLs are approved by the Office of Administrative Law;
6. Coordination with stakeholders; and
7. Other pertinent factors.

The Wasteload Allocation Attainment Program will be required by the Central Coast Water Board to address each of these TMDLs that occur within the MS4 entity's jurisdiction.

The Central Coast Water Board will require the Wasteload Allocation Attainment Program to be submitted at one of the following milestones, whichever occurs first:

1. Within one year of approval of the TMDLs by the Office of Administrative Law;
2. When required by any other Water Board-issued storm water requirements (e.g., when the Phase II Municipal Storm Water Permit is renewed).

For an MS4 that is enrolled under the General Permit at the time of Wasteload Allocation Attainment Program submittal, the Wasteload Allocation Attainment Program must be incorporated into the SWMPs when they are submitted. For an MS4 that is not enrolled under the General Permit at the time of Wasteload Allocation Attainment Program submittal, the Wasteload Allocation Attainment Program must be incorporated into the SWMP when the SWMP is approved by the Central Coast Water Board.

The Executive Officer or the Central Coast Water Board will require information that demonstrates implementation of the actions described above, pursuant to applicable sections of the California Water Code and/or pursuant to authorities provided in the General Permit for storm water discharges.

SANITARY SEWER COLLECTION SYSTEM SPILLS AND LEAKS

Entities with jurisdiction over sewer collection systems can demonstrate compliance with these TMDL allocations through waste discharge requirements and/or NPDES permits.

The Santa Cruz County Sanitation District (SCCSD) must continue to implement its Collection System Management Plan, as required by Waste Discharge Requirements (WDRs) (Order No. R3-2005-0043).

In addition, the SCCSD is required to improve maintenance of their sewage collection system, including identification, correction, and prevention of sewage leaks in portions of the collection systems that run through, or adjacent to, impaired surface waters within the Aptos Creek Watershed.

To this end, within six months following approval of these TMDLs by the Office of Administrative Law, the Executive Officer will issue a letter pursuant to Section 13267 of the California Water Code requiring: 1) submittal within one year of a technical report that describes how and when the SCCSD will conduct improved collection system maintenance in portions of the collection system most likely to affect impaired surface water bodies, with the end result being compliance with its TMDL allocation, 2) stream monitoring for fecal coliform or another fecal indicator bacteria and reporting of these monitoring activities, and 3) annual reporting of self-assessment as to whether the SCCSD is in compliance with the TMDL allocation.

PRIVATE SEWER LATERAL DISCHARGES

The Central Coast Water Board has identified leaks from private laterals located in the County of Santa Cruz as a source of fecal indicator bacteria in municipal separate storm sewer systems (MS4s). Therefore, enrollees for the County of Santa Cruz' General Permit for the Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems will address fecal indicator bacteria from private lateral leaks in the Wasteload Allocation Attainment Program (as described in the above Storm Drain Discharges section).

PET WASTE, FARM ANIMALS AND LIVESTOCK DISCHARGES

Owners and/or operators of lands containing domestic animals (including pets, farm animals, and livestock) in the Aptos Creek Watershed must comply with the Domestic Animal Waste Discharge Prohibition; compliance with the Domestic Animal Waste Discharge Prohibition implies compliance with the load allocation for these TMDLs.

Within three years of approval of these TMDLs by the Office of Administrative Law, the Executive Officer will notify owners and/or operators of lands used for/containing domestic animals of the requirement to comply with the Domestic Animal Waste Discharge Prohibition. In his notification, the Executive Officer will also describe the options owners/operators of lands containing domestic animals have for demonstrating compliance with the Domestic Animal Waste Discharge Prohibition. Pursuant to California Water Code section 13267 and within six months of the notification by the Executive Officer, owners/operators of lands containing domestic animals will be required to submit one of the following for approval by the Executive Officer or the Central Coast Water Board:

1) Clear evidence that the owner/operator of lands containing domestic animals is and will continue to be in compliance with the Domestic Animal Waste Discharge Prohibition; clear evidence could be documentation submitted by the owner/operator to the Executive Officer validating current and continued compliance with the Prohibition.
2) A plan for compliance with the Domestic Animal Waste Discharge Prohibition. Such a plan must include a list of specific management practices that will be implemented to control discharges containing fecal material from domestic animals. The plan must also describe how implementing the identified management practices are likely to progressively achieve the load allocations to domestic animals, with the ultimate goal of achieving the load allocations no later than thirteen years after Office of Administrative Law approval of these TMDLs. The plan must include monitoring and reporting to the Central Coast Water Board, demonstrating the progress toward achieving load allocations for discharges from domestic animals, and a self-assessment of this progress. The plan may be developed by an individual discharger or by or for a coalition of dischargers in cooperation with a third-party representative, organization, or government agency acting as the agents of owners/operators of lands containing domestic animals.
3) Submittal of a Report of Waste Discharge pursuant to California Water Code Section 13260 (as an application for waste discharge requirements).

Tracking and Evaluation

Every three years, beginning three years after TMDLs are approved by the Office of Administrative Law, the Central Coast Water Board will perform a review of implementation actions, monitoring results, and evaluations submitted by responsible parties of their progress toward achieving their allocations. The Central Coast Water

Board will use annual reports, nonpoint source pollution control implementation programs, evaluations submitted by responsible parties, and other available information to determine progress toward implementing required actions and achieving the allocations and the numeric target.

Responsible parties will continue monitoring and reporting according to this plan for at least three years, at which time the Central Coast Water Board will determine the need for continuing or otherwise modifying the monitoring requirements. Responsible parties may also demonstrate that although water quality objectives are not being achieved in receiving waters, controllable sources of pathogens are not contributing to the exceedance. If this is the case, the Central Coast Water Board may re-evaluate the numeric target and allocations. For example, the Central Coast Water Board may pursue and approve a site-specific objective, based on evidence that natural or background sources alone were the cause of exceedances of the Basin Plan water quality objective for fecal indicator bacteria.

Three-year reviews will continue until the water quality objectives are achieved. The compliance schedule for achieving this TMDL numeric target is 13 years after the date of approval by the Office of Administrative Law.

IX. M. TOTAL MAXIMUM DAILY LOADS FOR FECAL COLIFORM IN PAJARO RIVER WATERSHED WATERS (INCLUDING PAJARO RIVER, SAN BENITO RIVER, LLAGAS CREEK, TEQUISQUITA SLOUGH, SAN JUAN CREEK, CARNADERO/UVAS CREEK, BIRD CREEK, PESCADERO CREEK, TRES PINOS CREEK, FURLONG (JONES) CREEK, SANTA ANA CREEK, AND PACHECO CREEK)

The Regional Water Quality Control Board adopted these TMDLs on March 20, 2009.
These TMDLs were approved by:

The State Water Resources Control Board on April 20, 2010.
The California Office of Administrative Law on July 12, 2010.
The U.S. Environmental Protection Agency on August 3, 2010.

Problem Statement

The beneficial use of water contact recreation is not being protected in Pajaro River Watershed (including the following water bodies: Pajaro River, San Benito River, Llagas Creek, Tequisquita Slough, San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, and Pacheco Creek) because fecal coliform concentrations exceed Basin Plan numeric water quality objectives designed to protect this beneficial use.

Numeric Target

Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.

Source Analysis

The relative order of controllable sources contributing fecal coliform in the Pajaro River Watershed, in decreasing order of contribution are: (1) storm drain discharges to municipally owned and operated storm sewer systems required to be covered by an NPDES permit (MS4s); (2) domestic animal discharges that do not discharge to MS4s; (3) spills and leaks from Sanitary Sewer Collection and Treatment Systems; and (4) private sewer laterals connected to municipal sanitary sewer collection systems. Natural, uncontrollable sources also contribute fecal coliform in the Pajaro River Watershed.

TMDLs and Allocations

The TMDLs for the impaired waters of Pajaro River, San Benito River, Llagas Creek, Tequisquita Slough, San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, and Pacheco Creek are concentration-based TMDLs applicable to each day of all seasons equal to the following:

> Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.

The allocations to responsible parties are shown in Table IX-M1.

Table IX – M - 1. Allocations and Responsible Parties

Waterbody Assigned Allocation	Responsible Party [NPDES and/or WDR number] (Source)	Receiving Water Fecal Coliform Allocation
WASTE LOAD ALLOCATIONS		
Pajaro River[1] San Benito River[2] Llagas Creek[3] Tequisquita Slough[4]	Santa Cruz, Santa Clara, and Monterey Counties. Cities of Hollister, Morgan Hill, Gilroy, and Watsonville [NPDES No. CAS000004] (Storm Drain Discharges To MS4s Required to be covered by an NPDES Permit)	Allocation 1
Pajaro River[1] San Benito River[2] Llagas Creek[3] Tequisquita Slough[4]	City of Hollister [WDR 87-47] (Sanitary Sewer Collection and Treatment Systems Spills and Leaks) City of Watsonville [WDR Order R3-2003-0040, NPDES No. CA0048216] (Sanitary Sewer Collection and Treatment Systems Spills and Leaks) Cities of Gilroy and Morgan Hill via South County Regional Wastewater Authority (SCRWA) [WDR Order R3-2004-0099, NPDES No. CA0049964] (Sanitary Sewer Collection and Treatment Systems Spills and Leaks) San Juan Bautista Wastewater Treatment Facility [WDR Order R3-2003-0087, NPDES No. CA0047902] (Sanitary Sewer Collection and Treatment Systems Spills and Leaks) Sunnyslope County Water District [WDR Order R3-2004-0065] (Sanitary Sewer Collection and Treatment Systems Spills and Leaks) Tres Pinos County Water District [WDR Order 99-101] (Sanitary Sewer Collection and Treatment Systems Spills and Leaks) Pajaro County Sanitation District [WDR Order R3-2003-0041] (Sanitary Sewer Collection and Treatment Systems Spills and Leaks)	Allocation 2
Pajaro River[1] San Benito River[2] Llagas Creek[3] Tequisquita Slough[4]	Owners of Private Sewer Laterals (Private Laterals Connected to Municipal Sanitary Sewer Collection and Treatment Systems)	Allocation 2
LOAD ALLOCATIONS		
Waterbody	**Responsible Party (Source)**	
Pajaro River[1] San Benito River[2] Llagas Creek[3] Tequisquita Slough[4]	Owners/Operators of Land Used for/Containing Domestic Animals (Domestic Animal Discharges)	Allocation 1
Pajaro River[1] San Benito River[2] Llagas Creek[3] Tequisquita Slough[4]	Natural Sources	Allocation 1

Allocation 1: Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100mL, nor shall more than ten percent of total samples during any 30-day period exceed 400/100 mL.

Allocation 2: Allocation of zero; no loading allowed from this source.

1 The entire Pajaro River from the Pacific Ocean to San Felipe Lake outflow via the Miller's Canal drain. Including the entire San Juan Creek tributary from the uppermost reach of the waterbody to the confluence with Pajaro River, and Carnadero/Uvas Creek tributary from Hollister Road crossing to the confluence with Pajaro River.

2 San Benito River from confluence with Pajaro River to three miles above Old Hernandez Road at Arizona Crossing. Including Bird Creek tributary from the uppermost reach of the waterbody to the confluence with San Benito River, the Pescadero Creek tributary from the uppermost reach of the waterbody to the confluence with San Benito River, and Tres Pinos Creek tributary from the uppermost reach of the waterbody to the confluence with San Benito River.

3 Llagas Creek from confluence with Pajaro River to Oak Glen Avenue. Including Furlong (Jones) Creek tributary from the uppermost reach of the waterbody to confluence with Llagas Creek.

4 Tequisquita Slough from confluence with San Felipe Lake to the uppermost reach of the waterbody. Including Santa Ana Creek tributary from the uppermost reach of the waterbody to Tequisquita Slough, and Pacheco Creek tributary from the uppermost reach of the waterbody to San Felipe Lake.

The parties responsible for the allocations to controllable sources are not responsible for the allocation to natural sources.

The TMDLs are considered achieved when the allocations assigned to all individual responsible parties are met, or when the numeric targets are consistently met.

Margin of Safety

A margin of safety is incorporated implicitly in the TMDLs through conservative assumptions.

Implementation Program

MUNICIPAL SEPARATE STORM SEWER SYSTEM DISCHARGES

The Central Coast Water Board will address fecal indicator bacteria (FIB), e.g. fecal coliform and/or other indicators of pathogens, discharged from the Counties of Santa Cruz, Santa Clara, and Monterey, and the Cities of Hollister, Gilroy, Morgan Hill, and Watsonville municipal separate storm sewer systems (MS4 entities) by regulating the MS4 entities under the provisions of the State Water Resource Control Board's General Permit for the Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems (General Permit) (NPDES No. CAS000004). As enrollees under the General Permit, the MS4 entities must develop and implement Storm Water Management Program (SWMPs) that control urban runoff discharges into and from their MS4s. To address the MS4 entities' TMDL wasteload allocations, the Central Coast Water Board will require the MS4 entities to specifically target FIB in urban runoff through incorporation of Wasteload Allocation Attainment Program in their SWMPs.

The Central Coast Water Board will require the Wasteload Allocation Attainment Program describe the actions that will be taken by the MS4 entities to attain the TMDL wasteload allocations, and specifically address:

1. Development of an implementation and assessment strategy;
2. Source identification and prioritization;
3. Best management practice identification, prioritization, implementation, analysis, and effectiveness assessment;
4. Monitoring program development and implementation;
5. Reporting; including evaluation whether current best management practices are progressing towards achieving the wasteload allocations by thirteen years after the TMDLs are approved by the Office of Administrative Law.
6. Coordination with stakeholders; and
7. Other pertinent factors.

The Wasteload Allocation Attainment Program will be required by the Central Coast Water Board to address each of these TMDLs that occur within the MS4 entities' jurisdictions.

The Central Coast Water Board will require the Wasteload Allocation Attainment Program to be submitted at one of the following milestones, whichever occurs first:

1. Within one year of approval of the TMDLs by the Office of Administrative Law;
2. When required by any other Water Board-issued storm water requirements (e.g., when the Phase II Municipal Storm Water Permit is renewed).

For an MS4 that is enrolled under the General Permit at the time of Wasteload Allocation Attainment Program submittal, the Wasteload Allocation Attainment Program must be incorporated into the SWMP when the Wasteload Allocation Attainment Program is submitted. For an MS4 entity that is not enrolled under the General Permit at the time of the Wasteload Allocation Program submittal, the Wasteload Allocation Attainment Program must be incorporated into the SWMP when the SWMP is approved by the Central Coast Water Board.

The Executive Officer or the Central Coast Water Board will require information that demonstrates implementation of the actions described above, pursuant to applicable sections of the California Water Code and/or pursuant to authorities provided in the General Permit for storm water discharges.

SANITARY SEWER COLLECTION AND TREATMENT SYSTEMS SPILLS AND LEAKS

Entities with jurisdiction over sewer collection systems in the Pajaro River Watershed must comply with the Human Fecal Material Discharge Prohibition; compliance with the Human Fecal Material Discharge Prohibition implies compliance with their load allocation for this TMDL.

To comply with the Human Fecal Material Discharge Prohibition, the Hollister Domestic Wastewater Treatment Facility (WDR Order 87-47), Sunnyslope County Water District, Ridgemark Estates Subdivision, Wastewater Treatment Plant (WDR Order R3-2004-0065), Tres Pinos County Water District (WDR Order 99-101), San Juan Bautista Wastewater Treatment Facility (WDR Order R3-2003-0087, NPDES CA0047902), South County Regional Wastewater Authority (SCRWA), Cities of Gilroy and Morgan Hill, (WDR Order R3-2004-0099, NPDES CA0049964), City of Watsonville Wastewater Treatment Facility (WDR Order R3-2003-0040, NPDES CA0048216), and Pajaro County Sanitation District (WDR Order R3-2003-0041) (herein referred to as sanitary collection system jurisdictions) must continue to implement their Collection System Management Plans, as required by their Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permits.

In addition, the sanitary collection system jurisdictions identified above and in Table IX-M-1 are required to improve maintenance of their sewage collection systems, including identification, correction, and prevention of sewage leaks in portions of the collection systems that run through or adjacent to, impaired surface waters within the Pajaro River Watershed.

To this end, within six months following adoption of this TMDL by the Office of Administrative Law, the Executive Officer will issue a letter pursuant to Section 13267 of the CWC requiring: 1) submittal within one-year, a technical report that describes how and when the jurisdictions of the collection systems will conduct improved collection system maintenance in portions of the collection system most likely to affect impaired surface water bodies, with the end result being compliance with the Human Fecal Material Discharge Prohibition, and 2) stream monitoring for fecal coliform or another fecal indicator bacteria, and reporting of these monitoring activities, and 3) annual reporting of self-assessment as to whether the sanitary collection system jurisdiction is in compliance with the Human Fecal Material Discharge Prohibition.

PRIVATE SEWER LATERAL DISCHARGES

Individual owners and operators of private laterals to sanitary sewer collection systems are ultimately responsible for maintenance of their private laterals and are, therefore, responsible for complying with the Human Fecal

Material Discharge Prohibition; compliance with the Human Fecal Material Discharge Prohibition implies compliance with their load allocation for these TMDLs.

The Central Coast Water Board requires immediate cessation of spills from private laterals. Within three years of approval of these TMDLs by the Office of Administrative Law, the Executive Officer will notify owners and/or operators of private laterals to sanitary sewer collection systems (owners/operators of private laterals), in suspected problem areas, of this requirement and of the requirement to comply with the Human Fecal Material Discharge Prohibition. In his notification, the Executive Officer will also describe the owner's/operator's of private laterals options for demonstrating compliance with the Human Fecal Material Discharge Prohibition; pursuant to California Water Code section 13267 and within six months of the notification by the Executive Officer, owners/operators of private laterals will be required to submit the following for approval by the Executive Officer or the Water Board:

1) Clear evidence that the owner/operator of private lateral is and will continue to be in compliance with the Human Fecal Material Discharge Prohibition; clear evidence could be certification by a sanitary collection system jurisdiction that owner/operator of private lateral is in compliance with the Human Fecal Material Discharge Prohibition, or
2) A schedule for compliance with the Human Fecal Material Discharge Prohibition. The compliance schedule must include a monitoring and reporting program and milestone dates demonstrating progress towards compliance with the Human Fecal Material Discharge Prohibition, with the ultimate milestone being compliance with the Human Fecal Material Discharge Prohibition no later than three years (the exact timeframe at the discretion of the Executive Officer) from the date of the Executive Officer's notification to the owner/operator requiring compliance, or
3) Submittal of a Report of Waste Discharge pursuant to California Water Code Section 13260 (as an application for waste discharge requirements; WDRs or National Pollutant Discharge Elimination System (NPDES permit)), or
4) Clear evidence of current or scheduled compliance with the Human Fecal Material Discharge Prohibition (as described in number-1 and number-2 above, respectively) through the submittal of the required information by a sanitary collection system jurisdiction, acting as the voluntary agents of owners/operators of private laterals. Note that an owner/operator of a private lateral cannot demonstrate compliance with the Human Fecal Material Discharge Prohibition through this option if: 1) a sanitary collection system jurisdiction is not their voluntary agent, or 2) if the owner/operator of the private lateral does not choose the sanitary collection system jurisdiction as their agent, or, 3) the Executive Officer or Water Board does not approve the evidence submitted by the sanitary collection system jurisdictions on behalf of the owners/operators of private laterals.

DOMESTIC ANIMAL DISCHARGES NOT REGULATED BY A PERMIT FOR STORM WATER DISCHARGES

Owners and/or operators of lands containing domestic animals in the Pajaro River Watershed must comply with the Domestic Animal Waste Discharge Prohibition; compliance with the Domestic Animal Waste Discharge Prohibition implies compliance with the load allocation for these TMDLs.

Within three years of approval of these TMDLs by the Office of Administrative Law, the Executive Officer will notify owners and/or operators of lands used for/containing domestic animals of the requirement to comply with the Domestic Animal Waste Discharge Prohibition. In his notification, the Executive Officer will also describe the owner's/operator's of lands containing domestic animals options for demonstrating compliance with the Domestic Animal Waste Discharge Prohibition; pursuant to California Water Code section 13267 and within six months of the notification by the Executive Officer, owners/operators of lands containing domestic animals will be required to submit the following for approval by the Executive Officer or the Water Board:

1) Clear evidence that the owner/operator of lands containing domestic animals is and will continue to be in compliance with the Domestic Animal Waste Discharge Prohibition; clear evidence could be documentation submitted by the owner/operator to the Executive Officer validating current and continued compliance with the Prohibition, or
2) A plan for compliance with the Domestic Animal Waste Discharge Prohibition. Such a plan must include a list of specific management practices that will be implemented to control discharges containing fecal material from domestic animals. The plan must also describe how implementing the identified management practices is likely to progressively achieve the load allocations to domestic animals, with the ultimate goal achieving the load allocations no later than thirteen years after Office of Administrative Law approval of these TMDLs. The plan must include monitoring and reporting to the Central Coast Water

Board, demonstrating the progressive progress toward achieving load allocations for discharges from domestic animals, and a self-assessment of this progress. The plan may be developed by an individual discharger or by or for a coalition of dischargers in cooperation with a third-party representative, organization, or government agency acting as the agents of owners/operators of lands containing domestic animals, or

3) Submittal of a Report of Waste Discharge pursuant to California Water Code Section 13260 (as an application for waste discharge requirements; WDRs or National Pollutant Discharge Elimination System (NPDES permit).

Tracking and Evaluation

Every three years, beginning three years after TMDLs are approved by the Office of Administrative Law, the Central Coast Water Board will perform a review of implementation actions, monitoring results, and evaluations submitted by responsible parties of their progress towards achieving their allocations. The Central Coast Water Board will use annual reports, nonpoint source pollution control implementation programs, evaluations submitted by responsible parties, and other available information to determine progress toward implementing required actions and achieving the allocations and the numeric target.

Responsible parties will continue monitoring and reporting according to this plan for at least three years, at which time the Central Coast Water Board will determine the need for continuing or otherwise modifying the monitoring requirements. Responsible parties may also demonstrate that although water quality objectives are not being achieved in receiving waters, controllable sources of pathogens are not contributing to the exceedance. If this is the case, the Central Coast Water Board may re-evaluate the numeric target and allocations. For example, the Central Coast Water Board may pursue and approve a site-specific objective. The site-specific objective would be based on evidence that natural, or background sources alone were the cause of exceedances of the Basin Plan water quality objective for fecal indicator bacteria.

Three-year reviews will continue until the water quality objectives are achieved. The compliance schedule for achieving the TMDLs and numeric target is 13 years after the date of approval by the Office of Administrative Law.

CHAPTER 5. PLANS AND POLICIES

In addition to the Implementation Plan, many other plans and policies direct State and Regional Board actions or clarify the Regional Board's intent. The following pages contain brief descriptions of State Board plans and policies and numerous Regional Board plans and policies. Copies of the State and Regional Board policies are contained in the Appendix.

I. STATE WATER RESOURCES CONTROL BOARD PLANS AND POLICIES

The State Water Resources Control Board (State Board) has adopted a number of plans and policies for Statewide water quality management including:

State Policy for Water Quality Control (1972)

Anti-degradation Policy

Thermal Plan

Bays and Estuaries Policy

Power Plant Cooling Policy

Reclamation Policy

Shredder Waste Disposal Policy

Underground Storage Tank Pilot Program

Sources of Drinking Water Policy

Nonpoint Source Management Plan

Ocean Plan

Discharges of Municipal Solid Waste Policy

Should any of these policies be amended by the State Board, the Regional Board will implement the amended version.

The following sections summarize the adopted policy. The complete policy is available in the "Attachments" section of this document.

I.A. STATE POLICY FOR WATER QUALITY CONTROL

The State Board has developed a set of twelve general principles to implement the provisions and intent of the Porter-Cologne Act. These principles, listed below, are contained in a document called the State Policy for Water Quality Control, adopted on July 6, 1972.

1. Water rights and quality control decisions must assure protection of fresh and marine waters for maximum beneficial use.

2. Wastewaters must be considered a part of the total available fresh water resource.

3. Management of supplies and wastewaters shall be on a regional basis for efficient utilization of the resource.

4. Efficient wastewater management requires a balanced program of source control of hazardous substances, treatment, reuse and proper disposal of effluents and residuals.

5. Substances not amenable to removal in treatment plants must be prevented from entering the system.

6. Treatment systems must provide sufficient removals to protect beneficial uses and aquatic communities.

7. Institutional and financial programs of consolidated systems must serve each area equitably.

8. Sewerage facilities must be consolidated for long-range economic and water quality benefits.

9. Reclamation and reuse for maximum benefit shall be encouraged.

10. Systems must be designed and operated for maximum benefit from expended funds.

11. Control methods must be based on the latest information.

12. Monitoring programs must be provided.

I.B. ANTI-DEGRADATION POLICY

On October 28, 1968, the State Water Resources Control Board adopted Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California." While requiring continued maintenance of existing high quality waters, the policy provides conditions under which a change in water quality is allowable. A change must:

1. be consistent with maximum benefit to the people of the State;

2. not unreasonably affect present and anticipated beneficial uses of water; and

3. not result in water quality less than that prescribed in water quality control plans or policies.

I.C. THERMAL PLAN

The "Water Quality Control Plan for the Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California," adopted by the State Water Resources Control Board on May 18, 1972, and amended September 18, 1975, specifies water quality objectives, effluent quality limits, and discharge prohibitions related to thermal characteristics of enclosed bay and estuary waters and waste discharges.

I.D. BAYS AND ESTUARIES POLICY

The "Water Quality Control Policy for the Enclosed Bays and Estuaries of California," Resolution No. 74-43, was adopted by the State Water Resources Control Board on May 16, 1974. Commonly referred to as the "Bays and Estuaries Policy," it was adopted specifically to provide water quality principles and guidelines for the affected waters.

Decisions by the Regional Boards are required to be consistent with the provisions designed to prevent water quality degradation and to protect beneficial uses. The policy lists principles of management that include a statement of the desirability of phasing out all discharges (exclusive of cooling waters) as soon as practicable. Quality requirements state conformability with other plans and policies. Discharge prohibitions are placed on:

1. new dischargers (other than those that would enhance the receiving waters);

2. untreated waste and waste products;

3. refuse;

4. consequential effects of mining, construction, agriculture, and timber harvesting;

5. materials of petroleum origin;

6. radiological, chemical, or high-level radioactive waste; or

7. discharge or by-pass of untreated waste.

I.E. POWER PLANT COOLING POLICY

The "Water Quality Control Policy on the Use and Disposal of Inland Waters Used for Power Plant Cooling" indicates the State Board's position on power plant cooling, specifying that fresh inland waters should be used for cooling only when other alternatives are environmentally undesirable or economically unsound.

I.F. RECLAMATION POLICY

The "Policy with Respect to Water Reclamation in California" requires the Regional Boards to conduct reclamation surveys and specifies reclamation actions to be implemented by the State and Regional Boards as well as other agencies.

I.G. SHREDDER WASTE DISPOSAL POLICY

The "Policy on the Disposal of Shredder Waste" designates specific conditions to be enforced by the Regional Board by which mechanically destructed car bodies, old appliances, or other similar castoffs can be disposed at certain landfills.

I.H. UNDERGROUND STORAGE TANK PILOT POLICY

The "Policy Regarding the Underground Storage Tank Pilot Program" implements a pilot program to fund oversight of remedial action at leaking underground storage tank sites, in cooperation with the California Department of Health Services. Oversight may be deferred to the Regional Boards.

I.I. SOURCES OF DRINKING WATER POLICY

The "Sources of Drinking Water" policy specifies which ground and surface waters are considered to be suitable or potentially suitable for the beneficial use of water supply (MUN). It allows the Regional Board some discretion in making MUN determinations.

I.J. NONPOINT SOURCE MANAGEMENT PLAN

The "Nonpoint Source Management Plan", Resolution 88-123, was adopted by the State Water Resources Control Board on November 15, 1988 pursuant to Section 319 of the Clean Water Act. The Plan identifies nonpoint source control programs and milestones for their accomplishment. It emphasizes cooperation with

local governments and other agencies to promote the implementation of Best Management Practices and remedial projects.

I.K. OCEAN PLAN

The "Water Quality Control Plan for Ocean Waters of California," Resolution No. 90-27 was adopted by the State Water Resources Control Board on March 22, 1990. This plan establishes beneficial uses and water quality objectives for waters of the Pacific Ocean adjacent to the California Coast outside of enclosed bays, estuaries, and coastal lagoons. Also, the Ocean Plan prescribes effluent quality requirements and management principles for waste discharges and specifies certain waste discharge prohibitions.

The Ocean Plan also provides that the State Water Resources Control Board shall designate Areas of Special Biological Significance (ASBS) and requires wastes to be discharged a sufficient distance from these areas to assure maintenance of natural water quality conditions.

The State Water Resources Control Board declared its intent to periodically revise the Plan to reflect water quality objectives that are necessary to protect beneficial uses of ocean waters and to be consistent with current technology.

I.L. DISCHARGES OF MUNICIPAL SOLID WASTE POLICY

The "Policy for Regulation of Discharges of Municipal Solid Waste", Resolution No. 93-62, was adopted by the State Water Resources Control Board on June 17, 1993. This policy implements State regulations of waste discharge to land (California Code of Regulations, Title 23, Chapter 15) and Federal Regulations related to municipal solid waste disposal (40 Code of Federal Regulations Sections 257 and 258). The policy directs Regional Water Quality Control Boards to revise or adopt, prior to the Federal deadline (currently October 9, 1993), Waste Discharge Requirements for all municipal solid waste landfills subject to State and federal regulations. A detailed description of this policy is provided in Chapter Four under the Resources Conservation and Recovery Act section.

II. RECOMMENDED STATE WATER RESOURCES CONTROL BOARD CONTROL ACTIONS

1. State policies for surface waters and for bays and estuaries should be further considered in light of the revised Ocean Plan of 1988.

2. State policies for water quality control should place increasing emphasis on water quality monitoring to determine compliance with water quality objectives in order to provide a firm basis for classification of receiving waters relative to Section 303(e) of Public Law 92-500.

3. Erosion and sedimentation control policies should be established based on (a) pilot studies conducted by the U. S. Soil Conservation Service which recommended best management practices for erosion problems, (b) a statewide study by the California Association of Resource Conservation Districts on institutional solutions to sedimentation problems, and (c) findings of erosion studies conducted in the Central Coast Region as part of nondesignated area 208 planning.

4. Land use planning relative to nonpoint pollution sources should be considered as a future activity, possibly as a multiagency effort; initial control efforts and means for effective control should be from local agencies.

5. Water quality control programs should continue to include emphasis on total water management in order to permit enhancement of naturally degraded surface and ground waters.

6. The State Water Resources Control Board should consider water quality effects when reviewing water rights permits.

7. Policies affecting water rights should reinforce water quality goals particularly as related to long-term ground water salinity changes. Adjudication of degraded ground water basins should be considered as a tool for implementation of water quality goals to be utilized only if other measures fail.

8. Water supply improvements to reduce influent wastewater salinity made in the interest of total water quality management should be considered for partial eligibility for Clean Water Grants. Increased costs for grant eligibility could be in lieu of costs for wastewater effluent demineralization where such measures are required.

9. Water reclamation and reuse programs for supplementing agricultural irrigation supplies should be given increased emphasis. Grant support should be available for water short areas where such water demand can be demonstrated.

III. REGIONAL WATER QUALITY CONTROL BOARD MANAGEMENT PRINCIPLES

III.A. GENERAL

1. Land use practices should assure protection of beneficial water uses and aquatic environmental values.

2. There shall be no waste discharged into areas which possess unique or uncommon cultural, scenic, aesthetic, historical or scientific values. Such areas will be defined by the Regional Board.
3. Property owners are considered ultimately responsible for all activities and practices that could result in adverse affects on water quality from waste discharges and surface runoff.

III.B. WASTEWATER RECLAMATION

1. Water quality management systems throughout the basin shall provide for eventual wastewater reclamation, but may discharge wastes to the aquatic environment (with appropriate discharge requirements) when wastewater reclamation is precluded by processing costs or lack of demand for reusable water.

2. The number of waste sources and independent treatment facilities shall be minimized and the consolidated systems shall maximize their capacities for wastewater reclamation, assure efficient management of, and meet potential demand for reclaimed water.

Further wastewater reclamation guidance is available in the Implementation Plan, Chapter Four.

III.C. DISCHARGE TO SURFACE WATERS

1. All discharges to the aquatic environment shall be considered temporary unless it is demonstrated that no undesirable change will occur in the natural receiving water quality.

2. The quality of all surface waters of the basin shall be such as to permit unrestricted recreational use.

3. The discharge of pollutants into surface fresh waters shall be discontinued.

III.D. MUNICIPAL AND INDUSTRIAL SEWERING ENTITIES

1. Municipal and industrial sewering entities should implement comprehensive regulations to prohibit the discharge to the sewer system of substances listed below which may be controlled at their source:

   Chlorinated hydrocarbons;

   Toxic substances;

   Harmful substances that may concentrate in food webs;

   Excessive heat ;

   Radioactive substances;

   Grease, oil, and phenolic compounds;

   Mercury or mercury compounds;

   Excessively acidic and basic substances:

   Heavy metals such as lead, copper, zinc, etc.; and

   Other known deleterious substances.

2. Sewering entities should implement comprehensive industrial waste ordinances to control the quantity and quality of organic compounds, suspended and settleable substances, dissolved solids, and all other materials which may cause overloading of the municipal waste treatment facility.

III.E. GROUND WATER

1. Ground water recharge with high quality water shall be encouraged.

2. In all ground water basins known to have an adverse salt balance, total salt content of the discharge shall not exceed that which normally results from domestic use, and control of salinity shall be required by local ordinances which effectively limit municipal and industrial contributions to the sewerage system.

3. Wastewaters percolated into the ground waters shall be of such quality at the point where they enter the ground so as to assure the continued usability of all ground waters of the basin.

III.F. INDIVIDUAL, ALTERNATIVE, AND COMMUNITY SYSTEMS

The Regional Board intends to discourage high density development on septic tank disposal systems and generally will require increased size of parcels with increasing slopes and slower percolation rates. Consideration of development will be based upon the percolation rates and engineering reports supplied. In any questionable situation, engineer-designed systems will be required.

Further information concerning on-site systems can be found in Chapter Four.

III.G. EROSION AND SEDIMENTATION CONTROL

1. General recommendations for erosion control, numbered one through six under "Land Disturbance Activities" in the Implementation Plan, Chapter Four, are considered by the Regional Board to be Best Management Practices (BMP's), as are those BMP's identified in approved areawide Water Quality Management Plans.

2. Local units of government should have the lead role in controlling land use activities that cause erosion and may, as necessary, impose further conditions, restrictions, or limitations on waste disposal and other activities that might degrade the quality of waters of the State.

3. In implementing BMP's through local units of government, or through State and federal agencies for lands under their control, working relationships, priorities, and time schedules will be defined in management agency agreements between the areawide waste treatment planning agency and the local management agency. Agreements will be reviewed and updated annually to reflect recent achievements, new information and new concerns.

4. Regional Board participation in sediment control programs shall include assistance in the establishment of local control programs, participation in the determination of water quality problems, and a cooperative program evaluation with local units of government. Regional Board enforcement authority will be exercised where local volunteer programs fail to correct sediment problems within a reasonable period.

5. Emergency projects undertaken or approved by a public agency and necessary to prevent or mitigate loss of, or damage to, life, health, property, or essential public services from an unexpected occurrence involving a clear and imminent danger are exempt from this chapter providing such exemption is in the public interest.

6. Regulation of sediment discharges from routine annual agricultural operations, such as tilling, grazing, and land grading and from construction of agricultural buildings is waived except where such activity is causing severe erosion and causing, or threatening to cause, a pollution or nuisance.

7. Regulation of discharges from State and federal lands managed by agencies operating in accordance with approved management agency agreements is waived except where such activity is causing, or threatening to cause, a pollution or nuisance.

"Control Actions" and "Actions by Other Authorities" in this chapter and the Implementation Plan, Chapter Four, contain further information regarding erosion and sedimentation control.

IV. DISCHARGE PROHIBITIONS

Due to unique cultural, scenic, aesthetic, historical, scientific, and ecological values of the Central Coastal Basin, and the necessity to protect the public health and the desire to achieve water quality objectives, the Regional Water Quality Control Board has established certain discharge prohibitions.

IV.A. ALL WATERS

Waste discharges shall not contain materials in concentrations which are hazardous to human, plant, animal, or aquatic life.

The discharge of oil or any residual products of petroleum to the waters of the State, except in accordance with waste discharge requirements or other provisions of Division 7 of the California Water Code, is prohibited.

Discharge of elevated temperature wastes into COLD intrastate waters is prohibited where it may cause the natural temperature of the receiving water to exceed limits specified in Chapter Three, Water Quality Objectives.

IV.A.1. TOXIC OR HAZARDOUS POLLUTANTS

Discharge of toxic or hazardous material that violates: 1) the toxicity objective for all waters as designated in the Ocean Plan [See Appendix A-5] and Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries [See Chapter Three], or 2) Proposition 65 limitations for municipal/domestic water supply waters is prohibited.

Discharge to publicly owned treatment works is prohibited in concentrations that:

1. Exceeds applicable federal pretreatment standards;

2. Endangers safe and continuous operation of wastewater treatment facilities;

3. Endangers public health and safety; and

4. Causes violation of applicable water quality objectives.

IV.B. INLAND WATERS

Wastes discharged to surface waters shall be essentially free of toxic substances, grease, oil, and phenolic compounds.

Waste discharges to the following inland waters are prohibited:

1. All surface freshwater impoundments and their immediate tributaries.

2. All surface waters within the San Lorenzo River, Aptos-Soquel, and San Antonio Creek Subbasins <u>and</u> all water contact recreation areas except where benefits can be realized from direct discharge of reclaimed water.

3. All deadend sloughs receiving little flushing action from land drainage or natural runoff.

4. All coastal surface streams and natural drainageways that flow directly to the ocean within the Santa Cruz Coastal, Monterey Coastal, San Luis Obispo Coastal from the Monterey County line to the northern boundary of San Luis Obispo Creek drainage, and the Santa Barbara Coastal Subbasins <u>except</u> where discharge is associated with an approved wastewater reclamation program.

5. The Santa Maria River downstream from the Highway One bridge.

6. The Santa Ynez River downstream from the salt water barrier.

Domestic Animal Waste Discharge Prohibition:

Discharges containing fecal material from domestic animals to the waters of the State that cause or contribute to exceedance of water quality objectives in the areas listed below are prohibited. Examples of domestic animals include, but are not limited to, horses, cattle, goats, sheep, dogs, cats or any other animal(s) in the care of any person(s).

1. Pajaro River Watershed
2. Soquel Lagoon Watershed
3. Aptos Creek Watershed
4. San Lorenzo River Watershed.

Human Fecal Material Discharge Prohibition:

Discharges containing fecal material from humans to the waters of the State in the areas listed below are prohibited. Exceptions to this prohibition include discharges in accordance with Waste Discharge Requirements or other provisions of the California Water Code, Division 7, as amended:

1. Pajaro River Watershed
2. Soquel Lagoon Watershed
3. Aptos Creek Watershed
4. San Lorenzo River Watershed.

IV.C. WATERS SUBJECT TO TIDAL ACTION

The discharge of any radiological, chemical, or biological warfare agent or high level radioactive waste into the ocean is prohibited.

Waste discharges to the following areas are prohibited.

1. In the northern extreme of Monterey Bay, inshore from an imaginary line extending from Santa Cruz Point (36°-57.0'N, 122°-01.5'W) to the mouth of the Pajaro River (36°-51.0'N, 121°-48.6'W) and in ocean waters within a three (3) mile radius of Point Pinos (36°-38.3'N, 121°-56.0'W), excepting the area described in No. 2 below.

2. In the southern extreme of Monterey Bay, inshore from an imaginary line extending from Point Pinos (36°-38.3'N, 121°-56.0'W) to the mouth of the Salinas River (36°-44.9'N, 121°-48.3'W).

Discharges to the Monterey Bay Prohibition Zone from desalinization units and circulating seawater system discharges may be permitted after each proposal satisfies California Environmental Quality Act requirements and completes the National Pollutant Discharge Elimination System process.

IV.C.1. AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE

Discharge of waste is prohibited where it will alter natural water quality conditions in Areas of Special Biological Significance. Areas of Special Biological Significance are:

1. Ano Nuevo Point and Island, San Mateo County, including ocean waters within three (3) nautical miles offshore and defined by extensions of Cascade Creek on the north and the Santa Cruz-San Mateo County line on the south.

2. Pacific Grove Marine Gardens Fish Refuge and Hopkins Marine Life Refuge, Monterey County, including Monterey Bay waters bounded by Point Alones on the east, by Point Pinos on the west, and extending offshore to the 60-foot depth contour (about 0.7 miles).

3. Carmel Bay, Monterey County, including all bay waters enclosed by an imaginary line extending between Pescadero Point and Granite Point.

4. Point Lobos Ecological Reserve, Monterey County, including ocean waters within one-quarter (0.25) mile offshore from Granite Point southerly to the southernmost boundary of Point Lobos Reserve State Park.

5. Julia Pfeiffer Burns Underwater Park, Monterey County, including ocean waters within an area extending about one (1.0) mile offshore and about two and one-half (2.5) miles south of Partington Point.

6. Salmon Creek, Monterey County, including ocean waters within one-thousand (1000) feet or more offshore, bounded on the south by an extension of the Monterey-San Luis Obispo County line, and extending northward about three (3) miles.

7. San Miguel, Santa Rosa, and Santa Cruz Islands, Santa Barbara County, including ocean waters within about one (1) nautical mile offshore.

The discharge of municipal and industrial waste sludge and sludge digester supernatant directly to the ocean, or into a waste stream that discharges to the ocean without further treatment, is prohibited.

The bypassing of untreated waste to the ocean is prohibited.

Excepting vessel washdown waters, disposal of waste matter or untreated waste from vessel to tidal water is prohibited.

The discharge of oil or grease, from other than natural sources, which produces a visible or measurable effect to tidal waters of the basin is prohibited.

New thermal waste discharges to coastal waters, enclosed bays and estuaries having a maximum temperature greater than 4°F above the natural temperature of the receiving water are prohibited.

IV.D. GROUND WATERS

Wastes discharged to ground waters shall be free of toxic substances in excess of accepted drinking water standards; taste, odor, or color producing substances; and nitrogenous compounds in quantities which could result in a ground water nitrate concentration above 45mg/l.

IV.E. OTHER SPECIFIC PROHIBITION SUBJECTS

Other prohibitions exist which pertain to the following topics. These prohibitions can be found under the respective heading in the Implementation Plan.

Mushroom Farms Operation Prohibitions

Individual, Alternative, and Community Sewage Disposal Systems Prohibitions

Land Disturbance Prohibitions

Solid Waste Discharge Prohibitions

Watsonville Slough Watershed Livestock Waste Discharge Prohibition

IV.F. EXCEPTIONS TO BASIN PLAN REQUIREMENTS

The Regional Board may, subsequent to a public hearing, grant exceptions to any provision of this Plan where the Regional Board determines:

1. The exception will not compromise protection of waters for beneficial uses; and

2. The public interest will be served.

Regional Board exceptions will be effective upon State Board approval, unless exceptions involve surface water beneficial use designations or surface water quality objectives (i.e., federally accepted water quality standards). Such water quality standard related exceptions will also require Environmental Protection Agency approval to become effective.

V. CONTROL ACTIONS

Specific actions can be taken to control water quality. These are specified below.

V.A. WASTE DISCHARGE REQUIREMENTS

1. The Regional Water Quality Control Board will implement water quality control plan provisions through establishment or requirements and timetables for compliance with plan actions.

2. Waste discharge requirements will be established for all (operating) solid waste sites and where inactivated sites may contribute to water quality impairment.

3. Waste discharge requirements will be established for all existing oil well fields, mines, or other well fields which threaten water quality.

4. Waste discharge requirements will be established for all irrigation, feedlot, dairy, and poultry operations which are so located as to pose a clear and direct threat to water quality; such operations need not be so large as to require a permit under NPDES.

V.B. STATE CLEAN WATER GRANTS OR LOANS

1. Priorities for State Clean Water Grants or Loans will be ordered by the Regional Water Quality Control Board and provide ever increasing emphasis toward correction of basin water quality problems.
2. Water supply improvements (which encourage cost-effective water quality management) beyond normal source control measures (i.e., water supply quality enhancement by treatment or other means in lieu of effluent demineralization) will be recommended for funding.

V.C. SALT DISCHARGE

1. Emphasize control of brine disposal into public sewer systems by requiring affected dischargers to comply with normal salt increments, to adopt salt source control ordinances, and to conduct wastewater monitoring programs.
2. Minimize degradation of water during transport from points of use; minimize leakage of poor quality water during transport from salt affected areas through salt free lands to salt sinks for disposal.

3. Regulate importation of water into any basin or subbasin and regulate the reuse of waters in upstream portions of subbasins which is of poorer quality than existing or imported supplies. If such import or transport to up-slope areas for reuse is allowed, take suitable steps to mitigate short and long term adverse effects of increased salt load resulting from this recycling.

4. Increase recharge of underground water storage basins (where recharge is possible) using surplus winter or spring runoff waters.

5. Actively support measures designed to protect and to improve quality of waters imported into areas with unfavorable or poor salt balance.

6. Regulate reclamation of new lands which would contribute large quantities of salts or pollutants to water supplies.

7. Where water supplies are limited, restrict use of reclaimed waters to existing irrigated acreage rather than develop new irrigated acreage to utilize the reclaimed water.

V.D. INDIVIDUAL, ALTERNATIVE, AND COMMUNITY SEWAGE DISPOSAL SYSTEMS

Unsewered areas having high density (one acre lots or smaller) should be organized into septic tank management districts and sewerage feasibility studies should be encouraged in potential problem areas. Local implementation should be encouraged by Regional Board action.

V.E. AGENCY COORDINATION

The Regional Water Quality Control Board will initiate coordination with the appropriate Coastal Commission, as well as other State, federal, and local agencies which possess related or overlapping planning responsibilities.

V.F. ANIMAL CONFINEMENT OPERATIONS

The California Code of Regulations, Title 23, Chapter 15, Section 2601 defines a confined animal facility as "any place where cattle, calves, sheep, swine, horses, mules, goats, fowl, or other domestic animals are corralled, penned, tethered, or otherwise enclosed or held and where feeding is by means other than grazing."

1. Animal confinement facilities plus adjacent crop land under the control of the operator shall have the capacity to retain surface drainage from manure storage areas plus any washwater during a 25-year 24-hour storm.

2. Surface drainage, including water from roofed areas, shall be prevented from running through manure storage areas.

3. Animal confinement facilities, including retention ponds shall be protected from overflow to stream channels during 20-year peak stream flows for existing facilities and 100-year peak stream flows for new facilities.

4. Retention ponds shall be lined with or underlain by soils containing at least ten percent clay and not more than ten percent gravel or artificial material of equivalent impermeability.

5. Washwater and surface drainage from manure storage areas shall be contained, applied to crop lands, or discharged to treatment systems subject to approval by the Regional Water Quality Control Board.

6. Animals in confinement shall be prevented from entering any surface waters within the confined area.

7. Lands that have received animal wastes shall be managed to minimize erosion and runoff. Dry manures applied to cultivated crop lands should be incorporated into the soil soon after application.

8. Animal wastes shall be managed to prevent nuisances in manure storage areas.

9. Manure storage areas shall be managed to minimize percolation of water into underlying soils; this may be accomplished by routing drainage to impervious storage areas, land applications, relocation of existing lots and, in the case of new locations, by selecting more impervious soils for manure storage areas.

10. Animal confinement facilities shall have adequate surface drainage to prevent continuous accumulation of surface waters in corrals and feed yards; drainage should be routed to impervious storage areas or applied to land.

11. Application of manures and washwaters to crop lands shall be at rates which are reasonable for crop, soil, climate, special local situations, management system and type of manure.

12. A monitoring program may be required by the Regional Water Quality Control Board as a condition to issuance or waiver of waste discharge requirements.

Further animal confinement information can be found in Chapter Four in the Nonpoint Source Measures section under Agricultural Water and Wastewater Management.

V.G. EROSION AND SEDIMENTATION

1. Erosion from nonpoint pollution sources shall be minimized through implementation of BMP's (identified under "Management Principles" and

described under "Land Disturbance Activities" in Chapter Four's "Nonpoint Source Measures" section.

2. All necessary control measures for minimizing erosion and sedimentation, whether structural or vegetal, shall be properly established prior to November 15 each year.

3. All structural and vegetal measures taken to control erosion and sedimentation shall be properly maintained.

4. A filter strip of appropriate width, and consisting of undisturbed soil and riparian vegetation or its equivalent, shall be maintained, wherever possible, between significant land disturbance activities and watercourses, lakes, bays, estuaries, marshes, and other water bodies. For construction activities, minimum width of the filter strip shall be thirty feet, wherever possible as measured along the ground surface to the highest anticipated water line.

5. Design and maintenance of erosion and sediment control structures, (e.g., debris and settling basins, drainage ditches, culverts, etc.) shall comply with accepted engineering practices.

6. Cover crops shall be established by seeding and/or mulching, or other equally effective measures, for all disturbed areas not otherwise protected from excessive erosion.

7. Land shall be developed in increments of workable size that can be completed during a single construction season. Graded slope length shall not be excessive and erosion and sediment control measures shall be coordinated with the sequence of grading, development, and construction operations.

8. Use of soil sterilants is discouraged and should be minimized.

Further erosion and sedimentation information can be found in other areas of this chapter as well as the Implementation Plan, Chapter Four, under "Land Disturbance Activities."

V.H. ACTIONS BY OTHER AUTHORITIES

V.H.1. FEDERAL AGENCIES

1. Federal agencies directly affected by the facility plans involving consolidation with other communities should comply with applicable provisions of the Basin Plan (e.g., Fort Ord on the Monterey Peninsula is shown as part of municipal wastewater sewerage consolidation); agency policies favoring plan recommendations are encouraged.

2. Federal agencies otherwise affected by plan provisions should signify their compliance or concern with plan recommendations; time at public hearings will be provided for this purpose.

V.H.2. ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

The Association of Monterey Bay Area Governments (AMBAG) should coordinate with local agencies and the Regional Board relative to implementation of water quality control plans in that area.

V.H.3. SEPTIC TANK MANAGEMENT AGENCIES

1. County governments should revise septic tank ordinances to conform with basin plan recommendations and State Board guidelines.

2. Formation of septic tank management districts within existing local agencies should be accomplished in areas where directed by Regional Board action.

V.H.4. WATER MANAGEMENT AGENCIES

Conjunctive ground water-surface water management should continue to be encouraged by water management agencies, both in terms of storage and recharge operations and containment and routing of highly mineralized surface waters to prevent recharge. Examples in the Salinas Subbasin include storage of wet weather flows and recharge from a reservoir on Arroyo Seco and containment to prevent recharge of highly mineralized surface waters in streams such as Pancho Rico Creek.

V.H.5. SOLID WASTE MANAGEMENT

Preparation of solid waste management plans by all counties in the basin should be accomplished as required by the Nejedly-Z'berg-Dills Solid Waste Management and Resource Recovery Act of 1972.

V.H.6. AGRICULTURAL MANAGEMENT

Local agricultural representatives and the University of California extension service should maintain liaison with the Regional Water Quality Control Board and the State Board relative to agricultural wastewater management.

V.H.7. OFFSHORE OIL

Water quality in offshore oil lease areas should be monitored by State and federal agencies preferably by arrangements with independent oceanographic institutions.

V.H.8. SALINITY MANAGEMENT

Salt source control measures should be implemented by municipalities having excessive mineral quality in wastewaters discharged to land or inland waters; control of salinity through water supply improvements is recommended.

V.H.9. SEAWATER INTRUSION

Water Management Plans should be prepared and adopted by Monterey County for the Salinas ground water basin and the Pajaro Valley Water Management Agency for the Pajaro ground water basin. These management plans should include immediate actions these agencies can take to help alleviate seawater intrusion as well as measures to stop seawater intrusion from advancing. These agencies should remediate seawater intrusion as a long-term goal.

Local and State agencies having jurisdiction to help control seawater intrusion should assist in implementing seawater intrusion remedies.

V.H.10. EROSION AND SEDIMENTATION CONTROL

1. The federal government should increase its support of erosion and sediment control programs by increasing its technical staffs, increasing cost-share funds, increasing the availability of low-interest loans, and changing its income tax laws to encourage the use of Best Management Practices for erosion and sediment control.

2. The State of California should establish an erosion and sediment control program that includes incentives for the individual - such as cost-sharing, changes in State law that would reduce property taxes for enduring erosion and sediment control practices, and incentives through state income taxes.

3. Resource Conservation Districts within the Central Coast Region should develop management agency agreements with the Regional Board agreeing to work jointly with the Regional Board to integrate soil and water resource programs in the application of Best Management Practices to correct existing erosion and sediment problems and to prevent new problems from occurring.

4. Local units of government should improve land use plans to establish a clear policy, and shall adopt or improve ordinances to include definitive performance standards, for the control of erosion and sedimentation, including consistency with this Basin Plan and Best Management Practices identified under Regional Board "Management Principles."

5. Local units of government developing Local Coastal Programs shall establish a clear policy on erosion and sedimentation and adopt an ordinance consistent with Best Management Practices for their land areas within the Coastal Zone.

6. Resource Conservation Districts, the U.S.D.A. Soil Conservation Service, the California Department of Transportation, and the Extension Service, in conjunction with the cities and counties, should develop and carry out an erosion and sediment control training program for employees who check erosion and sediment control plans and who enforce local ordinances and regulations relating to erosion and sediment control practices.

7. Counties and cities should work with the Regional Board to identify priorities, time schedules, and limitations and to negotiate management agency agreements concerning implementation of Best Management Practices for control of erosion and sedimentation.

8. Review and assessment of erosion and sediment control plans for new land developments in those counties and cities that have signed management agency agreements with the Board will be processed entirely by that county or city.

VI. REGIONAL BOARD POLICIES

Formal specific policies adopted by the Regional Board are presented below according to various categories.

VI.A. SEWERAGE FACILITIES AND SEPTIC TANKS IN URBANIZING AREAS IN THE CENTRAL COAST REGION

Resolution 69-01: Adopting Policy Statement Regarding Sewerage Facilities and Septic Tanks in Urbanizing Areas in the Central Coast Region.

This policy prohibits septic tank or community systems unless particular criteria are satisfied.

VI.B. SEPTIC TANKS

1. Resolution 86-02: Acceptance of Monterey County Board of Supervisor's Ordinance Applying Development Restrictions to the Bay Hills (Bay Farms/Hillcrest) Area.

   This policy accepts Monterey County's moratorium in lieu of a Regional Board prohibition. Further, the policy requested a compliance schedule to eliminate discharge from individual sewage disposal systems and the State Water Resources Control Board is requested to rank this project Class "A" on the Clean Water Grant project priority list.

2. Resolution 87-05: Acceptance of Monterey County Board of Supervisor's Ordinance Applying Development Restrictions to the area within the San Lucas County Water District.

   This policy accepts Monterey County's moratorium in lieu of a Regional Board prohibition. Further, the policy requested a compliance schedule to eliminate discharge from individual sewage disposal systems and the State Water Resources Control Board is requested to rank this project Class "A" on the Clean Water Grant project priority list.

Further information concerning on-site system development restrictions can be found in Chapter Four.

VI.D. AREA OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS)

Resolution 76-10: Recommendation to the State Water Resources Control Board Concerning the Designation of Terrace Point in Santa Cruz County as an Area of Special Biological Significance.

This policy recommended the State Water Resources Control Board to not designate Terrace Point as an Area of Special Biological Significance. The State Board concurred with the Regional Board in Resolution 77-21.

Further information concerning ASBS areas can be found in Chapter Two.

VI.E. LEGISLATIVE MATTERS

Resolution 78-04: Supporting Approval of the Clean Water and Water Conservation Bond Law of 1978.

This policy expressed support for Proposition Two and urged California voters to support the proposition.

VI.F. PROHIBITION ZONES

Resolution 79-06: Resolution Regarding Marina County Water District's Petition to Delete the Southern Monterey Bay Discharge Prohibition Zone from the Basin Plan.

This policy considers Marina County Water District challenge to the Southern Monterey Bay prohibition zone. This policy resolves the Southern Monterey Bay prohibition zone is appropriate.

Regional Board adopted prohibition zones for tidal waters can be found under "Waters Subject to Tidal Action" under "Discharge Prohibitions" in this chapter.

VI.G. SAN LORENZO VALLEY

Resolution 87-04: Certification of Santa Cruz County's Wastewater Management Program for the San Lorenzo River Watershed.

This policy certifies Santa Cruz County's Wastewater Management Program for the San Lorenzo Valley is adequate to satisfy the loan condition authorized by Chapter 962 of the 1986 State Statues.

VI.H. HIGHWAY GROOVING RESIDUES

Resolution 89-04: Adopting Policy Regarding Disposal of Highway Grooving Residues.

This policy specifies conditions for highway grooving residue disposal.

VI.I. WAIVER OF WASTE DISCHARGE REQUIREMENTS

Resolution 89-04: Waiver of Regulation of Specific Types of Waste Dischargers.

State law allows Regional Boards to waive waste discharge requirements (WDRs) for a specific discharge or types of discharges where it is not against the public interest (California Water Code Section 13269). These waivers are conditional and may be terminated at any time.

On April 15, 1983, the Regional Board held a public hearing regarding the types and nature of waste discharges considered for waiver. Following this hearing, the Regional Board established certain discharges which waived WDRs. The types of dischargers which may be waived are shown in the appendix.

VI.J. INTERPRETATION OF MINIMUM PARCEL SIZE REQUIREMENTS FOR ON-SITE SEWAGE SYSTEMS

This policy clarifies Regional Board minimum parcel size requirements for on-site systems contained in Chapter Four of this document.

A copy of this policy is shown in the appendix.

VI.K. APPRECIATION FOR DISCHARGER COMPLIANCE

Resolution 93-04: Appreciation for Discharger Compliance.

This policy addresses the manner in which the Regional Board will protect water quality protection and improvement at the most cost effective manner to society. A copy of the policy is shown in the appendix.

CHAPTER 6. MONITORING AND ASSESSMENT

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I. INTRODUCTION

The effectiveness of a water quality control program cannot be judged without the information supplied by a comprehensive and systematic monitoring and assessment program. This chapter describes statewide and regional monitoring and assessment programs designed to provide scientific information on water quality in the Central Coast Region. The Regional Board uses information produced by these programs to satisfy requirements of both the federal Clean Water Act (http://www.swrcb.ca.gov/rwqcb3/) and applicable portions of the state's Porter-Cologne Water Quality Control Act.

Monitoring information is presented for both regulatory and ambient monitoring programs at the State and Regional level. Regulatory monitoring programs address compliance issues related to discharges to waters of the State. Ambient monitoring programs address overall quality of waters of the State, generally without regard to specific dischargers.

II. OBJECTIVES

General objectivesof statewide and regional monitoring and assessment programs are:

1. To measure the achievement of water quality goals and objectives specified in this plan.

2. To measure specific effects of water quality changes on established beneficial uses.

3. To measure background conditions of water quality and long-term trends in water quality.

4. To locate and identify sources of water pollution that pose an acute, cumulative, and/or chronic threat to the environment.

5. To provide information needed to correlate receiving water quality to mass emissions of pollutants by waste dischargers.

6. To provide data for determining waste discharger compliance with permit conditions.

7. To measure waste loads discharged to receiving waters and to identify the limits of their effect, and in water quality limited segments to prepare waste load allocations necessary to achieve water quality control.

8. To provide documentation necessary to support enforcement of permit conditions and waste discharge requirements.

9. To provide data needed to carry on the continuing planning process.

10. To measure the effects of water rights decisions on water quality and to guide the State Board in its responsibility to regulate unappropriated water for the control of quality.

11. To provide a clearinghouse for the collection and dissemination of water quality data gathered by other agencies and private parties cooperating in the program.

12. To prepare reports on water quality conditions as required by federal and State regulations and other users requesting water quality data.

III. QUALITY CONTROL

Federal regulations and State policy require the preparation and implementation of Quality Assurance/Quality Control Plans for most monitoring carried out by the Regional Board's staff or its contractors. Regional Board monitoring activities are usually conducted under the Quality Assurance Program Plan developed for the Surface Water Ambient Monitoring Program (SWAMP).

Sample analysis generally must be conducted by a State-certified laboratory ;the laboratory must have an approved Quality Assurance/Quality Control program and must be certified under the California Department of Health Services (DHS) Accreditation Program. In some instances, DHS certification may not be required, provided the laboratory has appropriate performance based standards.

IV. REGULATORY MONITORING AND ASSESSMENT

IV.A. COMPLIANCE MONITORING

A significant component of the State's regulatory monitoring relates specifically to discharges of pollutants from known sources. All entities holding Regional Board Discharge Orders must conduct regular sampling and analysis of waste released to surface and ground waters. Entities granted a discharge waiver may also be subject to monitoring requirements as a condition of the waiver.

The specific chemical and physical parameters to monitor, types of sampling and analyses (e.g., waste stream sampling, toxicity tests, etc.), frequency, and other specific requirements are determined on a case-by-case basis according to the nature of the discharge and potential environmental effects. Each Order or waiver issued by the Regional Board describes the specific compliance monitoring requirements for that Order or waiver holder.

Monitoring data collected by point source dischargers and nonpoint pollution control programs are used to:

- Determine compliance with and provide documentation to support enforcement of Order or waiver conditions;
- Provide information needed to relate receiving water quality to mass emission of pollutants by dischargers.

Discharger self-monitoring reports, generated as a result of an Order, are collected and reviewed by Regional Board staff for compliance. Any necessary enforcement actions are the responsibility of, and are carried out by, the Regional Board. Self-monitoring reports are normally submitted by the discharger on a

regular basis (monthly, quarterly, or semi-annually) as specified by the Order conditions.

Compliance monitoring includes a control procedure whereby Regional Board personnel periodically visit each discharger on both an announced and unannounced "Facility Inspection" basis. The intent of announced visits is to work with the discharger to review his procedures in order to assure quality control. The intent of the unannounced inspections is to survey the operation, inspect the discharge area, and collect, check, or reference samples. Data from self-monitoring may also be supplemented with information obtained by Regional Board staff through special studies, such as those characterizing the variability of the discharge, pollutant levels in nearby receiving water and biota, and characterization of pollutant loads attributable to urban runoff.

IV.B. COMPLAINT INVESTIGATION

Complaint Monitoring involves investigation of complaints of citizens and public or governmental agencies on the discharge of pollutants or creation of nuisance conditions. It is the responsibility of the Regional Board to address the complaint, including preparation of reports, letters, or other follow-up actions, to document the observed conditions, and to inform the State Board, complainant, and discharger of the observed conditions.

IV.C. AERIAL SURVEILLANCE

Aerial surveillance is used primarily to gather photographic records of discharges, water quality conditions, and conditions at solid waste disposal sites in the Region. Aerial surveillance is particularly effective because of the overall view of a facility that is obtained and because many facilities can be observed in a short period of time.

V. AMBIENT MONITORING AND ASSESSMENT

V.A. STATE MONITORING PROGRAMS

Section 13160 of the Porter-Cologne Water Quality Control Act delegates primary responsibility for coordination and control of water quality in California to the State Board. Section 13163 of the Act states that in conducting this mission, the State Board is to coordinate water quality investigations, recognizing that other State agencies may have primary statutory responsibility for such investigations.Pursuant to these mandates, the State Board has established multiple water quality monitoring programs for California. Other agencies that conduct water-quality monitoring include the California Department of Health Services (DHS), California Department of Water Resources (DWR), California Department of Fish and Game (DFG), California Department of Pesticide Regulation (DPR), California Department of Toxic Substances Control (DTSC), Federal Bureau of Reclamation, the United States Geological Survey (USGS), and the United States Environmental Protection Agency (USEPA).

V.A.1. SURFACE WATER AMBIENT MONITORING PROGRAM

The Porter-Cologne Water Quality Control Act and the federal Clean Water Act (CWA) direct water quality programs to implement efforts intended to protect and restore the integrity of waters of the State. Ambient monitoring is independent of regulatory water quality programs and serves as a measure of the overall quality of water resources and the overall effectiveness of the Regional Board's prevention, regulatory, and remedial actions.

The Surface Water Ambient Monitoring Program (SWAMP) is designed as an ongoing program to

assess the effectiveness of State and Regional Board regulatory water quality programs, to develop a statewide picture of the status and trends in surface water quality, and to develop site-specific information in areas that are known or suspected to have water quality problems. In particular, SWAMP is intended to meet four goals:

1. Identify specific problems preventing the State Board, the Regional Board, and the public from realizing beneficial uses in targeted watersheds.
2. Create an ambient monitoring program that addresses all hydrologic units of the state using consistent and objective monitoring, sampling and analysis methods; consistent data quality and assurance protocols; and centralized data management.
3. Document ambient water quality conditions in potentially clean and polluted areas.
4. Provide data to evaluate the effectiveness of water quality regulatory programs in protecting beneficial uses of waters of the State.

In achieving these goals, each of the State and Regional Board monitoring programs (e.g., State Mussel Watch, Toxic Substances Monitoring) are incorporated into SWAMP to ensure a coordinated approach without duplication. Fiscal Year (FY) 00-01 marked the first year of implementation of the SWAMP Program. The Central Coast Ambient Monitoring Program (CCAMP), which has been underway since 1997, represents the Central Coast Region's participation in the statewide SWAMP Program. More detailed information on the SWAMP program can be found at the State Board website (http://www.swrcb.ca.gov). A summary of the CCAMP program is contained in this chapter.

V.A.2. TOXIC SUBSTANCE MONITORING PROGRAM

The Toxic Substance Monitoring (TSM) Program was initiated in 1976 by the State Board to provide a uniform statewide approach to the detection and evaluation of toxic substances in organisms found in fresh, estuarine, and marine waters of the State. The TSM program uses resident fish and other aquatic organisms (primarily crayfish) to monitor pollutant levels through tissue analysis. Results of tissue analyses reflect exposure to contaminants over extended periods of time and therefore provide a field-based estimate for long-term exposure of people, fish, and other wildlife to pollutants in the food chain. This approach also allows for capture of potentially toxic discharges that occur on an intermittent basis that might otherwise be missed with "grab" sampling of water.

The primary objectives of the TSM program are:

1. To develop statewide baseline data and to demonstrate trends in the occurrence of toxic elements and organic substances in aquatic biota.

2. To assess impacts of accumulated toxicants upon the usability of State waters by man.

3. To assess impacts of accumulated toxicants upon aquatic biota.

4. Where problem concentrations of toxicants are detected, to attempt to identify sources of toxicants and to relate concentrations found in the biota to concentrations found in the water.

TSM reports have been published periodically since 1977. Tissue samples are analyzed for metals, including arsenic, cadmium, chromium, copper, lead, nickel, silver, zinc and mercury. In addition, both invertebrate and fish tissue samples are analyzed for synthetic organic compounds, most of which are pesticides (Table 6-1). Both TSM and State Mussel Watch (SMW) Program publications and data can be found at the State Board website (http://www.swrcb.ca.gov).

V.A.3. STATE MUSSEL WATCH PROGRAM

The State Mussel Watch (SMW) program is a long-term marine water-quality monitoring program initiated in 1977. The SMW program uses resident and transplanted bivalves (e.g., mussels and clams) to monitor pollutant levels at coastal reference stations and selected sites in bays and estuaries to identify or confirm potential toxic substance pollution.

Table 6-1. Synthetic Organic Compounds Analyzed in the Toxic Substances Monitoring and State Mussel Watch Programs

COMPOUND	COMPOUND	COMPOUND
Aldrin	DDMU pp	Nitrofen (TOK)
Benefin	DDT pp	Oxychlordance
BHCα	Dialifor	Parathion, ethyl
BHCβ	Diazinon	Parathion, methyl
BHCγ (lindane)	Dichlofenthion	PCB 1248
BHCδ	Dicofol (Kelthane)	PCB 1254
Carbophenothion	Dieldrin	PCB 1260
CDEC (Vegedex)	Endosulfan I (Thiodan I)	PCNB (Quintozene)
Chlorbenside	Endrin	Perthane
cis-Chlordane	EPN	Phenkapton
trans-Chlordane	Ehtion	Phorate (Thimet)
Chloroneb	Fenitrothion	Ronnel
Chlorpyrifos (Dursban)	Fonofos (Dyfonate)	Strobane
Dacthal	Heptachlor	Tetradifon (Tedion)
DDE op	Heptachlor epoxide	Toxaphene
DDE pp	Hexachlorobenzene (HCB)	2,4-D isopropyl ester
DDD op	Methoxychlor pp '	2,4-D isobutyl ester
DDMS pp	Mirex	2,4-D n-butyl ester

Mussels are used as sentinel organisms for trace metals and synthetic organic compounds in coastal and estuarine waters. Although the mussel populations of bays and estuaries are of a different species than those found in the open coast, their suitability as sentinels for monitoring the presence of toxic pollutants stems from several factors including: (1) their ubiquity along the California coast; (2) their ability to concentrate pollutants above ambient sea water levels and to provide a time-averaged sample; and (3) their non-motile nature which permits a localized measurement of water quality.

The primary goals of the SMW program are as follows:

1. To provide long-term monitoring of selected toxic substances in coastal waters;

2. To provide an important element in a comprehensive water quality monitoring strategy;

3. To identify on a year-to-year basis specific areas where concentrations of toxic materials are higher than naturally occurring background levels.

Tissue samples are analyzed for trace metals including aluminum, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver and zincand for synthetic organic compounds listed in Table 6-1. During the 1977 and 1978 sampling periods, the focus of the SMW program was, for the most part, on open coast monitoring of sites outside the vicinity of known pollutant point sources. Monitoring water quality in the State Board's designated Water Quality Protection Areas (formerly known as Areas of Special Biological Significance), to establish baseline conditions relating to the range of typical conditions in water, sediment and biota, was given prime importance in the early years of the program.
Based on identification of "hot spot" areas during 1977 and 1978, intensive sampling of these areas was implemented in 1979. Such a sampling strategy was intended to confirm previous findings, establish the magnitude of the potential problem and identify pollutant sources. The program has since evolved to include transplanting mussels into selected California bays and estuaries at specific sites to confirm potential toxic substance pollution,e.g., in the vicinity of discharges. In some cases the SMW program deploys freshwater clams or other organisms into fresh water streams and rivers to provide information about toxic substance pollution in watershed systems.

As with the TSM, statewide SMW reports are published periodically, available at the State Board website (http://www.swrcb.ca.gov).

V.A.4. GROUNDWATER AMBIENT MONITORING AND ASSESSMENT

The State Board, pursuant to provisions of the 1999 Budget Act, has developed a statewide Groundwater Ambient Monitoring and Assessment (GAMA) Program, which includes the collaborative efforts of other state and federal agencies also charged with groundwater monitoring responsibilities. The goal of GAMA is to provide information on the quality of California's groundwater and assess relative susceptibility of groundwater resources in California, especially those used as a drinking water supply. The GAMA program has two primary components: the California Aquifer Susceptibility (CAS) Assessment, which addresses public drinking water wells, and the Voluntary Domestic Well Assessment Project which addresses private domestic drinking water wells.

V.A.4.a. CALIFORNIA AQUIFER SUSCEPTIBILITY ASSESSMENT

The State Board, in coordination with the DHS, DWR, and local water districts and purveyors, is implementing the California Aquifer Susceptibility (CAS) Assessment to determine water quality and relative susceptibility of groundwater that serves as a source for public water supplies to possible contaminants. CAS employs a groundwater age dating technique (tritium-helium analysis) and low-level detection (microgram/liter range) of volatile organic compounds (VOCs) to assess aquifer susceptibility. A fundamental premise of the CAS assessment is that groundwater age can be used as a guide for assessing aquifer susceptibility, i.e., young groundwater age implies relatively rapid recharge of surface water to the aquifer, and therefore potentially rapid migration of surface contaminants to the aquifer. Low-level VOC detection is used to corroborate age-dating data and to also identify public supply wells that are already impacted by contaminants, but are still below action levels. This provides an "early warning system" for potentially significant VOC contamination.

In coordination with the USGS and Lawrence Livermore National Laboratory (LLNL), the CAS

assessment is designed to sample the approximately 16,000 public supply wells statewide, beginning with more urbanized areas. Sampling began in September 2000 and will continue for the next several years over the entire state, depending on the availability of funding. General constituents sampled by the USGS and LLNL for low-level VOC analysis are available at the State Board website (http://www.swrcb.ca.gov). Additional constituents may be chosen based upon specific site or land-use conditions.

Groundwater quality, age-dating, and hydrogeologic data collected as part of the CAS assessment are managed utilizing the Geographical and Environmental Information Management System (GEIMS)/GeoTracker system, an internet-accessible geographic information system (GIS) that provides access to water quality data. GeoTracker can be found at http://geotracker.swrcb.ca.gov/.

V.A.4.b. VOLUNTARY DOMESTIC WELL ASSESSMENT

The Voluntary Domestic Well Assessment Program consists of sampling domestic wells for various constituents that may be found in domestic well water, including nitrates, total and fecal coliform bacteria, Methyl tert-Butyl Ether (MTBE), and various minerals. This information is provided to domestic well owners and groundwater agencies. The Voluntary Domestic Well Assessment Program focuses on specific areas, as resources permit and are chosen based upon existing knowledge of water quality and land use, in coordination with local environmental agencies. The State Board incurs the costs of sampling and analysis.

V.A.5. GROUNDWATER QUALITY MONITORING ACT OF 2001

Assembly Bill 599 (AB 599), effective January 1, 2002, established the Groundwater Quality Monitoring Act of 2001 (sections 10780-10782.3 of the California Water Code). The Act requires the State Board to integrate existing monitoring programs with new program elements, as necessary, for the purpose of establishing a comprehensive groundwater monitoring program capable of assessing each groundwater basin in the state, either through direct or other statistically reliable sampling approaches. A second fundamental component of this Act is to increase the availability of water quality data and information to the public.

AB 599 requires the State Board to create an Interagency Task Force (ITF) to identify actions necessary to establish a groundwater-quality monitoring program, and to identify measures that would increase coordination among agencies that collect groundwater quality information. In addition, the State Board is also to convene a Public Advisory Committee (PAC) to the ITF. The AB 599 PAC is to consist of representatives from federal agencies, public water systems, environmental organizations, local water agencies, agriculture, groundwater management entities, and the business community. In coordination with the ITF and the PAC, the State Board must submit to the Governor and the Legislature, on or before March 1, 2003, a report that includes a description of a comprehensive groundwater-quality monitoring program for the State.

V.B. REGIONAL MONITORING PROGRAMS

V.B.1 CENTRAL COAST AMBIENT MONITORING PROGRAM

In 1998, the Central Coast Ambient Monitoring Program (CCAMP) was formally established by the Regional Board to provide integrated and systematic information on surface water quality in the Region, in order to evaluate the effectiveness of Regional Board efforts to meet Basin Plan water quality objectives and protect beneficial uses. CCAMP's general program objectives are to:

1) Acquire and evaluate existing monitoring data and other information, from agencies, volunteer programs, and other sources.
2) Collect ambient monitoring data for the Region's watersheds, coastal confluences, and nearshore areas.
3) Conduct periodic detailed assessments of the Region's watersheds, groundwater basins, coastal confluences, and nearshore areas.
4) Utilize monitoring data and other information to maintain and update the Region's Water Quality Assessments and list of impaired waterbodies and beneficial uses.
5) Provide information presentations through the use of geographic information systems

technology and other forms of graphic visualization.

6) Provide data and information dissemination services through the Internet.
7) Conduct periodic assessments of other programs' activities to eliminate gaps, overlaps, and duplications of effort, and utilize external information whenever possible as a component of the Ambient Monitoring Program.
8) Work with other monitoring programs, including volunteer programs, to develop consistent monitoring protocols and methods, quality control standards, data management procedures, and to encourage efforts consistent with regionwide monitoring goals.
9) Coordinate data management activities with other programs to maximize accessibility and usability of data.

The CCAMP monitoring strategy calls for dividing the Region into five watershed rotation areas and conducting synoptic, tributary-based sampling each year in one of the areas. Over a five-year period, each of the major Hydrologic Units in the Region are monitored and evaluated. In addition to the tributary-based site selection approach, additional monitoring sites are established in each rotation area to provide focused attention on watersheds and waterbodies known to have water quality impairments or other issues of interest.

The CCAMP strategy for establishing and maintaining permanent long-term monitoring sites provides a framework for trend analysis and detection of emergent water quality problems. CCAMP uses a variety of monitoring approaches to characterize water quality conditions and trends in coastal watersheds, including:

- Rapid bioassessment using benthic invertebrates
- Conventional water quality analysis
- Analysis of tissue, water, and sediment for organic chemicals and metals
- Toxicity evaluations
- Habitat assessments

To develop a broad picture of the overall health of waters in the Region, a similar baseline monitoring study design is applied in each rotation area. This provides for compatibility across the Region and allows for prioritization of problems across a relatively large spatial scale. The CCAMP strategy also allows for incorporation of watershed-specific knowledge so that questions which are narrower in focus can be addressed. For example, in watersheds where TMDL assessments are being conducted, additional information is collected as necessary to support development of the analysis. Special studies are undertaken as funding and staffing permits to further focus monitoring on questions of interest specific to individual watersheds.

Coastal Confluences monitoring is another CCAMP program component that focuses on monitoring "integrator sites" at the lower ends of rivers and creeks at their outflow to the ocean. Sampling at these sites is conducted continuously, rather than in a five-year rotation. These sites aid in long-term trend detection, regional priority setting, and understanding inputs to the nearshore environment.

CCAMP nearshore monitoring activities are varied. In the Monterey Bay area, CCAMP has worked with ocean dischargers to redesign and combine receiving water monitoring programs to form the Central Coast Long-term Environmental Assessment Network (CCLEAN). This program characterizes loading of organic pollutants, nutrients and pathogen indicators from discharges and river mouths to the ocean. It also documents associated nearshore conditions, including chemical concentrations in mussel tissue, and nearshore nutrient and toxic phytoplankton concentrations. The CCAMP program directs funding and other support to other marine monitoring activities, including sand crab, mussel, and sea otter tissue analysis for organic chemicals, polynuclear aromatic hydrocarbons, metals, toxic phytoplankton and specific pathogens. CCAMP staff are also working with the local research community to expand the network of instrumented moorings in nearshore areas, with particular focus on nitrate, chlorophyll, and toxic phytoplankton.

More information on the CCAMP program can be found at http://www.swrcb.ca.gov/rwqcb3/. The CCAMP program is conducted in coordination with the TSM and SMW monitoring programs, and satisfies Regional Board requirements for participation in the statewide SWAMP program.

V.C. ASSESSMENTS

V.C.1. STATE WATER QUALITY INVENTORY (305(b)) REPORT

Pursuant to Section 305(b) of the Federal Clean Water Act (PL 92-500), the State Board is required to submit a report on the status of the State's water quality to the USEPA at least every two years. The CWA establishes a process for States to use to

develop information on the quality of their water resources (see USEPA 305(b) reporting guidelines). Specific requirements for this process are also found in Sections 106(e), 204(a), 303(d), and 314(a) of the CWA. Section 305(b) of the CWA specifies that each state must develop a program to monitor the quality of its surface waters and prepare a report describing the status of its water quality; Section 106(e) requests, but does not require, that each state also include the status of ground waters of the state in the report.

The 305(b) process is the principal means by which the USEPA, Congress, and the public evaluate: 1) whether U.S. waters meet water quality standards; 2) progress made in maintaining and restoring water quality; and 3) the extent of remaining problems. Water quality assessment information from California's nine Regional Boards is compiled and presented in conformance with USEPAs 305(b) reporting guidelines through tabulation of the general water quality of waters of the State during the preceding years, including a summary of current designated use support, individual beneficial use support, major causes and sources impacting designated beneficial uses, and associated public health concerns. The Report also contains a brief description of water pollution control policies and programs designed to manage water quality.
Assessment information used for compiling and reporting the 305(b) report is contained in the State's Geospatial Waterbody System (GeoWBS) database, structured for the purpose of producing the 305(b) Report.

V.C.2. STATE WATER QUALITY ASSESSMENT REPORT

The Water Quality Assessment (WQA) report is a biennial compilation of water quality information similar to the biennial Water Quality Inventory (305(b)) report; however, the WQA report contains specific information for individual water bodies of the region rather than generalized summaries for water-body types of the region. Specifically, the WQA categorizes the water quality of each water body by reporting the degree to which beneficial uses are supported (see Basin Plan Chapter 2 for beneficial uses). The levels of beneficial use support are described as: fully supporting, fully supporting but threatened, partially supporting, not supporting, and not assessed. In addition to a description of the level of beneficial use support for each water body, the WQA contains narrative assessment (comments) for selected water bodies of the Region and identifies water bodies included on the Federal 303(d) "list" (numbers refer to sections of the Clean Water Act). The 303(d) list is a list of impaired waters where objectives or goals of the Clean Water Act are not attainable through standard regulatory controls. States are required to prioritize these water bodies for Total Maximum Daily Load (TMDL) development.

As with the 305(b) report, the information used by Regional Board staff in compiling and revising the WQA includes the type of monitoring data discussed in this chapter, records of past Regional Board enforcement actions, professional judgment of Regional Board scientists and engineers, and public comment. WQA information is stored in the GeoWBS database system,

V.C.3. CLEAN WATER ACT SECTION 303(d) LIST OF IMPAIRED WATERS

Section 303(d) of the Federal Clean Water Act requires states to identify waterbodies that do not meet water quality objectives and are not supporting their beneficial uses. Each state must submit an updated list, called the 303(d) list, to the USEPA every two years. In addition to identifying the waterbodies that are not supporting beneficial uses, the list also identifies the pollutant or stressor causing impairment, and establishes a schedule for developing a control plan to address the impairment.

To develop the list of impaired waters, Regional Board staff relies on data and information collected in the Central Coast Ambient Monitoring Program and other State monitoring programs, along with data and information available from local government or citizen organizations. Staff consider the quality, quantity, timing, and location of data and information for each specified waterbody and the pollutant or stressor potentially causing impairment in that waterbody. Typically, staff compares the levels of the pollutant or stressor to established legal water quality limits (e.g., water quality objectives or other criteria indicating acceptable water quality conditions).

If a waterbody is found to be impaired for a particular pollutant or stressor, it is placed on the list. Once a waterbody and associated stressor pollutant are placed on the list, specific and focused monitoring and assessment efforts are conducted to more fully characterize the nature of the impairment, including identification of the pollutant source(s), and to develop solutions to address the impairment.

V.C.4. CENTRAL COAST AMBIENT MONITORING PROGRAM ASSESSMENTS

Water quality data collected in the CCAMP program is compiled and analyzed to produce watershed assessment reports for the Region. Reports are generated for both surface waters and groundwaters in each watershed, following the CCAMP 5-year rotation monitoring schedule discussed above.

V.C.4.a. Surface water assessments

Surface water assessments are developed using data collected through the CCAMP program and other available information sources, including water quality data from the California Department of Health Services (DHS), United States Geological Survey (USGS), Department of Fish and Game (DFG), Department of Pesticide Regulation (DPR), Toxic Substance Monitoring (TSM) program, National Pollutant Discharge Elimination System (NPDES) discharge data, county data, city data, relevant water quality reports, and any other available literature. Water quality data is also combined with hydrogeomorphic data, land use data, etc., to develop watershed scale assessments, which are, in turn, used to update the 305(b) report and support TMDL development.

V.C.4.b. Groundwater assessments

CCAMP does not actively collect groundwater data, but uses existing sources of data and other available water quality information to develop assessments of groundwater conditions. Data and other information are compiled from the DHS, USGS, California Department of Water Resources (DWR), DPR, and city or county information sources.

Data for both surface and groundwater assessments are evaluated for pollutants of concern, water quality standards exceedances, pollutant levels that warrant attention, beneficial use impairment, spatial and temporal trends, data gaps, and other pertinent information. General evaluations of relationships between surface water and groundwater pollutants are also included in the assessments. Assessment information is then used to develop recommendations for action, to assess future research and monitoring needs, to update the 305(b) report and support TMDL development, and to support permit review activities.

Watershed assessment reports and associated water quality data are available at the CCAMP website (see http://www.swrcb.ca.gov/rwqcb3/ and click on CCAMP).

V.D. OTHER MONITORING AND ASSESSMENT ACTIVITIES

Nonpoint source investigations are conducted to (a) identify the location and nature of sources of nonpoint pollutants; (b) develop information on the quantity, strength, character, and variability of nonpoint source pollutants; (c) evaluate impacts on receiving water quality and biota; (d) provide information useful in management of nonpoint source pollution; and (e) monitor results of any control plan. Investigations are typically undertaken through local agency and watershed group efforts, funded by Federal Clean Water Act grants and other sources.

Special studies and intensive monitoring surveys are conducted to obtain detailed information about a specific water quality problem which, in turn, can be used to evaluate violations of receiving water standards.These studies usually involve localized, intermittent sampling at a higher than normal frequency. These surveys are specially designed to evaluate problems in impaired waterbodies, Water Quality Protection Areas (formerly known as Areas of Special Biological Significance), or hydrologic units requiring sampling in addition to routine monitoring programs. Results from these special studies may be used for addressing impairments identified on the 303(d) List, including Total Maximum Daily Load development, Water Quality Assessment and 305(b) Report updates, and other waterbody assessment activities.

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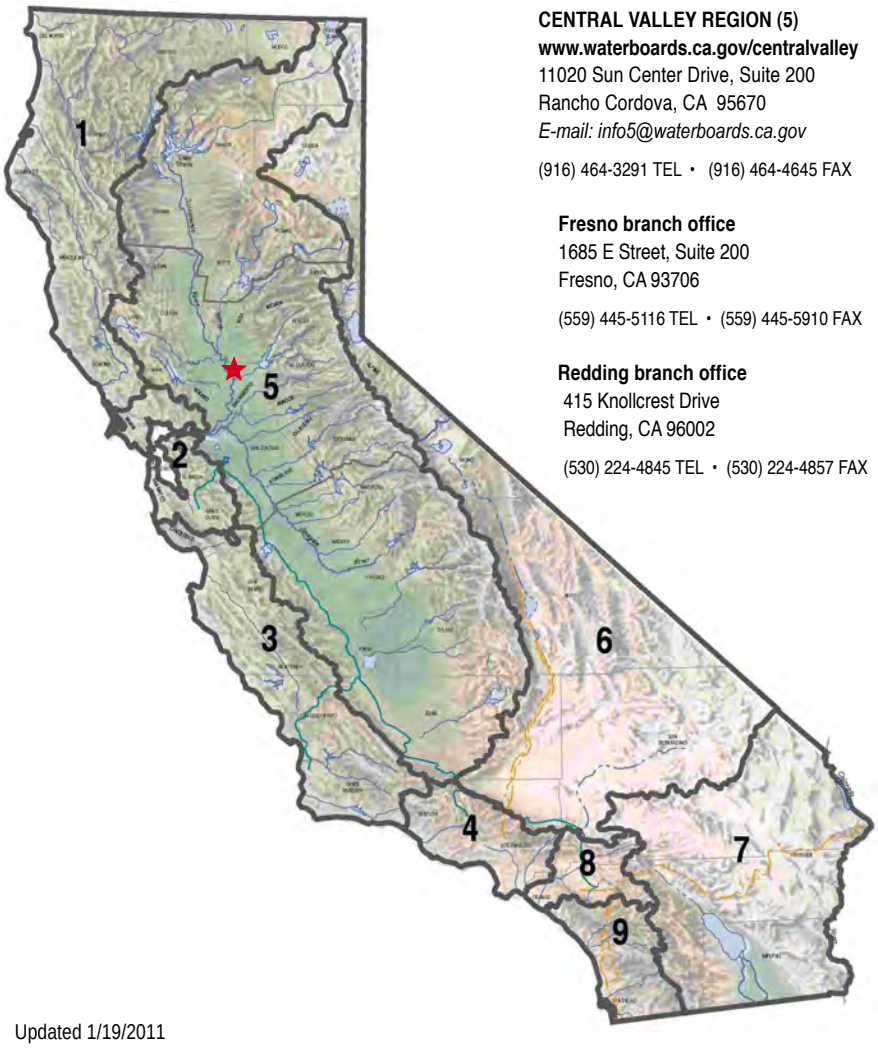

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Agricultural nonpoint source water pollution policy: The case of California's Central Coast

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ABSTRACT

Nonpoint sources of pollution, primarily from agricultural sources, are a major cause of water quality impairment. Yet policies to address this issue remain underexplored in the literature. This article first reviews the agricultural nonpoint source (NPS) pollution policy literature and categorizes its major findings. The North American literature, in particular, rarely analyses NPS policies already in force, and pays even less attention to overcoming implementation barriers to reaching desired environmental outcomes. Second, this paper evaluates a newly adopted policy approach that addresses nonpoint sources of nutrient contaminants in the surface waters of one of the United States' most agriculturally productive and environmentally pristine areas, California's Central Coast. The article then reveals the political, budgetary and technical barriers faced by farmers, regulators, and other stakeholders. The article concludes by arguing that more analyses of implemented policies designed to address agricultural NPS pollution will better inform both local-level and federal policymakers towards the successful creation and implementation of policies that achieve environmental outcomes.

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1. Introduction

An issue of increasing importance to policymakers in the United States is how to best regulate agricultural nonpoint source (NPS) pollution. After decades of working to reduce emissions from point sources, pollution from nonpoint sources now constitutes the number one source of pollution in waterways, with agriculture being the single largest contributor (EPA, 2000).

The three main forms of agricultural NPS pollution are excessive runoff of sediments, nutrients, and pesticides, the effects of which are well documented in the literature (Carpenter et al., 1998; Hunt, 1999; Schultz, 2004). The application of fertilizers and manures to agricultural fields has the potential to contaminate surface waters through several different routes, including (1) runoff directly to drainage ditches and streams, and (2) percolation into groundwater that may later "daylight" as springs or contribute directly to surface waters through channels connecting groundwater and creeks, streams and sloughs. Excess nitrogen fertilizer can leach through the soil profile, most commonly as nitrate and can emerge into surface waters. Elevated nutrient concentrations in surface waters contribute to eutrophication, disrupting ecosystem processes and potentially harming aquatic communities (Carpenter et al., 1998; Diaz and Solow, 1999). Elevated levels of nitrates in drinking water have also been shown to cause blue baby disease (methemoglobinemia) in infants, and gastric cancer in adults (Bower, 1978, cited in Fleming and Adams, 1997) Sediment and pesticide runoff from agricultural lands can also adversely impact aquatic communities (Berkman and Rabeni, 1987; Schultz, 2004).

Though runoff from nonpoint sources constitutes a serious water quality problem, the response by policymakers has been slow, and thus far, relatively ineffective. The Clean Water Act of 1972, while proclaiming the idealistic and ambitious goals of "fishable and swimmable waters" by 1983 and "zero discharge" of pollutants by 1985, does not require agricultural producers to apply for a National Pollution Discharge Elimination System (NPDES) permit (Alder et al., 1993), also referred to as waste discharge requirements (WDRs). Nonpoint source policy, instead, is largely grouped under section 319 of the 1987 Clean Water Act amendments. This section provides funding for voluntary grants to resource agencies and farmers to implement Best Management Practices (BMPs) and water quality monitoring programs, but does not specifically regulate farmer activities. More stringent numeric limits under section 303(d), called Total Maximum Daily Loads (TMDLs), have yet to be fully applied to agricultural producers, and

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have only recently become an issue due to pressure from environmental groups (Houck, 1999).

Although politics certainly plays a role in the slow and ineffective response by policymakers, NPS pollution does not easily lend itself to traditional forms of regulation. NPS pollution is by definition diffuse, prone to discharge in pulses, and difficult to pin on any single pollution event or source. Any effort to identify the origin of loads to any specific parcel or land use activity could require sums of money orders of magnitude larger than the budgets of local regulatory agencies, and might not even guarantee conclusive results. Even more, the cost effectiveness of water improvement could be highly dubious. It is unclear whether the costs associated with alleviating a pollution source will amount to overall water quality improvement in a water body.

This set of circumstances has led to a substantial literature focusing on how to best regulate nonpoint source pollution (Shortle et al., 1998; O'Shea, 2002; Ondersteijn et al., 2002; Romstad, 2003). Agricultural economists offer the most contributions, using rational choice models to estimate which type of regulatory action would yield the most cost-effective returns on nonpoint source regulation. Despite some useful insights, the modeling literature provides few empirical tests with which to gauge real-world NPS pollution policies.

This article fills two critical gaps in the NPS pollution policy literature. First, we comprehensively review the NPS pollution policy literature, building on earlier work (most notably by Malik et al., 1994; Shortle and Horan, 2001; Weersink, 2002) by including more contemporary studies, and by integrating these studies into the broader policy studies literature. Second, this article presents a case study of a NPS pollution policy approach adopted along California's Central Coast in 2004. This case study addresses the considerable lack of empirical studies that analyse the politics and implementation of, and barriers to effective NPS pollution regulation. These barriers are often described in the theoretical literature, but rarely analysed in their real-world context.

This case study is of particular interest both for its innovative voluntary negotiated agreement and for its location. California's Central Coast is home to a multi-billion dollar agricultural industry with documented water quality problems. The newly adopted permit waiver program, the product of an 18-month long stakeholder process, requires that growers enroll in the program, implement Best Management Practices (BMPs), attend educational courses, and enroll in a cooperative or individual ambient monitoring program. While a relative political success, the program relies on a number of key assumptions, the accuracy of which will ultimately dictate its success at achieving desired environmental outcomes. We will explore four of these, including, (1) that design standards can achieve environmental goals, (2) that water quality monitoring can detect pollution "hot spots," (3) that the region can consistently secure enough funding to finance monitoring efforts adequately, and (4) that political support for improving agriculture-related water quality issues will remain high despite competing demands on farm income, regulatory compliance efforts and attention. The article also briefly addresses a new and deadly outbreak of *E. coli* and how that impacts efforts to address water quality issues in the region. We assert that analyses of this type can help inform (1) local-level decision-makers in their attempts to craft regulatory approaches that best fit their circumstances, and (2) federal policymakers on ways to direct funding to overcome the barriers to effective NPS pollution regulation.

2. Agricultural nonpoint source policy literature review

The agricultural NPS pollution policy literature is generally small and comprised predominantly of theoretical models. The few studies that analyse agricultural NPS policies as implemented do so using cases from outside of the United States, primarily in the Netherlands. Despite this gap in the literature, the model-driven research can identify certain strengths and weaknesses of different policy options. Below is a review of the different policy options and how the literature characterizes their use to mitigate NPS pollution.[2]

2.1. Voluntary programs

Voluntary programs are efforts to improve environmental quality that do not force participation. They are often the first choice of both dischargers and regulators, making them the most politically feasible policy option. Dischargers favor the lax regulatory oversight of voluntary programs, while regulators appreciate their relatively low cost and low staff time commitment. The literature analyzing voluntary programs includes both theoretical simulations and empirical studies. Few empirical studies address nonpoint source discharges (Lyon and Maxwell, 2002).

A framework emerges from the literature that categorizes different voluntary environmental programs into three types (Alberini and Segerson, 2002; Segerson and Walker, 2002; Lyon and Maxwell, 2002):

(1) *Unilateral Action*—a polluter or group of polluters voluntarily self-regulate and implement an environmental improvement program.
(2) *Negotiated Agreement*—the government and stakeholders negotiate the terms of an environmental improvement program.
(3) *Voluntary Government Program*—a government-sponsored program establishes eligibility criteria, rewards, and requirements for participation.

Participation in voluntary programs is critical to their success. The literature points to three general motivations for polluters to participate in these programs (Alberini and Segerson, 2002; Segerson and Walker, 2002):

(1) *Environmental Stewardship*—a personal commitment exists to sustaining environmental quality.
(2) *Market-based Incentives*—environmental protection will increase the bottom line either through marketing of a 'green product' or implementation of a 'win–win' scenario such as conservation tillage.
(3) *Government-based Incentives*—environmental protection increases through incentives in the form of subsides, or penalties in the form of fines for non-compliance.

The success of voluntary environmental agreements relies on three critical traits, (1) a credible enforcement threat that regulators can fall back on if voluntarism fails, (2) a monitoring program, preferably implemented by a respected and independent third party, and (3) some form of peer sanction for under-performance, preferably carried out by industry insiders, like trade associations (Alberini and Segerson, 2002; Krarup, 2001; Lyon and Maxwell, 2002; Walton, 2000; Welch and Hibiki, 2002; Potoski and Prakash, 2004). One way to make the regulatory threat more credible is to structure the voluntary approach as a waiver or

[2] The policies discussed under each topic heading do not necessarily fall solely under that heading. Many policies, in practice, incorporate a combination of elements from the three major groupings (voluntary measures, command and control, and economic incentives).

exemption from an already existing regulation or tax (Alberini and Segerson, 2002). Financial inducements are also effective means to increase participation in voluntary programs (Konyar and Osborn, 1990); however, many policymakers do not have the budgetary flexibility to offer such financial inducements. Lyon and Maxwell (2002) assert that "voluntary activity is a *complement* to a regulation, not a substitute," underscoring just how important a credible regulatory threat is to the success of voluntary programs (p. 109).

2.2. Command and control programs

Command and Control (CAC) regulations have been successfully used in a variety of point source pollution reduction programs including, but not limited to, the requirements for the use of best available control technology to reduce pollution emissions from power plants (Rosenbaum, 2005). Despite an extensive literature on the use of CAC policies to stem point source pollution, very few analyses look at how CAC policies have been used to abate agricultural nonpoint source.

CAC policies can be arranged on a continuum between performance standards and design standards (Gunningham and Johnston, 1999, cited in Coglianese et al., 2003). Design standards dictate how dischargers manage their resources or facilities. Performance standards regulate dischargers based on their total emissions. Design standards are the most commonly used approach to control agricultural pollution (Wu and Babcock, 1999), while performance standards, such as compliance with Total Maximum Daily Load (TMDL) requirements, are beginning to receive increasing attention.

The Mineral Accounting System (MINAS) policy, implemented in the Netherlands from 1998 to 2006, is an example of a performance standard that uses economic incentives to induce compliance. MINAS was "a farm-gate balance approach" (Van Der Brandt and Smit, 1998, p. 707), which took into account the total nitrogen and phosphorus inputs and outputs of each individual farm. The difference between inputs and outputs is the farm surplus and assumed to be lost to the environment (Ondersteijn et al., 2002). The farm surplus was then compared to an environmentally safe surplus standard, also known as the levy free surplus (LFS). Dutch regulators taxed farmers for every kilogram in excess of the LFS standard (Ondersteijn et al., 2002). The MINAS system eventually fell out of favor due to issues involved with its application among all farm types, particularly pig and poultry farms (OECD, 2005). To our knowledge, a similar performance- and input-based, farm-gate system for agricultural nonpoint source pollution has yet to be attempted in the United States.

Design standards require that dischargers adopt certain measures that will, in principle, reduce the amount of pollution emitted. One common design standard is the requirement that farmers implement Best Management Practices (BMPs) in order to reduce pollution discharge. BMPs have become increasingly popular in the United States as regulators search for tools that are attractive to dischargers and easy to enforce cheaply. Farmers, and their allies in the resource conservation agencies and university extension programs, prefer BMPs due to the flexibility in adopting those practices that work best for their farm, and because practices can be fine-tuned to specific site characteristics, thereby making them potentially more effective. In the worst case, however, farmers may chose and implement inappropriate or poorly designed BMPs primarily because they are inexpensive or convenient. In such cases, BMPs may not provide any measurable improvements in environmental performance.

Critics raise various problems with both performance and design-based standards. With performance standards it is difficult to evaluate where to put the standard by which polluters must comply. There is often no incentive for polluters to improve beyond that standard unless regulators offer tax breaks or fee waiver reductions for going beyond minimal compliance. Furthermore, especially in the case of NPS pollution, it is difficult to allocate or track discharges to a specific parcel of land or land management activity. Doing so with a high degree of confidence can require years of expensive forensic monitoring.

The main criticism of design standards is that their implementation may not achieve desired and measurable environmental outcomes. The environmental performance of design standards depends largely on agroecological conditions and proper implementation. Moreover, design standards require monitoring to ensure proper implementation. Regulatory agencies often lack the necessary funding to ensure such compliance.

2.3. Economic instruments

Economists advocate market tools as the most cost-effective means to mitigate the harmful effects of pollution (e.g., Freeman, 2003). In recent years, regulatory reform has often taken the form of a shift towards economic incentives in order to achieve policy goals (Eisner, 2004). Mirroring this trend, a wide literature promotes the use of economic measures to address NPS pollution. This literature is primarily model-driven and lacks empirical studies of existing economic incentive programs.

2.3.1. Input tax

An input tax imposes a fee on a farm input, such as irrigated water, chemical fertilizers, or pesticides, and can be administered on an individual basis or across all polluters. Input taxes have been used in parts of the United States and throughout much of Europe primarily to finance pollution control programs rather than to limit the consumption of inputs (Larson et al., 1996). For example, the State of Nebraska implemented an input tax on fertilizers in order to raise funds for local Natural Resource Conservation Districts to monitor water quality, create and provide educational courses, and to share costs in the purchase of equipment for the implementation of BMPs. This fertilizer tax expired in 2000 and has yet to be reinstituted (Edson, 2004). California imposes a mill tax of 17.5 mills ($0.0175) per dollar of pesticide sales; the Department of Pesticide Regulation uses the proceeds for education, data collection and grower training purposes.

Alternatively, if input taxes were to be raised to a sufficient level (i.e., where marginal costs of abatement are equal to fees), research shows that this would be an effective means towards achieving desired reductions in pollution discharge. In order to do so, however, the input tax would have to be raised to a politically infeasible level (Segerson and Walker, 2002; Shortle and Horan, 2001). The challenge, therefore, is to design an input-based incentive that achieves environmental goals at a reasonable cost (Shortle and Horan, 2001). Horan and Ribaudo (1999) point out that while certain states have used input-based incentives to limit agricultural nonpoint source pollution, their impacts have not been studied. In the case of California, fertilizer sales are subject to a 0.3% tax, part of which is used to support research and extension on the use and handling of fertilizers. Individual projects report increased fertilizer use efficiency and a reduction to fertilizer losses to the environment. However, no attempt has been made to assess the overall effectiveness of the program *writ* large.

Much of the literature focuses on which input is best to tax, and whether to tax individually or uniformly in order to achieve environmental goals at reasonable costs. Assuming perfect information, Shortle et al. (1998) demonstrate that targeted input taxes are more cost-effective than uniformly administered taxes in

achieving reductions in pollution. In other words, a progressive tax directed at the heaviest polluters will achieve the greatest reduction in overall pollution levels without overly penalizing the smallest contributors, but only if the largest fertilizer users contribute to the largest nitrogen losses, which may not be the case at all. While some studies point to certain inputs as the most cost-effective to tax under homogenous conditions (Larson et al., 1996), an insufficient number of studies have been conducted to generate the most efficient inputs to tax in more heterogeneous, information intensive settings (Shortle et al., 1998). Without a direct measure or estimate of pollutant discharges on an individual farm-gate basis, the tax approach would be difficult to implement.

2.3.2. Ambient tax/subsidy

Segerson (1988) advocates monitoring ambient concentrations of pollutants in order to control nonpoint source pollution (Shortle and Horan, 2001). In this approach, regulators pay farmers a targeted subsidy when pollution drops below a certain level, and fine them if effluent or irrigation tailwater exceed some predetermined threshold. An ambient tax may be more effective than regulating and monitoring inputs if ambient concentrations can be monitored at a lower cost and at an acceptable level of accuracy. Monitoring ambient concentrations also leaves the door open for regulating both point and nonpoint sources via the same mechanism (Shortle and Horan, 2001).

Ambient taxes used to control agricultural nonpoint source pollution have many disadvantages. Ambient concentrations can vary widely due to weather conditions and other stochastic events. These events could lead to an unfair penalty on a farmer who is acting in good faith to reduce pollutant levels. If it is low enough—or a particular farmer has no confidence that high compliance will result in decreased fees, an ambient tax may create no incentive to reduce effluent. If farmers upstream increase their total amount of pollution, the efforts by those downstream to reduce their emissions will not be recognized (Shortle et al., 1998). This could lead to a situation where farmers lean on the actions of others and may not be penalized for their inaction (Shortle and Horan, 2001).

Xepapadeas (1997) modifies Segerson's model by splitting the tax on pollutants into two parts, that which is observable and that which is not. For the portion of effluent that a monitoring program is able to measure, this approach calls for an effluent tax. For the portion of the pollutant that is not measured by a monitoring program, this approach calls for an ambient tax. This approach integrates the informational and economic realities of monitoring and thus could make the idea of ambient taxes more appealing to policymakers constrained by such problems (O'Shea, 2002). Despite this attention in the literature, Romstad (2003) found that ambient taxes have yet to be tested or implemented in practice. Finally, developing an equitable cost allocation for monitoring suffers from the same problem as the tax itself—there is not enough information to allocate costs proportional to the discharge loads.

2.3.3. Governmental financial assistance

A significant mechanism for reducing NPS pollution is the establishment of tax-payer funded programs to either directly fund mitigation and monitoring efforts, or motivate desired behavior. Such programs can be roughly divided into two groups, grants, and subsidies/green payments.

Tax-payer supported grants are the largest form of federal intervention used to reduce agricultural NPS pollution. Section 319 of the Clean Water Act established a grant program specifically to fund mitigation efforts in the form of BMPs and monitoring efforts to demonstrate the effectiveness of BMPs. In 2007, California garnered $10.2 million in section 319 monies, nearly 50% of which was available to fund projects (Ziegler, 2007). Farm Bill funds under the Environmental Quality Improvement Program (EQIP) also fund NPS mitigation efforts, and far surpass the funding available from section 319 grants. Regular EQIP funding in 2007 for California reached almost $20 million, all of which was available to fund monitoring programs and BMP implementation (USDA-NRCS, 2007). California recently passed several water quality bond acts that will pay to install BMPs with the assistance of local resource agencies.

Horan et al. (1999) define green payments as "any payments to producers based on either specific actions taken to reduce nonpoint pollution or on the probable environmental results of such actions" (p. 1210). Green payments are used by governments around the world to decrease pollution emissions from agricultural fields. In the United States, the largest such program is the Conservation Reserve Program (CRP). Initiated in 1985, the CRP pays farmers to retire farmland from production for 10–15 years. In July 2007, the CRP had a total of 14.9 million enrolled hectares of farmland (USDA-FSA, 2007). Temporarily retiring farmland in programs such as the CPR most likely reduces nonpoint source emissions into adjacent waterways. However, these gains may only be temporary if incentives structures shift such that farmland becomes more profitable under production rather than retired under the CRP. For example, the recent expansion of corn production (USDA-NASS, 2007) due to increased ethanol demand (EPA, 2006) threatens to reduce the total number of acreage under CPR contracts (NY Times, 2007) and replace less nitrogen intensive soybean production (USDA-NASS, 2007).

Purchasing easements to stimulate good stewardship on private lands has been an increasing popular trend in the state of California.[3] In particular, private foundations such as The Nature Conservancy, Trust for Public Land, and other local nonprofit organizations have been actively purchasing easements on private land. These typically focus on wild land conservation or agricultural land preservation, but there is growing interest in using them to create field margins that protect water quality.

2.3.4. Tradable permits

Tradable permit programs between point and nonpoint sources are receiving increasing attention due to the success of point source trading programs in abating pollution (Salamon, 2002). The main appeal of tradable permits is that they will create a more cost-effective approach towards achieving environmental quality goals (Shortle and Horan, 2001). To date, several point–nonpoint trading programs are currently in place.[4]

Point–nonpoint trading can occur in one of two ways, Emissions for Inputs (E-I) trading or Emissions for Loadings trading (E-LO) (Horan et al., 2002). E-I is a system whereby polluters trade changes in point source emissions for changes in fertilizer use or management practices. Alternatively, an E-LO system trades point source emission credits for estimates of nutrient loads, as calculated by a model (Horan et al., 2002). Estimates are used in the place of actual emissions because it is often too costly to accurately detect actual emissions. Furthermore, emissions are subject to a high degree of variability. One challenge of creating a point–nonpoint trading program is the ratio at which to set the trade. Since point and nonpoint sources do not necessarily pollute

[3] Easements are deed restrictions containing proscriptions (e.g., no development or land use conversions) or prescriptions (e.g., requirements to farm organically or protect riparian habitat) or a combination of both. These restrictions often name a third party as the easement holder, thereby creating a contract between the landowner and some entity – often a land trust or government agency – ensuring some agricultural or conservation value in the property will continue in perpetuity.

[4] For a useful table of existing, pilot, and planned trading programs see Horan et al. (2002).

on a 1:1 ratio, a balanced rate must be found in order to achieve water quality goals (Horan et al., 2002).

In small basins where only nonpoint sources contribute to water quality problems, a trading program between point and nonpoint sources is not feasible. In such cases, nonpoint source polluters could trade with other nonpoint source polluters, either in the same basin (intra-basin), or in adjacent basins (inter-basin). In both cases water quality concerns may not be fully addressed and, in effect, shifted to other watersheds or water bodies. The concentration of permits and water pollution in both models would naturally accumulate where agriculture was the most profitable. While the overall discharge into a large water body would be the same, pollution 'hot spots' could develop, with unintended deleterious environmental effects and local inequities.

2.3.5. Liability rules and performance bonds

While similar to an ambient tax, under liability rules polluters can be sued for the amount of damages incurred if they can be directly linked to the pollution (Shortle and Horan, 2001). One type of liability rule, joint and several liability, allows the government to sue one polluter out of many in order to recuperate damages created by the larger group (Malik et al., 1994). Irrespective of equity concerns, governments have used this rule primarily to fund toxic spill clean-up efforts, such as the US Superfund program (Malik et al., 1994).

One significant drawback of liability rules is that the litigation costs may be more expensive than other regulatory methods. Excess costs may keep groups from attempting to claim damages from polluters and consequently allow polluters to continue to pollute unchecked (Shavell, 1987, cited in Shortle and Horan, 2001). For these practical reasons, as well as political feasibility issues, liability rules are better suited for toxic spills, hazardous materials, and other accidental occurrences (Lichtenberg, 1992; Menell, 1990; Wetzstein and Centner, 1992; cited in Shortle and Horan, 2001), or as a complementary mechanism with other instruments (Weersink, 2002).

Rather than attempting to recuperate costs after the discharge of pollution, a deposit/refund performance bond makes polluters pay an amount of money (a bond) that would be forfeited if future pollution control is inadequate (Weersink, 2002). Deposit/refund bonds can be tied directly to water quality levels or to the implementation of techniques such as BMPs (Malik et al., 1994). In the event that a water resources agency is requiring the use of BMPs to reduce pollution levels, a deposit/refund bond can be used to increase the incentive for implementation.

2.4. Conclusions from the literature

The agricultural NPS pollution literature is primarily model-driven and lacks empirical studies of implemented policy tools. Practitioners would benefit tremendously from empirical studies analyzing policy innovations as they have actually been implemented. Studies highlighting the politics of implementation and monitoring would fill a large gap in the literature and do a great service for the advancement of nonpoint source policy.

Despite these gaps, the model-driven literature suggests certain characteristics of a successful policy framework for addressing agricultural NPS pollution. The literature is clear in its recommendation that no one policy tool distinguishes itself from the group as the best way to address the problem of agricultural NPS pollution. In fact, the literature suggests that the best way to address this problem is through a combination of different policy measures (Malik et al., 1994; O'Shea, 2002; Segerson and Walker, 2002; Weersink, 2002). This is consistent with the wider policy literature, which suggests the use of CAC policies to set a minimum standard that all dischargers must meet, and voluntary and market incentive programs used to achieve further reductions (e.g., Eisner, 2004; Potoski and Prakash, 2004). The literature also points out that targeting policies to specific farms (as opposed to blanket policies for all farms) would be a more effective means of reducing pollution (e.g., Bennett and Vitale, 2001). Furthermore, it may be more cost-effective to look at all pollutants and devise manners in which to reduce their discharge collectively, instead of focusing attention on a pollutant by pollutant basis (Kampas et al., 2002).

3. The case of California's Central Coast

One large gap in our understanding of how to best regulate NPS pollution runoff from agricultural sources is the lack of empirical studies analyzing how water agencies construct and implement NPS pollution policies in their local jurisdictions. Local water agencies have been regulating agricultural nonpoint source pollution for many years. Nonetheless, North American studies lack analyses of, (1) the political and practical contexts under which these policies were constructed, (2) how well these policies are achieving environmental outcomes, and (3) the barriers towards more effective pollution control.

3.1. Agriculture and the environment on the Central Coast

The Central Coast Regional Water Quality Control Board (hereafter referred to as the Regional Board), acts as the regulatory body for the region, exercising both quasi-executive and judicial powers. It regulates activities over roughly three million total hectares, approximately 176,000 of which are irrigated agricultural lands (CCRWQCB, 2006). Agriculture is the region's dominant economic force, with sales totaling roughly $3.86 billion in 2002 (USDA-NASS, 2002). Population in the area is estimated to be just over 1.4 million in 2006, up almost 20% since 1990 (RAND California, 2007).

Small- to medium-scale nutrient-intensive producers comprise the bulk of agricultural activity in the region. Strawberries, grapes and vegetable crops (including lettuce, broccoli, and artichokes) make up the largest grossing commodities, most of which are grown using irrigation from groundwater on farms less than 20 ha in size (CCRWQCB, 2004).

Vegetable production in the region is especially prone to nutrient runoff due to frequent cultivation, relatively short growing cycles, and low nutrient uptake efficiency (Di and Cameron, 2002). Furthermore, the Central Coast's Mediterranean climate can exacerbate the discharge of nutrients, since the build-up of nutrients in the fall can leach below the root zone or runoff into waterways with rainfall events early in the rainy season. These agroecological and climatic conditions have led to a number of documented cases of water quality levels exceeding standards in three areas, sediments, nutrients and pesticide toxicity (Hunt et al., 1999; Caffrey, 2001, cited from Stuart et al., 2006). Finally, there are numerous areas along the Central Coast where groundwater is contaminated by nitrate from decades of agricultural practices. Irrigating with these contaminated waters, regardless of fertilizer practices, has the potential to exacerbate the surface water quality impairment.

Water quality impairment takes on added significance, given the proximity of the region's agricultural lands to critical habitat for several species of special concern. The Central Coast is home to the last remaining population of the California Sea Otter, three sub-species of threatened or endangered Steelhead (*Oncorhynchus mykiss*) and one sub-species of endangered Coho Salmon (*Oncorhynchus kisutch*). The endangered red legged frog (*Rana aurora*) can also present problems for farmers. Several watersheds

drain into Monterey Bay and one of the largest marine sanctuaries in the world, the Monterey Bay National Marine Sanctuary. California's Central Coast is also home to Elkhorn Slough, one of the largest remaining tidal wetlands in the United States and one of the NOAA designated National Estuarine Research Reserves. The southern portion includes the Morro Bay National Estuarine Research Reserve and extensive salt marsh habitat.

3.2. The agricultural waiver program

Although California farmers are exempt from the National Pollution Discharge Elimination System (NPDES) program under the Federal Clean Water Act, farmers are not exempt from the California Water Code. When the Clean Water Act was passed in 1972, it seemed safe to assume that polluted runoff would not be discharged into surface waters due in part to the Mediterranean climate, where irrigation water was thought to stay on site, where winter rains were generating clean runoff from soils that were covered with cover crops, and in which chemical inputs were significantly lower. Time has proven these assumptions erroneous. But until recently, California water quality regulators exercised their discretion to exempt most farmers from waste discharge permits, essentially giving farms a *carte blanche* to discharge pollution into waterways.

However, a lawsuit filed by the California Public Interest Research Group and the Waterkeepers of Northern California in February 2002 alleged that the state illegally abdicated its regulatory duties by turning a blind eye to agricultural-related water pollution. This was quickly followed by action from the California state legislature, which amended the California Water Code ending all pre-existing waiver programs and requiring regional boards to reassess earlier efforts to stem pollution by 2003. The new law also required that all new waiver programs include mandatory individual, group, or watershed-based monitoring. These developments led the Regional Board to reconsider waiving waste discharge requirements for the agricultural sector. The Regional Board availed itself of data collected by the Central Coast Ambient Monitoring Program (CCAMP). Although only 1 year of data was available for three different watersheds in 2003, it was sufficient to demonstrate ambient water quality problems with nutrients, and in some cases, pesticide toxicity (CCRWQCB, 2004).

The Regional Board formed an advisory committee comprised of local farm bureaus and environmental groups charged with recommending a new conditional waiver program. This stakeholder process lasted 18 months and culminated with the adoption of what is known as the Agricultural Waiver Program (AWP). The new program adopted on July 9, 2004 is a voluntary negotiated agreement, which uses design standards (e.g., BMPs and rules dictating how farmers should manage on-farm water resources) to reach environmental goals. The threat of mandatory regulatory action drives dischargers to join the program. Under the AWP, farmers are required to attend educational classes, create a farm plan, and implement BMPs, which they choose at their discretion. Farmers must also complete either cooperative or individual monitoring to demonstrate ambient water conditions. The AWP does not specify what actions must be taken against dischargers who are in compliance with the provisions of the AWP while still discharging high levels of pollutants. Under such circumstances the Regional Board may require that farmers implement additional BMPs and additional monitoring in order to prove their effectiveness.

The waiver program is split into two different tiers depending on the actions of the farmer. Farmers who complete both the required 15 h of educational courses and create a farm plan with a list of implemented BMPs are eligible for the tier 1 waiver. The tier 1 waiver program calls for an updated management-practice list midway through the 5-year waiver. Farmers who have not completed all of the required educational courses fall under the tier 2 waiver program. Tier 2 farmers must submit annual reports detailing their progress towards achieving the educational goals that also contain a checklist of currently implemented management practices. Farmers who do not meet the educational requirements after 3 years can be issued Waste Discharge Requirements (WDR), a much stiffer form of regulation that essentially treats a farm the same as a point source discharger (like a sewage treatment plant).

The AWP also recommends that each farmer adopt a monitoring component to track ambient water quality and the effectiveness of BMPs. As Regional Board staff began proposing monitoring requirements, farmers voiced their concerns about costs, appearing before Board hearings with alarming projections for sampling and lab expenses. Before an impasse on monitoring emerged, the Board and stakeholders agreed that farmers could elect to become part of a cooperative monitoring program (CMP), or conduct their own individual monitoring program. The CMP was designed as a more cost-effective means for farms to comply with the monitoring requirement. The CMP calls for monitoring ambient water quality on the main stems and tributaries of the Central Coast. Monthly grab samples are to be tested for nutrients, temperature, orthophosphate, chlorophyll *a*, dissolved oxygen, total dissolved solids, pH, turbidity, and discharge. Furthermore, water toxicity is to be measured four times per year, the condition of benthic invertebrates[5] once a year and sediment toxicity once a year. Areas with high levels of one or more contaminants must be tested further in order to identify with more accuracy the source of the discharge. The AWP states that 25% of the funds used for monitoring should go towards "hot spot investigative monitoring" (CCRWQCB, 2004). In addition, some growers have insisted on analytical work above and beyond what is required by the AWP in order to provide insight on the causes of toxicity. In particular, growers want confidence that causes and sources of toxicity relate directly to current practices that can be addressed through management practices in contrast to toxicity caused by "legacy pesticides" no longer used, but still entering waterways (e.g., from dredging, flooding).

As of September 2007, The Regional Board had enrolled 164,000 hectares in the AWP, or 93% of the total estimated irrigated agricultural lands in the region. The 1070 tier 1 enrollees represented 79% of total irrigated acreage in region and 85% of enrolled acreage. The program had also enrolled 641 tier 2 growers, who still needed to complete their 15 h of education and/or their farm plan, representing about 15% of the enrolled acreage.

In 2004, growers formed the Central Coast Water Quality Preservation Inc, a nonprofit organization to organize cooperative monitoring efforts. Their monitoring efforts began in 2005 with 25 sampling locations in streams or rivers throughout the region. In 2006 this expanded to 50 sites. Initial results demonstrate that pollutant trends identified by earlier, site-specific scientific studies and CCAMP monitoring efforts are largely present regionwide. Monitoring efforts in 2005 found that almost half of the 25 sites had a mean yearly nitrate (NO_3-N) level that exceeded drinking water standards (10 mg/L) (CCRWQCB, 2006). Monitoring efforts also found significant problems with pesticide toxicity in regional waterways. In 2006 the Board began regulatory action on those

[5] Analyses of mussel tissues taken at river mouths around the Monterey Bay over the last decade reveal levels of persistent organic pollutants (notably dieldrin and DDT) that frequently exceed environmental and public health standards (see especially reports by the Central Coast Long-Term Environmental Assessment network, www.cclean.org).

farmers not yet enrolled in the program. Preservation Inc., in conjunction with the Regional Board began investigative monitoring and an evaluation of management plans in order to address water impairment issues (CCRWQCB, 2006).

4. Evaluation

The high level of initial enrollment and the successful completion of the first phase of cooperative monitoring efforts are testament to the political success of the AWP. Working with growers is itself an accomplishment. But will the program achieve its stated environmental goals? The AWP relies on a few key assumptions, any of which could be wrong: (1) design standards using BMPs will have a measurable and positive impact on pollution runoff; (2) monitoring efforts will be able to detect discharge "hot spots" as well as any improvements in ambient water quality; (3) government funding opportunities will defray farmer costs for monitoring and BMP implementation, which, in turn, will assure their continued cooperation in regulatory efforts; and (4) political support for improving agriculture-related water quality efforts will remain high, even in the face of competing demands on farm income, regulatory compliance efforts and attention. All four of these assumptions are untested. The following section explores these potential challenges to the environmental success of the AWP.

4.1. The performance success of design standards

When the Regional Board was designing the AWP, members grappled with the regulatory choices available to them, ultimately settling on BMPs instead of adopting typical command and control rules (e.g., effluent or ambient limits) or market incentives. Farmers select their own BMPs, but many have been tested by agricultural extension agents, university researchers, county resource conservation districts (RCDs), or Natural Resource Conservation Service (NRCS) Staff. Input from extension agents and RCDs was critical to assuring the Regional Board that a large set of practices was available for reducing water quality impacts and that these practices could reliably be disseminated through short courses (a required element of the AWP). Moreover, growers must provide detailed checklists of their BMP adoption.[6]

BMPs can be broken into three different categories, (1) structural (e.g., buffer strips), (2) cultural (e.g., cover cropping), and (3) management (e.g., fertilizer management) (Logan, 1990). As local resource agencies (RCDs and NRCS) have noted (Mountjoy, 2005), the implementation of BMPs can be best described in three different strategies, (1) low cost management, (2) stop-gap practices, and (3) a full-scale package of practices designed to quickly and efficiently limit pollution discharge.

Often the least costly and most effective BMPs fall into the first category—low cost management. For example, careful nutrient management helps farmers save money on fertilizers while decreasing nutrient discharge. Stop-gap measures are normally more expensive or, more importantly, require time and expertise that some growers (especially those whose farms are marginally profitable) do not have. Stop-gap measures include, for example, the implementation of a single BMP such as a buffer strip in order to limit sediment discharge. The final category involves a suite of management, cultural, and structural BMPs targeted at a particular problem(s). For example, in order to reduce nutrient discharge, a set of BMPs could be used, including nutrient management, land leveling, grassed waterways, grade stabilization structures, and water and sediment control basins. This suite of practices is more likely to achieve environmental goals, but is very costly and often not the first choice of BMP-adopting producers (Mountjoy, 2005).

A problem with all design standards is that they do not necessarily translate into desired environmental outcomes. Farmers may implement BMPs, but they may not improve the water quality of local waterways. BMPs could be implemented poorly or they may simply not provide sufficient pollution prevention. For example, a farmer may install a buffer strip, but its effectiveness in part has to do with the plant species used, the spacing between plants, and the management of the buffer strip. A lack of adequate, localized information can also be a problem. Without such information growers do not have the necessary knowledge to implement the BMP most relevant to their specific pollution problem.

As the AWP is currently structured, board staff will monitor neither the choice of BMPs nor their implementation, except (potentially) when "hot spots" occur. Even if the AWP were restructured to allow for increased monitoring, it is not likely that board staff would have sufficient time to conduct such activities. This is partly due to a lack of adequate staffing, but also due to the highly competitive nature of row crop agriculture in the region. Practices change rapidly and effectiveness is difficult to gauge in an audit process without expending a great deal of staff time with individual growers at each production field.

4.2. Monitoring—how do we measure success?

In order to demonstrate the effectiveness of BMPs, or grower behavior as a whole, at reducing pollution discharge, the AWP contains an ambient water quality monitoring provision currently being administered by Central Coast Water Quality Preservation, Inc. Monitoring surface waters for nonpoint source pollution can take on several levels of intensity and costs depending on the questions to be addressed. Currently the monitoring protocol outlined in the AWP requires that local waterways be assessed on a monthly basis for nine major components in order to obtain data designed to pinpoint areas with the highest discharge levels. However, critical questions remain: (1) do monitoring locations adequately represent agricultural sources where mixed land uses are ubiquitous; (2) is it sufficient to detect all of the harmful discharges into local waterways?; (3) if not, what other options exist to achieve the desired level of monitoring and how much will they cost?; and (4) what type of additional monitoring is necessary for a "hot spot" in order to ensure that implemented BMPs are reducing discharge?

In general land use is characterized on landscape scales from remotely sensed data or aerial photographs. However, even when linked to sophisticated GIS and water transport models, the link between individual farming practices and pollution discharge cannot be modeled without detailed management records that are generally unavailable at landscape levels. Therefore, most models rely on empirical correlations between crops and pollution loads on larger scales than individual farms. Thus, growers can argue that correlative models should not be used to evaluate water quality monitoring data to regional agricultural practices. This could be an argument for individualized water quality monitoring where grower practices can be directly linked to water quality, which growers have rejected outright due to the costs and potential public scrutiny. Unless it agrees to use the regional monitoring data as representative of agricultural discharge, the Regional Board may be forced to augment its program with on-farm monitoring to determine whether the program is effective at the farm scale.

The current monitoring protocol appears to be sufficient in order to detect at least some "hot spots." The first results collected

[6] The latest summary of all BMPs adopted by growers in the region is available at http://www.waterboards.ca.gov/centralcoast/AGWaivers/Index.htm.

by Preservation Inc. mirrored those results obtained by CCAMP in years past (CCRWQCB, 2006) and certainly provide a host of water quality issues that growers must address if this policy tool is to be effective. Monthly grab samples at many sites still, however, may miss pulses of discharge of chemicals or nutrients that exceed allowable limits. Furthermore, once "hot spots" are detected, more monitoring may be required to measure the efficacy of mitigation tools. These situations may require a more forensic level of monitoring. In order to be able to catch all discharge events and the efficacy of "hot spot" BMPs, it is important to collect data at sufficient temporal and spatial density to resolve shorter versus longer term changes, and to account for inter-annual variations in precipitation, land use, ground water pumping, and other site-specific factors. For example, along the central coast of California, storm-event runoff can increase or decrease nitrate concentrations in surface waters depending on geomorphology, land use, and water sources. These patterns can be described empirically (Los Huertos et al., 2001), but ascribing a mechanistic understanding of nitrate concentrations requires a much greater density of observations. Expensive technologies exist for monitoring nutrients and turbidity continuously *in situ*, but similar technologies do not exist for other key constituents, e.g., pesticide concentrations.

4.3. Funding

Ultimately, the ability to collect adequate monitoring data to detect pollution "hot spots" and implement effective BMPs requires large amounts of money. Preservation Inc. and growers must piece together funding for water quality monitoring and BMP implementation from a variety of different sources. The funds currently obtained by Preservation Inc. for water quality monitoring predominantly come from soft money, or funding mechanisms that are not secure in the long-term. The only long-term funding for monitoring comes in the form of yearly farmer assessments. Beginning in 2006, Preservation Inc. charged member farmers a yearly assessment of $0.87 to $1.27 per hectare, depending on farm size and irrigation tailwater management practices, supplementing their soft-money funding sources. To date, the organization has raised $770,000 per year (Schmidt, 2007).

Fortunately for area farmers, state voters passed two different propositions to fund water quality improvement practices and subsequent monitoring to demonstrate success. Grants from these two propositions, totaling $2.5 million over 3 years will provide the region with critical support. When added to the farmer assessments, Preservation Inc. raised approximately $4.8 million to complete required monitoring activities through 2009. Approximately 25% of this money was earmarked for "hot-spot" follow-up investigative monitoring. These will likely include water quality monitoring and BMP implementation components, both of which will require staff time to track compliance efforts.

The first round of monitoring has already identified certain "hot spots" where nutrient discharge is far above current drinking water standards (CCRWQCB, 2006). It is clear from these results that "hot spots" have been detected in many different areas throughout the region. Costs for hot spot monitoring and additional BMPs to mitigate water quality will vary considerably depending on the type and level of impairment. For example, one particular nutrient discharge "hot spot" may involve a single grower covering 120 ha on flat land with a high water table. "Hot spot" investigative monitoring may find that although farmers are already implementing certain BMPs, they are not significantly reducing their nutrient discharge. Under such circumstances, the Regional Board may require the implementation of a more rigorous suite of BMPs in order to reduce pollution discharge. Mitigation of this hypothetical hot spot could include, for example, nutrient management, two hectares of grassed waterways, two grade stabilization structures and two hectares of water and sediment control basins. To implement this suite of BMPs on just one farm could cost close to $350,000.

This example constitutes only one "hot spot" covering just 0.07% of the total agricultural land in Region 3. Other nutrient "hot spots" are certain to occur (and require additional BMPs and water quality monitoring), as are spikes in sediment loads and chemical toxicity. While costs will vary, they could outpace current funding options. Farmers have primarily relied on federal Farm Bill funds in the form of Environmental Quality Improvement Program (EQIP) grants to fund BMP implementation, but they also obtain smaller amounts of assistance from state administered funds from ballot measures, violator settlement funds (known as Supplemental Environmental Projects), and section 319 Clean Water Act money administered by the federal Environmental Protection Agency. Funds currently available to regional farmers from these sources – approximately $3.5 million in 2005 – are earmarked for several purposes beyond water quality BMP monitoring and implementation (USDA-NRCS, 2007). The portion that is reserved for water quality projects will likely be outpaced by demand, especially if "hot spots" continue to be detected. Such a set of circumstances could potentially jeopardize the continued support of the agricultural community in efforts to improve water quality.

4.4. Water quality versus food safety—a regulatory paradox?

An issue further complicating efforts to address agricultural NPS pollution is the potential conflict between water quality and food safety. In the last decade alone, 20 outbreaks of food-borne illness from *E. coli* 0157:H7 came from lettuce or leafy greens; of these outbreaks, nine were traced to the Central Coast. The September 2006 outbreaks of *E. coli* 0157:H7 in Central Coast spinach resulted in three deaths and sickened more than 200 people in 26 states and Canada (Beretti and Stuart, 2008). The region is now under considerable pressure to address and eliminate recurring food safety problems that include a variety of pathogenic organisms. Large shippers quickly attempted to control political responses to food safety fears by adopting guidelines for on-farm risk management. Although grower associations labeled these guidelines voluntary, they also made it clear that growers who did not comply would face serious difficulties selling their produce.

Unfortunately, the guidelines encourage growers to reduce the presence of wildlife and any non-crop vegetation that could attract wildlife, but non-crop vegetation in buffers and waterways effectively removes nutrients, sediment, and agrochemicals (Osborne and Kovacic, 1993; Briggs et al., 1999; Fiener and Auerswald, 2003; Dabney et al., 2006; Lovell and Sullivan, 2006). Retailers fear that practices to improve water quality may also provide habitat for possible disease vectors (livestock, deer, pigs, birds, rodents, amphibians, etc.), and thus view these practices as a risk. Just 1 year after the E. coli outbreaks, a number of farmers were ripping out buffer strips, tree borders, wind breaks and hedgerows (Schmidt, 2007). Therefore, the idea of "clean" fields results in a paradox: cleaning up fields for food safety may increase environmental pollution and habitat degradation; ignoring industry guidelines may bankrupt farmers (Beretti and Stuart, 2008). How water quality prevails in this crisis provides only the first of what will certainly be many political tests of the AWP.

4.5. Discussion

Development of the agricultural waiver was a negotiation between the regional board, growers, and environmental organi-

zation over a decade-long period. Due to the nature of the process, the potential for limited reductions of pollutant loading, and relatively meager enforcement action, the regional board could appear "captured" by the farming industry, were it not for the support environmental groups lent to the process and its outcome.

Indeed, in spite of long-standing tensions between growers and environmentalists, their respective organizations co-negotiated the waiver. Both sides cite the disadvantage, burdens or weaknesses of the waiver, in short, a mutually suboptimal result. Thus, the agriculture discharge waiver should perhaps be viewed as one step in a long process to develop, improve and evaluate policy tools to address nonpoint source pollution. Results from future monitoring may indicate that water quality has not improved. If so, the Regional Board will be under pressure to scrap the waiver or change it dramatically, possibly invoking tougher regulations that will shatter the delicate agreement reached between all parties.

At the time of this writing, the 2009 expiration and renewal of the agricultural waiver looms ominously for the region's growers.[7] Growers are fully cognizant that the results from the ambient monitoring program will not be sufficient to relax the waiver expectations; on the contrary, growers fear that grower management options to improve water quality will become more proscriptive, less flexible and more costly, and possibly jeopardize marketing options by increasing the risk of food safety concerns. Furthermore, they are eager to demonstrate either an improvement in water quality or a clear link between the installed BMPs and water quality without toxicity, agricultural pesticide residues, and elevated nutrient concentrations.

Given the limited monitoring time frame (less than 4 years of data when the agricultural waiver will be re-evaluated), the low sampling frequency (once per month), and intra- and inter-annual rainfall variation, no one expects water quality data to demonstrate any conclusive trends. Therefore, growers have a keen interest in demonstrating that watersheds with significant BMP implementation have good water quality. However, finding such watersheds has become a considerable challenge. First, the watersheds must be intensively sampled, which is rather expensive. If public money from the State bond acts is used, the results must be made public, raising privacy concerns among some growers. If water quality is good, then this will provide evidence that the installation of BMPs has been successful and imply that an even more robust application of BMPs can improve water quality further. However, if the data do not demonstrate the success of BMPs, the conclusions are ambiguous. As an alternative approach, growers have proposed the creation of a privatized education and outreach program that would collect samples intensively from sub-watersheds for a few weeks and quickly analyse the data. The program would analyse in-stream water quality parameters (pH, conductivity, dissolved oxygen, temperature, and turbidity), discharge, dissolve nutrient concentrations (nitrate, ammonium, and soluble reactive phosphorus), and two classes of pesticides (organo-phosphates and pyrethroids). Results from the intensive monitoring program would be shared in a series of outreach meetings with growers in the watershed, with technical experts from Cooperative Extension, the Natural Resources Conservation Services, and Resource Conservation Districts. These sub-watershed meetings would provide near-real time data for growers to evaluate both their practices and the water quality status of the watershed.

Some growers have been quite supportive of this approach because it assumes that, with better data, growers can make better management decisions to protect water quality. This assumption may be true, but it remains an open question, representing one of the fundamental uncertainties regarding management-based approaches and the nature of extension in general.

[7] The California Water Code requires 5-year renewals for permits and waivers. These renewals can result in significant changes if the Board finds that the permit or waivers do not function properly.

5. Conclusion

Agricultural nonpoint source pollution continues to plague the world's waterways. Yet this globally important issue has thus far received relatively scant attention in the literature. The review of this literature presented in this article helps local-level policymakers understand those types of policy tools that best correspond to the particular characteristics of their district. Our review of this literature demonstrates the need for more analyses of implemented policy approaches to better identify the barriers to successful implementation and abatement of water pollution. The case study of the innovative approach along California's Central Coast establishes that even when a regulatory agency is relatively united, and there is substantial and significant interest by all parties, including the agricultural industry, to participate in mitigation efforts, conditions may not be sufficient to achieve desired environmental outcomes.

More case study analyses of implemented policies across the globe can further illuminate the challenges to achieving successful policy implementation and pollution abatement. Not all of the challenges identified by such case studies can or will be overcome, e.g., generating support among all constituencies for a common approach to NPS pollution abatement. Analyses of this type will, however, point to areas where national and local-level policymakers can focus their attention. One such area is the need for affordable continuous water quality monitoring technologies for all constituents. Identifying a need in a number of localities can impel national-level policymakers to seek ways to motivate the development and use of such technologies, potentially through research and development grants or subsidies to monitoring entities. Moreover, case studies of implemented policies can highlight local-level innovations, which may be applicable in other localities. For example, the privatized, intensive monitoring efforts currently being considered by Central Coast growers may be a useful interim approach for other communities while continuous monitoring technologies continue to be developed.

Finally, the Central Coast experience characterizes many new, or first-time, policy initiatives: regulators and stakeholders negotiate programs to pick "low-hanging fruit" – addressing relatively easy initial efforts – and leave tougher decisions for future implementation rounds, based on information gained during early implementation phases. Indeed, it will be years before anyone can say whether the AWP launched a new era in agricultural nonpoint source water pollution management or failed because of costs, recalcitrant or difficult to find hot spots and competing demands on growers' time, effort and good will.

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CHAPTER 2: Management Measures for Agriculture Sources

I. INTRODUCTION

A. What "Management Measures" Are

This chapter specifies management measures to protect coastal waters from agricultural sources of nonpoint pollution. "Management measures" are defined in section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) as economically achievable measures to control the addition of pollutants to our coastal waters, which reflect the greatest degree of pollutant reduction achievable through the application of the best available nonpoint pollution control practices, technologies, processes, siting criteria, operating methods, or other alternatives.

These management measures will be incorporated by States into their coastal nonpoint programs, which under CZARA are to provide for the implementation of management measures that are "in conformity" with this guidance. Under CZARA, States are subject to a number of requirements as they develop and implement their Coastal Nonpoint Pollution Control Programs in conformity with this guidance and will have some flexibility in doing so. The application of these management measures by States to activities causing nonpoint pollution is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA).

B. What "Management Practices" Are

In addition to specifying management *measures*, this chapter also lists and describes management *practices* for illustrative purposes only. While State programs are required to specify management *measures* in conformity with this guidance, State programs need not specify or require the implementation of the particular management *practices* described in this document. However, as a practical matter, EPA anticipates that States the management measures generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices listed in this document have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measures. EPA has also used some of these practices, or appropriate combinations of these practices, as a basis for estimating the effectiveness, costs, and economic impacts of achieving the management measures. (Economic impacts of the management measures are addressed in a separate document entitled *Economic Impacts of EPA Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters.*)

EPA recognizes that there is often site-specific, regional and national variability in the selection of appropriate practices, as well as in the design constraints and pollution control effectiveness of practices. The list of practices for each management measure is not all-inclusive and does not preclude States or local agencies from using other technically sound practices. In all cases, however, the practice or set of practices chosen by a State needs to achieve the management measure.

C. Scope of This Chapter

This chapter addresses six categories of sources of agricultural nonpoint pollution that affect coastal waters:

(1) Erosion from cropland;
(2) Confined animal facilities;
(3) The application of nutrients to cropland;
(4) The application of pesticides to cropland;
(5) Grazing management; and
(6) Irrigation of cropland.

Each category of sources (with the exception of confined animal facilities, which has two management measures) is addressed in a separate section of this guidance. Each section contains (1) the management measure; (2) an applicability statement that describes, when appropriate, specific activities and locations for which the measure is suitable; (3) a description of the management measure's purpose; (4) the basis for the management measure's selection; (5) information on the effectiveness of the management measure and/or of practices to achieve the measure; (6) information on management practices that are suitable, either alone or in combination with other practices, to achieve the management measure; and (7) information on costs of the measure and/or practices to achieve the measure.

D. Relationship of This Chapter to Other Chapters and to Other EPA Documents

1. Chapter 1 of this document contains detailed information on the legislative background for this guidance, the process used by EPA to develop this guidance, and the technical approach used by EPA in the guidance.

2. Chapter 7 of this document contains management measures to protect wetlands and riparian areas that serve a nonpoint source abatement function. These measures apply to a broad variety of sources, including agricultural sources.

3. Chapter 8 of this document contains information on recommended monitoring techniques (1) to ensure proper implementation, operation, and maintenance of the management measures and (2) to assess over time the success of the measures in reducing pollution loads and improving water quality.

4. EPA has separately published a document entitled *Economic Impacts of EPA Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters.*

5. NOAA and EPA have jointly published guidance entitled *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance.* This guidance contains details on how State Coastal Nonpoint Pollution Control Programs are to be developed by States and approved by NOAA and EPA. It includes guidance on the following:

   - The basis and process for EPA/NOAA approval of state Coastal Nonpoint Pollution Control Programs;

   - How NOAA and EPA expect State programs to provide for the implementation of management measures "in conformity" with this management measures guidance;

   - How States may target sources in implementing their Coastal Nonpoint Pollution Control Programs;

- Changes in State coastal boundaries; and
- Requirements concerning how States are to implement the Coastal Nonpoint Pollution Control Programs.

E. Coordination of Measures

The management measures developed for agriculture are to be used as an overall system of measures to address nonpoint source (NPS) pollution sources on any given site. In most cases, not all of the measures will be needed to address the nonpoint sources at a specific site. For example, many farms or agriculture enterprises do not have animals as part of the enterprise and would not need to be concerned with the management measures that address confined animal facilities or grazing. By the same token, many enterprises do not use irrigation and would not need to use the irrigation water management measure.

Most enterprises will have more than one source to address and may need to employ two or more of the measures to address the multiple sources. Where more than one source exists, the application of the measures is to be coordinated to produce an overall system that adequately addresses all sources for the site in a cost-effective manner.

The agricultural management measures for CZMA are, for the most part, systems of practices that are commonly used and recommended by the U.S. Department of Agriculture (USDA) as components of Resource Management Systems, Water Quality Management Plans, and Agricultural Waste Management Systems. Practices and plans installed under State NPS programs are also included. Many farms and fields, therefore, may already be in compliance with the measures needed to address the nonpoint sources on them. For cases where existing source control is inadequate to achieve conformity with the needed management measures, it may be necessary to add only one or two more practices to achieve conformity. Existing NPS progress must be recognized and appropriate credit given to the accomplishment of our common goal to control NPS pollution. There is no need to spend additional resources for a practice that is already in existence and operational. Existing practices, plans, and systems should be viewed as building blocks for these management measures and may need no additional improvement.

F. Pollutants That Cause Agricultural Nonpoint Source Pollution[1]

The primary agricultural nonpoint source pollutants are nutrients, sediment, animal wastes, salts, and pesticides. Agricultural activities also have the potential to directly impact the habitat of aquatic species through physical disturbances caused by livestock or equipment, or through the management of water. The general pathways for transport of pollutants from agricultural lands to water resources are shown in Figure 2-1 (USDA, 1991). The effects of these pollutants on water quality are discussed below.

1. Nutrients

Nitrogen (N) and phosphorus (P) are the two major nutrients from agricultural land that degrade water quality. Nutrients are applied to agricultural land in several different forms and come from various sources, including;

- Commercial fertilizer in a dry or fluid form, containing nitrogen (N), phosphorus (P), potassium (K), secondary nutrients, and micronutrients;
- Manure from animal production facilities including bedding and other wastes added to the manure, containing N,P,K, secondary nutrients, micronutrients, salts, some metals, and organics;

[1] This section on Pollutants That Cause Agricultural Nonpoint Source Pollution is adapted from USDA-SCS (1983).

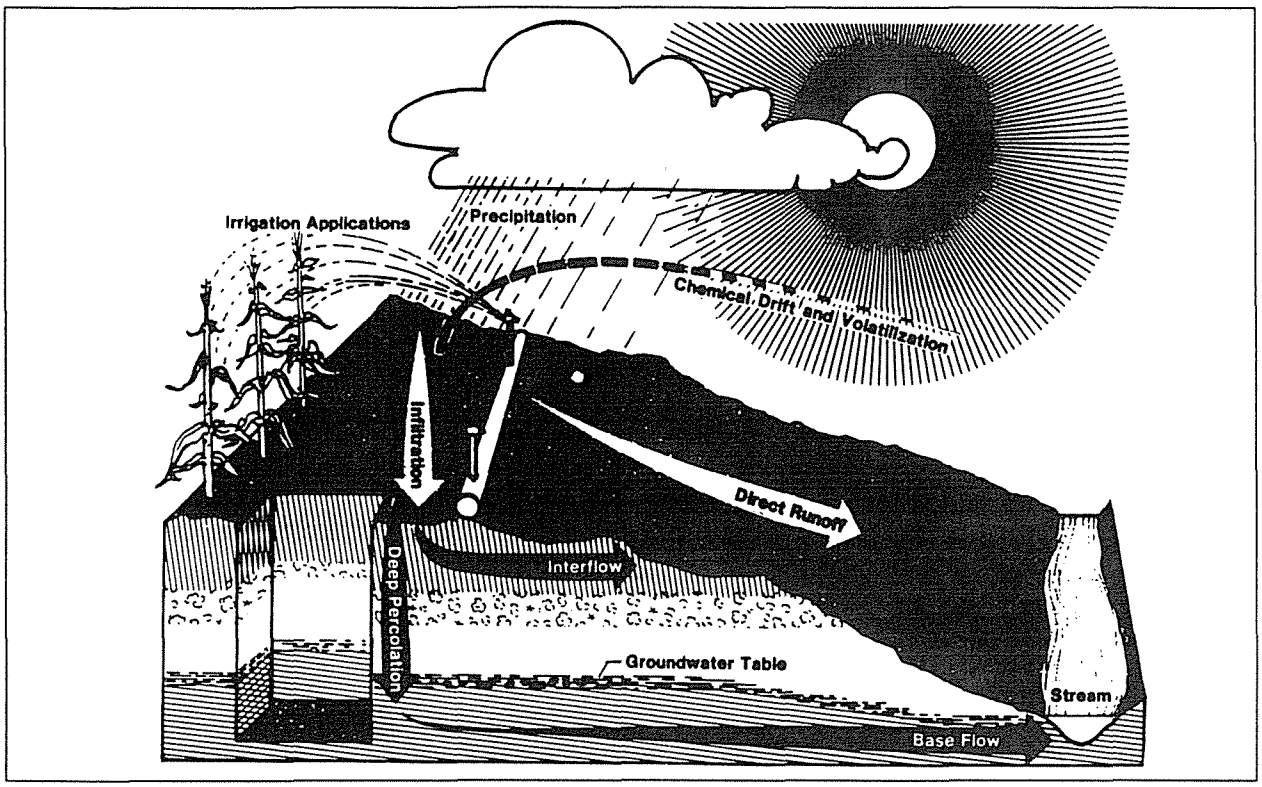

Figure 2-1. Pathways through which substances are transported from agricultural land to become water pollutants (USDA, 1991).

- Municipal and industrial treatment plant sludge, containing N,P,K, secondary nutrients, micronutrients, salts, metals, and organic solids;
- Municipal and industrial treatment plant effluent, containing N,P,K, secondary nutrients, micronutrients, salts, metals, and organics;
- Legumes and crop residues containing N, P, K, secondary nutrients, and micronutrients;
- Irrigation water; and
- Atmospheric deposition of nutrients such as nitrogen and sulphur.

Surface water runoff from agricultural lands to which nutrients have been applied may transport the following pollutants:

- Particulate-bound nutrients, chemicals, and metals, such as phosphorus, organic nitrogen, and metals applied with some organic wastes;
- Soluble nutrients and chemicals, such as nitrogen, phosphorus, metals, and many other major and minor nutrients;
- Sediment, particulate organic solids, and oxygen-demanding material;

- Salts; and
- Bacteria, viruses, and other microorganisms.

Ground-water infiltration from agricultural lands to which nutrients have been applied may transport the following pollutants: soluble nutrients and chemicals, such as nitrogen, phosphorus, metals, and many other major and minor nutrients, and salts.

Surface water and ground-water pollutants from organic matter and crop residue decomposition and from legumes growing on agricultural land may include nitrogen, phosphorus, and other essential nutrients found in the residue of growing crops.

All plants require nutrients for growth. In aquatic environments, nutrient availability usually limits plant growth. Nitrogen and phosphorus generally are present at background or natural levels below 0.3 and 0.05 mg/L, respectively. When these nutrients are introduced into a stream, lake, or estuary at higher rates, aquatic plant productivity may increase dramatically. This process, referred to as cultural eutrophication, may adversely affect the suitability of the water for other uses.

Increased aquatic plant productivity results in the addition to the system of more organic material, which eventually dies and decays. The decaying organic matter produces unpleasant odors and depletes the oxygen supply required by aquatic organisms. Excess plant growth may also interfere with recreational activities such as swimming and boating. Depleted oxygen levels, especially in colder bottom waters where dead organic matter tends to accumulate, can reduce the quality of fish habitat and encourage the propagation of fish that are adapted to less oxygen or to warmer surface waters. Highly enriched waters will stimulate algae production, with consequent increased turbidity and color. Algae growth is also believed to be harmful to coral reefs (e.g., Florida coast). Furthermore, the increased turbidity results in less sunlight penetration and availability to submerged aquatic vegetation (SAV). Since SAV provides habitat for small or juvenile fish, the loss of SAV has severe consequences for the food chain. Chesapeake Bay is an example in which nutrients are believed to have contributed to SAV loss.

a. Nitrogen

All forms of transported nitrogen are potential contributors to eutrophication in lakes, estuaries, and some coastal waters. In general, though not in all cases, nitrogen availability is the limiting factor for plant growth in marine ecosystems. Thus, the addition of nitrogen can have a significant effect on the natural functioning of marine ecosystems.

In addition to eutrophication, excessive nitrogen causes other water quality problems. Dissolved ammonia at concentrations above 0.2 mg/L may be toxic to fish, especially trout. Nitrates in drinking water are potentially dangerous, especially to newborn infants. Nitrate is converted to nitrite in the digestive tract, which reduces the oxygen-carrying capacity of the blood (methemoglobinemia), resulting in brain damage or even death. The U.S. Environmental Protection Agency has set a limit of 10 mg/L nitrate-nitrogen in water used for human consumption (USEPA, 1989).

Nitrogen is naturally present in soils but must be added to increase crop production. Nitrogen is added to the soil primarily by applying commercial fertilizers and manure, but also by growing legumes (biological nitrogen fixation) and incorporating crop residues. Not all nitrogen that is present in or on the soil is available for plant use at any one time. For example, in the eastern Corn Belt, it is normally assumed that about 50 percent of applied N is assimilated by crops during the year of application (Nelson, 1985). Organic nitrogen normally constitutes the majority of the soil nitrogen. It is slowly converted (2 to 3 percent per year) to the more readily plant-available inorganic ammonium or nitrate.

The chemical form of nitrogen affects its impact on water quality. The most biologically important inorganic forms of nitrogen are ammonium (NH_4-N), nitrate (NO_3-N), and nitrite (NO_2-N). Organic nitrogen occurs as particulate

matter, in living organisms, and as detritus. It occurs in dissolved form in compounds such as amino acids, amines, purines, and urea.

Nitrate-nitrogen is highly mobile and can move readily below the crop root zone, especially in sandy soils. It can also be transported with surface runoff, but not usually in large quantities. Ammonium, on the other hand, becomes adsorbed to the soil and is lost primarily with eroding sediment. Even if nitrogen is not in a readily available form as it leaves the field, it can be converted to an available form either during transport or after delivery to waterbodies.

b. Phosphorus

Phosphorus can also contribute to the eutrophication of both freshwater and estuarine systems. While phosphorus typically plays the controlling role in freshwater systems, in some estuarine systems both nitrogen and phosphorus can limit plant growth. Algae consume dissolved inorganic phosphorus and convert it to the organic form. Phosphorus is rarely found in concentrations high enough to be toxic to higher organisms.

Although the phosphorus content of most soils in their natural condition is low, between 0.01 and 0.2 percent by weight, recent soil test results show that the phosphorus content of most cropped soils in the Northeast have climbed to the high or very high range (Sims, 1992). Manure and fertilizers increase the level of available phosphorus in the soil to promote plant growth, but many soils now contain higher phosphorus levels than plants need (Killorn, 1980; Novais and Kamprath, 1978). Phosphorus can be found in the soil in dissolved, colloidal, or particulate forms.

Runoff and erosion can carry some of the applied phosphorus to nearby water bodies. Dissolved inorganic phosphorus (orthophosphate phosphorus) is probably the only form directly available to algae. Particulate and organic phosphorus delivered to waterbodies may later be released and made available to algae when the bottom sediment of a stream becomes anaerobic, causing water quality problems.

2. Sediment

Sediment affects the use of water in many ways. Suspended solids reduce the amount of sunlight available to aquatic plants, cover fish spawning areas and food supplies, smother coral reefs, clog the filtering capacity of filter feeders, and clog and harm the gills of fish. Turbidity interferes with the feeding habits of fish. These effects combine to reduce fish, shellfish, coral, and plant populations and decrease the overall productivity of lakes, streams, estuaries, and coastal waters. In addition, recreation is limited because of the decreased fish population and the water's unappealing, turbid appearance. Turbidity also reduces visibility, making swimming less safe.

Chemicals such as some pesticides, phosphorus, and ammonium are transported with sediment in an adsorbed state. Changes in the aquatic environment, such as a lower concentration in the overlying waters or the development of anaerobic conditions in the bottom sediments, can cause these chemicals to be released from the sediment. Adsorbed phosphorus transported by the sediment may not be immediately available for aquatic plant growth but does serve as a long-term contributor to eutrophication.

Sediment is the result of erosion. It is the solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice. The types of erosion associated with agriculture that produce sediment are (1) sheet and rill erosion and (2) gully erosion. Soil erosion can be characterized as the transport of particles that are detached by rainfall, flowing water, or wind (Figure 2-2). Eroded soil is either redeposited on the same field or transported from the field in runoff.

Sediments from different sources vary in the kinds and amounts of pollutants that are adsorbed to the particles. For example, sheet and rill erosion mainly move soil particles from the surface or plow layer of the soil. Sediment that originates from surface soil has a higher pollution potential than that from subsurface soils. The topsoil of a field is usually richer in nutrients and other chemicals because of past fertilizer and pesticide applications, as well as nutrient cycling and biological activity. Topsoil is also more likely to have a greater percentage of organic matter. Sediment from gullies and streambanks usually carries less adsorbed pollutants than sediment from surface soils.

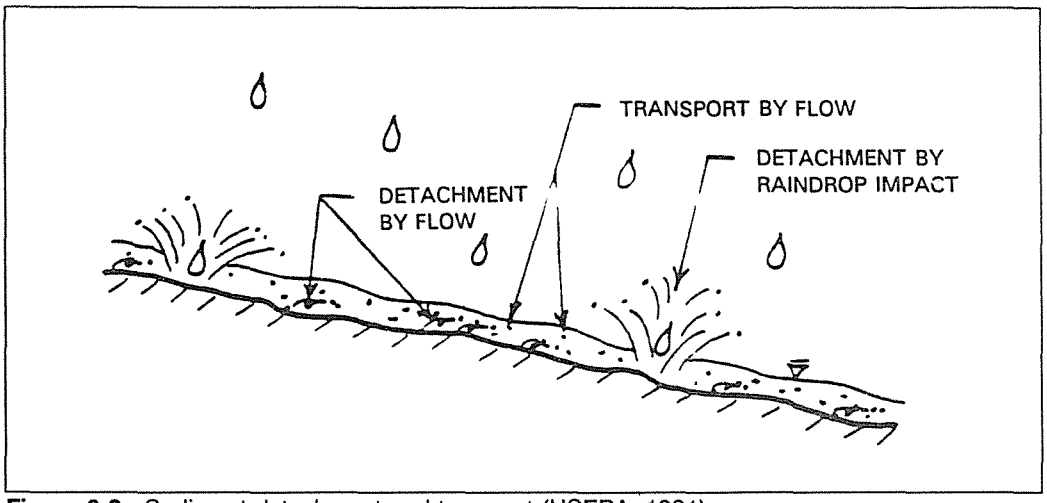

Figure 2-2. Sediment detachment and transport (USEPA, 1981).

Soil eroded and delivered from cropland as sediment usually contains a higher percentage of finer and less dense particles than the parent soil on the cropland. This change in composition of eroded soil is due to the selective nature of the erosion process. For example, larger particles are more readily detached from the soil surface because they are less cohesive, but they also settle out of suspension more quickly because of their size. Organic matter is not easily detached because of its cohesive properties, but once detached it is easily transported because of its low density. Clay particles and organic residues will remain suspended for longer periods and at slower flow velocities than will larger or more dense particles. This selective erosion can increase overall pollutant delivery per ton of sediment delivered because small particles have a much greater adsorption capacity than larger particles. As a result, eroding sediments generally contain higher concentrations of phosphorus, nitrogen, and pesticides than the parent soil (i.e., they are enriched).

3. Animal Wastes

Animal waste (manure) includes the fecal and urinary wastes of livestock and poultry; process water (such as from a milking parlor); and the feed, bedding, litter, and soil with which they become intermixed. The following pollutants may be contained in manure and associated bedding materials and could be transported by runoff water and process wastewater from confined animal facilities:

- Oxygen-demanding substances;
- Nitrogen, phosphorus, and many other major and minor nutrients or other deleterious materials;
- Organic solids;
- Salts;
- Bacteria, viruses, and other microorganisms; and
- Sediments.

Fish kills may result from runoff, wastewater, or manure entering surface waters, due to ammonia or dissolved oxygen depletion. The decomposition of organic materials can deplete dissolved oxygen supplies in water, resulting in anoxic or anaerobic conditions. Methane, amines, and sulfide are produced in anaerobic waters, causing the water to acquire an unpleasant odor, taste, and appearance. Such waters can be unsuitable for drinking, fishing, and other recreational uses.

Solids deposited in waterbodies can accelerate eutrophication through the release of nutrients over extended periods of time. Because of the high nutrient and salt content of manure and runoff from manure-covered areas, contamination of ground water can be a problem if storage structures are not built to minimize seepage.

Animal diseases can be transmitted to humans through contact with animal feces. Runoff from fields receiving manure will contain extremely high numbers of bacteria if the manure has not been incorporated or the bacteria have not been subject to stress. Shellfish closure and beach closure can result from high fecal coliform counts. Although not the only source of pathogens, animal waste has been responsible for shellfish contamination in some coastal waters.

The method, timing, and rate of manure application are significant factors in determining the likelihood that water quality contamination will result. Manure is generally more likely to be transported in runoff when applied to the soil surface than when incorporated into the soil. Spreading manure on frozen ground or snow can result in high concentrations of nutrients being transported from the field during rainfall or snowmelt, especially when the snowmelt or rainfall events occur soon after spreading (Robillard and Walter, 1986). The water quality problems associated with nitrogen and phosphorus are discussed under Section F.1.

When application rates of manure for crop production are based on N, the P and K rates normally exceed plant requirements (Westerman et al., 1985). The soil generally has the capacity to adsorb phosphorus leached from manure applied on land. As previously mentioned, however, nitrates are easily leached through soil into ground water or to return flows, and phosphorus can be transported by eroded soil.

Conditions that cause a rapid die-off of bacteria are low soil moisture, low pH, high temperatures, and direct solar radiation. Manure storage generally promotes die-off, although pathogens can remain dormant at certain temperatures. Composting the wastes can be quite effective in decreasing the number of pathogens.

4. Salts

Salts are a product of the natural weathering process of soil and geologic material. They are present in varying degrees in all soils and in fresh water, coastal waters, estuarine waters, and ground waters.

In soils that have poor subsurface drainage, high salt concentrations are created within the root zone where most water extraction occurs. The accumulation of soluble and exchangeable sodium leads to soil dispersion, structure breakdown, decreased infiltration, and possible toxicity; thus, salts often become a serious problem on irrigated land, both for continued agricultural production and for water quality considerations. High salt concentrations in streams can harm freshwater aquatic plants just as excess soil salinity damages agricultural crops. While salts are generally a more significant pollutant for freshwater ecosystems than for saline ecosystems, they may also adversely affect anadromous fish. Although they live in coastal and estuarine waters most of their lives, anadromous fish depend on freshwater systems near the coast for crucial portions of their life cycles.

The movement and deposition of salts depend on the amount and distribution of rainfall and irrigation, the soil and underlying strata, evapotranspiration rates, and other environmental factors. In humid areas, dissolved mineral salts have been naturally leached from the soil and substrata by rainfall. In arid and semi-arid regions, salts have not been removed by natural leaching and are concentrated in the soil. Soluble salts in saline and sodic soils consist of calcium, magnesium, sodium, potassium, carbonate, bicarbonate, sulfate, and chloride ions. They are fairly easily leached from the soil. Sparingly soluble gypsum and lime also occur in amounts ranging from traces to more than 50 percent of the soil mass.

Irrigation water, whether from ground or surface water sources, has a natural base load of dissolved mineral salts. As the water is consumed by plants or lost to the atmosphere by evaporation, the salts remain and become concentrated in the soil. This is referred to as the "concentrating effect."

The total salt load carried by irrigation return flow is the sum of the salt remaining in the applied water plus any salt picked up from the irrigated land. Irrigation return flows provide the means for conveying the salts to the receiving streams or ground-water reservoirs. If the amount of salt in the return flow is low in comparison to the total stream flow, water quality may not be degraded to the extent that use is impaired. However, if the process of

water diversion for irrigation and the return of saline drainage water is repeated many times along a stream or river, water quality will be progressively degraded for downstream irrigation use as well as for other uses.

5. Pesticides

The term *pesticide* includes any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest or intended for use as a plant regulator, defoliant, or desiccant. The principal pesticidal pollutants that may be detected in surface water and in ground water are the active and inert ingredients and any persistent degradation products. Pesticides and their degradation products may enter ground and surface water in solution, in emulsion, or bound to soil colloids. For simplicity, the term *pesticides* will be used to represent "pesticides and their degradation products" in the following sections.

Despite the documented benefits of using pesticides (insecticides, herbicides, fungicides, miticides, nematicides, etc.) to control plant pests and enhance production, these chemicals may, in some instances, cause impairments to the uses of surface water and ground water. Some types of pesticides are resistant to degradation and may persist and accumulate in aquatic ecosystems.

Pesticides may harm the environment by eliminating or reducing populations of desirable organisms, including endangered species. Sublethal effects include the behavioral and structural changes of an organism that jeopardize its survival. For example, certain pesticides have been found to inhibit bone development in young fish or to affect reproduction by inducing abortion.

Herbicides in the aquatic environment can destroy the food source for higher organisms, which may then starve. Herbicides can also reduce the amount of vegetation available for protective cover and the laying of eggs by aquatic species. Also, the decay of plant matter exposed to herbicide-containing water can cause reductions in dissolved oxygen concentration (North Carolina State University, 1984).

Sometimes a pesticide is not toxic by itself but is lethal in the presence of other pesticides. This is referred to as a *synergistic effect*, and it may be difficult to predict or evaluate. *Bioconcentration* is a phenomenon that occurs if an organism ingests more of a pesticide than it excretes. During its lifetime, the organism will accumulate a higher concentration of that pesticide than is present in the surrounding environment. When the organism is eaten by another animal higher in the food chain, the pesticide will then be passed to that animal, and on up the food chain to even higher level animals.

A major source of contamination from pesticide use is the result of normal application of pesticides. Other sources of pesticide contamination are atmospheric deposition, spray drift during the application process, misuse, and spills, leaks, and discharges that may be associated with pesticide storage, handling, and waste disposal.

The primary routes of pesticide transport to aquatic systems are (Maas et al., 1984):

(1) Direct application;
(2) In runoff;
(3) Aerial drift;
(4) Volatilization and subsequent atmospheric deposition; and
(5) Uptake by biota and subsequent movement in the food web.

The amount of field-applied pesticide that leaves a field in the runoff and enters a stream primarily depends on:

(1) The intensity and duration of rainfall or irrigation;
(2) The length of time between pesticide application and rainfall occurrence;
(3) The amount of pesticide applied and its soil/water partition coefficient;
(4) The length and degree of slope and soil composition;
(5) The extent of exposure to bare (vs. residue or crop-covered) soil;

(6) Proximity to streams;
(7) The method of application; and
(8) The extent to which runoff and erosion are controlled with agronomic and structural practices.

Pesticide losses are generally greatest when rainfall is intense and occurs shortly after pesticide application, a condition for which water runoff and erosion losses are also greatest.

The rate of pesticide movement through the soil profile to ground water is inversely proportional to the pesticide adsorption partition coefficient or K_d (a measure of the degree to which a pesticide is partitioned between the soil and water phase). The larger the K_d, the slower the movement and the greater the quantity of water required to leach the pesticide to a given depth.

Pesticides can be transported to receiving waters either in dissolved form or attached to sediment. Dissolved pesticides may be leached to ground-water supplies. Both the degradation and adsorption characteristics of pesticides are highly variable.

6. Habitat Impacts

The functioning condition of riparian-wetland areas is a result of interaction among geology, soil, water, and vegetation. Riparian-wetland areas are functioning properly when adequate vegetation is present to (1) dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; (2) filter sediment and aid floodplain development; (3) support denitrification of nitrate-contaminated ground water as it is discharged into streams; (4) improve floodwater retention and ground-water recharge; (5) develop root masses that stabilize banks against cutting action; (6) develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and (7) support greater biodiversity.

Improper livestock grazing affects all four components of the water-riparian system: banks/shores, water column, channel, and aquatic and bordering vegetation (Platts, 1990). The potential effects of grazing include:

Shore/banks

- Shear or sloughing of streambank soils by hoof or head action.
- Water, ice, and wind erosion of exposed streambank and channel soils because of loss of vegetative cover.
- Elimination or loss of streambank vegetation.
- Reduction of the quality and quantity of streambank undercuts.
- Increasing streambank angle (laying back of streambanks), which increases water width, decreases stream depth, and alters or eliminates fish habitat.

Water Column

- Withdrawal from streams to irrigate grazing lands.
- Drainage of wet meadows or lowering of the ground-water table to facilitate grazing access.
- Pollutants (e.g., sediments) in return water from grazed lands, which are detrimental to the designated uses such as fisheries.

- Changes in magnitude and timing of organic and inorganic energy (i.e., solar radiation, debris, nutrients) inputs to the stream.
- Increase in fecal contamination.
- Changes in stream morphology, such as increases in stream width and decreases in stream depth, including reduction of stream shore water depth.
- Changes in timing and magnitude of stream flow events from changes in watershed vegetative cover.
- Increase in stream temperature.

Channel

- Changes in channel morphology.
- Altered sediment transport processes.

Riparian Vegetation

- Changes in plant species composition (e.g., shrubs to grass to forbs).
- Reduction of floodplain and streambank vegetation including vegetation hanging over or entering into the water column.
- Decrease in plant vigor.
- Changes in timing and amounts of organic energy leaving the riparian zone.
- Elimination of riparian plant communities (i.e., lowering of the water table allowing xeric plants to replace riparian plants).

II. MANAGEMENT MEASURES FOR AGRICULTURAL SOURCES

A. Erosion and Sediment Control Management Measure

Apply the erosion component of a Conservation Management System (CMS) as defined in the Field Office Technical Guide of the U.S. Department of Agriculture - Soil Conservation Service (see Appendix 2A of this chapter) to minimize the delivery of sediment from agricultural lands to surface waters, *or*

Design and install a combination of management and physical practices to settle the settleable solids and associated pollutants in runoff delivered from the contributing area for storms of up to and including a 10-year, 24-hour frequency.

1. Applicability

This management measure is intended to be applied by States to activities that cause erosion on agricultural land and on land that is converted from other land uses to agricultural lands. Agricultural lands include:

- Cropland;
- Irrigated cropland;
- Range and pasture;
- Orchards;
- Permanent hayland;
- Specialty crop production; and
- Nursery crop production.

Under the Coastal Zone Act Reauthorization Amendments of 1990, States are subject to a number of requirements as they develop coastal nonpoint programs in conformity with this measure and will have some flexibility in doing so. The application of management measures by States is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

2. Description

The problems associated with soil erosion are the movement of sediment and associated pollutants by runoff into a waterbody. See Section I.F.2 of this chapter for additional information regarding problems.

Application of this management measure will reduce the mass load of sediment reaching a waterbody and improve water quality and the use of the water resource. The measure can be implemented by using one of two different strategies or a combination of both. The first, and most desirable, strategy would be to implement practices on the field that would prevent erosion and the transport of sediment from the field. Practices that could be used to accomplish this are conservation tillage, contour strip-cropping, terraces, and critical area planting.

The second strategy is to route runoff from fields through practices that remove sediment. Practices that could be used to accomplish this are filter strips, field borders, grade stabilization structures, sediment retention ponds, water and sediment control basins, and terraces. Site conditions will dictate the appropriate combination of practices for any given situation.

Conservation management systems (CMS) include any combination of conservation practices and management that achieves a level of treatment of the five natural resources (i.e., soil, water, air, plants, and animals) that satisfies criteria contained in the Soil Conservation Service (SCS) Field Office Technical Guide (FOTG), such as a resource management system (RMS) or an acceptable management system (AMS). These criteria are developed at the State level, with concurrence by the appropriate SCS National Technical Center (NTC). The criteria are then applied in the provision of field office technical assistance, under the direction of the District Conservationist of SCS. In-state coordination of FOTG use is provided by the Area Conservationist and State Conservationist of SCS.

The erosion component of a CMS addresses sheet and rill erosion, wind erosion, concentrated flow, streambank erosion, soil mass movements, road bank erosion, construction site erosion, and irrigation-induced erosion. National (minimum) criteria pertaining to erosion and sediment control under an RMS will be applied to prevent long-term soil degradation and to resolve existing or potential off-site deposition problems. National criteria pertaining to the water resource will be applied to control sediment movement to minimize contamination of receiving waters. The combined effects of these criteria will be to both reduce upland soil erosion and minimize sediment delivery to receiving waters.

The practical limits of resource protection under a CMS within any given area are determined through the application of national social, cultural, and economic criteria. With respect to economics, landowners will not be required to implement an RMS if the system is generally too costly for landowners. Instead, landowners may be required to implement a less costly, and less protective, AMS. In some cases, landowner constraints may be such that an RMS or AMS cannot be implemented quickly. In these situations, a "progressive planning approach" may be used to ultimately achieve planning and application of an RMS or AMS. Progressive planning is the incremental process of building a plan on part or all of the planning unit over a period of time. For additional details regarding CMS, RMS, and AMS, see Appendix 2A of this chapter.

It is recognized that implementation of this measure may increase the potential for movement of water and soluble pollutants through the soil profile to the ground water. It is not the intent of this measure to address a surface water problem at the expense of ground water. Erosion and sediment control systems can and should be designed to protect against the contamination of ground water. Ground-water protection will also be provided through implementation of the nutrient and pesticide management measures to reduce and control the application of nutrients and pesticides.

Operation and Maintenance

Continued performance of this measure will be ensured through supporting maintenance operations where appropriate. Since practices are designed to control a specific storm frequency, they may suffer damage when larger storms occur. It is expected that damage will be repaired after such storms and that practices will be inspected periodically. To ensure that practices selected to implement this measure will continue to function as designed and installed, some operational functions and maintenance will be necessary over the life of the practices.

Most structural practices for erosion and sediment control are designed to operate without human intervention. Management practices such as conservation tillage, however, do require "operation consideration" each time they are used. Field operations should be conducted with such practices in mind to ensure that they are not damaged or destroyed by the operations. For example, herbicides should not be applied to any practice that uses a permanent vegetative cover, such as waterways and filter strips.

Structural practices such as diversions, grassed waterways, and other practices that require grading and shaping may require repair to maintain the original design; reseeding may also be needed to maintain the original vegetative cover.

Trees and brush should not be allowed to grow on berms, dams, or other structural embankments. Cleaning of sediment retention basins will be needed to maintain their original design capacity and efficiency.

Filter strips and field borders must be maintained to prevent channelization of flow and the resulting short-circuiting of filtering mechanisms. Reseeding of filter strips may be required on a frequent basis.

3. Management Measure Selection

This management measure was selected based on an evaluation of available information that documents the beneficial effects of improved erosion and sediment control (see Section II.A.4 of this chapter). Specifically, the available information shows that erosion control practices can be used to greatly reduce the quantity of eroding soil on agricultural land, and that edge-of-field practices can effectively remove sediment from runoff before it leaves agricultural lands. The benefits of this management measure include significant reductions in the mass load of sediment and associated pollutants (e.g., phosphorus, some pesticides) entering waterbodies. By reducing the load of sediment leaving a field, downstream water uses can be maintained and improved.

Two options are provided under this management measure that represent best available technology for minimizing the delivery of sediment from agricultural lands to receiving waters. Different management strategies, are employed, however, with the options. The most desirable option is "(1)" since it not only minimizes the delivery of sediment to receiving waters, but also reduces erosion to provide an agronomic benefit. Option "(2)" minimizes the delivery of sediment to receiving waters, but does not necessarily provide the agronomic benefits of upland erosion control. By providing these two options, States are given the flexibility to address erosion and sediment problems in a manner that best reflects State and local needs and preferences.

By designing the measure to achieve contaminant load reduction objectives, the necessary mix of structural and management practices for a given site should not result in undue economic impact on the operator. Many of the practices that could be used to implement this measure may already be required by Federal, State, or local rules (e.g., filter strips or field borders along streams) or may otherwise be in use on agricultural fields. Since many producers may already be using systems that satisfy or partly satisfy the intent of this management measure, the only action that may be necessary will be to recognize the effectiveness of the existing practices and add additional practices, if needed. By building upon existing erosion and sediment control efforts, the time, effort, and cost of implementing this measure will be reduced.

4. Effectiveness Information

The effectiveness of management practices depends on several factors, including:

- The contaminant to be controlled;
- The types of practices or controls being considered; and
- Site-specific conditions.

Management practices or systems of practices must be designed for site-specific conditions to achieve desired effectiveness levels. Practice systems include combinations of practices that provide source control of the contaminant(s) as well as control or reductions in edge-of-field losses and delivery to receiving waters. Table 2-1 provides a gross estimate of practice effectiveness as reported in research literature. The actual effectiveness of a practice will depend exclusively on site-specific variables such as soil type, crop rotation, topography, tillage, and harvesting methods. Even within relatively small watersheds, extreme spatial and temporal variations are common. With this type of variation, the ranges of likely values associated with the reported observations in Table 2-1 are large.

Table 2-1. Relative Gross Effectiveness[a] of Sediment[b] Control Measures (Pennsylvania State University, 1992a)

Practice Category[c]	Runoff[d] Volume	Total[e] Phosphorus (%)	Total[e] Nitrogen (%)	Sediment (%)
Reduced Tillage Systems[f]	—	45	55	75
Diversion Systems[g]	—	30	10	35
Terrace Systems[h]	—	70	20	85
Filter Strips[i]	—	75	70	65

[a] Actual effectiveness depends on site-specific conditions. Values are not cumulative between practice categories.
[b] Includes data where land application of manure has occurred.
[c] Each category includes several specific types of practices.
[d] - indicates reduction; + increase; 0 no change in surface runoff.
[e] Total phosphorus includes total and dissolved phosphorus; total nitrogen includes organic-N, ammonia-N, and nitrate-N.
[f] Includes practices such as conservation tillage, no-till, and crop residue use.
[g] Includes practices such as grassed waterways and grade stabilization structures.
[h] Includes several types of terraces with safe outlet structures where appropriate.
[i] Includes all practices that reduce contaminant losses using vegetative control methods.

The variability in the effectiveness of selected conservation practices that are frequently recommended by SCS in resource planning is illustrated in Table 2-2. This table can be used as a general guide for estimating the effects of these practices on water quality and quantity. The table references include additional site-specific information. Practice effects shown include changes in the water budget, sediment yield, and the movement of pesticides and nutrients. The impacts of variations in climate and soil conditions are accounted for to some extent through the presentation of effectiveness data for different soil-climate combinations. Data were not available for all soils and climates.

Data for the table were obtained from the research literature and include computer model simulation results. Values are reported as the percentage of change in the mass load of a given parameter that can be expected from installing the practice. Changes are determined versus a base condition of a rain-fed, nonleguminous, continuous, row crop (usually corn) that has been cultivated under conventional tillage.

Data from model studies are marked with an "M." For example, *-27M* indicates that the load reduction estimate of 27 percent is derived from a model simulation. Data obtained from plot studies using rainfall simulators are marked with an "S." For example, *+15S* indicates that the estimated load increase of 15 percent is based on a rainfall simulation study.

The range is reported in parentheses, followed by other reported values within the range, set off by commas. For example, *(-32 to +10), -15, +5* denotes a range from a decrease of 32 percent to an increase of 10 percent, with intermediate reported changes of a 15 percent decrease and 5 percent increase. Some practices have a relatively wide range of values because of the variability in climate, soils, and management that occurs with these practices. Although some of the ranges are large, they can usually be attributed to small changes in very small quantities (thus the percentage change is great, yet the magnitude of change is small) or to the variability of site-specific conditions.

Table 2-2 contains the following information:

- Column (a) lists the practice and its SCS reporting code number.
- Column (b) lists the climate and a generalized soil classification for the site under consideration.
- Column (c) is the percentage change in surface runoff and deep percolation, components of the water budget, caused by the applied practice.
- Column (d) is the percentage change in sediment load caused by the applied practice.
- Column (e) is the percentage change in the phosphorus load. Two phases of phosphorus are considered: adsorbed and dissolved.
- Column (f) is the percentage change in the load of nitrogen in the adsorbed phase, nitrate in surface runoff, and nitrate in the leachate.
- Column (g) is the percentage change in the pesticide load. The phases of the pesticide listed are (1) strongly adsorbed in surface water, (2) weakly adsorbed in surface water, and (3) weakly adsorbed in the leachate.

5. Erosion and Sediment Control Management Practices

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above.

Combinations of the following practices can be used to satisfy the requirements of this management measure. The SCS practice number and definition are provided for each management practice, where available. Also included in italics are SCS statements describing the effect each practice has on water quality (USDA-SCS, 1988).

a. *Conservation cover (327): Establishing and maintaining perennial vegetative cover to protect soil and water resources on land retired from agricultural production.*

Agricultural chemicals are usually not applied to this cover in large quantities and surface and ground water quality may improve where these material are not used. Ground cover and crop residue will be increased with this practice. Erosion and yields of sediment and sediment related stream pollutants should decrease. Temperatures of the soil surface runoff and receiving water may be reduced. Effects will vary during the establishment period and include increases in runoff, erosion and sediment yield. Due to the reduction of deep percolation, the leaching of soluble material will be reduced, as will be the potential for causing saline seeps. Long-term effects of the practice would reduce agricultural nonpoint sources of pollution to all water resources.

b. *Conservation cropping sequence (328): An adapted sequence of crops designed to provide adequate organic residue for maintenance or improvement of soil tilth.*

This practice reduces erosion by increasing organic matter, resulting in a reduction of sediment and associated pollutants to surface waters. Crop rotations that improve soil tilth may also disrupt disease, insect and weed reproduction cycles, reducing the need for pesticides. This removes or reduces the availability of some pollutants in the watershed. Deep percolation may carry soluble nutrients and pesticides to the ground water. Underlying soil

Table 2-2. Effects of Conservation Practices on Water Resource Parameters (USDA-SCS, 1988)

NOTE: Values in the tables are taken from published research, model simulations, and results of simulated rainfall plots. Both the range (in parentheses) and additional values within the range (after parentheses, separated by comma) are presented. The values describe the percentage change in mass loads caused by the use of the practice on a nonirrigated, nonlegume, continuous row crop that has been grown under conventional tillage. Values inside the range are shown behind the range values and are separated by commas (-30,-90), -76. Values from model simulation are marked by an M, e.g., -30M, and values from a rainfall simulator are marked with an S, e.g., -29S. Few data are available for arid conditions and that zone is not included in the table. Not all soil-climate combinations have available reference data. A minus is a decreased value; a plus is an increase.

(a)	(b)	(c)		(d)	(e)		(f)			(g)		
		Water Budget (% Change)			Phosphorus (% Change)		Nitrogen (% Change)			Pesticides (% Change)		
Practice and Number	Climate and Soil	Surface Runoff	Deep Percolation	Sediment Yield (% Change)	Sediment	Runoff	Nitrogen Adsorbed Phases	Nitrate in Surface Runoff	Nitrate in Percolate	Strongly Adsorbed SW[b]	Weakly Adsorbed Leachate	Weakly Adsorbed SW[b]
Contour Farming 330	H-S[a] -											
	Sandy	(-65,-75)	#	(-20,-50)	-20	-10	-15	-5	#	#	#	#
	Silty	(-60,-40)	+10	(-65,-30)	(-60,-65)	(-60,-65)	(-45,-54)	(-25,-72),-40 (-12,-25)	+10,+7	#	#	#
	Clayey	(-19,-20)	+5	(-29,-55)	-55	-20	-55		+10	#	#	#
	SA-S[a] -											
	Silty	(-27,-59)	#	(-22,-59)	#	#	#	#	#	#	#	#
	Clayey	-54	#	-26	#	#	#	#	+10	#	#	#
	H[a] -											
	Sandy	-30	+10	-60	-60	-30	-60	-35	+10	#	#	#
	Silty	-16	#	(-30,-48)	#	#	#	(-25,-41)	+6	#	#	#
	Clayey	(-17,-29)	#	#	#	#	#	-12	+7	#	#	#
	SA[a] -											
	Clayey	-15	#	#	#	#	#	#	#	#	#	#
Strip-Cropping Contour 585	H-S[a] -											
	Silty	-5M	+9M	(-37,90M),-49	-80M	-86M	-81M	-43M	+158M	#	#	0,+6
	Clayey	-28M	+366M[c]	-89M	-52M	-89M	-51M	-26M	+220M[c]	#	#	#
	Sandy	No change	No change	-99M	-99M	-99M	-98M	-39M	+12M	#	#	#

Table 2-2. (Continued)

(a)	(b)	(c)		(d)	(e)		(f)			(g)		
		Water Budget (% Change)			Phosphorus (% Change)		Nitrogen (% Change)			Pesticides (% Change)		
Practice and Number	Climate and Soil	Surface Runoff	Deep Percolation	Sediment Yield (% Change)	Sediment	Runoff	Nitrogen Adsorbed Phases	Nitrate in Surface Runoff	Nitrate in Percolate	Strongly Adsorbed SW[b]	Weakly Adsorbed Leachate	Weakly Adsorbed SW[b]
Cons. Tillage- No Till 329	H[a] - Clayey	(-33,+48)[u]	#	(-73M,-82)	-53M	-30M	-53M	-11	(-49M,+8)	#	#	-51M
	Silty	(-91,+36)[u]	No change	(-75,-99)	(-64,-95)	(+900,-22)[c]	(-60,-94)	(-42,+800) -40,+100	(8M,+16) 1,+8[c]	-78	(+5M,-50)	
	Sandy[d]	(-26M,-88),-61	#	(-66M,-99S)	(-51,-87S)	(0,+155)	(-69s,-90s)	(-67,-80)	0	#	#	#
	SA-S[a] - Silty	+36	#	-96	[u]-72s,-82 (-80,-90)	+138	-72,-70 (-50,-90),-60	-42s,-45 (0,+45)	[e] +2	#	#	#
	H-S[a] - Silty	(-21,-90)	#	(-88,-99)	(-75,-90)	(+450,+1600)	#	#	#	(-75,-90)	#	+500
Cons. Tillage (Other types) 329	H-S[a] - Silty	(-15,-73) -51,-20	+5	(-43,+95) -85,-55	-90,-84	+1850,+1750[c]	-91,-82	+1800,+950[c]	#	#	#	#
	Clayey	-30	+10	-70	#	#	#	#	#	#	#	#
	SA-S[a] - Silty	-54	#	#	#	#	#	#	#	#	#	#
	Clayey	(-29,-89)	+10	(-70,-42)	#	#	#	#	#	#	#	#
	H[a] - Sandy	(-40,-89)	+5	(-40,-66)	-91	-3	-95	-88	#	#	#	#
	Silty	(-20,-26)	#	(-49,-61)	#	#	#	#	#	(-69,-51)	#	(+15,+27)
	Clayey	(-10,-61),-20	+10	(-29,-86) -34,-41	#	#	#	#	#	(-33M,-2)	#	(+60M,-2[*])

Table 2-2. (Continued)

(a)	(b)	(c)		(d)	(e)		(f)			(g)		
		Water Budget (% Change)			Phosphorus (% Change)		Nitrogen (% Change)			Pesticides (% Change)		
Practice and Number	Climate and Soil	Surface Runoff	Deep Percolation	Sediment Yield (% Change)	Sediment	Runoff	Nitrogen Adsorbed Phases	Nitrate in Surface Runoff	Nitrate in Percolate	Strongly Adsorbed SW[b]	Weakly Adsorbed Leachate	Weakly Adsorbed SW[b]
	SA[a] -											
	Silty	(-16,-25),-	#	(-38,-92),-69	#	#	#	#	#	(-38,-81)	#	+63,+27
	Sandy	20	#	-45	#	#	#	#	#	#	#	#
	Clayey	-31 -88M	#	-90M	#	#	#	Not sig.	#	#	#	#
Terraces with Under-ground Outlets 600	H-S[a] -											
	Sandy	-14	#	(-95,-98)	#	#	#	#	#	#	#	#
	Silty	(-24,-60)	(+12,+500)[c]	(-87,-95)	-95	-60	-95	(-70,+55)[u]	+15	#	#	#
	Clayey	(-30,-36)	(+5,+380)[c]	(-90,-95)	#	-30	-95	-30	+10	#	#	#
	SA-S[a] -											
	Sandy	-14M	+67M	(-95,-98)	-99M	-42M	-99M	-42M	+20M	#	#	(-73,-91M)
	Silty	(-73,+43M)	+162M	(-95,-92M)	-97M	-72M	-97M	-78M	+37M	#	#	(-84,-91M)
	Clayey	(-15,-36M)	(+5,+293M)[c]	(-95,-91M)	-96M	-65M	-96M	-91M	(10 to high values)			(-69M,-78M)
WASCOB[f] 638	H[a] -											
	Sandy	-40	+15	(-95,-99)	#	-40	-95	-50	+15	#	#	#
	Silty	(-88,-42)	#	(-95,-50),-86	#	-71	-95	(-86,-44)	+8	#	#	-4
	Clayey	#	#	(-90,-95)	#	#	#	#	#	#	#	#
	SA[a] -											
	Sandy	#	#	(-95,-98)	#	#	#	#	#	#	#	#
	Silty	-73	#	-95	-73	+58[c]	#	-50	#	#	#	#
	Clayey	-30	+5	(-90,-95)	#	#	#	#	#	#	#	#

[a] Climatic conditions: H-S = Humid - Snow; H = Humid; SAS = Semi-Arid - Snow; and SA = Semi-Arid.
[b] SW = Surface Water.
[c] Measured values were small numbers; percentage change may have large values.
[d] Data have scattered values.
[e] Measured values were large numbers.
[f] Water and Sediment Control Basin
[u] = Unknown, site-dependent, or conflicting values.
# = No reported value.

layers, rock and unconsolidated parent material may block, delay, or enhance the delivery of these pollutants to ground water. The fate of these pollutants will be site specific, depending on the crop management, the soil and geologic conditions.

c. Conservation tillage (329): Any tillage or planting system that maintains at least 30 percent of the soil surface covered by residue after planting to reduce soil erosion by water; or, where soil erosion by wind is the primary concern, maintains at least 1,000 pounds of flat, small-grain residue equivalent on the surface during the critical erosion period.

This practice reduces soil erosion, detachment and sediment transport by providing soil cover during critical times in the cropping cycle. Surface residues reduce soil compaction from raindrops, preventing soil sealing and increasing infiltration. This action may increase the leaching of agricultural chemicals into the ground water.

In order to maintain the crop residue on the surface it is difficult to incorporate fertilizers and pesticides. This may increase the amount of these chemicals in the runoff and cause more surface water pollution.

The additional organic material on the surface may increase the bacterial action on and near the soil surface. This may tie-up and then breakdown many pesticides which are surface applied, resulting in less pesticide leaving the field. This practice is more effective in humid regions.

With a no-till operation the only soil disturbance is the planter shoe and the compaction from the wheels. The surface applied fertilizers and chemicals are not incorporated and often are not in direct contact with the soil surface. This condition may result in a high surface runoff of pollutants (nutrient and pesticides). Macropores develop under a no-till system. They permit deep percolation and the transmittal of pollutants, both soluble and insoluble to be carried into the deeper soil horizons and into the ground water.

Reduced tillage systems disrupt or break down the macropores, incidentally incorporate some of the materials applied to the soil surface, and reduce the effects of wheeltrack compaction. The results are less runoff and less pollutants in the runoff.

d. Contour farming (330): Farming sloping land in such a way that preparing land, planting, and cultivating are done on the contour. This includes following established grades of terraces or diversions.

This practice reduces erosion and sediment production. Less sediment and related pollutants may be transported to the receiving waters.

Increased infiltration may increase the transportation potential for soluble substances to the ground water.

e. Contour orchard and other fruit area (331): Planting orchards, vineyards, or small fruits so that all cultural operations are done on the contour.

Contour orchards and fruit areas may reduce erosion, sediment yield, and pesticide concentration in the water lost. Where inward sloping benches are used, the sediment and chemicals will be trapped against the slope. With annual events, the bench may provide 100 percent trap efficiency. Outward sloping benches may allow greater sediment and chemical loss. The amount of retention depends on the slope of the bench and the amount of cover. In addition, outward sloping benches are subject to erosion form runoff from benches immediately above them. Contouring allows better access to rills, permitting maintenance that reduces additional erosion. Immediately after establishment, contour orchards may be subject to erosion and sedimentation in excess of the now contoured orchard. Contour orchards require more fertilization and pesticide application than did the native grasses that frequently covered the slopes before orchards were started. Sediment leaving the site may carry more adsorbed nutrients and pesticides than did the sediment before the benches were established from uncultivated slopes. If contoured orchards

replace other crop or intensive land use, the increase or decrease in chemical transport from the site may be determined by examining the types and amounts of chemicals used on the prior land use as compared to the contour orchard condition.

Soluble pesticides and nutrients may be delivered to and possibly through the root zone in an amount proportional to the amount of soluble pesticides applied, the increase in infiltration, the chemistry of the pesticides, organic and clay content of the soil, and amounts of surface residues. Percolating water below the root zone may carry excess solutes or may dissolve potential pollutants as they move. In either case, these solutes could reach ground water supplies and/or surface downslope from the contour orchard area. The amount depends on soil type, surface water quality, and the availability of soluble material (natural or applied).

f. Cover and green manure crop (340): A crop of close-growing grasses, legumes, or small grain grown primarily for seasonal protection and soil improvement. It usually is grown for 1 year or less, except where there is permanent cover as in orchards.

Erosion, sediment and adsorbed chemical yields could be decreased in conventional tillage systems because of the increased period of vegetal cover. Plants will take up available nitrogen and prevent its undesired movement. Organic nutrients may be added to the nutrient budget reducing the need to supply more soluble forms. Overall volume of chemical application may decrease because the vegetation will supply nutrients and there may be allelopathic effects of some of the types of cover vegetation on weeds. Temperatures of ground and surface waters could slightly decrease.

g. Critical area planting (342): Planting vegetation, such as trees, shrubs, vines, grasses, or legumes, on highly erodible or critically eroding areas (does not include tree planting mainly for wood products).

This practice may reduce soil erosion and sediment delivery to surface waters. Plants may take up more of the nutrients in the soil, reducing the amount that can be washed into surface waters or leached into ground water.

During grading, seedbed preparation, seeding, and mulching, large quantities of sediment and associated chemicals may be washed into surface waters prior to plant establishment.

h. Crop residue use (344): Using plant residues to protect cultivated fields during critical erosion periods.

When this practice is employed, raindrops are intercepted by the residue reducing detachment, soil dispersion, and soil compaction. Erosion may be reduced and the delivery of sediment and associated pollutants to surface water may be reduced. Reduced soil sealing, crusting and compaction allows more water to infiltrate, resulting in an increased potential for leaching of dissolved pollutants into the ground water.

Crop residues on the surface increase the microbial and bacterial action on or near the surface. Nitrates and surface-applied pesticides may be tied-up and less available to be delivered to surface and ground water. Residues trap sediment and reduce the amount carried to surface water. Crop residues promote soil aggregation and improve soil tilth.

i. Delayed seed bed preparation (354): Any cropping system in which all of the crop residue and volunteer vegetation are maintained on the soil surface until approximately 3 weeks before the succeeding crop is planted, thus shortening the bare seedbed period on fields during critical erosion periods.

The purpose is to reduce soil erosion by maintaining soil cover as long as practical to minimize raindrop splash and runoff during the spring erosion period. Other purposes include moisture conservation, improved water quality, increased soil infiltration, improved soil tilth, and food and cover for wildlife.

j. Diversion (362): A channel constructed across the slope with a supporting ridge on the lower side (Figure 2-3).

This practice will assist in the stabilization of a watershed, resulting in the reduction of sheet and rill erosion by reducing the length of slope. Sediment may be reduced by the elimination of ephemeral and large gullies. This may reduce the amount of sediment and related pollutants delivered to the surface waters.

k. Field border (386): A strip of perennial vegetation established at the edge of a field by planting or by converting it from trees to herbaceous vegetation or shrubs.

This practice reduces erosion by having perennial vegetation on an area of the field. Field borders serve as "anchoring points" for contour rows, terraces, diversions, and contour strip cropping. By elimination of the practice of tilling and planting the ends up and down slopes, erosion from concentrated flow in furrows and long rows may be reduced. This use may reduce the quantity of sediment and related pollutants transported to the surface waters.

l. Filter strip (393): A strip or area of vegetation for removing sediment, organic matter, and other pollutants from runoff and wastewater.

Filter strips for sediment and related pollutants meeting minimum requirements may trap the coarser grained sediment. They may not filter out soluble or suspended fine-grained materials. When a storm causes runoff in excess When the field borders are located such that runoff flows across them in sheet flow, they may cause the deposition of sediment and prevent it from entering the surface water. Where these practice are between cropland and a stream

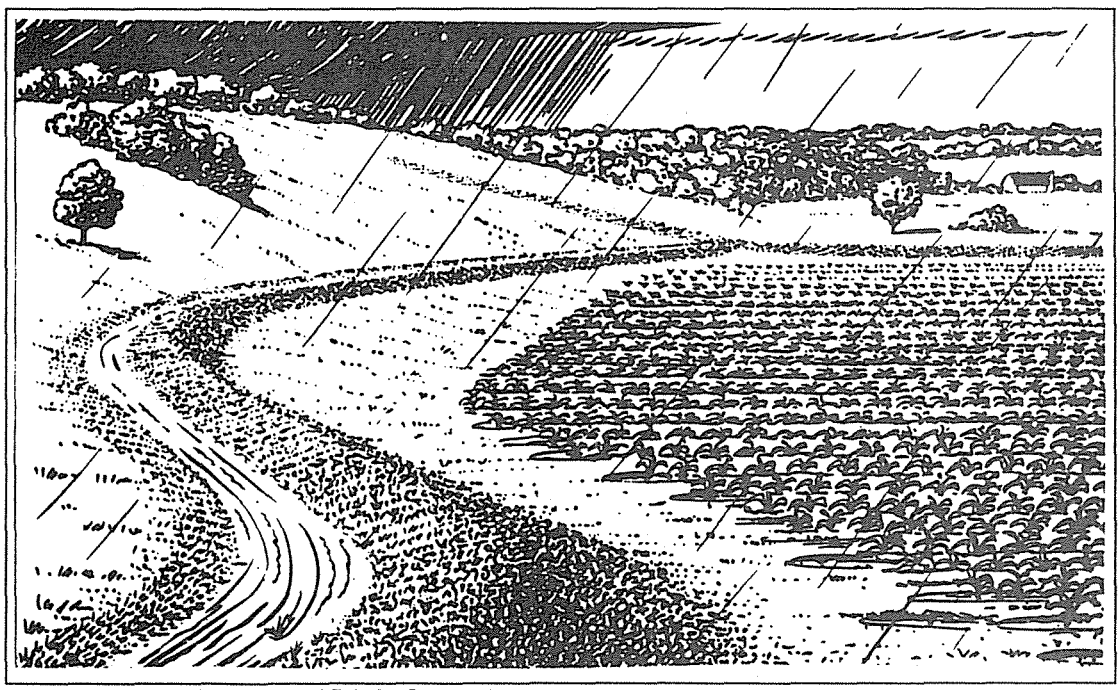

Figure 2-3. Diversion (USDA-SCS, 1984).

or water body, the practice may reduce the amount of pesticide application drift from entering the surface water of the design runoff, the filter may be flooded and may cause large loads of pollutants to be released to the surface water. This type of filter requires high maintenance and has a relatively short service life and is effective only as long as the flow through the filter is shallow sheet flow.

Filter strips for runoff from concentrated livestock areas may trap organic material, solids, materials which become adsorbed to the vegetation or the soil within the filter. Often they will not filter out soluble materials. This type of filter is often wet and is difficult to maintain.

Filter strips for controlled overland flow treatment of liquid wastes may effectively filter out pollutants. The filter must be properly managed and maintained, including the proper resting time. Filter strips on forest land may trap coarse sediment, timbering debris, and other deleterious material being transported by runoff. This may improve the quality of surface water and has little effect on soluble material in runoff or on the quality of ground water.

All types of filters may reduce erosion on the area on which they are constructed.

Filter strips trap solids from the runoff flowing in sheet flow through the filter. Coarse-grained and fibrous materials are filtered more efficiently than fine-grained and soluble substances. Filter strips work for design conditions, but when flooded or overloaded they may release a slug load of pollutants into the surface water.

m. Grade stabilization structure (410): A structure used to control the grade and head cutting in natural or artificial channels.

Where reduced stream velocities occur upstream and downstream from the structure, streambank and streambed erosion will be reduced. This will decrease the yield of sediment and sediment-attached substances. Structures that trap sediment will improve downstream water quality. The sediment yield change will be a function of the sediment yield to the structure, reservoir trap efficiency and of velocities of released water. Ground water recharge may affect aquifer quality depending on the quality of the recharging water. If the stored water contains only sediment and chemical with low water solubility, the ground water quality should not be affected.

n. Grassed waterway (412): A natural or constructed channel that is shaped or graded to required dimensions and established in suitable vegetation for the stable conveyance of runoff.

This practice may reduce the erosion in a concentrated flow area, such as in a gully or in ephemeral gullies. This may result in the reduction of sediment and substances delivered to receiving waters. Vegetation may act as a filter in removing some of the sediment delivered to the waterway, although this is not the primary function of a grassed waterway.

Any chemicals applied to the waterway in the course of treatment of the adjacent cropland may wash directly into the surface waters in the case where there is a runoff event shortly after spraying.

When used as a stable outlet for another practice, waterways may increase the likelihood of dissolved and suspended pollutants being transported to surface waters when these pollutants are delivered to the waterway.

o. Grasses and legumes in rotation (411): Establishing grasses and legumes or a mixture of them and maintaining the stand for a definite number of years as part of a conservation cropping system.

Reduced runoff and increased vegetation may lower erosion rates and subsequent yields of sediment and sediment-attached substances. Less applied nitrogen may be required to grow crops because grasses and legumes will supply organic nitrogen. During the period of the rotation when the grasses and legumes are growing, they will take up more phosphorus. Less pesticides may similarly be required with this practice. Downstream water temperatures may be lower depending on the season when this practice is applied. There will be a greater opportunity for animal

waste management on grasslands because manures and other wastes may be applied for a longer part of the crop year.

p. Sediment basins (350): Basins constructed to collect and store debris or sediment.

Sediment basins will remove sediment, sediment associated materials and other debris from the water which is passed on downstream. Due to the detention of the runoff in the basin, there is an increased opportunity for soluble materials to be leached toward the ground water.

q. Contour stripcropping (585): Growing crops in a systematic arrangement of strips or bands on the contour to reduce water erosion.

The crops are arranged so that a strip of grass or close-growing crop is alternated with a strip of clean-tilled crop or fallow or a strip of grass is alternated with a close-growing crop (Figure 2-4).

This practice may reduce erosion and the amount of sediment and related substances delivered to the surface waters. The practice may increase the amount of water which infiltrates into the root zone, and, at the time there is an overabundance of soil water, this water may percolate and leach soluble substances into the ground water.

r. Field strip-cropping (586): Growing crops in a systematic arrangement of strips or bands across the general slope (not on the contour) to reduce water erosion.

The crops are arranged so that a strip of grass or a close-growing crop is alternated with a clean-tilled crop or fallow.

This practice may reduce erosion and the delivery of sediment and related substances to the surface waters. The practice may increase infiltration and, when there is sufficient water available, may increase the amount of leachable pollutants moved toward the ground water.

Since this practice is not on the contour there will be areas of concentrated flow, from which detached sediment, adsorbed chemicals and dissolved substances will be delivered more rapidly to the receiving waters. The sod strips will not be efficient filter areas in these areas of concentrated flow.

s. Terrace (600): An earthen embankment, a channel, or combination ridge and channel constructed across the slope (Figures 2-5 and 2-6).

This practice reduces the slope length and the amount of surface runoff which passes over the area downslope from an individual terrace. This may reduce the erosion rate and production of sediment within the terrace interval. Terraces trap sediment and reduce the sediment and associated pollutant content in the runoff water which enhance surface water quality. Terraces may intercept and conduct surface runoff at a nonerosive velocity to stable outlets, thus, reducing the occurrence of ephemeral and classic gullies and the resulting sediment. Increases in infiltration can cause a greater amount of soluble nutrients and pesticides to be leached into the soil. Underground outlets may collect highly soluble nutrient and pesticide leachates and convey runoff and conveying it directly to an outlet, terraces may increase the delivery of pollutants to surface waters. Terraces increase the opportunity to leach salts below the root zone in the soil. Terraces may have a detrimental effect on water quality if they concentrate and accelerate delivery of dissolved or suspended nutrient, salt, and pesticide pollutants to surface or ground waters.

t. Water and sediment control basin (638): An earthen embankment or a combination ridge and channel generally constructed across the slope and minor watercourses to form a sediment trap and water detention basin.

Contour strip cropping systems can involve up to 10 strips in a field. A strip cropping system could involve the following:

Corn (either for grain and/or silage)

Soybeans

1st year Meadow

Established Meadow (2-4 years)

Oats

Grassed waterway or diversion

Tillage systems may include two kinds in the same year such as chisel plowing for the for crop and moldboard plowing for the oats.

See the following figure showing typical patterns of stripcropping.

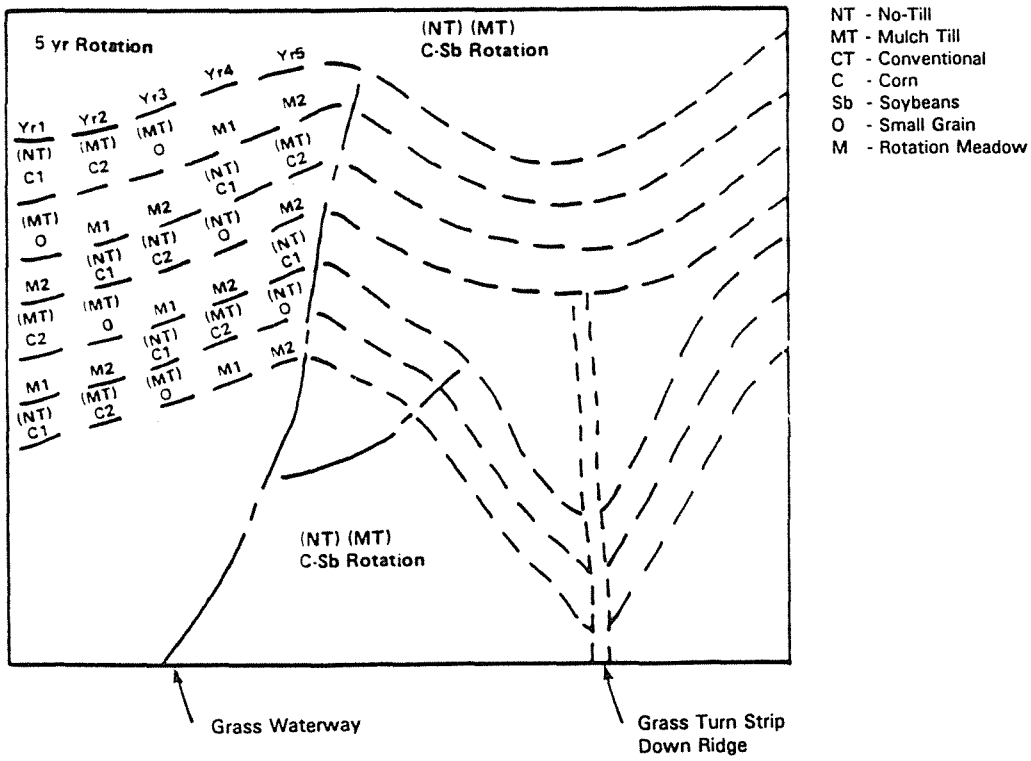

Figure 2-4. Strip-cropping and rotations (USDA-ARS, 1987).

The practice traps and removes sediment and sediment-attached substances from runoff. Trap control efficiencies for sediment and total phosphorus, that are transported by runoff, may exceed 90 percent in silt loam soils. Dissolved substances, such as nitrates, may be removed from discharge to downstream areas because of the increased infiltration. Where geologic condition permit, the practice will lead to increased loadings of dissolved substances toward ground water. Water temperatures of surface runoff, released through underground outlets, may increase slightly because of longer exposure to warming during its impoundment.

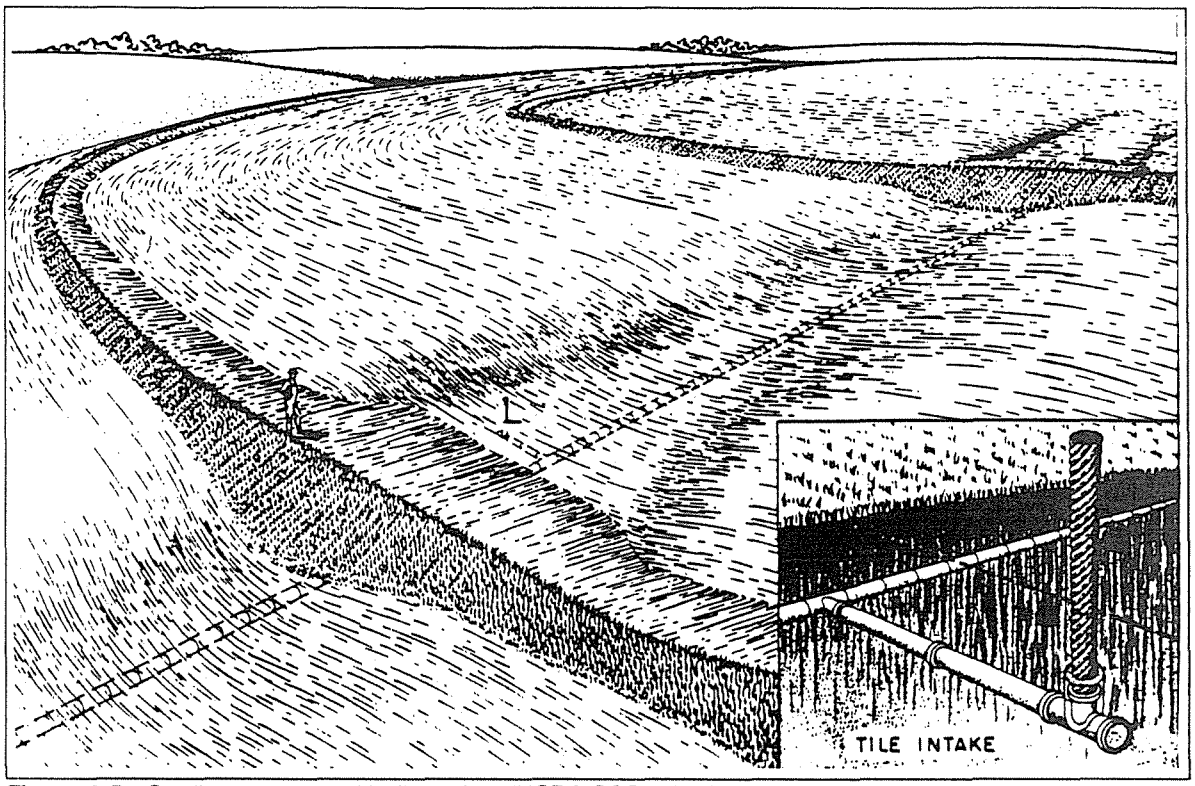

Figure 2-5. Gradient terraces with tile outlets (USDA-SCS, 1984).

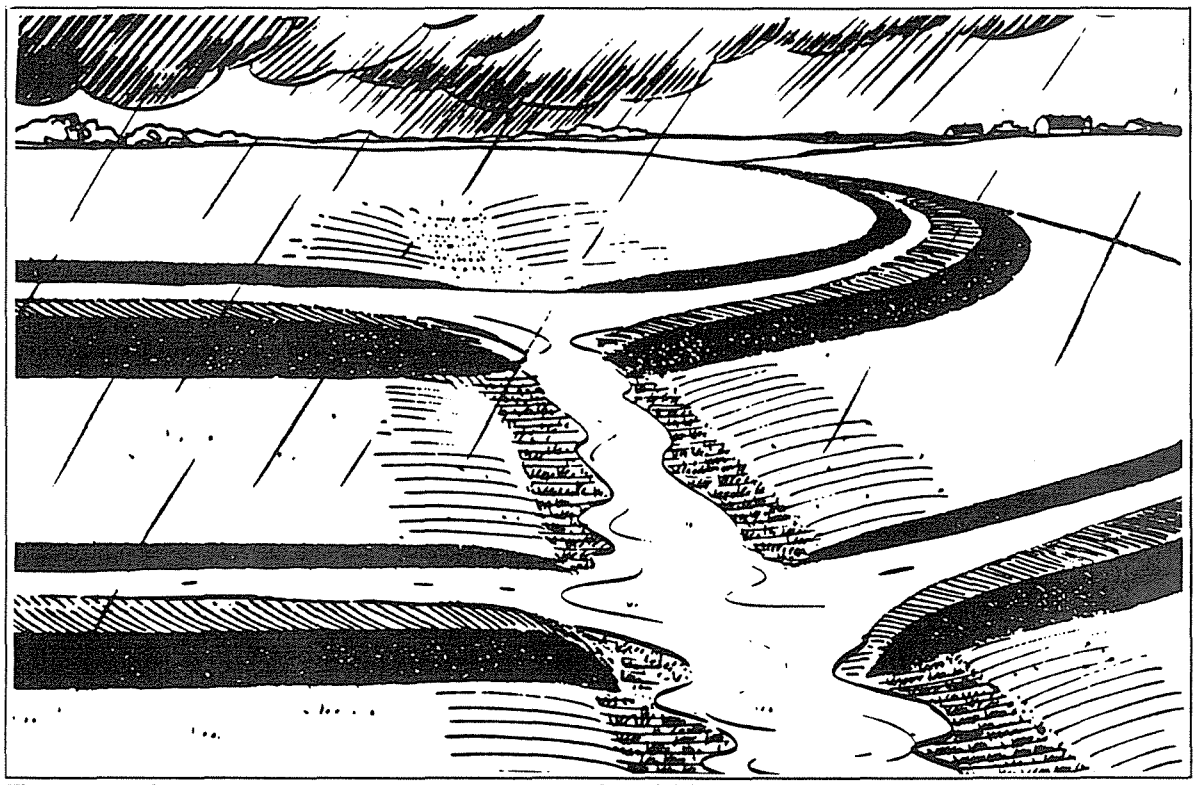

Figure 2-6. Gradient terraces with waterway outlet (USDA-SCS, 1984).

u. Wetland and riparian zone protection

Wetland and riparian zone protection practices are described in Chapter 7.

6. Cost Information

Both national and selected State costs for a number of common erosion control practices are presented in Tables 2-3 through 2-7. The variability in costs for practices can be accounted for primarily through differences in site-specific applications and costs, differences in the reporting units used, and differences in the interpretation of reporting units.

The cost estimates for control of erosion and sediment transport from agricultural lands in Table 2-8 are based on experiences in the Chesapeake Bay Program, but are illustrative of the costs that could be incurred in coastal areas across the Nation. It is important to note that for some practices, such as conservation tillage, the net costs often approach zero and in some cases can be negative because of the savings in labor and energy.

The annual cost of operation and maintenance is estimated to range from zero to 10 percent of the investment cost (USDA-SCS-Michigan, 1988).

Table 2-3. Cost of Diversions

Location	Year	Unit	Reported Capital Costs ($/unit)	Constant Dollar Capital Costs ($/unit)[a]	Reference
National	1985	ac	49.45	61.8	Barbarika, 1987.
North Carolina	1980	ac	120.00	164.35	NCAES, 1982
Maryland	1991	ft	3.12	3.12	Sanders et al., 1991.
Maryland	1987	ft	2.25	2.89	Smolen and Humenik, 1989.
Michigan	1981	ft	3.75	4.79	Smolen and Humenik, 1989.
Wisconsin	1987	ft	1.57	2.02	Smolen and Humenik, 1989.
Minnesota	1987	ft	1.43	1.84	Smolen and Humenik, 1989.
Virginia	1987	ft	1.33	1.71	Smolen and Humenik, 1989.

[a] Reported costs inflated to 1991 dollars by the ratio of indices of prices paid by farmers for all production items, 1977=100. Diversion lifetime is expected to be 10 years, but costs are not annualized.

Table 2-4. Cost of Terraces

Location	Year	Unit	Reported Capital Costs ($/unit)	Constant Dollar Capital Costs ($/unit)[a]	Reference
National	1985	ac	91.43	114.44	Barbarika, 1987.
Alabama	1982	a.s.	45.00	55.58	Russell and Christensen, 1984.
Florida	1982	a.s.	40.00	49.41	Russell and Christensen, 1984.
Georgia	1982	a.s.	39.00	48.18	Russell and Christensen, 1984.
North Carolina	1982	a.s.	47.00	58.06	Russell and Christensen, 1984.
South Carolina	1982	a.s.	17.00	21.00	Russell and Christensen, 1984.
Virginia	1982	a.s.	39.00	48.18	Russell and Christensen, 1984.
Wisconsin	1987	ft	10.00	12.86	Smolen and Humenik, 1989.
Minnesota	1987	ft	2.25	2.89	Smolen and Humenik, 1989.

a.s. = acres served

[a] Reported costs inflated to 1991 dollars by the ratio of indices of prices paid by farmers for all production items, 1977=100. Terrace lifetime is expected to be 10 years, but costs are not annualized.

Table 2-5. Cost of Waterways

Location	Year	Unit	Reported Capital Costs ($/unit)	Constant Dollar Capital Costs ($/unit)[a]	Reference
National	1985	ac	94.22	117.93	Barbarika, 1987.
Michigan	1981	ac	150.00	191.55	Smolen and Humenik, 1989.
Wisconsin	1987	ac	2880.00	3702.86	Smolen and Humenik, 1989.
North Carolina	1980	ac	72.00	98.61	NCAES, 1982.
Alabama	1982	a.e.	1088.00	1344.00	Russell and Christensen, 1984.
Florida	1982	a.e.	1026.00	1267.41	Russell and Christensen, 1984.
Georgia	1982	a.e.	880.00	1087.06	Russell and Christensen, 1984.
North Carolina	1982	a.e.	1232.00	1521.88	Russell and Christensen, 1984.
South Carolina	1982	a.e.	1442.00	1781.29	Russell and Christensen, 1984.
Virginia	1982	a.e.	1530.00	1890.00	Russell and Christensen, 1984.
Maryland	1991	ft	5.11	5.11	Sanders et al, 1991.
Maryland	1987	ft	6.00	7.71	Smolen and Humenik, 1989.

a.e. = acres established

[a] Reported costs inflated to 1991 dollars by the ratio of indices of prices paid by farmers for all production items, 1977=100. Waterway lifetime is expected to be 10 years, but costs are not annualized.

Table 2-6. Cost of Permanent Vegetative Cover

Location	Year	Unit	Reported Capital Costs ($/unit)	Constant Dollar Capital Costs ($/unit)[a]	Reference
National	1985	ac	48.10	60.20	Barbarika, 1987.
Maryland	1991	ac	235.48	235.48	Sanders et al., 1991.
Maryland	1987	ac	120.00	154.29	Smolen and Humenik, 1989.
Michigan	1981	ac	62.50	79.81	Smolen and Humenik, 1989.
Wisconsin	1987	ac	70.00	90.00	Smolen and Humenik, 1989.
Minnesota	1987	ac	233.00	299.57	Smolen and Humenik, 1989.
Virginia	1987	ac	133.00	171.00	Smolen and Humenik, 1989.
Alabama	1982	ac	98.78	122.02	Russell and Christensen, 1984.
Florida	1982	ac	98.24	121.36	Russell and Christensen, 1984.
Georgia	1982	ac	98.52	121.70	Russell and Christensen, 1984.
North Carolina	1982	ac	73.74	91.09	Russell and Christensen, 1984.
South Carolina	1982	ac	121.54	150.14	Russell and Christensen, 1984.
Virginia	1982	ac	101.36	125.21	Russell and Christensen, 1984.

[a] Reported costs inflated to 1991 dollars by the ratio of indices of prices paid by farmers for all production items, 1977=100. Permanent vegetative cover lifetime is expected to be 10 years, but costs are not annualized.

Table 2-7. Cost of Conservation Tillage

Location	Year	Unit	Reported Capital Costs ($/unit)	Constant Dollar Capital Costs ($/unit)[a]	Reference
Maryland	1987	ac	18.00	21.99	Smolen and Humenik, 1989.
Michigan	1987	ac	6.75	8.25	Smolen and Humenik, 1989.
Wisconsin	1981	ac	27.55	42.65	Smolen and Humenik, 1989.
Minnesota	1987	ac	13.40	16.37	Smolen and Humenik, 1989.
Virginia	1987	ac	29.30	35.79	Smolen and Humenik, 1989.
North Carolina	1980	ac	10.00	17.12	NCAES, 1982.
Alabama	1982	ac[b]	19.00	26.84	Russell and Christensen, 1984.
Florida	1982	ac[b]	39.00	55.09	Russell and Christensen, 1984.
Georgia	1982	ac[b]	33.00	46.61	Russell and Christensen, 1984.
North Carolina	1982	ac[b]	12.00	16.95	Russell and Christensen, 1984.
South Carolina	1982	ac[b]	27.00	38.14	Russell and Christensen, 1984.
Virginia	1982	ac[b]	16.00	22.60	Russell and Christensen, 1984.

[a] Reported costs inflated to 1991 dollars by the ratio of indices of prices paid by farmers for other machinery, 1977=100. Conservation tillage lifetime is expected to be 10 years, but costs are not annualized.

[b] Per acre of planting and herbicides.

Table 2-8. Annualized Cost Estimates for Selected Management Practices from Chesapeake Bay Installations[a] (Camacho, 1991)

Practice	Practice Life Span (Years)	Median Annual Costs[b] (EAC[c])($/acre/yr)
Nutrient Management	3	2.40
Strip-cropping	5	11.60
Terraces	10	84.53
Diversions	10	52.09
Sediment Retention Water Control Structures	10	89.22
Grassed Filter Strips	5	7.31
Cover Crops	1	10.00
Permanent Vegetative Cover on Critical Areas	5	70.70
Conservation Tillage[d]	1	17.34
Reforestation of Crop and Pasture[d]	10	46.66
Grassed Waterways[e]	10	1.00/LF/yr
Animal Waste System[f]	10	3.76/ton/yr

[a] Median costs (1990 dollars) obtained from the Chesapeake Bay Program Office (CBPO) BMP tracking data base and Chesapeake Bay Agreement Jurisdictions' unit data cost. Costs per acre are for acres benefited by the practice.
[b] Annualized BMP total cost including O&M, planning, and technical assistance costs.
[c] EAC = Equivalent annual cost: annualized total costs for the life span. Interest rate = 10%.
[d] Government incentive costs.
[e] Annualized unit cost per linear foot of constructed waterway.
[f] Units for animal waste are given as $/ton of manure treated.

B1. Management Measure for Facility Wastewater and Runoff from Confined Animal Facility Management (Large Units)

Limit the discharge from the confined animal facility to surface waters by:

(1) Storing both the facility wastewater *and* the runoff from confined animal facilities that is caused by storms up to and including a 25-year, 24-hour frequency storm. Storage structures should:

(a) Have an earthen lining or plastic membrane lining, or
(b) Be constructed with concrete, or
(c) Be a storage tank;

and

(2) Managing stored runoff and accumulated solids from the facility through an appropriate waste utilization system.

1. Applicability

This management measure is intended for application by States to all new facilities regardless of size and to all new or existing confined animal facilities that contain the following number of head or more:

	Head	Animal Units[2]
Beef Feedlots	300	300
Stables (horses)	200	400
Dairies	70	98
Layers	15,000	150[3]
		495[4]
Broilers	15,000	150[3]
		495[4]
Turkeys	13,750	2,475
Swine	200	80

except those facilities that are required by Federal regulation 40 CFR 122.23 to apply for and receive discharge permits. That section applies to "concentrated animal feeding operations," which are defined in 40 CFR Part 122, Appendix B. In addition, 40 CFR 122.23(c) provides that the Director of an NPDES discharge permit program may designate any animal feeding operation as a concentrated animal feeding operation (which has the effect of subjecting

[2] See *animal unit* in Glossary.

[3] If facility has a liquid manure system, as used in 40 CFR Section 122, Appendix B.

[4] If facility has continuous overflow watering, as used in 40 CFR Section 122, Appendix B.

the operation to the NPDES permit program requirements) upon determining that it is a significant contributor of water pollution. In such cases, upon issuance of a permit, the terms of the permit apply and this management measure ceases to apply.

Under the Coastal Zone Act Reauthorization Amendments, States are subject to a number of requirements as they develop coastal nonpoint programs in conformity with this measure and will have some flexibility in doing so. The application of management measures by States is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

A *confined animal facility* is a lot or facility (other than an aquatic animal production facility) where the following conditions are met:

- Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and

- Crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

Two or more animal facilities under common ownership are considered, for the purposes of these guidelines, to be a single animal facility if they adjoin each other or if they use a common area or system for the disposal of wastes.

Confined animal facilities, as defined above, include areas used to grow or house the animals, areas used for processing and storage of product, manure and runoff storage areas, and silage storage areas.

Facility wastewater and runoff from confined animal facilities are to be controlled under this management measure (Figure 2-7). Runoff includes any precipitation (rain or snow) that comes into contact with any manure, litter, or bedding. Facility wastewater is water discharged in the operation of an animal facility as a result of any or all of the following: animal or poultry watering; washing, cleaning, or flushing pens, barns, manure pits, or other animal facilities; washing or spray cooling of animals; and dust control.

2. Description

The problems associated with animal facilities result from runoff, facility wastewater, and manure. For additional information regarding problems, see Section I.F.3 of this chapter.

Application of this management measure will greatly reduce the volume of runoff, manure, and facility wastewater reaching a waterbody, thereby improving water quality and the use of the water resource. The measure can be implemented by using practices that divert runoff water from upslope sites and roofs away from the facility, thereby minimizing the amount of water to be stored and managed. Runoff water and facility wastewater should be routed through a settling structure or debris basin to remove solids, and then stored in a pit, pond, or lagoon for application on agricultural land (Figure 2-8). If manure is managed as a liquid, all manure, runoff, and facility wastewater can be stored in the same structure and there is no need for a debris basin.

For new facilities and expansions to existing facilities, consideration should be given to siting the facility:

- Away from surface waters;

- Away from areas with high leaching potential; and

- In areas where adequate land is available to apply animal wastes in accordance with the nutrient management measure.

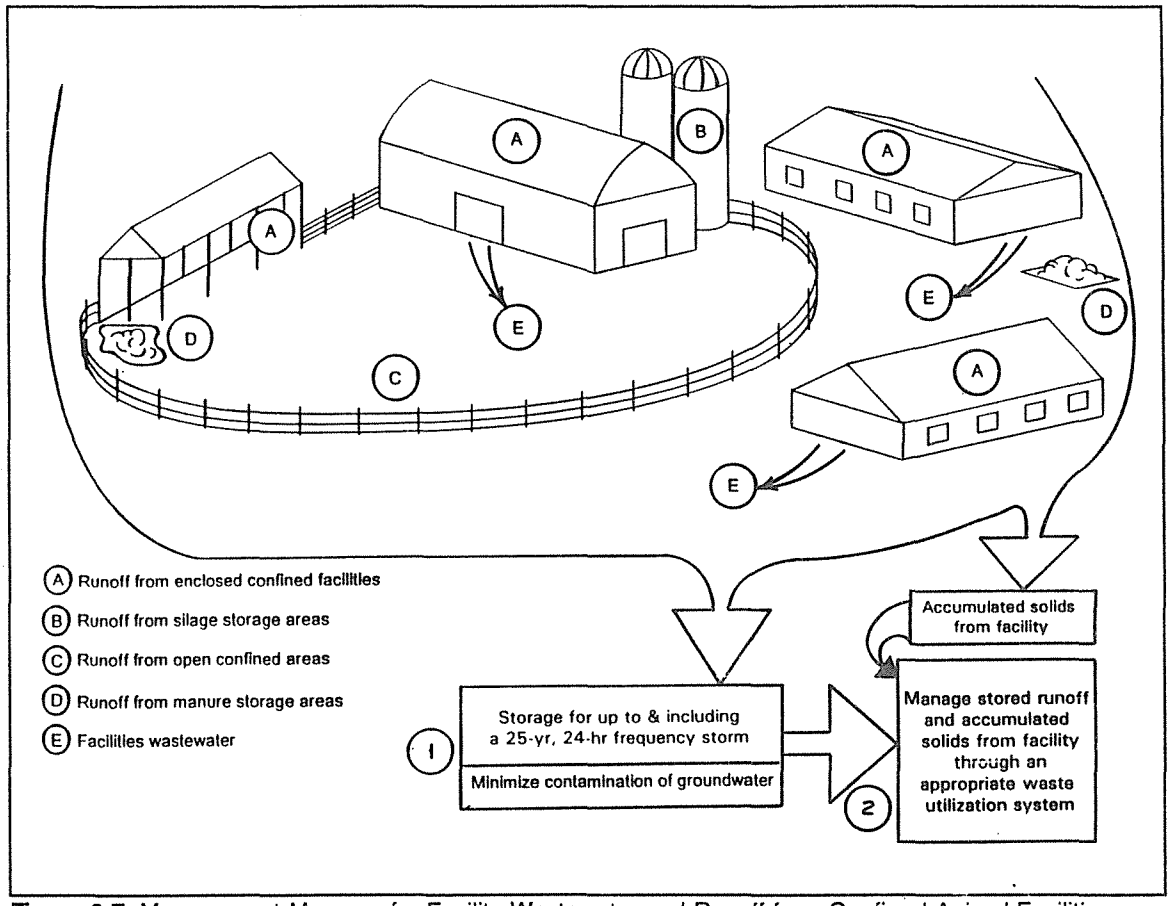

Figure 2-7. Management Measure for Facility Wastewater and Runoff from Confined Animal Facilities (Large Units).

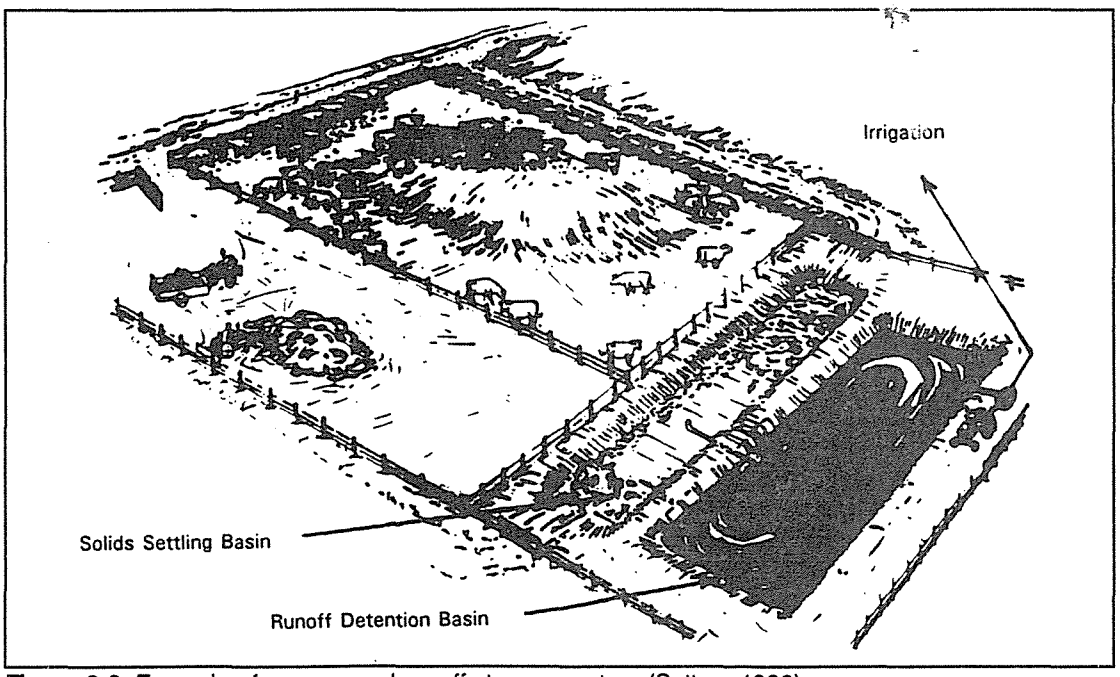

Figure 2-8. Example of manure and runoff storage system (Sutton, 1990).

This management measure does *not* require manure storage structures or areas, nor does it specify required manure management practices. This management measure does, however, address the management of *runoff* from manure storage areas. Manure may be stacked in the confined lot or other appropriate area as long as the storage and management of runoff from the confined lot are in accordance with this management measure. If manure is managed as a solid, any drainage from the storage area or structure area or structure should be routed to the runoff storage system.

When applied to agricultural lands, manure, stored runoff water, stored facility wastewater, and accumulated solids from the facility are to be applied in accordance with the nutrient management measure. An appropriate waste utilization system to minimize impacts to surface water and protect ground water may be achieved through implementation of the SCS Waste Utilization practice (633).

It is recognized that implementation of this measure may increase the potential for movement of water and soluble pollutants through the soil profile to the ground water. It is not the intent of this measure to address a surface water problem at the expense of ground water. Facility wastewater and runoff control systems can and should be designed to protect ground water. Ground-water protection will also be provided by minimizing seepage to ground water, if soil conditions require further protection, and by using the nutrient and pesticide management measures to reduce and control the application of nutrients and pesticides.

Seepage to ground water can be minimized by lining the runoff or manure storage structure with an earthen lining or plastic membrane lining, by constructing with concrete, or by constructing a storage tank. This is not difficult to accomplish and should be achieved in the initial design to reduce costs. For some soils and locations, movement of pollutants to the ground water is not a concern, but site evaluations are needed to determine the appropriate action to take to protect the resources at the site.

Operation and Maintenance of This Measure

Operation

Holding ponds and treatment lagoons should be operated such that the design storm volume is available for storage of runoff. Facilities filled to or near capacity should be drawn down as soon as all site conditions permit the safe removal and appropriate use of stored materials. Solids should be removed from solids separation basins as soon as possible following storm events to ensure that needed solids storage volume is available for subsequent storms.

Maintenance

Diversions will need periodic reshaping and should be free of trees and brush growth. Gutters and downspouts should be inspected annually and repaired when needed. Established grades for lot surfaces and conveyance channels are to be maintained at all times.

Channels should be free of trees and brush growth. Cleaning of debris basins, holding ponds, and lagoons will be needed to ensure that design volumes are maintained. Clean water should be excluded from the storage structure unless it is needed for further dilution in a liquid system.

3. Management Measure Selection

This management measure was selected for larger-sized animal production facilities because it can eliminate the pollutants leaving a facility by storing runoff from storms up to and including the 25-year, 24-hour frequency storm. It also uses practices that reduce the amount of water that comes into contact with animal waste materials. It requires that stored runoff and accumulated solids from the facility are managed through an appropriate waste utilization system. Any stored water, accumulated solids, processed dead animals, or manure are to be applied in accordance with the nutrient management measure.

The size limitations that define a large unit are based on EPA's analysis of the economic achievability of the management measure.

4. Effectiveness Information

The effectiveness of management practices to control contaminant losses from confined livestock facilities depends on several factors including:

- The contaminant(s) to be controlled and their likely pathways in surface, subsurface, and ground-water flows;
- The types of practices (section 5) and how these practices control surface, subsurface, and ground-water contaminant pathways; and
- Site-specific variables such as soil type, topography, precipitation characteristics, type of animal housing and waste storage facilities, method of waste collection, handling and disposal, and seasonal variations. The site-specific conditions must be considered in system design, thus having a large effect on practice effectiveness levels.

The gross effectiveness estimates reported in Table 2-9 simply indicate summary literature values. For specific cases, a wide range of effectiveness can be expected depending on the value and interaction of the site-specific variables cited above.

When runoff from storms up to and including the 24-hour, 25-year frequency storm is stored, there will be no release of pollutants from a confined animal facility via the surface runoff route. Rare storms of a greater magnitude or sequential storms of combined greater magnitude may produce runoff, however. Table 2-10 reflects the occurrence of such storms by indicating less than 100 percent control for runoff control systems.

Table 2-9. Relative Gross Effectiveness[a] of Confined Livestock Control Measures (Pennsylvania State University, 1992a)

Practice[b] Category	Runoff[c] Volume	Total[d] Phosphorus (%)	Total[d] Nitrogen (%)	Sediment (%)	Fecal Coliform (%)
Animal Waste Systems[e]	-	90	80	60	85
Diversion Systems[f]	-	70	45	NA	NA
Filter Strips[g]	-	85	NA	60	55
Terrace System	-	85	55	80	NA
Containment Structures[h]	-	60	65	70	90

NA = not available.
[a] Actual effectiveness depends on site-specific conditions. Values are not cumulative between practice categories.
[b] Each category includes several specific types of practices.
[c] - = reduction; + = increase; 0 = no change in surface runoff.
[d] Total phosphorus includes total and dissolved phosphorus; total nitrogen includes organic-N, ammonia-N, and nitrate-N.
[e] Includes methods for collecting, storing, and disposing of runoff and process-generated wastewater.
[f] Specific practices include diversion of uncontaminated water from confinement facilities.
[g] Includes all practices that reduce contaminant losses using vegetative control measures.
[h] Includes such practices as waste storage ponds, waste storage structures, waste treatment lagoons.

Table 2-10. Effectiveness of Runoff Control Systems (DPRA, 1986)

	Removal Efficiency (%)	
Management Practice	Solids	Phosphorus
Runoff Control System	80 - 90	70 - 95

5. Confined Animal Facility Management Practices

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above.

Combinations of the following practices can be used to satisfy the requirements of this management measure. The U.S. Soil Conservation Service (SCS) practice number and definition are provided for each management practice, where available. Also included in italics are SCS statements describing the effect each practice has on water quality (USDA-SCS, 1988).

a. *Dikes (356): An embankment constructed of earth or other suitable materials to protect land against overflow or to regulate water.*

Where dikes are used to prevent water from flowing onto the floodplain, the pollution dispersion effect of the temporary wetlands and backwater are decreased. The sediment, sediment-attached, and soluble materials being transported by the water are carried farther downstream. The final fate of these materials must be investigated on site. Where dikes are used to retain runoff on the floodplain or in wetlands the pollution dispersion effects of these areas may be enhanced. Sediment and related materials may be deposited, and the quality of the water flowing into the stream from this area will be improved.

Dikes are used to prevent wetlands and to form wetlands. The formed areas may be fresh, brackish, or saltwater wetlands. In tidal areas dikes are used to stop saltwater intrusion, and to increase the hydraulic head of fresh water which will force intruded salt water out the aquifer. During construction there is a potential of heavy sediment loadings to the surface waters. When pesticides are used to control the brush on the dikes and fertilizers are used for the establishment and maintenance of vegetation there is the possibility for these materials to be washed into the surface waters.

b. *Diversions (362): A channel constructed across the slope with a supporting ridge on the lower side.*

This practice will assist in the stabilization of a watershed, resulting in the reduction of sheet and rill erosion by reducing the length of slope. Sediment may be reduced by the elimination of ephemeral and large gullies. This may reduce the amount of sediment and related pollutants delivered to the surface waters.

c. *Grassed waterway (412): A natural or constructed channel that is shaped or graded to required dimensions and established in suitable vegetation for the stable conveyance of runoff.*

This practice may reduce the erosion in a concentrated flow area, such as in a gully or in ephemeral gullies. This may result in the reduction of sediment and substances delivered to receiving waters. Vegetation may act as a filter

in removing some of the sediment delivered to the waterway, although this is not the primary function of a grassed waterway.

Any chemicals applied to the waterway in the course of treatment of the adjacent cropland may wash directly into the surface waters in the case where there is a runoff event shortly after spraying.

When used as a stable outlet for another practice, waterways may increase the likelihood of dissolved and suspended pollutants being transported to surface waters when these pollutants are delivered to the waterway.

d. Heavy use area protection (561): Protecting heavily used areas by establishing vegetative cover, by surfacing with suitable materials, or by installing needed structures.

Protection may result in a general improvement of surface water quality through the reduction of erosion and the resulting sedimentation. Some increase in erosion may occur during and immediately after construction until the disturbed areas are fully stabilized.

Some increase in chemicals in surface water may occur due to the introduction of fertilizers for vegetated areas and oils and chemicals associated with paved areas. Fertilizers and pesticides used during operation and maintenance may be a source of water pollution.

Paved areas installed for livestock use will increase organic, bacteria, and nutrient loading to surface waters. Changes in ground water quality will be minor. Nitrate nitrogen applied as fertilizer in excess of vegetation needs may move with infiltrating waters. The extent of the problem, if any, may depend on the actual amount of water percolating below the root zone.

e. Lined waterway or outlet (468): A waterway or outlet having an erosion-resistant lining of concrete, stone, or other permanent material.

The lined section extends up the side slopes to a designed depth. The earth above the permanent lining may be vegetated or otherwise protected.

This practice may reduce the erosion in concentrated flow areas resulting in the reduction of sediment and substances delivered to the receiving waters.

When used as a stable outlet for another practice, lined waterways may increase the likelihood of dissolved and suspended substances being transported to surface waters due to high flow velocities.

f. Roof runoff management (558): A facility for controlling and disposing of runoff water from roofs.

This practice may reduce erosion and the delivery of sediment and related substances to surface waters. It will reduce the volume of water polluted by animal wastes. Loadings of organic waste, nutrients, bacteria, and salts to surface water are prevented from flowing across concentrated waste areas, barnyards, roads and alleys will be reduced. Pollution and erosion will be reduced. Flooding may be prevented and drainage may improve.

g. Terrace (600): An earthen embankment, a channel, or combination ridge and channel constructed across the slope.

This practice reduces the slope length and the amount of surface runoff which passes over the area downslope from an individual terrace. This may reduce the erosion rate and production of sediment within the terrace interval. Terraces trap sediment and reduce the sediment and associated pollutant content in the runoff water which enhances surface water quality. Terraces may intercept and conduct surface runoff at a nonerosive velocity to stable outlets, thus reducing the occurrence of ephemeral and classic gullies and the resulting sediment. Increases in infiltration

can cause a greater amount of soluble nutrients and pesticides to be leached into the soil. Underground outlets may collect highly soluble nutrient and pesticide leachates and convey runoff and conveying it directly to an outlet, terraces may increase the delivery of pollutants to surface waters. Terraces increase the opportunity to leach salts below the root zone in the soil. Terraces may have a detrimental effect on water quality if they concentrate and accelerate delivery of dissolved or suspended nutrient, salt, and pesticide pollutants to surface or ground waters.

h. Waste storage pond (425): An impoundment made by excavation or earth fill for temporary storage of animal or other agricultural wastes.

This practice reduces the direct delivery of polluted water, which is the runoff from manure stacking areas and feedlots and barnyards, to the surface waters. This practice may reduce the organic, pathogen, and nutrient loading to surface waters. This practice may increase the dissolved pollutant loading to ground water by leakage through the sidewalls and bottom.

i. Waste storage structure (313): A fabricated structure for temporary storage of animal wastes or other organic agricultural wastes.

This practice may reduce the nutrient, pathogen, and organic loading to the surface waters. This is accomplished by intercepting and storing the polluted runoff from manure stacking areas, barnyards and feedlots. This practice will not eliminate the possibility of contaminating surface and ground water; however, it greatly reduces this possibility.

j. Waste treatment lagoon (359): An impoundment made by excavation or earth fill for biological treatment of animal or other agricultural wastes.

This practice may reduce polluted surficial runoff and the loading of organics, pathogens, and nutrients into the surface waters. It decreases the nitrogen content of the surface runoff from feedlots by denitrification. Runoff is retained long enough that the solids and insoluble phosphorus settle and form a sludge in the bottom of the lagoon. There may be some seepage through the sidewalls and the bottom of the lagoon. Usually the long-term seepage rate is low enough, so that the concentration of substances transported into the ground water does not reach an unacceptable level.

k. Application of manure and/or runoff water to agricultural land

Manure and runoff water are applied to agricultural lands and incorporated into the soil in accordance with the management measures for nutrients.

l. Waste utilization (633): Using agricultural wastes or other wastes on land in an environmentally acceptable manner while maintaining or improving soil and plant resources.

Waste utilization helps reduce the transport of sediment and related pollutants to the surface water. Proper site selection, timing of application and rate of application may reduce the potential for degradation of surface and ground water. This practice may increase microbial action in the surface layers of the soil, causing a reaction which assists in controlling pesticides and other pollutants by keeping them in place in the field.

Mortality and other compost, when applied to agricultural land, will be applied in accordance with the nutrient management measure. The composting facility may be subject to State regulations and will have a written operation and management plan if SCS practice 317 (composting facility) is used.

m. Composting facility (317): A facility for the biological stabilization of waste organic material.

The purpose is to treat waste organic material biologically by producing a humus-like material that can be recycled as a soil amendment and fertilizer substitute or otherwise utilized in compliance with all laws, rules, and regulations.

n. Commercial rendering or disposal services

o. Incineration

p. Approved burial sites

6. Cost Information

Construction costs for control of runoff and manure from confined animal facilities are provided in Table 2-11. The annual operation and maintenance costs average 4 percent of construction costs for diversions, 3 percent of construction costs for settlement basins, and 5 percent of construction costs for retention ponds (DPRA, 1992). Annual costs for repairs, maintenance, taxes, and insurance are estimated to be 5 percent of investment costs for irrigation systems (DPRA, 1992).

Table 2-11. Costs for Runoff Control Systems (DPRA, 1992)

Practice[a]	Unit	Cost/Unit Construction ($)[b]
Diversion	foot	2.00
Irrigation		
- Piping (4-inch)	foot	1.75
- Piping (6-inch)	foot	2.25
- Pumps (10 hp)	unit	1,750.00
- Pumps (15 hp)	unit	2,000.00
- Pumps (30 hp)	unit	3,000.00
- Pumps (45 hp)	unit	3,500.00
- Sprinkler/gun (150 gpm)	unit	875.00
- Sprinkler/gun (250 gpm)	unit	1,750.00
- Sprinkler/gun (400 gpm)	unit	3,200.00
- Contracted service to empty retention pond	1,000 gallon	3.00
Infiltration[c]	acre	2,500.00
Manure Hauling	mile per 4.5-ton load	2.15
Dead Animal Composting Facility	cubic foot	5.00
Retention Pond		
- 241 cubic feet in size	cubic foot	2.58
- 2,678 cubic feet in size	cubic foot	1.24
- 28,638 cubic feet in size	cubic foot	0.60
- 267,123 cubic feet in size	cubic foot	0.31
Settling Basin		
- 53 cubic feet in size	cubic foot	4.26
- 488 cubic feet in size	cubic foot	2.74
- 5,088 cubic feet in size	cubic foot	1.71
- 49,950 cubic feet in size	cubic foot	1.08

[a] Expected lifetimes of practices are 20 years for diversions, settling basins, retention ponds, and infiltration areas and 15 years for irrigation equipment.
[b] 1990 dollars. This table does not present annualized costs.
[c] Does not include land costs.

B2. Management Measure for Facility Wastewater and Runoff from Confined Animal Facility Mangement (Small Units)

Design and implement systems that collect solids, reduce contaminant concentrations, and reduce runoff to minimize the discharge of contaminants in both facility wastewater and in runoff that is caused by storms up to and including a 25-year, 24-hour frequency storm. Implement these systems to substantially reduce significant increases in pollutant loadings to ground water.

Manage stored runoff and accumulated solids from the facility through an appropriate waste utilization system.

1. Applicability

This management measure is intended for application by States to all existing confined animal facilities that contain the following number of head:

	Head	Animal Units[5]
Beef Feedlots	50-299	50-299
Stables (horses)	100-199	200-399
Dairies	20-69	28-97
Layers	5,000-14,999	50-149[6] 165-494[7]
Broilers	5,000-14,999	50-149[6] 165-494[7]
Turkeys	5,000-13,749	900-2,474
Swine	100-199	40-79

except those facilities that are required by Federal regulation 40 CFR 122.23(c) to apply for and receive discharge permits. 40 CFR 122.23(c) provides that the Director of an NPDES discharge permit program may designate any animal feeding operation as a concentrated animal feeding operation (which has the effect of subjecting the operation to the NPDES permit program requirements) upon determining that it is a significant contributor of water pollution. In such cases, upon issuance of a permit, the terms of the permit apply and this management measure ceases to apply.

Facilities containing fewer than the number of head listed above are not subject to the requirements of this management measure. Existing facilities that meet the requirements of Management Measure B1 for large units are in compliance with the requirements of this management measure. Existing and new facilities that already minimize

[5] See *animal unit* in Glossary.

[6] If facility has a liquid manure system, as used in 40 CFR Section 122, Appendix B.

[7] If facility has continuous overflow watering, as used in 40 CFR Section 122, Appendix B.

the discharge of contaminants to surface waters, protect against contamination of ground water, and have an appropriate waste utilization system may already meet the requirements of this management measure. Such facilities may not need additional controls for the purposes of this management measure.

Under the Coastal Zone Act Reauthorization Amendments, States are subject to a number of requirements as they develop coastal nonpoint programs in conformity with this measure and will have some flexibility in doing so. The application of management measures by States is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

A *confined animal facility* is a lot or facility (other than an aquatic animal production facility) where the following conditions are met:

- Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and
- Crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

Two or more animal facilities under common ownership are considered, for the purposes of these guidelines, to be a single animal facility if they adjoin each other or if they use a common area or system for the disposal of wastes.

Confined animal facilities, as defined above, include areas used to grow or house the animals, areas used for processing and storage of product, manure and runoff storage areas, and silage storage areas.

Facility wastewater and runoff from confined animal facilities are to be controlled under this management measure (Figure 2-9). Runoff includes any precipitation (rain or snow) that comes into contact with any manure, litter, or bedding. Facility wastewater is water discharged in the operation of an animal facility as a result of any or all of the following: animal or poultry watering; washing, cleaning, or flushing pens, barns, manure pits, or other animal facilities; washing or spray cooling of animals; and dust control.

2. Description

The goal of this management measure is to minimize the discharge of contaminants in both facility wastewater and in runoff that is caused by storms up to and including a 25-year, 24-hour frequency storm by using practices such as solids separation basins in combination with vegetative practices and other practices that reduce runoff and are also protective of ground water.

The problems associated with animal facilities are the control of runoff, facility wastewater, and manure. For additional information regarding problems, see Section I.F.3. of this chapter.

Application of this management measure will greatly reduce the volume of runoff, manure, and facility wastewater reaching a waterbody, thereby improving water quality and the use of the water resource. The measure can be implemented by using practices that divert runoff water from upslope sites and roofs away from the facility, thereby minimizing the amount of water that must be managed (Figure 2-10). Runoff water and facility wastewater from the facility should be routed through a settling structure or debris basin to remove solids. If manure is managed as a liquid, all manure, runoff, and facility wastewater can be stored in the same structure and there is no need for a debris basin.

This management measure does *not* require manure storage structures or areas, nor does it specify required manure management practices. This management measure does, however, address the management of *runoff* from manure

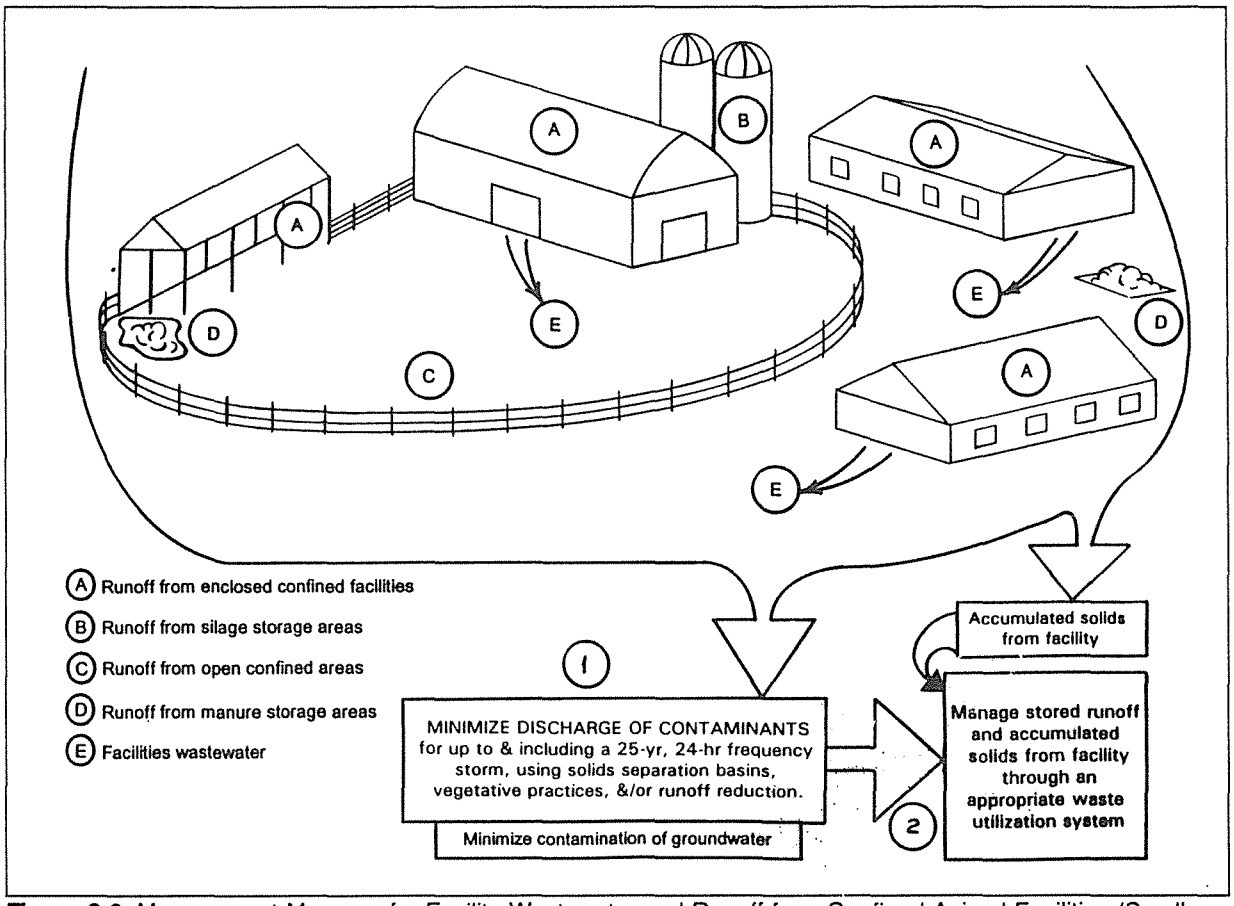

Figure 2-9. Management Measure for Facility Wastewater and Runoff from Confined Animal Facilities (Small Units).

storage areas. Manure may be stacked in the confined lot or other appropriate area as long as the discharge is minimized and any stored runoff is managed in accordance with this management measure. If manure is managed as a solid, any drainage from the storage area or structure should be routed to the runoff control practices.

When applied to agricultural lands, manure, stored runoff water, stored facility wastewater, and accumulated solids from the facility are to be applied in accordance with the nutrient management measure. An appropriate waste utilization system to minimize impacts to surface water and protect ground water may be achieved through implementation of the SCS Waste Utilization practice (633).

It is recognized that implementation of this measure may increase the potential for movement of water and soluble pollutants through the soil profile to the ground water. It is not the intent of this measure to address a surface water problem at the expense of ground water. Facility wastewater and runoff control systems can and should be designed to protect against the contamination of ground water. Ground-water protection will also be provided by minimizing seepage to ground water, if soil conditions require further protection, and by using the nutrient and pesticide management measures to reduce and control the application of nutrients and pesticides. While a nutrient management plan is not required to be implemented on the vegetative control practices themselves, ground water should be protected by taking extreme care to not exceed the capacity of the practices to assimilate nutrients.

When storage structures are used to meet the requirements of this management measure, seepage to ground water can be minimized by lining the runoff or manure storage structure with an earthen lining or plastic membrane lining, by constructing with concrete, or by constructing a storage tank. This is not difficult to accomplish and should be achieved in the initial design to reduce costs. For some soils and locations movement of pollutants to the ground

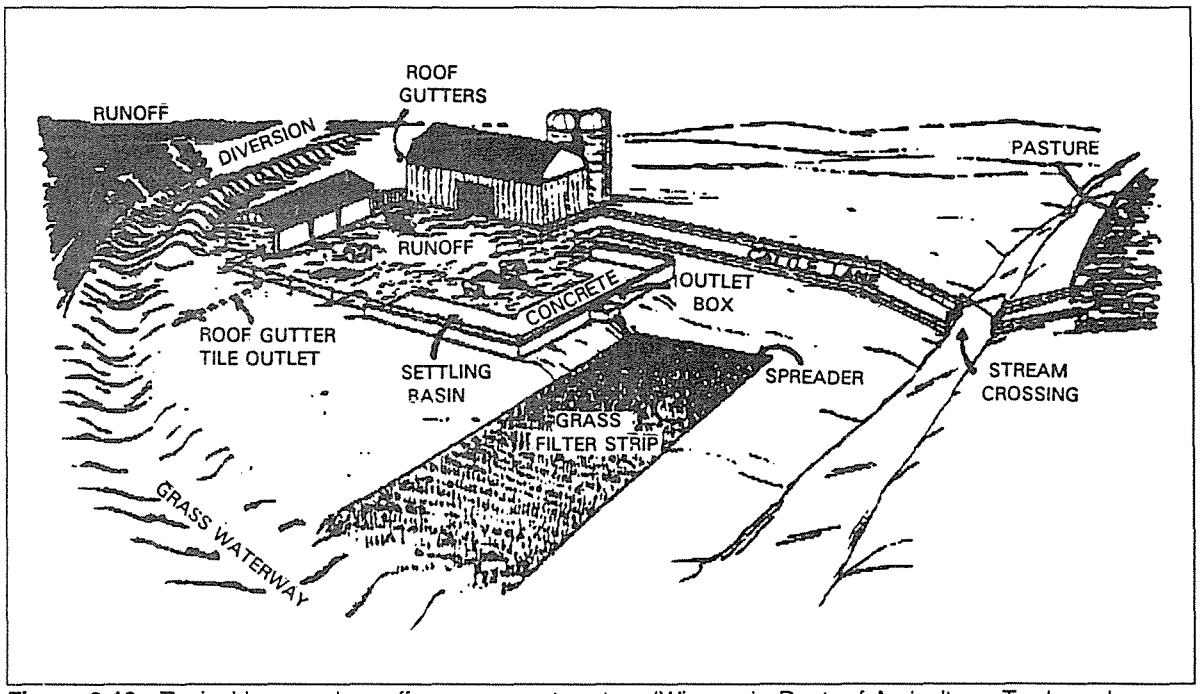

Figure 2-10. Typical barnyard runoff management system (Wisconsin Dept. of Agriculture, Trade and Consumer Protection, 1989).

water is not a concern, but each site must be evaluated and the appropriate action taken to protect the resources at the site.

Operation and Maintenance of This Measure

Operation

Holding ponds and treatment lagoons should be operated such that the design storm volume is available for storage of runoff. Facilities that have filled should be drawn down as soon as all site conditions permit the safe removal and appropriate use of stored materials. Solids should be removed from solids separation basins as soon as possible following storm events to ensure that needed solids storage volume is available for subsequent storms.

Maintenance

Diversions will need periodic reshaping and should be free of trees and brush growth. Gutters and downspouts should be inspected annually and repaired when needed. Established grades for lot surfaces and conveyance channels must be maintained at all times.

Channels must be free of trees and brush growth. Cleaning of debris basins, holding ponds, and lagoons will be needed to ensure that design volumes are maintained. Clean water should be excluded from the storage structure unless it is needed for further dilution in a liquid system.

3. Management Measure Selection

This management measure was selected for smaller-sized animal production facilities based on an evaluation of available information that documents the beneficial effects of improved management of confined livestock facilities. Specifically, the management measure reduces the amount of pollutants leaving a facility by using practices that reduce the amount of water that comes into contact with animal waste materials. It also uses solid removal and

filtration of runoff water to remove a significant amount of the pollutants contained in the runoff waters. This can be accomplished without the expense of constructing a runoff storage structure and purchasing the equipment necessary to apply the stored water to the land.

This management measure also requires that stored runoff and accumulated solids from the facility are managed through an appropriate waste utilization system. The size limitations that define a small unit are based on EPA's analysis of the economic achievability of the management measure.

4. Effectiveness Information

The effectiveness information presented for large units (Tables 2-9 and 2-10) also applies to this management measure.

Pollutant loads from runoff caused by storms up to and including the 25-year, 24-hour frequency storm can be reduced by decreasing the potential for runoff contamination (e.g., by keeping accumulations of manure off the open lots), and by removing the contaminants to the fullest extent practicable through vegetative and structural practices (e.g., solids separation devices, sediment basins, filter strips, and constructed wetlands). Pollutant loads can also be reduced by storing and applying the runoff to the land with any manure and facility wastewater in accordance with the nutrient management measure.

Table 2-12 shows reductions in pollutant concentrations that are achievable with solids separation basins that receive runoff from barnyards and feedlots. Concentration reductions may differ from the load reductions presented in Tables 2-9 and 2-10 since loads are determined by both concentration and discharge volume. Solids separation basins combined with drained infiltration beds and vegetated filter strips (VFS) provide additional reductions in contaminant concentrations. The effectiveness of solids separation basins is highly dependent on site variables. Solids separation; basin sizing and management (clean-out); characteristics of VFS areas such as soil type, land slope, length, vegetation type, vegetation quality; and storm amounts and intensities all play important roles in the performance of the system. Appropriate operation and maintenance are critical to success.

Table 2-12. Concentrated Reductions in Barnyard and Feedlot Runoff Treated with Solids Separation

	Constituent Reduction (%)			
Site Location	TS	COD	Nitrogen	TP
Ohio - basin only[a,b]	49-54	51-56	35	21-41
Ohio - basin combined w/infiltration bed[a]	82	85	—	80
VFS[b]	87	89	83	84
Canada - basin only[c]	56	38	14(TKN)	—
Canada - basin w/VFS[c]		(High 90's in fall and spring)		
Illinois - basin w/VFS[d]	73		80(TKN)	78

[a] Edwards et al., 1986.
[b] Edwards et al., 1983.
[c] Adam et al., 1986.
[d] Dickey, 1981.

5. Confined Animal Facility Management Practices

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above.

Combinations of the following practices can be used to satisfy the requirements of this management measure. The U.S. Soil Conservation Service (SCS) practice number and definition are provided for each management practice, where available. Also included in italics are SCS statements describing the effect each practice has on water quality (USDA-SCS, 1988).

■ *a. Waste storage pond (425): An impoundment made by excavation or earth fill for temporary storage of animal or other agricultural waste.*

This practice reduces the direct delivery of polluted water, which is the runoff from manure stacking areas and feedlots and barnyards, to the surface waters. This practice may reduce the organic, pathogen, and nutrient loading to surface waters. This practice may increase the dissolved pollutant loading to ground water by leakage through the sidewalls and bottom.

■ *b. Waste storage structure (313): A fabricated structure for temporary storage of animal waste or other organic agricultural waste.*

This practice may reduce the nutrient, pathogen, and organic loading to the surface waters. This is accomplished by intercepting and storing the polluted runoff from manure stacking areas, barnyards and feedlots. This practice will not eliminate the possibility of contaminating surface and ground water; however, it greatly reduces this possibility.

■ *c. Waste treatment lagoon (359): An impoundment made by excavation or earth fill for biological treatment of animal or other agricultural waste.*

This practice may reduce polluted surficial runoff and the loading of organics, pathogens, and nutrients into the surface waters. It decreases the nitrogen content of the surface runoff from feedlots by denitrification. Runoff is retained long enough that the solids and insoluble phosphorus settle and form a sludge in the bottom of the lagoon. There may be some seepage through the sidewalls and the bottom of the lagoon. Usually the long-term seepage rate is low enough, so that the concentration of substances transported into the ground water does not reach an unacceptable level.

■ *d. Sediment basin (350): A basin constructed to collect and store debris or sediment.*

Sediment basins will remove sediment, sediment associated materials and other debris from the water which is passed on downstream. Due to the detention of the runoff in the basin, there is an increased opportunity for soluble materials to be leached toward the ground water.

■ *e. Water and sediment control basin (638): An earth embankment or a combination ridge and channel generally constructed across the slope and minor water courses to form a sediment trap and a water detention basin.*

The practice traps and removes sediment and sediment-attached substances from runoff. Trap control efficiencies for sediment and total phosphorus, that are transported by runoff, may exceed 90 percent in silt loam soils. Dissolved substance, such as nitrates, may be removed from discharge to downstream areas because of the increased infiltration. Where geologic condition permit, the practice will lead to increased loadings of dissolved substances toward ground water. Water temperatures of surface runoff, released through underground outlets, may increase slightly because of longer exposure to warming during its impoundment.

f. Filter strip (393): A strip or area of vegetation for removing sediment, organic matter, and other contaminants from runoff and wastewater.

Filter strips for sediment and related pollutants meeting minimum requirements may trap the coarser grained sediment. They may not filter out soluble or suspended fine-grained materials. When a storm caused runoff in excess of the design runoff, the filter may be flooded and may cause large loads of pollutants to be released to the surface water. This type of filter requires high maintenance and has a relatively short service life and is effective only as long as the flow through the filter is shallow sheet flow.

Filter strips for runoff from concentrated livestock areas may trap organic material, solids, materials which become adsorbed to the vegetation or the soil within the filter. Often they will not filter out soluble materials. This type of filter is often wet and is difficult to maintain.

Filter strips for controlled overland flow treatment of liquid wastes may effectively filter out pollutants. The filter must be properly managed and maintained, including the proper resting time. Filter strips on forest land may trap coarse sediment, timbering debris, and other deleterious material being transported by runoff. This may improve the quality of surface water and has little effect on soluble material in runoff or on the quality of ground water.

All types of filters may reduce erosion on the area on which they are constructed.

Filter strips trap solids from the runoff flowing in sheet flow through the filter. Coarse-grained and fibrous materials are filtered more efficiently than fine-grained and soluble substances. Filter strips work for design conditions, but when flooded or overloaded they may release a slug load of pollutants into the surface water.

g. Grassed waterway (412): A natural or constructed channel that is shaped or graded to required dimensions and established in a suitable vegetation for the stable conveyance of runoff.

This practice may reduce the erosion in a concentrated flow area, such as in a gully or in ephemeral gullies. This may result in the reduction of sediment and substances delivered to receiving waters. Vegetation may act as a filter in removing some of the sediment delivered to the waterway, although this is not the primary function of a grassed waterway.

Any chemicals applied to the waterway in the course of treatment of the adjacent cropland may wash directly into the surface waters in the case where there is a runoff event shortly after spraying.

When used as a stable outlet for another practice, waterways may increase the likelihood of dissolved and suspended pollutants being transported to surface waters when these pollutants are delivered to the waterway.

h. Constructed wetland (ASCS-999): A constructed aquatic ecosystem with rooted emergent hydrophytes designed and managed to treat agricultural wastewater.

This is a conservation practice for which SCS has developed technical requirements under a trial program leading to the development of a conservation practice standard.

i. Dikes (356): An embankment constructed of earth or other suitable materials to protect land against overflow or to regulate water.

Where dikes are used to prevent water from flowing onto the floodplain, the pollution dispersion effects of the temporary wetlands and backwater are decreased. The sediment, sediment-attached, and soluble materials being transported by the water are carried farther downstream. The final fate of these materials must be investigated on site. Where dikes are used to retain runoff on the floodplain or in wetlands the pollution dispersion effects of these areas may be enhanced. Sediment and related materials may be deposited, and the quality of the water flowing into the stream from this area will be improved.

Dikes are used to prevent wetlands and to form wetlands. The formed areas may be fresh, brackish, or saltwater wetlands. In tidal areas dikes are used to stop saltwater intrusion, and to increase the hydraulic head of fresh water which will force intruded salt water out the aquifer. During construction there is a potential of heavy sediment loadings to the surface waters. When pesticides are used to control the brush on the dikes and fertilizers are used for the establishment and maintenance of vegetation there is the possibility for these materials to be washed into the surface waters.

j. Diversion (362): A channel constructed across the slope with a supporting ridge on the lower side.

This practice will assist in the stabilization of a watershed, resulting in the reduction of sheet and rill erosion by reducing the length of slope. Sediment may be reduced by the elimination of ephemeral and large gullies. This may reduce the amount of sediment and related pollutants delivered to the surface waters.

k. Heavy use area protection (561): Protecting heavily used areas by establishing vegetative cover, by surfacing with suitable materials, or by installing needed structures.

Protection may result in a general improvement of surface water quality through the reduction of erosion and the resulting sedimentation. Some increase in erosion may occur during and immediately after construction until the disturbed areas are fully stabilized.

Some increase in chemicals in surface water may occur due to the introduction of fertilizers for vegetated areas and oils and chemicals associated with paved areas. Fertilizers and pesticides used during operation and maintenance may be a source of water pollution.

Paved areas installed for livestock use will increase organic, bacteria, and nutrient loading to surface waters. Changes in ground water quality will be minor. Nitrate nitrogen applied as fertilizer in excess of vegetation needs may move with infiltrating waters. The extent of the problem, if any, may depend on the actual amount of water percolating below the root zone.

l. Lined waterway or outlet (468): A waterway or outlet having an erosion-resistant lining of concrete, stone, or other permanent material.

The lined section extends up the side slopes to a designed depth. The earth above the permanent lining may be vegetated or otherwise protected.

This practice may reduce the erosion in concentrated flow areas resulting in the reduction of sediment and substances delivered to the receiving waters.

When used as a stable outlet for another practice, lined waterways may increase the likelihood of dissolved and suspended substances being transported to surface waters due to high flow velocities.

m. Roof runoff management (558): A facility for controlling and disposing of runoff water from roofs.

This practice may reduce erosion and the delivery of sediment and related substances to surface waters. It will reduce the volume of water polluted by animal wastes. Loadings of organic waste, nutrients, bacteria, and salts to surface water are prevented from flowing across concentrated waste areas, barnyards, roads and alleys. Pollution and erosion will be reduced. Flooding may be prevented and drainage may improve.

n. Terrace (600): An earthen embankment, a channel, or combination ridge and channel constructed across the slope.

This practice reduces the slope length and the amount of surface runoff which passes over the area downslope from an individual terrace. This may reduce the erosion rate and production of sediment within the terrace interval. Terraces trap sediment and reduce the sediment and associated pollutant content in the runoff water which enhance surface water quality. Terraces may intercept and conduct surface runoff at a nonerosive velocity to stable outlets, thus reducing the occurrence of ephemeral and classic gullies and the resulting sediment. Increases in infiltration can cause a greater amount of soluble nutrients and pesticides to be leached into the soil. Underground outlets may collect highly soluble nutrient and pesticide leachates and convey runoff and conveying it directly to an outlet, terraces may increase the delivery of pollutants to surface waters. Terraces increase the opportunity to leach salts below the root zone in the soil. Terraces may have a detrimental effect on water quality if they concentrate and accelerate delivery of dissolved or suspended nutrient, salt, and pesticide pollutants to surface or ground waters.

o. Waste utilization (633): Using agricultural wastes or other wastes on land in an environmentally acceptable manner while maintaining or improving soil and plant resources.

Waste utilization helps reduce the transport of sediment and related pollutants to the surface water. Proper site selection, timing of application and rate of application may reduce the potential for degradation of surface and ground water. This practice may increase microbial action in the surface layers of the soil, causing a reaction which assists in controlling pesticides and other pollutants by keeping them in place in the field.

Mortality and other compost, when applied to agricultural land, will be applied in accordance with the nutrient management measure. The composting facility may be subject to State regulations and will have a written operation and management plan if SCS practice 317 (composting facility) is used.

p. Composting facility (317): A facility for the biological stabilization of waste organic material.

The purpose is to treat waste organic material biologically by producing a humus-like material that can be recycled as a soil amendment and fertilizer substitute or otherwise used in compliance with all laws, rules, and regulations.

q. Commercial rendering or disposal services

r. Incineration

s. Approved burial site

6. Cost Information

The construction costs for large units (Table 2-11) also apply to this measure. The annual operation and maintenance costs average 4 percent of construction costs for diversions, 3 percent of construction costs for settlement basins, and 5 percent of construction costs for retention ponds (DPRA, 1992). Annual costs for repairs, maintenance, taxes, and insurance are estimated to be 5 percent of investment costs for irrigation systems (DPRA, 1992).

C. Nutrient Management Measure

Develop, implement, and periodically update a nutrient management plan to: (1) apply nutrients at rates necessary to achieve realistic crop yields, (2) improve the timing of nutrient application, and (3) use agronomic crop production technology to increase nutrient use efficiency. When the source of the nutrients is other than commercial fertilizer, determine the nutrient value and the rate of availability of the nutrients. Determine and credit the nitrogen contribution of any legume crop. Soil and plant tissue testing should be used routinely. Nutrient management plans contain the following core components:

(1) Farm and field maps showing acreage, crops, soils, and waterbodies.

(2) Realistic yield expectations for the crop(s) to be grown, based primarily on the producer's actual yield history, State Land Grant University yield expectations for the soil series, or SCS Soils-5 information for the soil series.

(3) A summary of the nutrient resources available to the producer, which at a minimum include:

- **Soil test results for pH, phosphorus, nitrogen, and potassium;**
- **Nutrient analysis of manure, sludge, mortality compost (birds, pigs, etc.), or effluent (if applicable);**
- **Nitrogen contribution to the soil from legumes grown in the rotation (if applicable); and**
- **Other significant nutrient sources (e.g., irrigation water).**

(4) An evaluation of field limitations based on environmental hazards or concerns, such as:

- **Sinkholes, shallow soils over fractured bedrock, and soils with high leaching potential,**
- **Lands near surface water,**
- **Highly erodible soils, and**
- **Shallow aquifers.**

(5) Use of the limiting nutrient concept to establish the mix of nutrient sources and requirements for the crop based on a realistic yield expectation.

(6) Identification of timing and application methods for nutrients to: provide nutrients at rates necessary to achieve realistic crop yields; reduce losses to the environment; and avoid applications as much as possible to frozen soil and during periods of leaching or runoff.

(7) Provisions for the proper calibration and operation of nutrient application equipment.

1. Applicability

This management measure is intended to be applied by States to activities associated with the application of nutrients to agricultural lands. Under the Coastal Zone Act Reauthorization Amendments of 1990, States are subject to a number of requirements as they develop coastal nonpoint programs in conformity with this measure and will have some flexibility in doing so. The application of management measures by States is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

2. Description

The goal of this management measure is to minimize edge-of-field delivery of nutrients and minimize leaching of nutrients from the root zone. Nutrient management is pollution prevention achieved by developing a nutrient budget for the crop, applying nutrients at the proper time, applying only the types and amounts of nutrients necessary to produce a crop, and considering the environmental hazards of the site. In cases where manure is used as a nutrient source, manure holding areas may be needed to provide capability to avoid application to frozen soil.

This measure may result in some reduction in the amount of nutrients being applied to the land, thereby reducing the cost of production as well as protecting both ground water and surface water quality. However, application of the measure may in some cases cause more nutrients to be applied where there has not been a balanced use of nutrients in the past. This will usually allow all the nutrients to be used more efficiently, thereby reducing the amount of nutrients that will be available for transport from the field during the non-growing season. While the use of nutrient management should reduce the amount of nutrients lost with surface runoff to some degree, the primary control for the transport of nutrients that are attached to soil particles will be accomplished through the implementation of erosion and sediment control practices (Section II.A of this chapter). For information regarding the potential problems caused by nutrients see Section I.F.1 of this chapter.

Operation and Maintenance for Nutrient Management

The use of a nutrient management plan requires accurate information on the nutrient resources available to the producer. Management practices typically used to obtain this information include periodic soil testing for each field; soil and/or tissue testing during the early growth stages of the crop; and testing of manure, sludge, and irrigation water if they are used. The plan may call for multiple applications of nutrients that require more than one field operation to apply the total nutrients needed by the crop.

A nutrient management plan should be reviewed and updated at least once every 3 years, or whenever the crop rotation is changed or the nutrient source is changed. Application equipment should be calibrated and inspected for wear and damage periodically, and repaired when necessary. Records of nutrient use and sources should be maintained along with other management records for each field. This information will be useful when it is necessary to update or modify the management plan.

3. Management Measure Selection

This management measure was selected as a method (1) to minimize the amount of nutrients entering ground water through root zone leaching and entering surface water from edge-of-field delivery and (2) to promote more efficient use of all sources of nutrients that are available to the producer. The practices and concepts that can be used to implement this measure on a given site are those commonly used and recommended by States and USDA for general use on agricultural lands. By implementing the measure using the necessary mix of practices for a given site there should not be a negative economic impact on the operator, and in most cases the impact will be positive. Many of the practices that can be used to implement this measure may already be required by Federal, State, or local rules (e.g., field borders along streams) or may otherwise be in use on agricultural fields. Since many producers may

already be using systems that satisfy or partly satisfy the intent of this management measure, the only action that may be necessary will be to determine the effectiveness of the existing practices and add additional practices, if needed. Use of existing practices will reduce the time, effort, and cost of implementing this measure.

4. Effectiveness Information

Following is a summary of information regarding pollution reductions that can be expected from installation of nutrient management practices.

The State of Maryland estimates that average reductions of 34 pounds of nitrogen and 41 pounds of phosphorus per acre can be achieved through the implementation of nutrient management plans (Maryland Department of Agriculture, 1990). These average reductions may be high because they apply mostly to farms that use animal wastes; average reductions for farms that use only commercial fertilizer may be lower. The reduction in the loading of these nutrients to coastal waters is difficult to measure or predict. Field-scale and watershed models, however, can be used to estimate the reduction in nutrients moving to the edges of fields and to ground water.

As of July 1990, the Chesapeake Bay drainage basin States of Pennsylvania, Maryland, and Virginia reported that approximately 114,300 acres (1.4 percent of eligible cropland in the basin) had nutrient management plans in place (USEPA, 1991a). The average nutrient reductions of total nitrogen and total phosphorus were 31.5 and 37.5 pounds per acre, respectively. The States initially focused nutrient management efforts on animal waste utilization. Because initial planning was focused on animal wastes (which have a relatively high total nitrogen and phosphorus loading factor), estimates of nutrient reductions attributed to nutrient management may decrease as more cropland using only commercial fertilizer is enrolled in the program.

In Iowa, average corn yields remained constant while nitrogen use dropped from 145 pounds per acre in 1985 to less than 130 pounds per acre in 1989 and 1990 as a result of improved nutrient management (Iowa State University, 1991b). In addition, data supplied from nitrate soil tests indicated that at least 32 percent of the soils sampled did not need additional nitrogen for optimal yields (Iowa State University, 1991b).

In a pilot program in Butler County, Iowa, 48 farms operating 25,000 acres reduced fertilizer nitrogen use by 240,000 pounds through setting realistic yield goals by soils, giving appropriate crop rotation and manure credits, and some use of the pre-sidedress soil nitrate test (Hallberg et al., 1991). Other data from Iowa showed that in some areas fields have enough potassium and phosphorus to last for at least another decade (Iowa State University, 1991b).

In Garvin Brook, Minnesota, fertilizer management on corn resulted in nitrogen savings of 29 to 49 pounds per acre from 1985 to 1988 (Wall et al., 1989). In this Rural Clean Water Program (RCWP) project, fertilizer management consisted of split applications and rates based upon previous yields, manure application, previous crops, and soil test results.

Berry and Hargett (1984) showed a 40 percent reduction in statewide nitrogen use over 8 years following introduction of improved fertilizer recommendations in Pennsylvania. Findings from the RCWP project in Pennsylvania indicate that, for 340 nutrient management plans, overall recommended reductions (corn, hay, and other crops) were 27 percent for nitrogen, 14 percent for phosphorus, and 12 percent for potash (USDA-ASCS, 1992a). Producers achieved 79 percent of the recommended nitrogen reductions and 45 percent of the recommended phosphorus reductions.

In Vermont, research suggests that a newly introduced, late spring soil test results in about a 50 percent reduction in the nitrogen recommendation compared to conventional technologies (Magdoff et al., 1984). Research in New York and other areas of the Nation documents fertilizer use reductions of 30 to 50 percent for late spring versus preplant and fall applications, with yields comparable to those of the preplant and fall applications (Bouldin et al., 1971).

USDA reports that improved nutrient management has resulted in nitrogen application reductions of 33.1 pounds/acre treated for surface water protection, 28.4 pounds/acre treated for ground water protection, and 62.1 pounds of phosphorus per acre treated for water quality protection in its 16 Water Quality Demonstration Projects and 74 Hydrologic Unit Areas (USDA, 1992). The Hydrologic Unit Areas begun in 1990 show the greatest reductions in fertilizer use per acre (Table 2-13).

A summary of the effectiveness of nutrient management in controlling nitrogen and phosphorus is given in Table 2-14. This summary is based on an extensive search of the published literature.

Table 2-13. Nutrient Reductions Achieved Under USDA's Water Quality Program (USDA, 1992)

	Cumulative				
	Pounds Reduced		Acres Treated		Average Reduction in Pounds/Acre Treated
Projects	N	P	N	P	
1990 Demos (8 projects)	284,339 SW 556,437 GW	178,204	5,980 SW 18,771 GW	5,184	47.5 N-SW 29.6 N-GW 34.4 P
1991 Demos (8 projects)	34,672 SW	38,060	788 SW	692	44 N-SW 55 P
1990 HUAs (37 areas)	656,374 SW 601,646 GW	1,344,260	13,761 SW 16,808 GW	15,962	47.7 N-SW 35.8 N-GW 84.2 P
1991 HUAs (37 areas)	156,552 SW 366,890 GW	118,037	13,658 SW 18,115 GW	5,188	11.5 N-SW 20.2 N-GW 22.8 P
1990/1991 Demo/HUA Overall	1,131,937 SW 1,524,973 GW	1,678,561	34,187 SW 53,694 GW	27,026	33.1 N-SW 28.4 N-GW 62.1 P

SW = surface water
GW = ground water

Table 2-14. Relative Effectiveness[a] of Nutrient Management (Pennsylvania State University, 1992a)

Practice	Percent Change in Total Phosphorus Loads	Percent Change in Total Nitrogen Loads
Nutrient Management[b]	-35	-15

[a] Most observations from reported computer modeling studies.
[b] An agronomic practice related to source management; actual change in contaminant load to surface and ground water is highly variable.

5. Nutrient Management Practices

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above.

Following are practices, components, and sources of information that should be considered in the development of a nutrient management plan:

(1) Use of soil surveys in determining soil productivity and identifying environmentally sensitive sites.

(2) Use of producer-documented yield history and other relevant information to determine realistic crop yield expectations. Appropriate methods include averaging the three highest yields in five consecutive crop years for the planning site, or other methods based on criteria used in developing the State Land Grant University's nutrient recommendations. In lieu of producer yield histories, university recommendations based on interpretation of SCS Soils-5 data may be used. Increased yields due to the use of new and improved varieties and hybrids should be considered when yield goals are set for a specific site.

(3) Soil testing for pH, phosphorus (Figure 2-11), potassium, and nitrogen (Figure 2-12).

(4) Plant tissue testing.

(5) Manure (Figure 2-13), sludge, mortality compost, and effluent testing.

(6) Use of proper timing, formulation, and application methods for nutrients that maximize plant utilization of nutrients and minimize the loss to the environment, including split applications and banding of the nutrients, use of nitrification inhibitors and slow-release fertilizers, and incorporation or injection of fertilizers, manures, and other organic sources.

(7) Use of small grain cover crops to scavenge nutrients remaining in the soil after harvest of the principal crop, particularly on highly leachable soils. Consideration should be given to establishing a cover crop on land receiving sludge or animal waste if there is a high leaching potential. Sludge and animal waste should be incorporated.

(8) Use of buffer areas or intensive nutrient management practices to manage field limitations based on environmentally high risk areas such as:

- Karst topographic areas containing sinkholes and shallow soils over fractured bedrock;
- Lands near surface water;
- High leaching index soils;
- Irrigated land in humid regions;
- Highly erodible soils;
- Lands prone to surface loss of nutrients; and
- Shallow aquifers.

(9) Control of phosphorus losses from fields through a combination of the Erosion and Sediment Control Measure (Section II.A of this chapter) and the Nutrient Management Measure. Limit manure and sludge applications to phosphorus crop needs when possible, supplying any additional nitrogen needs with nitrogen fertilizers or legumes. If this is not practical, route excess phosphorus in manures or sludge to

DATE	LAB NO.	SERIAL NO.	COUNTY	ACRES	FIELD	SOIL
07/31/84	0004	700234	SOMERSET	25	NPBUU1	READINGTON

THE PENNSYLVANIA STATE UNIVERSITY
COLLEGE OF AGRICULTURE
MERKLE LABORATORY - SOIL & FORAGE TESTING
UNIVERSITY PARK, PA 16802

SOIL TEST REPORT FOR:

P.A. PENN
RD1
ANYTOWN, PA 10000

COPY SENT TO:

ACME FERTILIZER CO.
MAIN STREET
ANYTOWN, PA 10000

SOIL NUTRIENT LEVELS:

				LOW	OPTIMUM	HIGH	EXCESSIVE
Soil pH		6.2		XXXXXXXXXXXXXXX			
Phosphate	(P_2O_5)	114	lb/A	XXXXXXXXXXXX			
Potash	(K_2O)	178	lb/A	XXXXXXXXXXX			
Magnesium	(MgO)	230	lb/A	XXXXXXXXXXXXXX			

RECOMMENDATIONS FOR: *PLANTING CORN FOR GRAIN* (For other crops see ST 2 column 1) — See Back For Comments

YIELD GOAL 125.0 BUSHELS (PER ACRE) — 1,2

LIMESTONE: 3400 lb/A Calcium Carbonate Equivalent — 3,4

PLANT NUTRIENT NEEDS:	NITROGEN (N)	PHOSPHATE (P_2O_5)	POTASH (K_2O)	MAGNESIUM (MgO)
	130 lb/A	70 lb/A	90 lb/A	10 lb/A

5,11

MESSAGES:

- USE A STARTER FERTILIZER — 6,7
- LIMESTONE RECOMMENDATION, IF ANY, IS TO BRING THE SOIL PH TO 6.0 - 6.5. MULTIPLY THE EXCHANGABLE ACIDITY BY 1000 TO ESTIMATE THE LIME REQUIREMENT FOR PH 6.5 - 7.0.
- RECOMMENDED LIMESTONE CONTAINING .2% MGO WILL MEET THE MG REQUIREMENT.
- IF MANURE WILL BE APPLIED, SEE ST-10 "USE OF MANURE" — 9

LABORATORY RESULTS

SOIL pH	P lb/A	ACIDITY	K	Mg	Ca	CEC	K	Mg	Ca
6.2	50	4.1	0.19	0.6	7.8	12.6	1.5	4.7	61.5
		EXCHANGEABLE CATIONS (meq/100 g)					% SATURATION		

OTHER TESTS: ORGANIC MATTER - 2.2 %

Figure 2-11. Example of soil test report (Pennsylvania State University, 1992b).

PENNSTATE

PRE-SIDEDRESS SOIL NITROGEN TEST FOR CORN QUICKTEST EVALUATION PROJECT

- SOIL TEST INFORMATION AND REPORT FORM -

GROWER (PLEASE PRINT)

NAME

STREET OR R. D. NO.

CITY, STATE, AND ZIP

COUNTY

DATE:

ANALYZED BY:

AREA CODE - TELEPHONE NO.

Best time to call (8 am - 4:30 pm): _____

Please answer all of the following questions about this field:

1. What is the field ID (name or number)? _____ Corn Height _____in.
2. What is the expected yield of the corn crop (bu/A or ton/A) in this field? _____
3. What was the previous crop? _____

   If this was a forage legume what was the % stand?

   (check one): ☐ 0-25% ☐ 25-50 % ☐ 50-100%
4. Was manure applied to this field? ☐ Yes ☐ No If "yes" answer the following questions:

   When? ☐ Fall ☐ Spring ☐ Both ☐ Daily

   Type? ☐ Cattle ☐ Poultry ☐ Swine ☐ Horse ☐ Sheep

   Estimate manure rate: _____ tons/acre - OR - _____ gallons/acre

   If incorporated how many days were there between spreading and incorporation? _____
5. What is the tillage program on this field? ☐ Conventional Tillage ☐ Minimum Tillage ☐ No-till
6. What would be your normal N fertilizer application rate for this field? _____ lbs. N/acre

Do not write below this line (to be completed by the analyst)

Quicktest Analysis Result & Recommendation

Individual Meter Readings	Average meter reading		Conversion factor		Average standard reading		Soil Nitrate-N (ppm)
		x	20	÷		=	

Sidedress N Fertilizer Recommendation (See table and guidelines on back of form) _____ **lbs. N/acre**

If you have any questions about this test contact your Penn State Cooperative Extension Office

White copy- Grower
Yellow copy- Analyst
Pink copy- Agronomy Extension

5/91

Figure 2-12. Example of Penn State's soil quicktest form (Pennsylvania State University, 1992b).

```
                    WORKSHEET FOR CALCULATING          Prepared by:
                      APPLICATION RATES OF             JOE CONSULTANT
              ANIMAL MANURE ON          CROPLAND       Nut. Mgt. Consult.
                                                       CECIL
                                                                 County

*********************************************************************
Name.............                                  *
Address..........                                  *  LIST FERTILIZER PRICES
    ...........                                    *
Field Number..... G-1                              *
Field Location... ________________________         *  N....    $0.25 /lb
Acres in Field...     14.0                         *  P205.    $0.25 /lb
Manure Source.... BROILER                          *  K20..    $0.12 /lb
Date/Time........ 03/07/90     ***    04:08 PM    *
*********************************************************************

ENTER MANURE ANALYSIS DATA AND SOIL TEST INFORMATION.

MANURE COMPOSITION                    SOIL TEST INFORMATION

Total N..........     3.70 %      **    Texture........SILT
Ammonium N.......     0.43 %      **    pH.............      5.8
P2O5.............     3.70 %      **    Mg.............    278.0 lb/A
K2O..............     3.10 %      **    P2O5...........    112.0 lb/A
Calcium..........     1.40 %      **    K2O............    123.0 lb/A
Magnesium........     0.56 %      **    Calcium........   1328.0 lb/A
Sulfur...........     0.59 %      **    Sulfur.........      6.8 lb/A
Manganese........   361.50 ppm    **    Manganese......     18.0 lb/A
Zinc.............   380.60 ppm    **    Zinc...........      4.4 lb/A
Copper...........   352.80 ppm    **    Copper.........      1.3 lb/A
Moisture.........    13.10 %      **    Org. Matter....      2.5  %
Liquid Wt........_________lb/100gal     (Leave blank if not liquid.)

*********************************************************************

IF MANURE WAS APPLIED PREVIOUSLY TO THIS FIELD, ENTER DATA REQUESTED FOR
    PRIOR YEARS. IF NONE APPLIED, LEAVE BLANK.

                    Yr. 1-2            Yr. 2-3            Yr. 3-4
Total N..........._________%       _________%         _________%
Ammonium N........_________%       _________%         _________%
Rate.............._________T/A     _________T/A       _________T/A

*********************************************************************

                        **** PHOSPHORUS NOTE ****
        Soil tests indicate that phosphorus levels are NOT EXCESSIVE.
        Additional phosphorus may be applied in animal manure. For max-
        imum economic and environmental benefits, phosphorus levels
        should be monitored regularly by soil test and manure applica-
        tions made ONLY to fields less than VERY HIGH in PHOSPHATE.

*********************************************************************
```

Figure 2-13. Example of work sheet for applying manure to cropland (University of Maryland, 1990).

fields that will be rotated into legumes, to other fields that will not receive manure applications the following year, or to sites with low runoff and low soil erosion potential.

(10) A narrative accounting of the nutrient management plan that explains the plan and its use.

6. Cost Information

In general, most of the costs are associated with providing additional technical assistance to landowners to develop nutrient management plans. In many instances landowners can actually save money by implementing nutrient management plans. For example, Maryland has estimated (based on the over 750 nutrient management plans that were completed prior to September 30, 1990) that if plan recommendations are followed, the landowners will save an average of $23 per acre per year (Maryland Dept. of Agriculture, 1990). The average savings may be high because most plans were for farms using animal waste. Future savings may be reduced as more farms using commercial fertilizer are included in the program.

In the South Dakota RCWP project, the total cost (1982-1991) for implementing fertilizer management on 46,571 acres was $50,109, or $1.08 per acre (USDA-ASCS, 1991a). In the Minnesota RCWP project, the average cost for fertilizer management for 1982-1988 was $20 per acre (Wall et al., 1989). Assuming a cost of $0.15 per pound of nitrogen, the savings in fertilizer cost due to improved nutrient management on Iowa corn was about $2.25 per acre as rates dropped from 145 pounds per acre in 1985 to about 130 pounds per acre in 1989 and 1990 (Iowa State University, 1991a).

D. Pesticide Management Measure

To reduce contamination of surface water and ground water from pesticides:

(1) Evaluate the pest problems, previous pest control measures, and cropping history;

(2) Evaluate the soil and physical characteristics of the site including mixing, loading, and storage areas for potential leaching or runoff of pesticides. If leaching or runoff is found to occur, steps should be taken to prevent further contamination;

(3) Use integrated pest management (IPM) strategies that:

(a) Apply pesticides only when an economic benefit to the producer will be achieved (i.e., applications based on economic thresholds); and

(b) Apply pesticides efficiently and at times when runoff losses are unlikely;

(4) When pesticide applications are necessary and a choice of registered materials exists, consider the persistence, toxicity, runoff potential, and leaching potential of products in making a selection;

(5) Periodically calibrate pesticide spray equipment; and

(6) Use anti-backflow devices on hoses used for filling tank mixtures.

1. Applicability

This management measure is intended to be applied by States to activities associated with the application of pesticides to agricultural lands. Under the Coastal Zone Act Reauthorization Amendments of 1990, States are subject to a number of requirements as they develop coastal nonpoint programs in conformity with this measure and will have some flexibility in doing so. The application of management measures by States is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

2. Description

The goal of this management measure is to reduce contamination of surface water and ground water from pesticides. The basic concept of the pesticide management measure is to foster effective and safe use of pesticides without causing degradation to the environment. The most effective approach to reducing pesticide pollution of waters is, first, to release fewer pesticides and/or less toxic pesticides into the environment and, second, to use practices that minimize the movement of pesticides to surface water and ground water (Figure 2-14). In addition, pesticides should

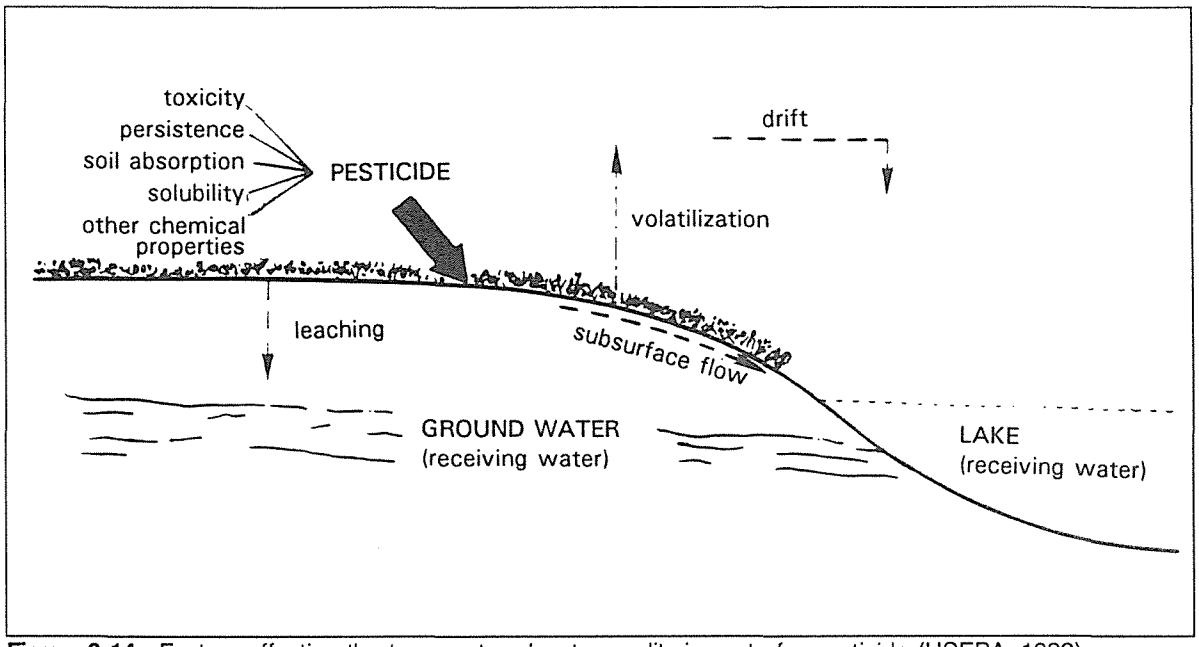

Figure 2-14. Factors affecting the transport and water quality impact of a pesticide (USEPA, 1982).

be applied only when an economic benefit to the producer will be achieved. Such an approach emphasizes using pesticides only when, and to the extent, necessary to control the target pest. This usually results in some reduction in the amount of pesticides being applied to the land, plants, or animals, thereby enhancing the protection of water quality and possibly reducing production costs as well.

The pesticide management measures identify a series of steps or thought processes that producers should use in managing pesticides. First, the pest problems, previous pest control measures, and cropping history should be evaluated. Then the physical characteristics of the soil and the site—including mixing, loading, and storage areas—should be evaluated for potential leaching and/or runoff potential. Integrated pest management (IPM) strategies should be used to minimize the amount of pesticides applied. It is understood that IPM practices are not available for some commodities or in certain regions. An effective IPM strategy should call for pesticide applications only when an economic benefit to the producer will be achieved. In addition, pesticides should be applied efficiently and at times when runoff losses are unlikely.

When pesticide applications are necessary and a choice of materials exists, producers are encouraged to choose the most environmentally benign pesticide products. Users must apply pesticides in accordance with the instructions on the label of each pesticide product. Labels include a number of requirements including allowable use rates; whether the pesticide is classified as "restricted use" for application only by certified and trained applicators; safe handling, storage, and disposal requirements; whether the pesticide can be used only under the provisions of an approved Pesticide State Management Plan; and other requirements. If label requirements include use only under an approved Pesticide State Management Plan, pesticide management measures and practices under the State Coastal Nonpoint Pollution Control Program should be consistent with and/or complement those in EPA-approved Pesticide State Management Plans.

Section 1491 of the 1990 Farm Bill requires users to maintain records of application of restricted use pesticides for a 2-year period after such use. Section 1491 of the 1990 Farm Bill also includes provisions for access to such pesticide records by Federal and State agency staff.

Operation and Maintenance for Pesticide Management

At a minimum, effective pest management requires evaluating past and current pest problems and cropping history; evaluating the physical characteristics of the site; applying pesticides only when an economic benefit to the producer will be achieved; applying pesticides efficiently and at times when runoff losses are unlikely; selecting pesticides (when a choice exists) that are the most environmentally benign; using anti-backflow devices on hoses used for filling tank mixtures; and providing suitable mixing, loading, and storage areas.

Pest management practices should be updated whenever the crop rotation is changed, pest problems change, or the type of pesticide used is changed. Application equipment should be calibrated and inspected for wear and damage each spray season, and repaired when necessary. Anti-backflow devices should also be inspected each spray season and repaired when necessary.

3. Management Measure Selection

This management measure was selected as a method to reduce the amount of pesticides entering ground water and surface water, and to foster effective and safe use of pesticides. The practices and concepts that can be used to implement this measure on a given site are those commonly used and recommended by States and USDA for general use on agricultural lands. When this measure is implemented by using the necessary mix of practices for a given site, there should be a relatively small negative economic impact on the operator's net costs and farm income, and in some cases the impact will be positive (U.S. Environmental Protection Agency, 1992). Many of the practices that can be used to implement this measure may already be required by Federal, State, or local rules, or may otherwise be in use on agricultural fields. Since many producers may already be using systems that satisfy or partly satisfy the intent of this management measure, the only action that may be necessary will be to determine the effectiveness of the existing practices and implement additional practices, if needed. Use of existing practices will reduce the time, effort, and cost of implementing this measure.

4. Effectiveness Information

Following is a summary of available information regarding pollution reductions that can be expected from using various pesticide management practices.

Use of IPM strategies is a key element of the pesticide management measures. Table 2-15 summarizes the findings of several empirical IPM studies on a variety of crops (Virginia Cooperative Extension Service et al., 1987). The summary table indicates that many studies have found IPM to reduce pesticide use. While all these studies indicate a reduction or no change in pesticide use, it is understood that in a small percentage of cases IPM can result in an increased use of pesticides as producers become more aware of what pests are present in the field and then take action to control problems.

Table 2-16 summarizes estimates of reductions in pesticide loss using various management practices and combinations of practices for cotton (North Carolina State University, 1984). These estimates are made at the field level as compared with a hypothetical field using cropping practices that were typical until the late 1970s. The uncertainty of the estimates is a function of the rapid transitions in production methods coupled with the variance among regions and seasons. Traditional sediment and erosion control practices are not as effective on cotton as on corn and soybeans because much cotton is grown on relatively flat land with little or no water erosion problem (Heimlich and Bills, 1984).

Table 2-17 summarizes the estimates of pesticide loss reductions from various management practices and combinations of practices for corn (North Carolina State University, 1984). These estimates are also made at the field level as compared with a hypothetical field using conventional, traditional, or typical cropping practices, realizing that these practices may vary considerably between geographic regions.

Banding of herbicide applications is one of the more recent and promising methods of reducing herbicide applications to corn (NRDC, 1991). Instead of applying herbicides to the entire row, herbicides are applied in a band near to the corn plant. One 3-year study conducted in Iowa on two fields of corn and one of soybeans monitored the effect of different herbicide treatments on yields and herbicide concentrations in tile-drainage water. Over the 3-year period, corn acreage with banded treatments produced equal or slightly higher yields than acreage receiving broadcast herbicides (Baker, 1988). Analysis of water samples for herbicide residues in water beneath herbicide-treated areas revealed that, during this 3-year period, atrazine was detected more often and at higher concentrations in the areas where atrazine was broadcast. Banding of herbicides means, however, that farmers have to rely more extensively on mechanical tillage and cultivation to control weeds.

Table 2-15. Results of IPM Evaluation Studies (Virginia Cooperative Extension Service et al., 1987)

Author	Study Object[a]	Pesticide Use and/or Cost of Production with IPM[b]	Yield with IPM[c]	Net Return with IPM[d]	Level of Risk with IPM[e]
Sprott et al., 1976	C	D	I	I	-
Condra et al., 1977	C	D	D	I	-
Lacewell et al., 1977	C	-	-	I	-
Clarke et al., 1980	C	-	I	I	-
Von Rumker et al., 1975	T	D	-	I	-
Von Rumker et al., 1975	P	D	I	I	-
Burrows, 1983	C,Ci	D,D	-,-	-,-	-,-
Rajotte et al., 1984	S	D	-	I	-
Thompson et al., 1980	A	D	C	-	-
Larson et al., 1975	C	D	-	I	-
Masud et al., 1981	C	D	I	I	-
Huffaker and Croft, 1978	C,A	D,D	I,-	-,-	-,-
Teage and Schulstad, 1981	C	D	-	-	-
Weathers, 1979-1980	Co,S,P	D,D,D	I,I,D	I,I,I	-,-,-
Lacewell et al., 1974	C	D	I	I	-
Lacewell et al., 1976	C	D	-	-	-
Casey et al., 1975	C	D	I	I	-
Allen and Roberts, 1974	S	D	-	I	-
Greene et al., 1985	S	D	-	-	-
Lindsey et al., 1976	C	-	-	I	-
Frisbie et al., 1974	C	D	I	I	-
Frisbie, 1976	C	D	-	I	-
Hoyt and Callagirone, 1971	M	D	-	-	-

Table 2-15. (Continued)

Author	Study Object[a]	Pesticide Use and/or Cost of Production with IPM[b]	Yield with IPM[c]	Net Return with IPM[d]	Level of Risk with IPM[e]
Croft et al., 1975	M	D	-	-	-
Howitt et al., 1966	A	D	-	-	-
Batiste et al., 1973	A	D	-	-	-
Eves et al., 1975	A	D	-	-	-
Hall, 1977	C	D	N	N	D
Prokopy et al., 1973	A	-	-	I	-
McGuckin, 1983	Al	D	-	I	D
King and O'Rourke, 1977	A	D	-	-	-
Cammell and Way, 1977	F	-	-	I	D
Liapis and Moffit, 1983	C	-	-	-	D
Miranowski, 1974	C	D	-	-	-
Huffaker, 1980	C	D	-	-	-
Reichelderfer, 1979	Pe	D	-	I	-
Carlson, 1969	Pc	-	-	-	D
Carlson, 1979	C	-	-	-	D
Lazarus and Swanson, 1983	Co,S	-,-	-,-	-,-	I,I
Moffitt et al., 1982	S	-	-	-	D
Hatcher et al., 1984	C,P,S	-,-,-	I,I,I	N,I,I	-,-,-
White and Thompson, 1982	A	D	-	-	-

[a] C = cotton; T = tobacco; P = peanut; Ci = citrus; S = soybean; A = apple; Co = corn; M = mite; Al = alfalfa; F = field bean; Pe = pecan; Pc = peach.
[b,c,d,e] C = constant; D = decreased; I = increased; N = no impact; - = no information.

Table 2-16. Estimates of Potential Reductions in Field Losses of Pesticides for Cotton Compared to a Conventionally and/or Traditionally Cropped Field[a] (North Carolina State University, 1984)

Management Practice	Transport Route(s)	Range of Pesticide Loss Reduction (%)[b]
SWCPs		
Terracing	SR and SL	0 - (20)[c]
Contouring	SR and SL	0 - (20)[c]
Reduced Tillage	SR and SL	-40 - +20 AB
Grassed Waterways	SR and SL	0 - 10 AB
Sediment Basins	SR	0 - 10 AB
Filter Strips	SR	0 - 10 A
Cover Crops	SR and SL	-20 - +10 B
Optimal Application Techniques[d]	All Routes[e]	40 - 80 A
Nonchemical Methods	All Routes	
Scouting Economic Thresholds	All Routes	40 - 65 A 0 - 30 B
Crop Rotations	All Routes	0 - 20 A 10 - 30 B
Pest-Resistant Varieties	All Routes	0 - 60 A 0 - 30 B
Alternative Pesticides	All Routes	60 - 95 A 0 - 20 B

SR = surface runoff
SL = soil leaching
[a] The hypothetical traditionally cropped comparison field uses the following management system:
(1) conventional tillage without other soil and water conservation practices;
(2) aerial application of all pesticides with timing based only on field operation convenience;
(3) ten insecticide treatments annually with a total application of 12 kg/ha based on a prescribed schedule;
(4) cotton grown in 3 out of 4 years; and
(5) long-season cotton varieties.
[b] Assumes field loss reductions are proportional to application rate reductions.
A = insecticides (toxaphene, methylparathion, synthetic pyrethroids).
B = herbicides (trifluralin, fluometron).
Ranges allow for variation in production region, climate, slope and soils.
[c] Refers to estimated increases in movement through soil profile.
[d] Defined for cotton as ground application using optimal droplet or granular size ranges with spraying restricted to calm periods in late afternoon or at night when precipitation is not imminent.
[e] Particularly drift and volatilization.

Table 2-17. Estimates of Potential Reductions in Field Losses of Pesticides for Corn Compared to a Conventionally and/or Traditionally Cropped Field[a] (North Carolina State University, 1984)

Management Practice	Transport Route(s) Affected	Range of Pesticide Loss Reduction (%)[b]
SWCPs	SR and/or SL(#)	
Terracing	SR and/or SL	40 - 75 AB (25[c])
Contouring	SR and/or SL	15 - 55 AB (20[c])
No-till	SR and/or SL	-10 - +40 B 60 - +10 A (10[c])
Other Reduced Tillage	SR and/or SL	-10 - +60 B -40 - +20 A (15[c])
Grassed Waterways	SR	-10 - 20 AB
Sediment Basins	SR	0 - 10 AB
Filter Strips	SR	0 - 10 AB
Cover Crops	SR and/or SL	0 - 20 B[d]
Optimal Application Techniques[e]	All Routes[f]	10 - 20 20 - 40 B
Nonchemical Methods	All Routes	
Adequate Monitoring	All Routes	40 - 65 A
Crop Rotations	All Routes	40 - 70 A 10 - 30 B

SR = surface runoff
SL = soil leaching
[a] The hypothetical field used as the basis for comparison uses the following management system:
(1) conventional tillage without other soil and water conservation practices;
(2) ground application with timing based only on field operation convenience;
(3) little or no pest monitoring; spraying on prescribed schedule; and
(4) corn grown in 3 out of 4 years.
[b] Assumes field loss reductions are proportional to application rate reductions.
A = insecticides (carbofuran and organophosphates)
B = herbicides (Triazine, Alachlor, Butylate, Parquat)
Ranges allow for variation in climate, slope, soils, and types of pesticides used. Ranges for no-till and reduced-till are derived from a combination of increased application rates and decreased runoff losses.
[c] Refers to estimated increases in movement through soil profile.
[d] Cover crops will affect runoff and leaching losses only for pesticides persistent enough to be available over the non-growing season. In the case of pesticides used on corn only the triazine and anilide herbicides will generally meet this criterion.
[e] Defined here for corn as ground application using optimal droplet or granular size ranges, with spraying restricted to calm periods in late afternoon or evening.
[f] Particularly drift and volatilization.

5. Pesticide Management Practices

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above. The U.S. Soil Conservation Service practice number and definition are provided for management practices, where available.

a. Inventory current and historical pest problems, cropping patterns, and use of pesticides for each field.

This can be accomplished by using a farm and field map, and by compiling the following information for each field:

- Crops to be grown and a history of crop production;
- Information on soils types;
- The exact number of acres within each field; and
- Records on past pest problems, pesticide use, and other information for each field.

b. Consider the soil and physical characteristics of the site including mixing, loading and storage areas for potential for the leaching and/or runoff of pesticides.

In situations where the potential for loss is high, emphasis should be given to practices and/or management practices that will minimize these potential losses. The physical characteristics to be considered should include limitations based on environmental hazards or concerns such as:

- Sinkholes, wells, and other areas of direct access to ground water such as karst topography;
- Proximity to surface water;
- Runoff potential;
- Wind erosion and prevailing wind direction;
- Highly erodible soils;
- Soils with poor adsorptive capacity;
- Highly permeable soils;
- Shallow aquifers; and
- Wellhead protection areas.

c. Use IPM strategies to minimize the amount of pesticides applied.

Following is a list of IPM strategies:

- Use of biological controls:
  - introduction and fostering of natural enemies;
  - preservation of predator habitats; and
  - release of sterilized male insects;
- Use of pheromones:
  - for monitoring populations;
  - for mass trapping;
  - for disrupting mating or other behaviors of pests; and
  - to attract predators/parasites;
- Use of crop rotations to reduce pest problems;
- Use of improved tillage practices such as ridge tillage;

- Use of cover crops in the system to promote water use and reduce deep percolation of water that contributes to leaching of pesticides into ground water;
- Destruction of pest breeding, refuge, and overwintering sites (this may result in loss of crop residue cover and an increased potential for erosion);[8]
- Use of mechanical destruction of weed seed;[8]
- Habitat diversification;
- Use of allelopathy characteristics of crops;
- Use of resistant crop strains;
- Pesticide application based on economic thresholds, i.e., apply pesticides when an economic threshold level has been reached as opposed to applying pesticides in anticipation of pest problems;
- Use of periodic scouting to determine when pest problems reach the economic threshold on each field;
- Use of less environmentally persistent, toxic, and/or mobile pesticides;
- Use of timing of field operations (planting, cultivating, irrigation, and harvesting) to minimize application and/or runoff of pesticides; and
- Use of more efficient application methods, e.g., spot spraying and banding of pesticides.

d. When pesticide applications are necessary and a choice of materials exists, consider the persistence, toxicity, and runoff and leaching potential of products along with other factors, including current label requirements, in making a selection.

Users must apply pesticides in accordance with the instructions on the label of each pesticide product and, when required, must be trained and certified in the proper use of the pesticide. Labels include a number of requirements including allowable use rates; classification of pesticides as "restricted use" for application only by certified applicators; safe handling, storage, and disposal requirements; restrictions required by State Pesticide Management Plans to protect ground water; and other requirements. If label requirements include use only under an approved State Pesticide Management Plan, pesticide management measures and practices under the State Coastal Nonpoint Program should be consistent with and/or complement those in approved State Pesticide Management Plans.

e. Maintain records of application of restricted use pesticides (product name, amount, approximate date of application, and location of application of each such pesticide used) for a 2-year period after such use, pursuant to the requirements in section 1491 of the 1990 Farm Bill.

Section 1491 requires that such pesticide records shall be made available to any Federal or State agency that deals with pesticide use or any health or environmental issue related to the use of pesticides, on the request of such agency. Section 1491 also provides that Federal or State agencies may conduct surveys and record the data from individual applicators to facilitate statistical analysis for environmental and agronomic purposes, but in no case may a government agency release data, including the location from which the data was derived, that would directly or indirectly reveal the identity of individual producers. Section 1491 provides that in the case of Federal agencies, access to records maintained under section 1491 shall be through the Secretary of Agriculture, or the Secretary's designee. This section also provides that State agency requests for access to records maintained under section 1491 shall be through the lead State agency so designated by the State.

Section 1491 includes special access provisions for health care personnel. Specifically, when a health professional determines that pesticide information maintained under this section is necessary to provide medical treatment or first aid to an individual who may have been exposed to pesticides for which the information is maintained, upon request persons required to maintain records under section 1491 shall promptly provide record and available label information to that health professional. In the case of an emergency, such record information shall be provided immediately.

[8] Several IPM strategies listed above emphasize the use of mechanical tillage and removal of crop residue cover. Such IPM strategies may result in some producers being out of compliance with the U.S. Department of Agriculture's requirements for highly erodible land, and such producers may need to consider other IPM strategies on such highly erodible land.

Operators may consider maintaining records beyond those required by section 1491 of the 1990 Farm Bill. For example, operators may want to maintain records of *all* pesticides used for each field, i.e., not just restricted use pesticides. In addition, operators may want to maintain records of other pesticide management activities such as scouting records or other IPM techniques used and procedures used for disposal of remaining pesticides after application.

f. Use lower pesticide application rates than those called for by the label when the pest problem can be adequately controlled using such lower rates.

g. Consider the use of organic farming techniques that do not rely on the use of synthetically compounded pesticides.

h. Recalibrate spray equipment each spray season and use anti-backflow devices on hoses used for filling tank mixtures.

Purchase new, more precise application equipment and other related farm equipment (including improved nozzles, computer sensing to control flow rates, radar speed determination, electrostatic applicators, and precision equipment for banding and cultivating) as replacement equipment is needed.

i. Integrated crop management system (Pest Management 595): A total crop management system that promotes the efficient use of pesticide and nutrients in an environmentally sound and economically efficient manner.

6. Cost Information

In general, most of the costs of implementing the pesticide management measure are program costs associated with providing additional educational programs and technical assistance to producers to evaluate pest management needs and for field scouting during the growing season. Producers may actually save money by implementing IPM strategies as indicated by the data in Table 2-15.

Table 2-15 summarizes the findings of several IPM studies on a variety of crops (Virginia Cooperative Extension Service et al., 1987). This summary table indicates that, in general, IPM reduces pesticide use, increases yields, increases net returns, and decreases economic risk.

Table 2-18 shows that IPM scouting costs vary by crop type and by region (USEPA, 1992). High and low scouting costs are given for major crops in each of the coastal regions. These costs reflect variations in the level of service provided by various crop consultants. For example, in the Great Lakes region, the relatively low cost of $4.95 per acre is based on five visits per season at the request of the producer. Higher cost services include scouting and weekly written reports during the growing seasons. Cost differences may also reflect differences in the size of farms (i.e., number of acres) and distance between farms.

The variations in scouting costs between regions and within regions also occur because of differences in the provider of the service. For example, in some States the Cooperative Extension Service provides scouting services at no cost or for a nominal fee. In other areas of the coastal zone, farmer cooperatives have formed crop management associations to provide scouting and crop fertility/pest management recommendations.

Scouting costs also vary by crop type. For example, the data in Table 2-18 indicate that scouting costs for fresh market vegetables are higher than for all other crop types. Scouting services for high-value cash crops, such as fruits and vegetables, must be very intensive given that pest damage is permanent and may make the crop unmarketable.

Costs for erosion and sediment control and for irrigation management are discussed in Sections II.A and II.F, respectively, of this chapter.

Table 2-18. Estimated Scouting Costs (dollars/acre) by Coastal Region and Crop in the Coastal Zone in 1992 (USEPA, 1992)

	Crop						
Coastal Region	Corn	Soybean	Wheat	Rice	Cotton	Fresh Market Vegetables[a]	Hay[b]
Northeast							
Low	5.50	NA	3.75	—	—	25.00	2.50
High	6.25	NA	4.50	—	—	28.00	2.75
Southeast							
Low	5.00	3.25	3.00	8.00	6.00	30.00	2.00
High	6.00	4.00	3.50	12.00	8.00	35.00	3.00
Gulf Coast							
Low	6.00	4.50	—	5.00	6.00	35.00	—
High	8.00	6.50	—	9.00	9.00	40.00	—
Great Lakes							
Low	4.95	4.25	3.75	—	—	—	4.75
High	5.50	5.00	4.00	—	—	—	5.25
West Coast							
Low	NA	NA	3.50	NA	6.75	32.00	NA
High	NA	NA	5.50	NA	9.30	38.00	NA

NA = not available
— = not applicable
[a] Most fresh market vegetables are produced under a regular spraying schedule.
[b] Scouting costs for hay are based on alfalfa insect inspection. The higher cost in the Great Lakes region includes pesticide and soil sampling.

7. Relationship of Pesticide Management Measure to Other Programs

Under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), EPA registers pesticides on the basis of evaluation of test data showing whether a pesticide has the potential to cause unreasonable adverse effects on humans, animals, or the environment. Data requirements include environmental fate data showing how the pesticide behaves in the environment, which are used to determine whether the pesticide poses a threat to ground water or surface water. If the pesticide is registered, EPA imposes enforceable label requirements, which can include, among other things, maximum rates of application, classification of the pesticide as a "restricted use" pesticide (which restricts use to certified applicators trained to handle toxic chemicals), or restrictions on use practices, including requiring compliance with EPA-approved Pesticide State Management Plans (described below). EPA and the U.S. Department of Agriculture Cooperative Extension Service provide assistance for pesticide applicator and certification training in each State.

FIFRA allows States to develop more stringent pesticide requirements than those required under FIFRA, and some States have chosen to do this. At a minimum, management measures and practices under State Coastal Nonpoint Source Programs must not be less stringent than FIFRA label requirements or any applicable State requirements.

EPA's *Pesticides and Groundwater Strategy* (USEPA, 1991b) describes the policies and regulatory approaches EPA will use to protect the Nation's ground-water resources from risks of contamination by pesticides under FIFRA. The objective of the strategy is the prevention of ground-water contamination by regulating the use of certain pesticides

(i.e., use according to EPA-approved labeling) in order to reduce and, if necessary, eliminate releases of the pesticide in areas vulnerable to contamination. Priority for protection will be based on currently used and reasonably expected sources of drinking water supplies, and ground water that is closely hydrogeologically connected to surface waters. EPA will use Maximum Contaminant Levels (MCLs) under the Safe Drinking Water Act as "reference points" for water resource protection efforts when the ground water in question is a current or reasonably expected source of drinking water.

The Strategy describes a significant new role for States in managing the use of pesticides to protect ground water from pesticides. In certain cases, when there is sufficient evidence that a particular use of a pesticide has the potential for ground-water contamination to the extent that it might cause unreasonable adverse effects, EPA may (through the use of existing statutory authority and regulations) limit legal use of the product to those States with an acceptable Pesticide State

Management Plan, approved by EPA. Plans would tailor use to local hydrologic conditions and would address:

- State philosophy;
- Roles and responsibilities of State and local agencies;
- Legal and enforcement authority;
- Basis for assessment and planning;
- Prevention measures;
- Ground-water monitoring;
- Response to detections;
- Information dissemination; and
- Public participation.

In the absence of such an approved plan, affected pesticides could not be legally used in the State.

Since areas to be managed under Pesticide State Management Plans and Coastal Nonpoint Pollution Control Programs can overlap, State coastal zone and nonpoint source agencies should work with the State lead agency for pesticides (or the State agency that has a lead role in developing and implementing the Pesticide State Management Plan) in the development of pesticide management measures and practices under both programs. This is necessary to avoid duplication of effort and conflicting pesticide requirements between programs. Further, ongoing coordination will be necessary since both programs and management measures will evolve and change with increasing technology and data.

Section 1491 of the 1990 Farm Bill requires recordkeeping for restricted use pesticides for a 2-year period after such use. Specifically, records of pesticide applications are to include product name, amount, approximate date of application, and location of application of each pesticide used. Section 1491 also specifies the limitations on access to these records by governmental agencies and health care personnel (see practice "e" under "Pesticide Management Practices" for additional information regarding access to such records).

E. Grazing Management Measure

Protect range, pasture and other grazing lands:

(1) By implementing one or more of the following to protect sensitive areas (such as streambanks, wetlands, estuaries, ponds, lake shores, and riparian zones):

(a) Exclude livestock,
(b) Provide stream crossings or hardened watering access for drinking,
(c) Provide alternative drinking water locations,
(d) Locate salt and additional shade, if needed, away from sensitive areas, or
(e) Use improved grazing management (e.g., herding)

to reduce the physical disturbance and reduce direct loading of animal waste and sediment caused by livestock; *and*

(2) By achieving either of the following on all range, pasture, and other grazing lands not addressed under (1):

(a) Implement the range and pasture components of a Conservation Management System (CMS) as defined in the Field Office Technical Guide of the USDA-SCS (see Appendix 2A of this chapter) by applying the progressive planning approach of the USDA-Soil Conservation Service (SCS) to reduce erosion, or
(b) Maintain range, pasture, and other grazing lands in accordance with activity plans established by either the Bureau of Land Management of the U.S. Department of the Interior or the Forest Service of USDA.

1. Applicability

The management measure is intended to be applied by States to activities on range, irrigated and nonirrigated pasture, and other grazing lands used by domestic livestock. Under the Coastal Zone Act Reauthorization Amendments of 1990, States are subject to a number of requirements as they develop coastal nonpoint programs in conformity with this measure and will have some flexibility in doing so. The application of management measures by States is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

Range is those lands on which the native vegetation (climax or natural potential plant community) is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing use. Range includes natural grassland, savannas, many wetlands, some deserts, tundra, and certain forb and shrub communities. Pastures are those lands that are primarily used for the production of adapted, domesticated forage plants for livestock. Other grazing lands include woodlands, native pastures, and croplands producing forages.

The major differences between range and pasture are the kind of vegetation and level of management that each land area receives. In most cases, range supports native vegetation that is extensively managed through the control of livestock rather than by agronomy practices, such as fertilization, mowing, irrigation, etc. Range also includes areas that have been seeded to introduced species (e.g., crested wheatgrass), but which are extensively managed like native range. Pastures are represented by those lands that have been seeded, usually to introduced species (e.g., tall fescue) or in some cases to native plants (e.g., switchgrass), and which are intensively managed using agronomy practices and control of livestock.

2. Description

The focus of the grazing management measure is on the riparian zone, yet the control of erosion from range, pasture, and other grazing lands above the riparian zone is also encouraged. Application of this management measure will reduce the physical disturbance to sensitive areas and reduce the discharge of sediment, animal waste, nutrients, and chemicals to surface waters. For information regarding potential problems caused by grazing, see Sections I.F.2 and I.F.6 of this chapter.

The key options to consider (all are not required by this management measure) when developing a comprehensive grazing management approach at a particular location include the development of one or more of the following:

- Grazing management systems. These systems ensure proper grazing use through:
  - Grazing frequency (includes complete rest);
  - Livestock stocking rates;
  - Livestock distribution;
  - Timing (season of forage use) and duration of each rest and grazing period;
  - Livestock kind and class; and
  - Forage use allocation for livestock and wildlife.
- Proper water and salt supplement facilities.
- Livestock access control.
- Range or pasture rehabilitation.

For any grazing management system to work, it must be tailored to fit the needs of the vegetation, terrain, class or kind of livestock, and particular operation involved.

For both pasture and range, areas should be provided for livestock watering, salting, and shade that are located away from streambanks and riparian zones where necessary and practical. This will be accomplished by managing livestock grazing and providing facilities for water, salt, and shade as needed.

Special attention must be given to grazing management in riparian and wetland areas if management measure objectives are to be met. For purposes of this guidance, riparian areas are defined (Mitsch and Gosselink, 1986; Lowrance et al., 1988) as:

> Vegetated ecosystems along a waterbody through which energy, materials, and water pass. Riparian areas characteristically have a high water table and are subject to periodic flooding and influence from the adjacent waterbody.

The health of the riparian system, and thus the quality of water, is dependent on the use, management, and condition of the related uplands. Therefore, the proper management of riparian and wetland ecosystems will involve the correct management of livestock grazing and other land uses in the total watershed.

Conservation management systems (CMS) include any combination of conservation practices and management that achieves a level of treatment of the five natural resources (i.e., soil, water, air, plants, and animals) that satisfies criteria contained in the Soil Conservation Service (SCS) Field Office Technical Guide (FOTG), such as a resource management system (RMS) or an acceptable management system (AMS). These criteria are developed at the State level, with concurrence by the appropriate SCS National Technical Center (NTC). The criteria are then applied in the provision of field office technical assistance, under the direction of the District Conservationist of SCS. In-state coordination of FOTG use is provided by the Area Conservationist and State Conservationist of SCS.

The range and pasture components of a CMS address erosion control, proper grazing, adequate pasture stand density, and range condition. National (minimum) criteria pertaining to range and pasture under an RMS are applied to achieve environmental objectives, conserve natural resources, and prevent soil degradation.

The practical limits of resource protection under a CMS within any given area are determined through the application of national social, cultural, and economic criteria. With respect to economics, landowners will not be required to implement an RMS if the system is generally too costly for landowners. Instead, landowners may be required to implement a less costly, and less protective, AMS. In some cases, landowner constraints may be such that an RMS or AMS cannot be implemented quickly. In these situations, a "progressive planning approach" may be used to ultimately achieve planning and application of an RMS or AMS. Progressive planning is the incremental process of building a plan on part or all of the planning unit over a period of time. For additional details regarding CMS, RMS, and AMS, see Appendix 2A of this chapter.

3. Management Measure Selection

This management measure was selected based on an evaluation of available information that documents the beneficial effects of improved grazing management (see "Effectiveness Information" below). Specifically, the available information shows that (1) aquatic habitat conditions are improved with proper livestock management; (2) pollution from livestock is decreased by reducing the amount of time spent in the stream through the provision of supplemental water; and (3) sediment delivery is reduced through the proper use of vegetation, streambank protection, planned grazing systems, and livestock management.

4. Effectiveness Information

Hubert et al. (1985) showed in plot studies in Wyoming that livestock exclusion and reductions in stocking rates can result in improved habitat conditions for brook trout (Table 2-19) . In this study, the primary vegetation was willows, Pete Creek stocking density was 7.88 ac/AUM (acres per animal unit month), and Cherry Creek stocking density was 10 cows per acre.

Platts and Nelson (1989) used plot studies in Utah to evaluate the effects of livestock exclusion on riparian plant communities and streambanks. Several streambank characteristics that are related to the quality of fish habitat were measured, including bank stability, stream shore depth, streambank angle, undercut, overhang, and streambank alteration. The results clearly show better fish habitat in the areas where livestock were excluded (Table 2-20).

Kauffman et al. (1983) showed that fall cattle grazing decreases the standing phytomass of some riparian plant communities by as much as 21 percent versus areas where cattle are excluded, while causing increases for other plant communities. This study, conducted in Oregon from 1978 to 1980, incorporated stocking rates of 3.2 to 4.2 ac/AUM.

Eckert and Spencer (1987) studied the effects of a three-pasture, rest-rotation management plan on the growth and reproduction of heavily grazed native bunchgrasses in Wyoming. The results indicated that range improvement under this otherwise appropriate rotation grazing system is hindered by heavy grazing. Stocking rates on the study plots ranged from 525 to 742 cow-calf AUMs.

Table 2-19. Grazing Management Influences on Two Brook Trout Streams in Wyoming (Hubert et al., 1985)

	Pete Creek (n=3)		Cherry Creek (n=4)	
Parameter	Heavily Grazed (mean)	Lightly Grazed (mean)	Outside Exclosure (mean)	Inside Exclosure (mean)
Width	2.9	2.2[a]	2.9	2.5[a]
Depth	0.07	0.11[a]	0.08	0.09[a]
Width/depth ratio	43	21	37	28[a]
Coefficient of variation in depth	47.3	66.6[a]	57	71
Percent greater than 22 cm deep	9.0	22.3[b]	6.7	21.0[a]
Percent overhanging bank cover	2.7	30.0[a]	24.0	15.3
Percent overhanging vegetation	0	11.7[a]	8.5	18.0
Percent shaded area	0.7	18.3[a]	23.5	28.0
Percent silt substrate	35	52	22	13[a]
Percent bare soil along banks	19.7	13.3	22.8	12.3[a]
Percent litter along banks	7.0	6.0	10.0	6.8[a]

[a] Indicates statistical significance at p<=0.05.
[b] Indicates statistical significance at p<=0.1.

In a literature review, Van Poollen and Lacey (1979) showed that herbage production was greater for managed grazing versus continuous grazing, greater for moderate versus heavy intensity grazing, and greater for light- versus moderate-intensity grazing.

McDougald et al. (1989) tested the effects of moving supplemental feeding locations on riparian areas of hardwood range in California. With stocking rates of approximately 1 ac/AUM, they found that moving supplemental feeding locations away from water sources into areas with high amounts of forage greatly reduces the impacts of cattle on riparian areas (Table 2-21).

Table 2-20. Streambank Characteristics for Grazed Versus Rested Riparian Areas (Platts and Nelson, 1989)

Streambank Characteristic (unit)	Grazed	Rested
Extent (m)	4.1	2.5
Bank stability (%)	32.0	88.5
Stream-short depth (cm)	6.4	14.9
Bank angle (°)	127.0	81.0
Undercut (cm)	6.4	16.5
Overhang (cm)	1.8	18.3
Streambank alteration (%)	72.0	19.0

Table 2-21. The Effects of Supplemental Feeding Location on Riparian Area Vegetation (McDougald et al., 1989)

Practice	Percentage of riparian area with the following levels of residual dry matter in early October		
	Low	Moderate	High
Supplemental feeding located close to riparian areas:			
1982-85 Range Unit 1	48	39	13
1982-85 Range Unit 8	59	29	12
1986-87 Range Unit 8	54	33	13
Supplemental feeding moved away from riparian area:			
1986-87 Range Unit 1	1	27	72

Miner et al. (1991) showed that the provision of supplemental water facilities reduced the time each cow spent in the stream within 4 hours of feeding from 14.5 minutes to 0.17 minutes (8-day average). This pasture study in Oregon showed that the 90 cows without supplemental water spent a daily average of 25.6 minutes per cow in the stream. For the 60 cows that were provided a supplemental water tank, the average daily time in the stream was 1.6 minutes per cow, while 11.6 minutes were spent at the water tank. Based on this study, the authors expect that decreased time spent in the stream will decrease bacterial loading from the cows.

Tiedemann et al. (1988) studied the effects of four grazing strategies on bacteria levels in 13 Oregon watersheds in the summer of 1984. Results indicate that lower fecal coliform levels can be achieved at stocking rates of about 20 ac/AUM if management for livestock distribution, fencing, and water developments are used (Table 2-22). The study also indicates that, even with various management practices, the highest fecal coliform levels were associated with the higher stocking rates (6.9 ac/AUM) employed in strategy D.

Lugbill (1990) estimates that stream protection in the Potomac River Basin will reduce total nitrogen (TN) and total phosphorus (TP) loads by 15 percent, while grazing land protection and permanent vegetation improvement will reduce TN and TP loads by 60 percent. Owens et al. (1982) measured nitrogen losses from an Ohio pasture under a medium-fertility, 12-month pasture program from 1974 to 1979. The results included no measurable soil loss from three watersheds under summer grazing only, and increased average TN concentrations and total soluble N loads from watersheds under summer grazing and winter feeding versus watersheds under summer grazing only (Table 2-23).

Table 2-22. Bacterial Water Quality Response to Four Grazing Strategies (Tiedemann et al., 1988)

Practice	Geometric Mean Fecal Coliform Count
Strategy A: Ungrazed.	40/L
Strategy B: Grazing without management for livestock distribution; 20.3 ac/AUM.	150/L
Strategy C: Grazing with management for livestock distribution: fencing and water developments; 19.0 ac/AUM.	90/L
Strategy D: Intensive grazing management, including practices to attain uniform livestock distribution and improve forage production with cultural practices such as seeding, fertilizing, and forest thinning; 6.9 ac/AUM.	920/L

Table 2-23. Nitrogen Losses from Medium-Fertility, 12-Month Pasture Program (Owens et al., 1982)

Practice	Soil Loss (kg/ha)	Total Sediment N Transport (kg/ha)	Total N Concentration (mg/l)[a]	Total Soluble N Transport (kg/ha)[a]
Summer Grazing Only				
Growing season	—	—	3.7	0.4
Dormant season	—	—	1.8	0.1
Year	—	—	3.0	0.5
Summer Grazing - Winter Feeding				
Growing season	251	1.4	4.9	2.5
Dormant season	1,104	6.6	14.6	11.3
Year	1,355	8.0	10.7	13.8

[a] Five-year average (1974-1979)

Data from a comparison of the expected effectiveness of various grazing and streambank practices in controlling sedimentation in the Molar Flats Pilot Study Area in Fresno County, California indicate that planned grazing systems are the most effective single practice for reducing sheet and rill erosion (Fresno Field Office, 1979). Streambank protection is expected to be the most effective single practice for reducing streambank erosion. Other practices evaluated are proper grazing use, deferred grazing, emergency seeding, and livestock exclusion.

5. Range and Pasture Management Practices

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above.

The U.S. Soil Conservation Service practice number and definition are provided for each management practice, where available. Also included in italics are SCS statements describing the effect each practice has on water quality (USDA-SCS, 1988.)

Grazing Management System Practices

Appropriate grazing management systems ensure proper grazing use by adjusting grazing intensity and duration to reflect the availability of forage and feed designated for livestock uses, and by controlling animal movement through the operating unit of range or pasture. Proper grazing use will maintain enough live vegetation and litter cover to protect the soil from erosion; will achieve riparian and other resource objectives; and will maintain or improve the quality, quantity, and age distribution of desirable vegetation. Practices that accomplish this are:

a. Deferred grazing (352): Postponing grazing or resting grazing land for prescribed period.

In areas with bare ground or low percent ground cover, deferred grazing will reduce sediment yield because of increased ground cover, less ground surface disturbance, improved soil bulk density characteristics, and greater infiltration rates. Areas mechanically treated will have less sediment yield when deferred to encourage re-vegetation. Animal waste would not be available to the area during the time of deferred grazing and there would be less opportunity for adverse runoff effects on surface or aquifer water quality. As vegetative cover increases, the filtering processes are enhanced, thus trapping more silt and nutrients as well as snow if climatic conditions for snow exist. Increased plant cover results in a greater uptake and utilization of plant nutrients.

b. *Planned grazing system (556): A practice in which two or more grazing units are alternately rested and grazed in a planned sequence for a period of years, and rest periods may be throughout the year or during the growing season of key plants.*

Planned grazing systems normally reduce the system time livestock spend in each pasture. This increases quality and quantity of vegetation. As vegetation quality increases, fiber content in manure decreases which speeds manure decomposition and reduces pollution potential. Freeze-thaw, shrink-swell, and other natural soil mechanisms can reduce compacted layers during the absence of grazing animals. This increases infiltration, increases vegetative growth, slows runoff, and improves the nutrient and moisture filtering and trapping ability of the area.

Decreased runoff will reduce the rate of erosion and movement of sediment and dissolved and sediment-attached substances to downstream water courses. No increase in ground water pollution hazard would be anticipated from the use of this practice.

c. *Proper grazing use (528): Grazing at an intensity that will maintain enough cover to protect the soil and maintain or improve the quantity and quality of desirable vegetation.*

Increased vegetation slows runoff and acts as a sediment filter for sediments and sediment attached substances, uses more nutrients, and reduces raindrop splash. Adverse chemical effects should not be anticipated from the use of this practice.

d. *Proper woodland grazing (530): Grazing wooded areas at an intensity that will maintain adequate cover for soil protection and maintain or improve the quantity and quality of trees and forage vegetation.*

This practice is applicable on wooded areas producing a significant amount of forage that can be harvested without damage to other values. In these areas there should be no detrimental effects on the quality of surface and ground water. Any time this practice is applied there must be a detailed management and grazing plan.

e. *Pasture and hayland management (510): Proper treatment and use of pasture or hayland.*

With the reduced runoff there will be less erosion, less sediment and substances transported to the surface waters. The increased infiltration increases the possibility of soluble substances leaching into the ground water.

Alternate Water Supply Practices

Providing water and salt supplement facilities away from streams will help keep livestock away from streambanks and riparian zones. The establishment of alternate water supplies for livestock is an essential component of this measure when problems related to the distribution of livestock occur in a grazing unit. In most western states, securing water rights may be necessary. Access to a developed or natural water supply that is protective of streambank and riparian zones can be provided by using the stream crossing (interim) technology to build a watering site. In some locations, artificial shade may be constructed to encourage use of upland sites for shading and loafing. Providing water can be accomplished through the following Soil Conservation Service practices and the stream crossing (interim) practice (practice "m") of the following section. Descriptions have been modified to meet CZM needs:

f. *Pipeline (516): Pipeline installed for conveying water for livestock or for recreation.*

Pipelines may decrease sediment, nutrient, organic, and bacteria pollution from livestock. Pipelines may afford the opportunity for alternative water sources other than streams and lakes, possibly keeping the animals away from the stream or impoundment. This will prevent bank destruction with resulting sedimentation, and will reduce animal

waste deposition directly in the water. The reduction of concentrated livestock areas will reduce manure solids, nutrients, and bacteria that accompany surface runoff.

g. *Pond (378): A water impoundment made by constructing a dam or an embankment or by excavation of a pit or dugout.*

Ponds may trap nutrients and sediment which wash into the basin. This removes these substances from downstream. Chemical concentrations in the pond may be higher during the summer months. By reducing the amount of water that flows in the channel downstream, the frequency of flushing of the stream is reduced and there is a collection of substances held temporarily within the channel. A pond may cause more leachable substance to be carried into the ground water.

h. *Trough or tank (614): A trough or tank, with needed devices for water control and waste water disposal, installed to provide drinking water for livestock.*

By the installation of a trough or tank, livestock may be better distributed over the pasture, grazing can be better controlled, and surface runoff reduced, thus reducing erosion. By itself this practice will have only a minor effect on water quality; however when coupled with other conservation practices, the beneficial effects of the combined practices may be large. Each site and application should be evaluated on their own merits.

i. *Well (642): A well constructed or improved to provide water for irrigation, livestock, wildlife, or recreation.*

When water is obtained, if it has poor quality because of dissolved substances, its use in the surface environment or its discharge to downstream water courses the surface water will be degraded. The location of the well must consider the natural water quality and the hazards of its use in the potential contamination of the environment. Hazard exists during well development and its operation and maintenance to prevent aquifer quality damage from the pollutants through the well itself by back flushing, or accident, or flow down the annular spacing between the well casing and the bore hole.

j. *Spring development (574): Improving springs and seeps by excavating, cleaning, capping, or providing collection and storage facilities.*

There will be negligible long-term water quality impacts with spring developments. Erosion and sedimentation may occur from any disturbed areas during and immediately after construction, but should be short-lived. These sediments will have minor amounts of adsorbed nutrients from soil organic matter.

Livestock Access Limitation Practices

It may be necessary to minimize livestock access to streambanks, ponds or lakeshores, and riparian zones to protect these areas from physical disturbance. This could also be accomplished by establishing special use pastures to manage livestock in areas of concentration. Practices include:

k. *Fencing (382): Enclosing or dividing an area of land with a suitable permanent structure that acts as a barrier to livestock, big game, or people (does not include temporary fences).*

Fencing is a practice that can be on the contour or up and down slope. Often a fence line has grass and some shrubs in it. When a fence is built across the slope it will slow down runoff, and cause deposition of coarser grained materials reducing the amount of sediment delivered downslope. Fencing may protect riparian areas which act as sediment traps and filters along water channels and impoundments.

Livestock have a tendency to walk along fences. The paths become bare channels which concentrate and accelerate runoff causing a greater amount of erosion within the path and where the path/channel outlets into another channel. This can deliver more sediment and associated pollutants to surface waters. Fencing can have the effect of concentrating livestock in small areas, causing a concentration of manure which may wash off into the stream, thus causing surface water pollution.

l. Livestock exclusion (472): Excluding livestock from an area not intended for grazing.

Livestock exclusion may improve water quality by preventing livestock from being in the water or walking down the banks, and by preventing manure deposition in the stream. The amount of sediment and manure may be reduced in the surface water. This practice prevents compaction of the soil by livestock and prevents losses of vegetation and undergrowth. This may maintain or increase evapotranspiration. Increased permeability may reduce erosion and lower sediment and substance transportation to the surface waters. Shading along streams and channels resulting from the application of this practice may reduce surface water temperature.

m. Stream crossing (interim): A stabilized area to provide access across a stream for livestock and farm machinery.

The purpose is to provide a controlled crossing or watering access point for livestock along with access for farm equipment, control bank and streambed erosion, reduce sediment and enhance water quality, and maintain or improve wildlife habitat.

Vegetative Stabilization Practices

It may be necessary to improve or reestablish the vegetative cover on range and pastures to reduce erosion rates. The following practices can be used to reestablish vegetation:

n. Pasture and hayland planting (512): Establishing and reestablishing long-term stands of adapted species of perennial, biannual, or reseeding forage plants. (Includes pasture and hayland renovation. Does not include grassed waterways or outlets or cropland.)

The long-term effect will be an increase in the quality of the surface water due to reduced erosion and sediment delivery. Increased infiltration and subsequent percolation may cause more soluble substances to be carried to ground water.

o. Range seeding (550): Establishing adapted plants by seeding on native grazing land. (Range does not include pasture and hayland planting.)

Increased erosion and sediment yield may occur during the establishment of this practice. This is a temporary situation and sediment yields decrease when reseeded area becomes established. If chemicals are used in the reestablishment process, chances of chemical runoff into downstream water courses are reduced if application is applied according to label instructions. After establishment of the grass cover, grass sod slows runoff, acts as a filter to trap sediment, sediment attached substances, increases infiltration, and decreases sediment yields.

p. Critical area planting (342): Planting vegetation, such as trees, shrubs, vines, grasses, or legumes, on highly erodible or critically eroding areas. (Does not include tree planting mainly for wood products.)

This practice may reduce soil erosion and sediment delivery to surface waters. Plants may take up more of the nutrients in the soil, reducing the amount that can be washed into surface waters or leached into ground water.

During grading, seedbed preparation, seeding, and mulching, large quantities of sediment and associated chemicals may be washed into surface waters prior to plant establishment.

q. *Brush (and weed) management (314): Managing and manipulating stands of brush (and weeds) on range, pasture, and recreation and wildlife areas by mechanical, chemical, or biological means or by prescribed burning. (Includes reducing excess brush (and weeds) to restore natural plant community balance and manipulating stands of undesirable plants through selective and patterned treatments to meet specific needs of the land and objectives of the land user.)*

Improved vegetation quality and the decrease in runoff from the practice will reduce the amount of erosion and sediment yield. Improved vegetative cover acts as a filter strip to trap the movement of dissolved and sediment attached substances, such as nutrients and chemicals from entering downstream water courses. Mechanical brush management may initially increase sediment yields because of soil disturbances and reduced vegetative cover. This is temporary until revegetation occurs.

r. *Prescribed burning (338): Applying fire to predetermined areas under conditions under which the intensity and spread of the fire are controlled.*

When the area is burned in accordance with the specifications of this practice the nitrates with the burned vegetation will be released to the atmosphere. The ash will contain phosphorous and potassium which will be in a relatively highly soluble form. If a runoff event occurs soon after the burn there is a probability that these two materials may be transported into the ground water or into the surface water. When in a soluble state the phosphorous and potassium will be more difficult to trap and hold in place. When done on range grasses the growth of the grasses is increased and there will be an increased tie-up of plant nutrients as the grasses' growth is accelerated.

Selection of Practices

The selection of management practices for this measure should be based on an evaluation of current conditions, problems identified, quality criteria, and management goals. Successful resource management on range and pasture includes appropriate application of a combination of practices that will meet the needs of the range and pasture ecosystem (i.e., the soil, water, air, plant, and animal (including fish and shellfish) resources) and the objectives of the land user.

For a sound grazing land management system to function properly and to provide for a sustained level of productivity, the following should be considered:

- Know the key factors of plant species management, their growth habits, and their response to different seasons and degrees of use by various kinds and classes of livestock.
- Know the demand for, and seasons of use of, forage and browse by wildlife species.
- Know the amount of plant residue or grazing height that should be left to protect grazing land soils from wind and water erosion, provide for plant regrowth, and provide the riparian vegetation height desired to trap sediment or other pollutants.
- Know the range site production capabilities and the pasture suitability group capabilities so an initial stocking rate can be established.
- Know how to use livestock as a tool in the management of the range ecosystems and pastures to ensure the health and vigor of the plants, soil tilth, proper nutrient cycling, erosion control, and riparian area management, while at the same time meeting livestock nutritional requirements.

- Establish grazing unit sizes, watering, shade and salt locations, etc. to secure optimum livestock distribution and proper vegetation use.
- Provide for livestock herding, as needed, to protect sensitive areas from excessive use at critical times.
- Encourage proper wildlife harvesting to ensure proper population densities and forage balances.
- Know the livestock diet requirements in terms of quantity and quality to ensure that there are enough grazing units to provide adequate livestock nutrition for the season and the kind and classes of animals on the farm/ranch.
- Maintain a flexible grazing system to adjust for unexpected environmentally and economically generated problems.
- Special requirements to protect threatened or endangered species.

6. Cost Information

Much of the cost associated with implementing grazing management practices is due to fencing installation, water development, and system maintenance. Costs vary according to region and type of practice. Generally, the more components or structures a practice requires, the more expensive it is. However, cost-share is usually available from the USDA and other Federal agencies for most of these practices.

a. Grazing Facilities

Principal direct costs of providing grazing facilities vary from relatively low variable costs of dispersed salt blocks to higher capital and maintenance costs of supplementary water supply improvements. Improving the distribution of grazing pressure by herding or strategically locating grazing facilities to draw cattle away from streamside areas can result in improved utilization of existing forage.

The availability and feasibility of supplementary water development varies considerably between arid western areas and humid eastern areas, but costs for water development, including spring development and pipeline watering, are similar (Table 2-24).

b. Livestock Exclusion

Principal direct costs of livestock exclusion are the capital and maintenance costs for fencing to restrict access to streamside areas or the cost of herders to achieve the same results. In addition, there may be an indirect cost of the forage that is removed from grazing by exclusion.

There is considerable difference between multistrand barbed wire, chiefly used for perimeter fencing and permanent stream exclusion and diversions, and single- or double-strand smoothwire electrified fencing used for stream exclusion and temporary divisions within permanent pastures. The latter may be all that is needed to accomplish most livestock exclusion in smaller, managed pastures in the East (Table 2-25).

c. Improvement/Reestablishment

Principal direct costs of improving or reestablishing grazing land include the costs of seed, fertilizer, and herbicides needed to establish the new forage stand and the labor and machinery costs required for preparation, planting, cultivation, and weed control (Table 2-26). An indirect cost may be the forage that is removed from grazing during the reestablishment work and rest for seeding establishment.

Table 2-24. Cost of Water Development for Grazing Management

Location	Year	Type	Unit	Reported Capital Costs $/Unit	Constant Dollar[a] Capital Costs 1991 $/Unit	Constant Dollar[a] Annualized Costs 1991 $/Unit
California[b]	1979	pipeline	foot	0.28	0.35	0.05
Kansas[c]	1989	spring	each	1,239.00	1,282.94	191.20
		spring	each	1,389.00	1,438.26	214.34
Maine[d]	1988	pipeline	each	831.00	879.17	131.02
Alabama[e]	1990	spring	each	1,500.00	1,520.83	226.65
		pipeline	foot	1.60	1.62	0.24
		trough	each	1,000.00	1,013.89	151.10
Nebraska[f]	1991	pipeline	foot	1.31	1.31	0.20
		tank	each	370.00	370.00	55.14
Utah[g]	1968	spring	each	200.00	389.33	58.02
Oregon[h]	1991	pipeline	foot	0.20	0.20	0.03
		tank	each	183.00	183.00	27.27

[a] Reported costs inflated to 1991 constant dollars by the ratio of indices of prices paid by farmers for building and fencing, 1977=100. Capital costs are annualized at 8 percent interest for 10 years.
[b] Fresno Field Office, 1979.
[c] Northup et al., 1989.
[d] Cumberland County Soil and Water Conservation District, undated.
[e] Alabama Soil Conservation Service, 1990.
[f] Hermsmeyer, 1991.
[g] Workman and Hooper, 1968.
[h] ASCS/SCS, 1991.

d. Overall Costs of the Grazing Management Measure

Since the exact combination of practices needed to implement the management measure depends on site-specific conditions that are highly variable, the overall cost of the measure is best estimated from similar combinations of practices applied under the Agricultural Conservation Program (ACP), Rural Clean Water Program (RCWP), and similar activities. Cost data from the ACP programs are summarized in Table 2-27.

Table 2-25. Cost of Livestock Exclusion for Grazing Management

Location	Year	Type	Unit	Reported Capital Costs $/Unit	Constant Dollar[a] Capital Costs 1991 $/Unit	Constant Dollar[a] Annualized Costs 1991 $/Unit
California[b]	1979	permanent	mile	2,000	2,474.58	368.78
Alabama[c]	1990	permanent	mile	3,960	4,015.00	598.35
		net wire	mile	5,808	5,888.67	877.58
		electric	mile	2,640	2,676.67	398.90
Nebraska[d]	1991	permanent	mile	2,478	2,478.00	369.30
Great Lakes[e]	1989	permanent	mile	2,100 - 2,400	2,174.47 - 2,485.11	324.06 - 370.35
Oregon[f]	1991	permanent	mile	2,640	2,640.00	393.44

[a] Reported costs inflated to 1991 constant dollars by the ratio of indices of prices paid by farmers for building and fencing, 1977=100. Capital costs are annualized at 8 percent interest for 10 years.
[b] Fresno Field Office, 1979.
[c] Alabama Soil Conservation Service, 1990.
[d] Hermsmeyer, 1991.
[e] DPRA, 1989.
[f] ASCS/SCS, 1991.

Table 2-26. Cost of Forage Improvement/Reestablishment for Grazing Management

Location	Year	Type	Unit	Reported Capital Costs $/Unit	Constant Dollar[a] Capital Costs 1991 $/Unit	Constant Dollar[a] Annualized Costs 1991 $/Unit
Alabama[b]	1990	planting (seed, lime & fertilizer)	acre	84 - 197	83 - 195	12.37 - 29.00
Nebraska[c]	1991	establishment	acre	47	47	7.00
		seeding	acre	45	45	6.71
Oregon[d]	1991	establishment	acre	27	27	4.02

[a] Reported costs inflated to 1991 constant dollars by the ratio of indices of prices paid by farmers for seed, 1977=100. Capital costs are annualized at 8 percent interest for 10 years.
[b] Alabama Soil Conservation Service, 1990.
[c] Hermsmeyer, 1991.
[d] ASCS/SCS, 1991.

Table 2-27. Summary of ACP Grazing Management Practice Costs, 1989 (US and 1990 (USDA-ASCS, 1990; USDA-ASCS, 1991)[a]

Region[b]	ASCS Practice Code[c]	Adjusted Cost/Acre Treated[d] ($/acre)		
		Average	Low	High
GL	SL1	17.34	13.01	49.80
GL	SL2	16.18	11.53	24.82
GL	SL6	27.76	17.32	37.92
GL	SL11	31.63	11.95	66.50
GL	SP10	19.13	13.50	52.03
GL	WP2	31.78	16.09	165.37
Gulf	SL1	12.67	9.95	19.19
Gulf	SL2	4.44	4.26	13.43
Gulf	SL6-range	1.81	0.81	12.55
Gulf	SL6-pasture	24.00	9.68	219.45
Gulf	SL11	47.92	27.53	109.98
Gulf	WC3	0.78	0.69	0.98
Gulf	WP2	58.44	38.14	72.84
NE	SL1	23.92	17.18	45.76
NE	SL2	21.06	5.08	45.98
NE	SL6	34.70	19.38	42.20
NE	SL11	109.11	17.62	374.48
NE	SP10	106.53	52.03	1,023.61
NE	WP2	72.75	31.08	1,543.97
Pacific	SL1	9.75	7.92	24.39
Pacific	SL2	3.62	0.61	7.32
Pacific	SL6	1.06	0.51	2.22
Pacific	SL11	12.61	7.20	20.86
Pacific	SP10	100.19	19.59	132.36
Pacific	WP2	14.22	7.53	190.51
SE	SL1	19.54	15.49	24.05
SE	SL2	10.68	5.20	15.81
SE	SL6	10.14	9.49	262.77
SE	SL11	55.20	15.70	116.40
SE	WP2	75.90	13.21	224.73

Table 2-27 Notes:

[a] Acreage-weighted average of 1989 and 1990 costs.

[b] GL=Great Lakes Region (IL, IN, MI, NY, OH, WI)
GULF=Gulf States Region (AL, FL, LA, MS, TX)
NE=Northeast Region (CT, DE, MA, MD, ME, NH, NY, PA, RI)
Pacific=Pacific Region (CA, OR, WA)
SE=Southeast Region (FL, GA, NC, SC, VA)

[c] ASCS practices with description title and technical practice code:

SL1 - Permanent vegetative cover establishment

Conservation tillage	329
Pasture and hayland planting	512
Range seeding	550
Cover and green manure crop (orchard and vineyard only)	340
Field borders	386
Filter strips	393

SL2 - Permanent vegetative cover improvement

Conservation tillage	329
Pasture and hayland management	510
Pasture and hayland Planting	512
Fencing	382
Range seeding	550
Deferred grazing	352
Firebreak	394
Brush management	314

SL6 - Grazing land protection

Critical area planting	342
Pond	378
Fencing	382
Pipeline	516
Spring development	574
Stock trails and walkways	575
Trough or tank	614
Water-harvesting catchment	636
Wells	642

SL11 - Permanent vegetative cover on critical areas

Cover and green manure crop	340
Critical area planting	342
Fencing	382
Field borders	386
Filter strip	393
Forest land erosion control system	408
Mulching	484
Streambank and shoreline protection	580
Tree planting	612

SP10 - Streambank stabilization

Critical area planting	342
Livestock exclusion	472
Mulching	484
Streambank and shoreline protection	580
Tree planting	612

WC3 - Rangeland moisture conservation

Grazing land mechanical treatment	548

WP2 - Stream protection

Filter strip	393
Channel vegetation	322
Fencing	382
Pipeline	516
Streambank and shoreline protection	580
Field border	386
Tree planting	612
Trough or tank	614
Stock trails or walkways	575

[d] Average annual cost, adjusted to 1990 constant dollars using ratio of index of prices paid for production items 1989 to 1990 (171/165). Source: USDA-ERS, 1991.

F. Irrigation Water Management

To reduce nonpoint source pollution of surface waters caused by irrigation:

(1) Operate the irrigation system so that the timing and amount of irrigation water applied match crop water needs. This will require, as a minimum: (a) the accurate measurement of soil-water depletion volume and the volume of irrigation water applied, and (b) uniform application of water.

(2) When chemigation is used, include backflow preventers for wells, minimize the harmful amounts of chemigated waters that discharge from the edge of the field, and control deep percolation. In cases where chemigation is performed with furrow irrigation systems, a tailwater management system may be needed.

The following limitations and special conditions apply:

(1) In some locations, irrigation return flows are subject to other water rights or are required to maintain stream flow. In these special cases, on-site reuse could be precluded and would not be considered part of the management measure for such locations.

(2) By increasing the water use efficiency, the discharge volume from the system will usually be reduced. While the total pollutant load may be reduced somewhat, there is the potential for an increase in the concentration of pollutants in the discharge. In these special cases, where living resources or human health may be adversely affected and where other management measures (nutrients and pesticides) do not reduce concentrations in the discharge, increasing water use efficiency would not be considered part of the management measure.

(3) In some irrigation districts, the time interval between the order for and the delivery of irrigation water to the farm may limit the irrigator's ability to achieve the maximum on-farm application efficiencies that are otherwise possible.

(4) In some locations, leaching is necessary to control salt in the soil profile. Leaching for salt control should be limited to the leaching requirement for the root zone.

(5) Where leakage from delivery systems or return flows supports wetlands or wildlife refuges, it may be preferable to modify the system to achieve a high level of efficiency and then divert the "saved water" to the wetland or wildlife refuge. This will improve the quality of water delivered to wetlands or wildlife refuges by preventing the introduction of pollutants from irrigated lands to such diverted water.

(6) In some locations, sprinkler irrigation is used for frost or freeze protection, or for crop cooling. In these special cases, applications should be limited to the amount necessary for crop protection, and applied water should remain on-site.

1. Applicability

This management measure is intended to be applied by States to activities on irrigated lands, including agricultural crop and pasture land (except for isolated fields of less than 10 acres in size that are not contiguous to other irrigated lands); orchard land; specialty cropland; and nursery cropland. Those landowners already practicing effective irrigation management in conformity with the irrigation water management measure may not need to purchase additional devices to measure soil-water depletion or the volume of irrigation water applied, and may not need to expend additional labor resources to manage the irrigation system. Under the Coastal Zone Act Reauthorization Amendments of 1990, States are subject to a number of requirements as they develop coastal nonpoint programs in conformity with this measure and will have some flexibility in doing so. The application of management measures by States is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

2. Description

The goal of this management measure is to reduce nonpoint source pollution of surface waters caused by irrigation. For the purposes of this management measure, "harmful amounts" are those amounts that pose a significant risk to aquatic plant or animal life, ecosystem health, human health, or agricultural or industrial uses of the water.

A problem associated with irrigation is the movement of pollutants from the land into ground or surface water. This movement of pollutants is affected by the pathways taken by applied water and precipitation (Figure 2-15); the physical, chemical, and biological characteristics of the irrigated land; the type of irrigation system used; crop type; the degree to which erosion and sediment control, nutrient management, and pesticide management are employed; and the management of the irrigation system (Figure 2-16).

Return flows, runoff, and leachate from irrigated lands may transport the following types of pollutants:

- Sediment and particulate organic solids;
- Particulate-bound nutrients, chemicals, and metals, such as phosphorus, organic nitrogen, a portion of applied pesticides, and a portion of the metals applied with some organic wastes;
- Soluble nutrients, such as nitrogen, soluble phosphorus, a portion of the applied pesticides, soluble metals, salts, and many other major and minor nutrients; and
- Bacteria, viruses, and other microorganisms.

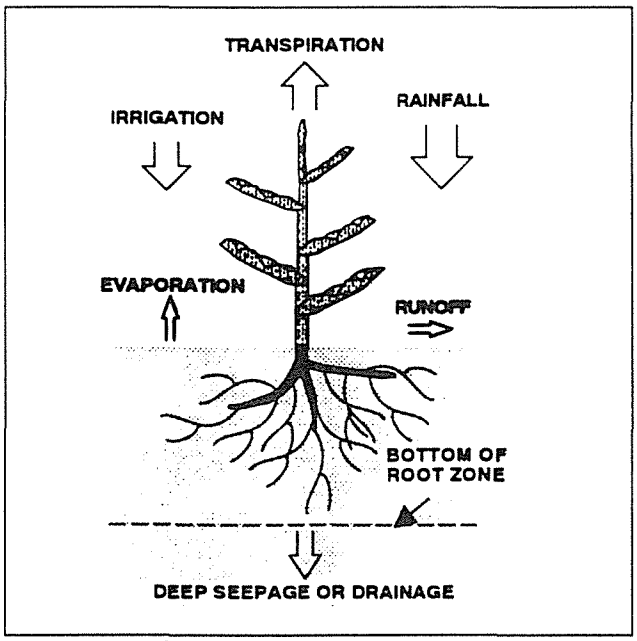

Figure 2-15. Source and fate of water added to a soil system (Evans et al., 1991c).

Transport of irrigation water from the source of supply to the irrigated field via open canals and laterals can be a source of water loss if the canals and laterals are not lined. Water is also transported through the lower ends of canals and laterals because of the flow-through requirements to maintain water levels in them. In many soils, unlined canals and laterals lose water via seepage in bottom and side walls. Seepage water either moves into the ground water through infiltration or forms wet areas near the canal or lateral. This water

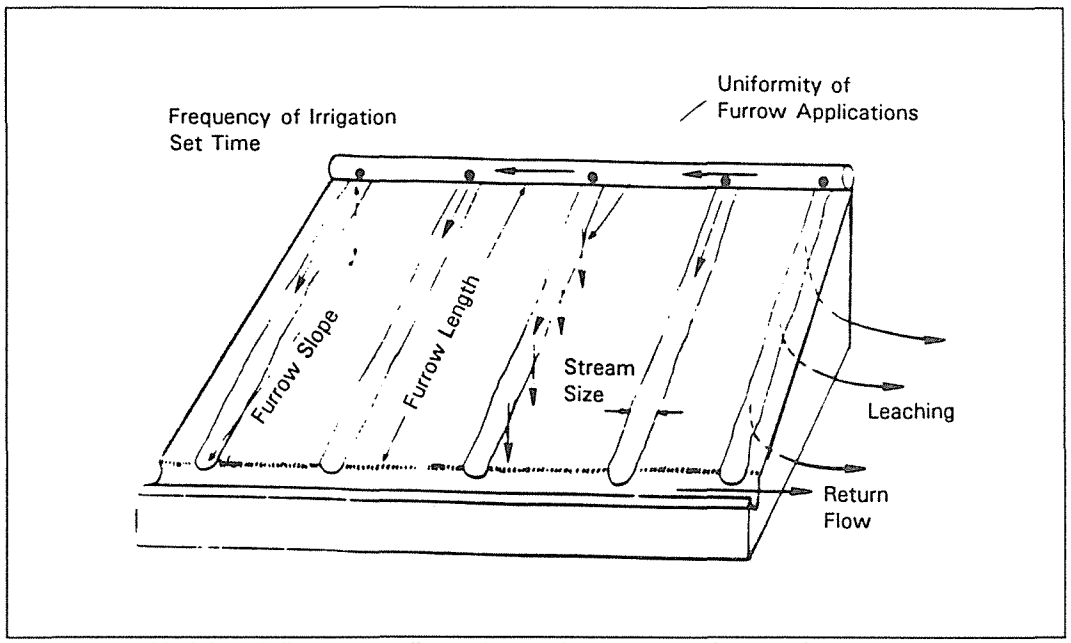

Figure 2-16. Variables influencing pollutant losses from irrigated fields (USEPA, 1982).

will carry with it any soluble pollutants in the soil, thereby creating the potential for pollution of ground or surface water.

Since irrigation is a consumptive use of water, any pollutants in the source waters that are not consumed by the crop (e g., salts, pesticides, nutrients) can be concentrated in the soil, concentrated in the leachate or seepage, or concentrated in the runoff or return flow from the system. Salts that concentrate in the soil profile must be removed for sustained crop production.

For additional information regarding the problems caused by these pollutants, see Section I.F of this chapter.

Application of this management measure will reduce the waste of irrigation water, improve the water use efficiency, and reduce the total pollutant discharge from an irrigation system. It is not the intent of this management measure to require the replacement of major components of an irrigation system. Instead, the expectation is that components to manage the timing and amount of water applied will be provided where needed, and that special precautions (i.e., backflow preventers, prevent tailwater, and control deep percolation) will be taken when chemigation is used.

Irrigation scheduling is the use of water management strategies to prevent over-application of water while minimizing yield loss due to water shortage or drought stress (Evans et al., 1991d). Irrigation scheduling will ensure that water is applied to the crop when needed and in the amount needed. Effective scheduling requires knowledge of the following factors (Evans et al., 1991c; Evans et al., 1991d):

- Soil properties;
- Soil-water relationships and status;
- Type of crop and its sensitivity to drought stress;
- The stage of crop development;
- The status of crop stress;
- The potential yield reduction if the crop remains in a stressed condition;
- Availability of a water supply; and
- Climatic factors such as rainfall and temperature.

Much of the above information can be found in Soil Conservation Service soil surveys and Extension Service literature. However, all information should be site-specific and verified in the field.

There are three ways to determine when irrigation is needed (Evans et al., 1991d):

- Measuring soil water;
- Estimating soil water using an accounting approach; and
- Measuring crop stress.

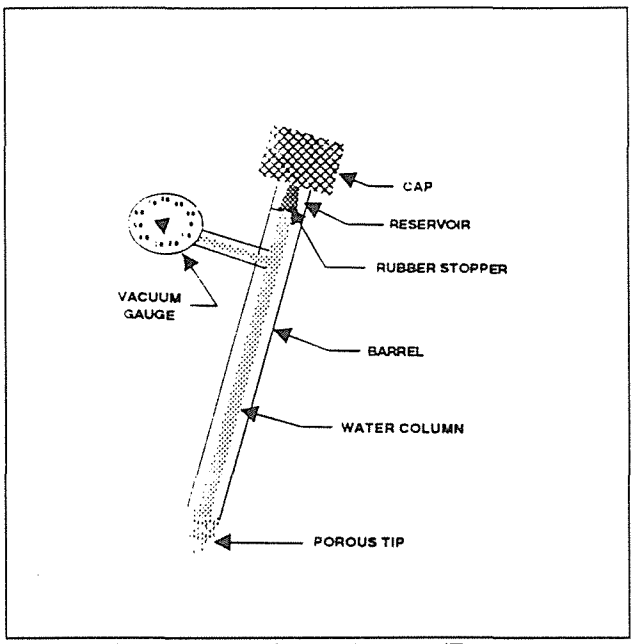

Figure 2-17. Diagram of a tensiometer (Evans et al., 1991b).

Soil water can be measured using a range of devices (Evans et al., 1991b), including tensiometers, which measure soil water suction (Figure 2-17); electrical resistance blocks (also called gypsum blocks or moisture blocks), which measure electrical resistance that is related to soil water by a calibration curve (Figure 2-18); neutron probes, which directly measure soil water; Phene cells, which are used to estimate soil water based on the relationship of heat conductance to soil water content; and time domain reflectometers, which can be used to estimate soil water based on the time it takes for an electromagnetic pulse to pass through the soil. The appropriate device for any given situation is a function of the acreage of irrigated land, soils, cost, and other site-specific factors.

Accounting approaches estimate the quantity of soil water remaining in the effective root zone and can be simple or complex. In essence, daily water inputs and outputs are measured or estimated to determine the depletion volume. Irrigation is typically scheduled when the allowable depletion volume is nearly reached.

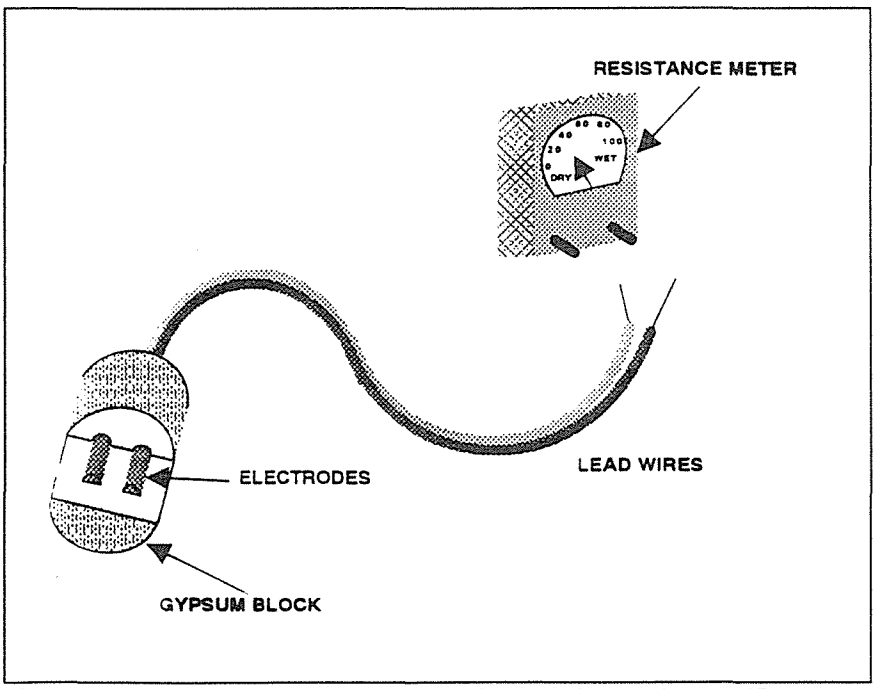

Figure 2-18. Schematic of an electrical resistance block and meter (Evans et al., 1991b).

Once the decision to irrigate has been made, it is important to determine the amount of water to apply. Irrigation needs are a function of the soil water depletion volume in the effective root zone, the rate at which the crop uses water (Figure 2-19), and climatic factors. Accurate measurements of the amount of water applied are essential to maximizing irrigation efficiency. The quantity of water applied

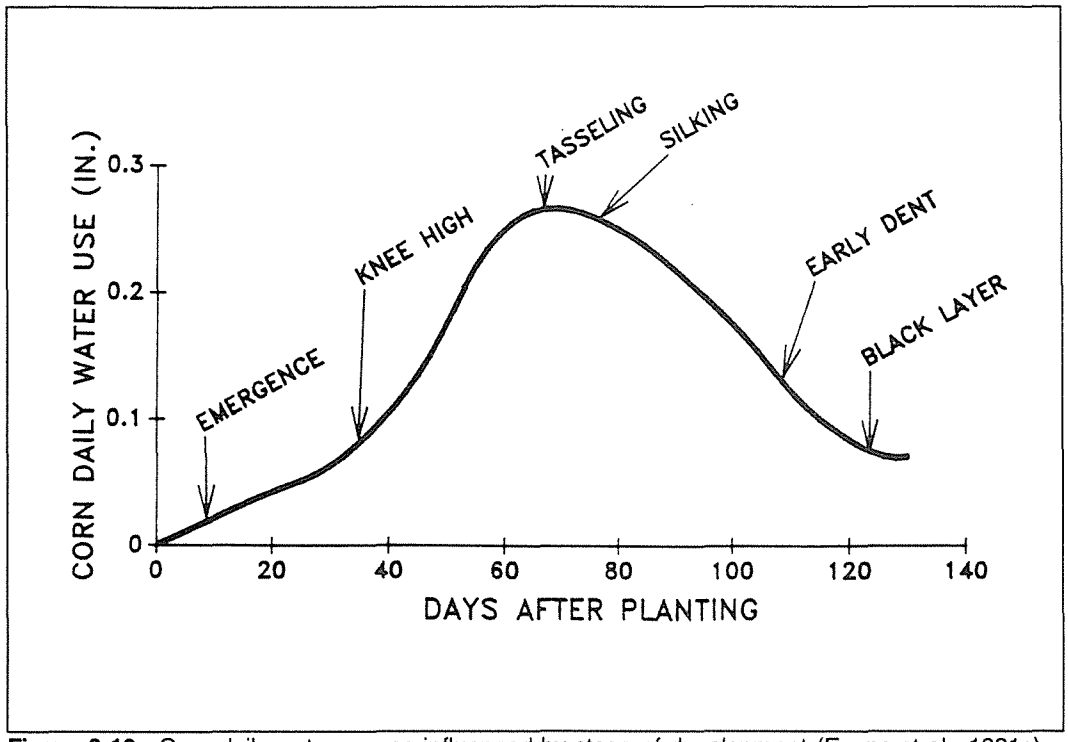

Figure 2-19. Corn daily water use as influenced by stage of development (Evans et al., 1991c).

can be measured by such devices as a totalizing flow meter that is installed in the delivery pipe. If water is supplied by ditch or canal, weirs or flumes in the ditch can be used to measure the rate of flow.

Deep percolation can be greatly reduced by limiting the amount of applied water to the amount that can be stored in the plant root zone. The deep percolation that is necessary for salt management can be accomplished with a sprinkler system by using longer sets or very slow pivot speeds or by applying water during the non-growing season.

Reducing overall water use in irrigation will allow more water for stream flow control and will increase flow for diversion to marshes, wetlands, or other environmental uses. If the source is ground water, reducing overall use will maintain higher ground-water levels, which could be important for maintaining base flow in nearby streams. Reduced water diversion will reduce the salt or pollutant load brought into the irrigation system, thereby reducing the volume of these pollutants that must be managed or discharged from the system.

Although this management measure does not require the replacement of major components of an irrigation system, such changes can sometimes result in greater pollution prevention. Consequently, the following is a broader discussion of the types of design and operational aspects of the overall irrigation system that could be addressed to provide additional control of nonpoint source pollution beyond that which is required by this management measure. Overall, five basic aspects of the irrigation system can be addressed:

(1) Irrigation scheduling;
(2) Efficient application of irrigation water;
(3) Efficient transport of irrigation water;
(4) Use of runoff or tailwater; and
(5) Management of drainage water.

This management measure addresses irrigation scheduling, efficient application, and the control of tailwater when chemigation is used. The efficient transport of irrigation water, the use of runoff or tailwater, and the management of drainage water are additional considerations.

Although not a required element of this management measure, the seepage losses associated with canals and laterals can be reduced by lining the canals and laterals, or can be eliminated by conversion from open canals and laterals to pipelines. Flow-through losses will not be changed by canal or lateral lining, but can be eliminated or greatly reduced by conversion to pipelines.

Surface irrigation systems are usually designed to have a percentage (up to 30 percent) of the applied water lost as tailwater. This tailwater should be managed with a tailwater recovery system, but such a system is not required as a component of this management measure unless chemigation is practiced. Tailwater recovery systems usually include a system of ditches or berms to direct water from the end of the field to a small storage structure. Tailwater is stored until it can be either pumped back to the head end of the field and reused or delivered to additional irrigated land. In some locations, there may be downstream water rights that are dependent upon tailwater, or tailwater may be used to maintain flow in streams. These requirements may take legal precedence over the reuse of tailwater.

Well-designed and managed irrigation systems remove runoff and leachate efficiently; control deep percolation; and minimize erosion from applied water, thereby reducing adverse impacts on surface water and ground water. If a tailwater recovery system is used, it should be designed to allow storm runoff to flow through the system without damage. Additional surface drainage structures such as filter strips, field drainage ditches, subsurface drains, and water table control may also be used to control runoff and leachate if site conditions warrant their use. Sprinkler systems will usually require design and installation of a system to remove and manage storm runoff.

A properly designed and operated sprinkler irrigation system should have a uniform distribution pattern. The volume of water applied can be changed by changing the total time the sprinkler runs; by changing the pressure at which the sprinkler operates; or, in the case of a center pivot, by adjusting the speed of travel of the system. There should be no irrigation runoff or tailwater from most well-designed and well-operated sprinkler systems.

The type of irrigation system used will dictate which practices can be employed to improve water use efficiency and to obtain the most benefit from scheduling. Flood systems will generally infiltrate more water at the upper end of the field than at the lower end because water is applied to the upper end of the field first and remains on that portion of the field longer. This will cause the upper end of the field to have greater deep percolation losses than the lower end. Although not required as a component of this management measure, this situation can sometimes be improved by changing slope throughout the length of the field. This type of change may not be practical or affordable in many cases. For example, furrow length can be reduced by cutting the field in half and applying water in the middle of the field. This will require more pipe or ditches to distribute the water across the middle of the field.

3. Management Measure Selection

This management measure was selected based on an evaluation of available information that documents the beneficial effects of improved irrigation management (see Section II.F.4 of this chapter). Specifically, the available information shows that irrigation efficiencies can be improved with scheduling that is based on knowledge of water needs and measurement of applied water. Improved irrigation efficiency can result in the reduction or elimination of runoff and return flows, as well as the control of deep percolation. Secondly, backflow preventers can be used to protect wells from chemicals used in chemigation. In addition, tailwater prevention, or tailwater management where necessary, is effective in reducing the discharge of soluble and particulate pollutants to receiving waters.

By reducing the volume of water applied to agricultural lands, pollutant loads are also reduced. Less interaction between irrigation water and agricultural land will generally result in less pollutant transport from the land and less leaching of pollutants to ground water.

The practices that can be used to implement this measure on a given site are commonly used and are recommended by SCS for general use on irrigated lands. By designing the measure using the appropriate mix of structural and management practices for a given site, there is no undue economic impact on the operator. Many of the practices that can be used to implement this measure (e.g., water-measuring devices, tailwater recovery systems, and backflow preventers) may already be required by State or local rules or may otherwise be in use on irrigated fields. Since

many irrigators may already be using systems that satisfy or partly satisfy the intent of the management measure, the only action that may be necessary will be to determine the effectiveness of the existing practices and add additional practices, if needed.

4. Effectiveness Information

Following is information on pollution reductions that can be expected from installation of the management practices outlined within this management measure.

In a review of a wide range of agricultural control practices, EPA (1982) determined that increased use of call periods, on-demand water ordering, irrigation scheduling, and flow measurement and control would all result in decreased losses of salts, sediment, and nutrients (Table 2-28). Various alterations to existing furrow irrigation systems were also determined to be beneficial to water quality, as were tailwater management and seepage control.

Logan (1990) reported that chemical backsiphon devices are highly effective at preventing the introduction of pesticides and nitrogen to ground water. The American Society of Agricultural Engineers (ASAE) specifies safety devices for chemigation that will prevent the pollution of a water supply used solely for irrigation (ASAE, 1989).

Properly designed sprinkler irrigation systems will have little runoff (Boyle Engineering Corp., 1986). Furrow irrigation and border check or border strip irrigation systems typically produce tailwater, and tailwater recovery systems may be needed to manage tailwater losses (Boyle Engineering Corp., 1986). Tailwater can be managed by applying the water to additional fields, by treating and releasing the tailwater, or by reapplying the tailwater to upslope cropland.

The Rock Creek Rural Clean Water Program (RCWP) project in Idaho is the source of much information regarding the benefits of irrigation water management (USDA, 1991). All crops in the Rock Creek watershed are irrigated with water diverted from the Snake River and delivered through a network of canals and laterals. The combined implementation of irrigation management practices, sediment control practices, and conservation tillage has resulted in measured reductions in suspended sediment loadings ranging from 61 percent to 95 percent at six stations in Rock Creek (1981-1988). Similarly, 8 of 10 sub-basins showed reductions in suspended sediment loadings over the same time period. The sediment removal efficiencies of selected practices used in the project are given in Table 2-29.

In California it is expected that drip irrigation will have the greatest irrigation efficiency of those irrigation systems evaluated, whereas conventional furrow irrigation will have the lowest irrigation efficiency and greatest runoff fraction (Table 2-30). Tailwater recovery irrigation systems are expected to have the greatest percolation rate. Plot studies in California have shown that in-season irrigation efficiencies for drip irrigation and Low Energy Precision Application (LEPA) are greater than those for improved furrow and conventional furrow systems (Table 2-31). LEPA is a linear move sprinkler system in which the sprinkler heads have been removed and replaced with tubes that supply water to individual furrows (Univ. Calif., 1988). Dikes are placed in the furrows to prevent water flow and reduce soil effects on infiltrated water uniformity.

Mielke et al. (1981) studied the effects of tillage practice and type of center pivot irrigation on herbicide (atrazine and alachlor) losses in runoff and sediment. Study results clearly show that, for each of three tillage practices studied, low-pressure spray nozzles result in much greater herbicide loss in runoff than either high-pressure or low-pressure impact heads.

5. Irrigation Water Management Practices

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully apply to achieve the management measure described above.

Table 2-28. Summary of Pollutant Impacts of Selected Irrigation Practices[a] (USEPA, 1982)

Practice	Description	T-P[b]	NA-P[c]	T-N[d]	NA-N[e]	A-Pes[f]	NA-Pes[g]	Salts[h]	Sed[i]
Call Period	A minimum length of time allowed to place an order.	–	–	–	–	–	–	–	–
On-Demand Water Ordering	Maximizes scheduling flexibility; however, this encourages less planning.	–/0	–/0	–/0	–/0	–/0	–/0	–/0	–/0
Irrigation Scheduling	Uses meteorological information with soil moisture levels to forecast future irrigations.		–	–	–	–	–	–	–
Conveyance Channel Improvements and Maintenance	Keep canals free of silt deposits and vegetation to maintain capacity. Repair damaged canal banks.	–	–	–	–	–	–	–	–
Improved Management of System Storage	System water storage provides flexibility and efficiency, but it should be minimized to reduce seepage and evaporation.	–	–	–	–	–	–	–	–
Improved Management of Return Flows	Canals should not be operated at capacity at all times with unneeded water spilled into return flows.				–			–	
Seepage Control	Lining canals, ditches, laterals, and watercourses that have high seepage losses with some impermeable material.				–			–	
Flow Measurement and Control	Measure and control flow to ensure adequate application of water while preventing unnecessary and wasteful diversions. To control the flow of water in canals and ditches, structures such as checks, drops, culverts, and field inlet devices are used. Notched weirs or small fiberglass flumes are used to measure the flow of water.	–	–	–	–	–	–	–	–
Cutback Irrigation	Flow volume is adjusted by using a head ditch or delivery pipe, which is adjusted so that a flow is quickly introduced to the end of the furrow and then "cut back" to a "soaking" flow rate. Increases uniformity of application and reduces tailwater, but is only applicable if there is sufficient cross slope.	–	–	–	–	–	–	–	–
Gated Pipe System	Combines features of improved furrow and cutback systems, and can be automatically controlled and coupled with on-demand water availability.	–	–	–	–	–	–	–	–

Table 2-28. (continued)

Practice	Description	T-P[b]	NA-P[c]	T-N[d]	NA-N[e]	A-Pes[f]	NA-Pes[g]	Salts[h]	Sed[i]
Multi-set Irrigation System	Combines features of improved furrow with a shorter length of run by using lateral supply pipes across each field.	–	–	–	–	–	–	–	–
Tailwater Reuse System/Subsurface Drainage	Tile drainage allows collection of surface flows into a water drainage system for control.	–	–	–	–	–	–	–	–
Sprinkler Irrigation	This system includes side-roll, center-pivot, tow-line, and solid-set sprinklers. Sprinkler systems are more efficient than surface irrigation.	–	–	–	–	–	–	–	–
Trickle Irrigation	Water is delivered to individual plants through lines or emitters in order to provide crop plants with nearly optimal soil moisture.	–	–	–	–	–	–	–	–

[a] + = increases in application of control will increase pollutant losses; – = increases in application of control will decrease pollutant losses; 0 = no appreciable effect. Blanks indicate no information presented.
[b] Absorbed phosphorus (total and labile).
[c] Nonabsorbed phosphorus (soluble forms).
[d] Absorbed nitrogen (total N and ammonium).
[e] Nonabsorbed nitrogen (nitrate).
[f] Absorbed pesticide.
[g] Nonabsorbed pesticide.
[h] Salts.
[i] Sediment.

Table 2-29. Sediment Removal Efficiencies and Comments on BMPs Evaluated (USDA, 1991)

Practice	Sediment Removal Efficiency (%)		Comment
	Average	Range	
Sediment basins: field, farm, subbasin	87	75-95	Cleaning costly.
Mini-basins	86[a]	0-95	Controlled outlets essential. Many failed. Careful management required.
Buried pipe systems (incorporating mini-basins with individual outlets into a buried drain)	83	75-95	High installation cost. Potential for increased production to offset costs. Eliminates tailwater ditch. Good control of tailwater.
Vegetative filters	50[a]	35-70	Simple. Proper installation and management needed.
Placing straw in furrows	50	40-80	Labor-intensive without special equipment. Careful management required.

[a] Mean of those that did not fail.

Table 2-30. Expected Irrigation Efficiencies of Selected Irrigation Systems in California (California SWRCB, 1987)

Irrigation System	Irrigation Efficiency (%)	Percolation Fraction (%)	Runoff Fraction (%)
Conventional Furrow	60	17.5	22.5
Gated Pipe	67.5	14.2	18.3
Shorter Run	70	13.3	16.7
Tail Water Recovery	73.2	21.3	5.5
Hand Move Sprinkler	80	8.75	11.3
Lateral Move Sprinkler	87.5	5.5	7.0
Drip	95	4.0	1.0

Table 2-31. Irrigation Efficiencies of Selected Irrigation Systems for Cotton (California SWRCB, 1991)

System	Year	Seasonal Irrigation (in.)	In-Season Distribution Uniformity (%)	In-Season Irrigation Efficiency (%)	In-Season Deep Percolation (in.)
Drip Irrigation	1989	17.82	87	99	2.43
	1990	19.24	81	82	3.98
LEPA (Low Energy Precision Application)	1989	14.21	92	97	2.88
	1990	23.19	92	78.6	6.13
Improved Furrow	1989	20.89	57.5	36	18.9
	1990	16.35	86.5	75.3	6.15
Conventional Furrow	1989	21.26	59.3	36	19.4
	1990	20.00	74	74	9.85

The U.S. Soil Conservation Service practice number and definition are provided for each management practice, where available. Also included in italics are SCS statements describing the effect each practice has on water quality (USDA-SCS, 1988).

Irrigation Scheduling Practices

Proper irrigation scheduling is a key element in irrigation water management. Irrigation scheduling should be based on knowing the daily water use of the crop, the water-holding capacity of the soil, and the lower limit of soil moisture for each crop and soil, and measuring the amount of water applied to the field. Also, natural precipitation should be considered and adjustments made in the scheduled irrigations.

Practices that may be used to accomplish proper irrigation scheduling are:

a. *Irrigation water management (449): Determining and controlling the rate, amount, and timing of irrigation water in a planned and efficient manner.*

Management of the irrigation system should provide the control needed to minimize losses of water, and yields of sediment and sediment attached and dissolved substances, such as plant nutrients and herbicides, from the system. Poor management may allow the loss of dissolved substances from the irrigation system to surface or ground water. Good management may reduce saline percolation from geologic origins. Returns to the surface water system would increase downstream water temperature.

The purpose is to effectively use available irrigation water supply in managing and controlling the moisture environment of crops to promote the desired crop response, to minimize soil erosion and loss of plant nutrients, to control undesirable water loss, and to protect water quality.

To achieve this purpose the irrigator must have knowledge of (1) how to determine when irrigation water should be applied, based on the rate of water used by crops and on the stages of plant growth; (2) how to measure or estimate the amount of water required for each irrigation, including the leaching needs; (3) the normal time needed for the soil to absorb the required amount of water and how to detect changes in intake rate; (4) how to adjust water stream size, application rate, or irrigation time to compensate for changes in such factors as intake rate or the amount of irrigation runoff from an area; (5) how to recognize erosion caused by irrigation; (6) how to estimate the amount of irrigation runoff from an area; and (7) how to evaluate the uniformity of water application.

Tools to assist in achieving proper irrigation scheduling:

b. Water-measuring device: An irrigation water meter, flume, weir, or other water-measuring device installed in a pipeline or ditch.

The measuring device must be installed between the point of diversion and water distribution system used on the field. The device should provide a means to measure the rate of flow. Total water volume used may then be calculated using rate of flow and time, or read directly, if a totalizing meter is used.

The purpose is to provide the irrigator the rate of flow and/or application of water, and the total amount of water applied to the field with each irrigation.

c. Soil and crop water use data: From soils information the available water-holding capacity of the soil can be determined along with the amount of water that the plant can extract from the soil before additional irrigation is needed.

Water use information for various crops can be obtained from various USDA publications.

The purpose is to allow the water user to estimate the amount of available water remaining in the root zone at any time, thereby indicating when the next irrigation should be scheduled and the amount of water needed. Methods to measure or estimate the soil moisture should be employed, especially for high-value crops or where the water-holding capacity of the soil is low.

Practices for Efficient Irrigation Water Application

Irrigation water should be applied in a manner that ensures efficient use and distribution, minimizes runoff or deep percolation, and eliminates soil erosion.

The method of irrigation employed will vary with the type of crop grown, the topography, and soils. There are several systems that, when properly designed and operated, can be used as follows:

d. Irrigation system, drip or trickle (441): A planned irrigation system in which all necessary facilities are installed for efficiently applying water directly to the root zone of plants by means of applicators

(orifices, emitters, porous tubing, or perforated pipe) operated under low pressure (Figure 2-20). The applicators can be placed on or below the surface of the ground (Figure 2-21).

Surface water quality may not be significantly affected by transported substances because runoff is largely controlled by the system components (practices). Chemical applications may be applied through the system. Reduction of runoff will result in less sediment and chemical losses from the field during irrigation. If excessive, local, deep percolation should occur, a chemical hazard may exist to shallow ground water or to areas where geologic materials provide easy access to the aquifer.

e. Irrigation system, sprinkler (442): A planned irrigation system in which all necessary facilities are installed for efficiently applying water by means of perforated pipes or nozzles operated under pressure.

Proper irrigation management controls runoff and prevents downstream surface water deterioration from sediment and sediment attached substances. Over irrigation through poor management can produce impaired water quality in runoff as well as ground water through increased percolation. Chemigation with this system allows the operator the opportunity to mange nutrients, wastewater and pesticides. For example, nutrients applied in several incremental applications based on the plant needs may reduce ground water contamination considerably, compared to one application during planting. Poor management may cause pollution of surface and ground water. Pesticide drift from chemigation may also be hazardous to vegetation, animals, and surface water resources. Appropriate safety equipment, operation and maintenance of the system is needed with chemigation to prevent accidental environmental pollution or backflows to water sources.

f. Irrigation system, surface and subsurface (443): A planned irrigation system in which all necessary water control structures have been installed for efficient distribution of irrigation water by surface means, such as furrows, borders, contour levees, or contour ditches, or by subsurface means.

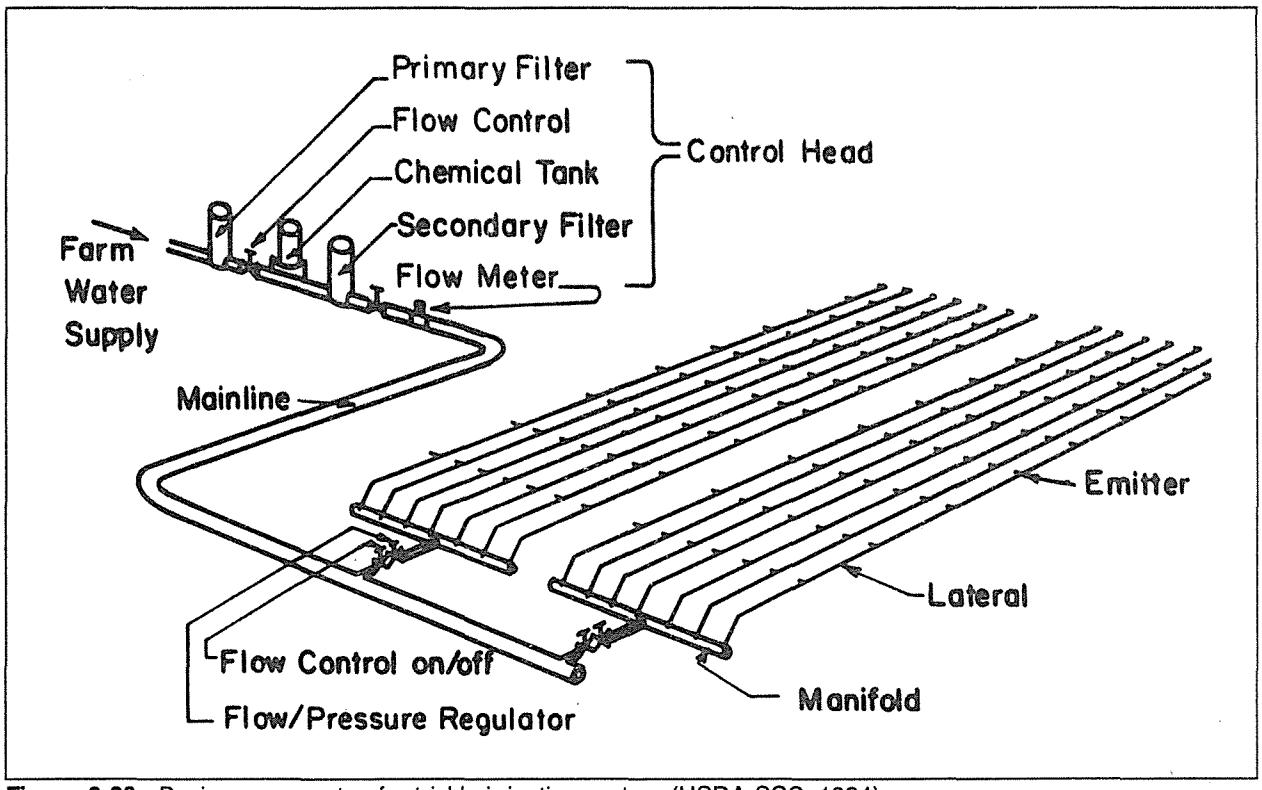

Figure 2-20. Basic components of a trickle irrigation system (USDA-SCS, 1984).

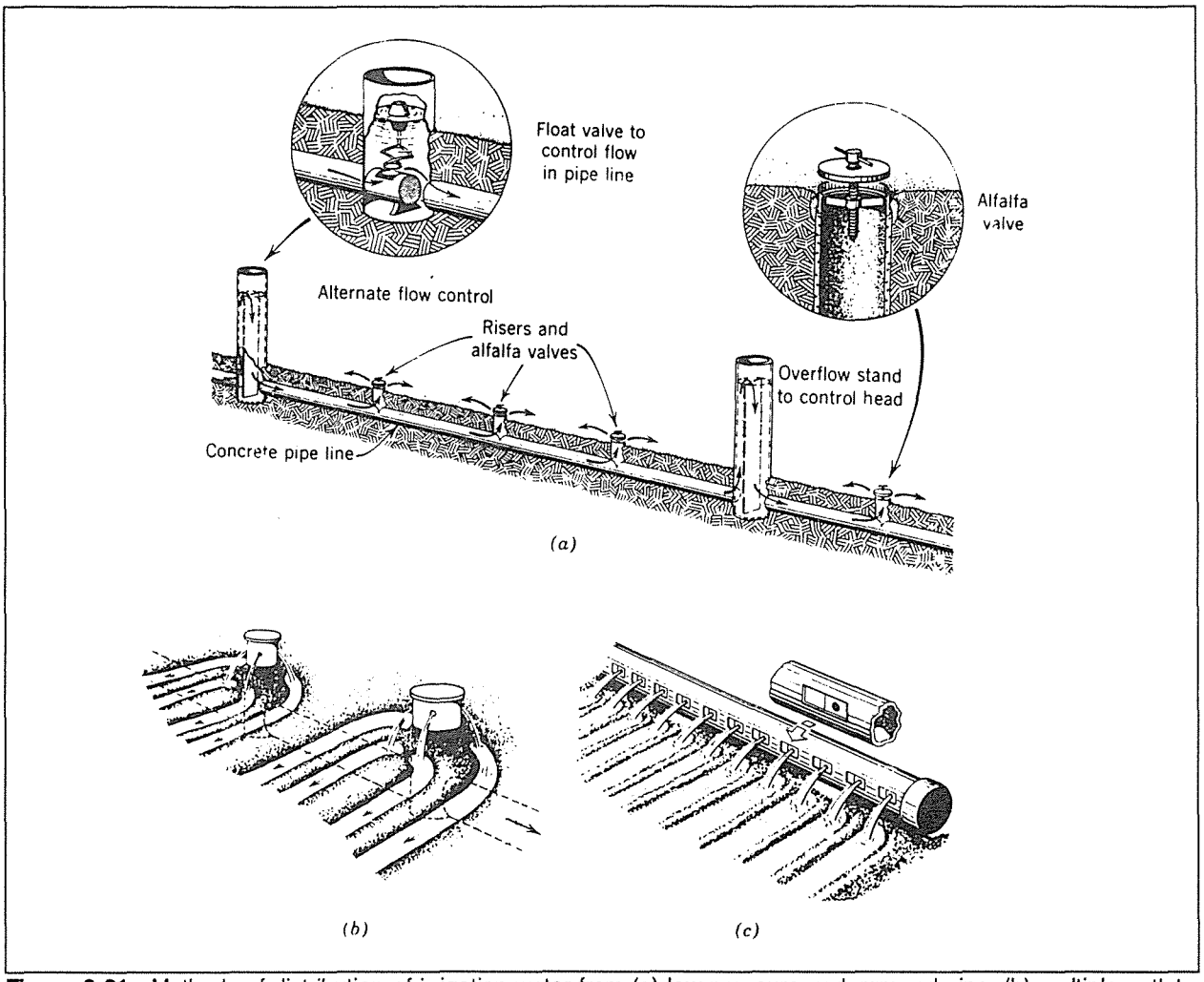

Figure 2-21. Methods of distribution of irrigation water from (a) low-pressure underground pipe, (b) multiple-outlet risers, and (c) portable gated pipe (Schwab et al., 1981).

Operation and management of the irrigation system in a manner which allows little or no runoff may allow small yields of sediment or sediment-attached substances to downstream waters. Pollutants may increase if irrigation water management is not adequate. Ground water quality from mobile, dissolved chemicals may also be a hazard if irrigation water management does not prevent deep percolation. Subsurface irrigation that requires the drainage and removal of excess water from the field may discharge increased amounts of dissolved substances such as nutrients or other salts to surface water. Temperatures of downstream water courses that receive runoff waters may be increased. Temperatures of downstream waters might be decreased with subsurface systems when excess water is being pumped from the field to lower the water table. Downstream temperatures should not be affected by subsurface irrigation during summer months if lowering the water table is not required. Improved aquatic habitat may occur if runoff or seepage occurs from surface systems or from pumping to lower the water table in subsurface systems.

g. *Irrigation field ditch (388): A permanent irrigation ditch constructed to convey water from the source of supply to a field or fields in a farm distribution system.*

The standard for this practice applies to open channels and elevated ditches of 25 ft^3/second or less capacity formed in and with earth materials.

Irrigation field ditches typically carry irrigation water from the source of supplying to a field or fields. Salinity changes may occur in both the soil and water. This will depend on the irrigation water quality, the level of water management, and the geologic materials of the area. The quality of ground and surface water may be altered depending on environmental conditions. Water lost from the irrigation system to downstream runoff may contain dissolved substances, sediment, and sediment-attached substances that may degrade water quality and increase water temperature. This practice may make water available for wildlife, but may not significantly increase habitat.

h. Irrigation land leveling (464): Reshaping the surface of land to be irrigated to planned grades.

The effects of this practice depend on the level of irrigation water management. If plant root zone soil water is properly managed, then quality decreases of surface and ground water may be avoided. Under poor management, ground and surface water quality may deteriorate. Deep percolation and recharge with poor quality water may lower aquifer quality. Land leveling may minimize erosion and when runoff occurs concurrent sediment yield reduction. Poor management may cause an increase in salinity of soil, ground and surface waters. High efficiency surface irrigation is more probable when earth moving elevations are laser controlled.

Practices for Efficient Irrigation Water Transport

Irrigation water transportation systems that move water from the source of supply to the irrigation system should be designed and managed in a manner that minimizes evaporation, seepage, and flow-through water losses from canals and ditches. Delivery and timing need to be flexible enough to meet varying plant water needs throughout the growing season.

Transporting irrigation water from the source of supply to the field irrigation system can be a significant source of water loss and cause of degradation of both surface water and ground water. Losses during transmission include seepage from canals and ditches, evaporation from canals and ditches, and flow-through water.[9] The primary water quality concern is the development of saline seeps below the canals and ditches and the discharge of saline waters. Another water quality concern is the potential for erosion caused by the discharge of flow-through water. Practices that are used to ensure proper transportation of irrigation water from the source of supply to the field irrigation system *can be found in the USDA-SCS Handbook of Practices, and include: irrigation water conveyance, ditch and canal lining (428); irrigation water conveyance, pipeline (430); and structure for water control (587).*

Practices for Utilization of Runoff Water or Tailwater

The utilization of runoff water to provide additional irrigation or to reduce the amount of water diverted increases the efficiency of use of irrigation water. For surface irrigation systems that require runoff or tailwater as part of the design and operation, a tailwater management practice needs to be installed and used. The practice is described as follows:

i. Irrigation system, tailwater recovery (447): A facility to collect, store, and transport irrigation tailwater for reuse in the farm irrigation distribution system.

The reservoir will trap sediment and sediment attached substances from runoff waters. Sediment and chemicals will accumulate in the collection facility by entrapping which would decrease downstream yields of these substances.

[9] Flow-through water is water that is never applied to the land but is needed to maintain hydraulic head in the ditch. Flow-through water is also water transported in excess of delivery requirements, carried to reduce the level of management necessary to adjust flows in the ditch for changed delivery locations and amounts. Typically this water (10 - 35 percent of delivery requirements) is applied to fields as excess flow above the requested or billed amount, or returned to the supply stream as delivery system tailwater. Often credit is given by the regulatory agency for this returned water.

Salts, soluble nutrients, and soluble pesticides will be collected with the runoff and will not be released to surface waters. Recovered irrigation water with high salt and/or metal content will ultimately have to be disposed of in an environmentally safe manner and location. Disposal of these waters should be part of the overall management plan. Although some ground water recharge may occur, little if any pollution hazard is usually expected.

Practices for Drainage Water Management

Drainage water from an irrigation system should be managed to reduce deep percolation, move tailwater to the reuse system, reduce erosion, and help control adverse impacts on surface water and groundwater. A total drainage system should be an integral part of the planning and design of an efficient irrigation system. This may not be necessary for those soils that have sufficient natural drainage abilities.

There are several practices to accomplish this:

j. Filter strip (393): A strip or area of vegetation for removing sediment, organic matter, and other pollutants from runoff and waste water.

Filter strips for sediment and related pollutants meeting minimum requirements may trap the coarser grained sediment. They may not filter out soluble or suspended fine-grained materials. When a storm causes runoff in excess of the design runoff, the filter may be flooded and may cause large loads of pollutants to be released to the surface water. This type of filter requires high maintenance and has a relative short service life and is effective only as long as the flow through the filter is shallow sheet flow.

Filter strips for runoff form concentrated livestock areas may trap organic material, solids, materials which become adsorbed to the vegetation or the soil within the filter. Often they will not filter out soluble materials. This type of filter is often wet and is difficult to maintain.

Filter strips for controlled overland flow treatment of liquid wastes may effectively filter out pollutants. The filter must be properly managed and maintained, including the proper resting time. Filter strips on forest land may trap coarse sediment, timbering debris, and other deleterious material being transported by runoff. This may improve the quality of surface water and has little effect on soluble material in runoff or on the quality of ground water.

All types of filters may reduce erosion on the area on which they are constructed. Filter strips trap solids from the runoff flowing in sheet flow through the filter. Coarse-grained and fibrous materials are filtered more efficiently than fine-grained and soluble substances. Filter strips work for design conditions, but when flooded or overloaded they may release a slug load of pollutants into the surface water.

k. Surface drainage field ditch (607): A graded ditch for collecting excess water in a field.

From erosive fields, this practice may increase the yields of sediment and sediment-attached substances to downstream water courses because of an increase in runoff. In other fields, the location of the ditches may cause a reduction in sheet and rill erosion and ephemeral gully erosion. Drainage of high salinity areas may raise salinity levels temporarily in receiving waters. Areas of soils with high salinity that are drained by the ditches may increase receiving waters. Phosphorus loads, resulting from this practice may increase eutrophication problems in ponded receiving waters. Water temperature changes will probably not be significant. Upland wildlife habitat may be improved or increased although the habitat formed by standing water and wet areas may be decreased.

l. Subsurface drain (606): A conduit, such as corrugated plastic tile, or pipe, installed beneath the ground surface to collect and/or convey drainage water.

Soil water outletted to surface water courses by this practice may be low in concentrations of sediment and sediment-adsorbed substances and that may improve stream water quality. Sometimes the drained soil water is high in the

concentration of nitrates and other dissolved substances and drinking water standards may be exceeded. If drainage water that is high in dissolved substances is able to recharge ground water, the aquifer quality may become impaired. Stream water temperatures may be reduced by water drainage discharge. Aquatic habitat may be altered or enhanced with the increased cooler water temperatures.

m. Water table control (641): Water table control through proper use of subsurface drains, water control structures, and water conveyance facilities for the efficient removal of drainage water and distribution of irrigation water.

The water table control practice reduces runoff, therefore downstream sediment and sediment-attached substances yields will be reduced. When drainage is increased, the dissolved substances in the soil water will be discharged to receiving water and the quality of water reduced. Maintaining a high water table, especially during the nongrowing season, will allow denitrification to occur and reduce the nitrate content of surface and ground by as much as 75 percent. The use of this practice for salinity control can increase the dissolved substance loading of downstream waters while decreasing the salinity of the soil. Installation of this practice may create temporary erosion and sediment yield hazards but the completed practice will lower erosion and sedimentation levels. The effect of the water table control of this practice on downstream wildlife communities may vary with the purpose and management of the water in the system.

n. Controlled drainage (335): Control of surface and subsurface water through use of drainage facilities and water control structures.

The purpose is to conserve water and maintain optimum soil moisture to (1) store and manage infiltrated rainfall for more efficient crop production; (2) improve surface water quality by increasing infiltration, thereby reducing runoff, which may carry sediment and undesirable chemicals; (3) reduce nitrates in the drainage water by enhancing conditions for denitrification; (4) reduce subsidence and wind erosion of organic soils; (5) hold water in channels in forest areas to act as ground fire breaks; and (6) provide water for wildlife and a resting and feeding place for waterfowl.

Practices for Backflow Prevention

o. The American Society of Agricultural Engineers recommends, in standard EP409, safety devices to prevent backflow when injecting liquid chemicals into irrigation systems (ASAE Standards, 1989).

The process of supplying fertilizers, herbicides, insecticides, fungicides, nematicides, and other chemicals through irrigation systems is known as chemigation. A backflow prevention system will "prevent chemical backflow to the water source" in cases when the irrigation pump shuts down (ASAE, 1989).

Three factors an operator must take into account when selecting a backflow prevention system are the characteristics of the chemical that can backflow, the water source, and the geometry of the irrigation system. Areas of concern include whether injected material is toxic and whether there can be backpressure or backsiphonage (ASAE, 1989; USEPA, 1989b).

Several different systems used as backflow preventers are:

(1) **Air gap.** A physical separation in the pipeline resulting in a loss of water pressure. Effective at end of line service where reservoirs or storage tanks are desired.

(2) **Check valve with vacuum relief and low pressure drain.** Primarily used as an antisiphon device (Figure 2-22).

(3) **Double check valve.** Consists of two single check valves coupled within one body and can handle both backsiphonage and backpressure.

(4) **Reduced pressure principle backflow preventer.** This device can be used for both backsiphonage and backpressure. It consists of a pressure differential relief valve located between two independently acting check valves.

(5) **Atmospheric vacuum breaker.** Used mainly in lawn and turf irrigation systems that are connected to potable water supplies. This system cannot be installed where backpressure persists and can be used only to prevent backsiphonage.

6. Cost Information

A cost of $10 per irrigated acre is estimated to cover investments in flow meters, tensiometers, and soil moisture probes (USEPA, 1992; Evans, 1992). Information from North Carolina indicates that the cost of devices to measure soil water ranges from $3 to $4,500 (Table 2-32). Gypsum blocks and tensiometers are the two most commonly used devices.

For quarter-section center pivot systems, backflow prevention devices cost about $416 per well (Stolzenburg, 1992). This cost (1992 dollars) is for (1) an 8-inch, 2-foot-long unit with a check valve inside ($386) and (2) a one-way injection point valve ($30). Assuming that each well will provide about 800-1,000 gallons per minute, approximately 130 acres will be served by each well. The cost for backflow prevention for center pivot systems then becomes approximately $3.20 per acre. In South Dakota, the cost for an 8-inch standard check valve is about $300, while an 8-inch check valve with inspection points and vacuum release costs about $800 (Goodman, 1992). The latter are required by State law. For quarter-section center pivot systems, the cost for standard check valves ranges from about $1.88 per acre (corners irrigated, covering 160 acres) to $2.31 per acre (circular pattern, covering about 130 acres).

Tailwater can be prevented in sprinkler irrigation systems through effective irrigation scheduling, but may need to be managed in furrow systems. The reuse of tailwater downslope on adjacent fields is a low-cost alternative to tailwater recovery and upslope reuse (Boyle Engineering Corp., 1986). Tailwater recovery systems require a suitable

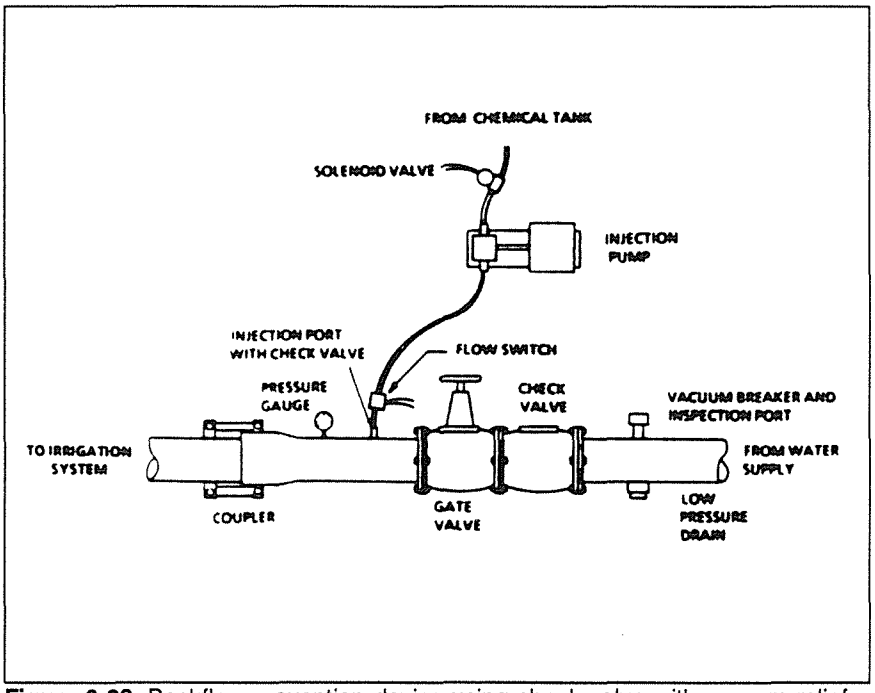

Figure 2-22. Backflow prevention device using check valve with vacuum relief and low pressure drain (ASAE, 1989).

Table 2-32. Cost of Soil Water Measuring Devices

Device	Approximate Cost
Flow meters[a]	$35 to $300, depending on size
Tensiometers[a]	$35 and up, depending on size
Gypsum blocks[a]	$3-4, $200-400 for meter
Neutron Probe[a]	$4,000-4,500
Phene Cell[a]	$4,000-4,500
Flow meters, tensiometers, and soil moisture probes[b]	$10 per irrigated acre

[a] Sneed, 1992.
[b] Evans, 1992.

drainage water receiving facility such as a sump or a holding pond, and a pump and pipelines to return the tailwater for reapplication (Boyle Engineering Corp., 1986). The cost to install a tailwater recovery system was about $125/acre in California (California State Water Resources Control Board, 1987) and $97.00/acre in the Long Pine Creek, Nebraska, RCWP (Hermsmeyer, 1991).

The cost to install irrigation water conservation systems (ASCS practice WC4) for the primary purpose of water conservation in the 33 States that used the practice was about $86.00 per acre served in 1991 (USDA-ASCS, 1992b). Practice WC4 increased the average irrigation system efficiency from 48 percent to 64 percent at an amortized cost of $9.47 per acre foot of water conserved. The components of practice WC4 are critical area planting, canal or lateral, structure for water control, field ditch, sediment basin, grassed waterway or outlet, land leveling, water conveyance ditch and canal lining, water conveyance pipeline, trickle (drip) system, sprinkler system, surface and subsurface system, tailwater recovery, land smoothing, pit or regulation reservoir, subsurface drainage for salinity, and toxic salt reduction. When installed for the primary purpose of water quality, the average installation cost for WC4 was about $52 per acre served. For erosion control, practice WC4 averaged approximately $57 per acre served. Specific cost data for each component of WC4 are not available.

Water management systems for pollution control, practice SP35, cost about $26 per acre served when installed for the primary purpose of water quality (USDA-ASCS, 1992b). When installed for erosion control, SP35 costs about $19 per acre served. The components of SP35 are grass and legumes in rotation, underground outlets, land smoothing, structures for water control, subsurface drains, field ditches, mains or laterals, and toxic salt reduction.

The design lifetimes for a range of salt load reduction measures are presented in Table 2-33 (USDA-ASCS, 1988).

Table 2-33. Design Lifetime for Selected Salt Load Reduction Measures (USDA-ASCS, 1988)

Practice/Structure	Design Life (years)
Irrigation Land Leveling	10
Irrigation Pipelines - Aluminum Pipe	20
Irrigation Pipelines - Rigid Gated Pipe	15
Irrigation Canal and Ditch Lining	20
Irrigation Field Ditches	1
Water Control Structure	20
Trickle Irrigation System	10
Sprinkler Irrigation System	15
Surface Irrigation System	15
Irrigation Pit or Regulation Reservoir	20
Subsurface Drain	20
Toxic Salt Reduction	1
Irrigation Tailwater Recovery System	20
Irrigation Water Management	1
Underground Outlet	20
Pump Plant for Water Control	15

III. GLOSSARY

10-year, 24-hour storm: A rainfall event of 24-hour duration and 10-year frequency that is used to calculate the runoff volume and peak discharge rate to a BMP.

25-year, 24-hour storm: A rainfall event of 24-hour duration and 25-year frequency that is used to calculate the runoff volume and peak discharge rate to a BMP.

Acceptable Management System (AMS): A combination of conservation practices and management that meets resource quality criteria established in the FOTG by the State Conservationist that is feasible within the social, cultural, or economic constraints identified for the resource conditions. It is expected that some degradation may continue to occur for the resource after the AMS is applied (Part 506, Glossary, SCS General Manual).

Adsorption: The adhesion of one substance to the surface of another.

Agronomic practices: Soil and crop activities employed in the production of farm crops, such as selecting seed, seedbed preparation, fertilizing, liming, manuring, seeding, cultivation, harvesting, curing, crop sequence, crop rotations, cover crops, strip-cropping, pasture development, and others (Soil Conservation Society of America, 1982).

Aquifer: A geologic formation or structure that transmits water in sufficient quantity to supply the needs for a water development; usually saturated sands, gravel, fractures, and cavernous and vesicular rock (Soil Conservation Society of America, 1982).

ASCS: Agricultural Stabilization and Conservation Service of USDA.

Animal unit: A unit of measurement for any animal feeding operation calculated by adding the following numbers: the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 25 kilograms (approximately 55 pounds) multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0 (40 CFR Part 122, Appendix B).

AUM: Animal unit month. A measure of average monthly stocking rate that is the tenure of one animal unit for a period of 1 month. With respect to the literature reviewed for the grazing management measure, an animal unit is a mature, 1,000-pound cow or the equivalent based on average daily forage consumption of 26 pounds of dry matter per day (Platts, 1990). Alternatively, an AUM is the amount of forage that is required to maintain a mature, 1,000-pound cow or the equivalent for a one-month period. See *animal unit* for the NPDES definition.

Backflow prevention device: A safety device used to prevent water pollution or contamination by preventing flow of water and/or chemicals in the opposite direction of that intended (ASAE, 1989).

Best Management Practice (BMP): A practice or combination of practices that are determined to be the most effective and practicable (including technological, economic, and institutional considerations) means of controlling point and nonpoint pollutants at levels compatible with environmental quality goals (Soil Conservation Society of America, 1982).

Broiler: Bird that is raised for its meat production; usually produced in a 7-week period.

Center pivot: Automated sprinkler irrigation achieved by automatically rotating the sprinkler pipe or boom, supplying water to the sprinkler head or nozzle, as a radius from the center of the field to be irrigated (Soil Conservation Society of America, 1982).

Chemigation: The addition of one or more chemicals to the irrigation water.

Chemigated water: Water to which fertilizers or pesticides have been added.

Check valve: A device to provide positive closure that effectively prohibits the flow of material in the opposite direction of normal flow when operation of the irrigation system pumping plant or injection unit fails or is shut down (ASAE, 1989).

Composting: A controlled process of degrading organic matter by microorganisms (Soil Conservation Society of America, 1982).

Conservation management system (CMS): A generic term that includes any combination of conservation practices and management that achieves a level of treatment of the five natural resources that satisfies criteria contained in the Field Office Training Guide (FOTG), such as a resource management system or an acceptable management system (Part 506, Glossary, SCS General Manual).

Cover crop: A close-growing crop grown primarily for the purpose of protecting and improving soil between periods of regular crop production or between trees and vines in orchards and vineyards (Soil Conservation Society of America, 1982).

Crop residue: The portion of a plant or crop left in the field after harvest (Soil Conservation Society of America, 1982).

Crop rotation: The growing of different crops in recurring succession on the same land (Soil Conservation Society of America, 1982).

Defoliant: A herbicide that removes leaves from trees and growing plants (USEPA, 1989a).

Denitrification: The chemical or biochemical reduction of nitrate or nitrite to gaseous nitrogen, either as molecular nitrogen or as an oxide of nitrogen (Soil Conservation Society of America, 1982).

Deposition: The accumulation of material dropped because of a slackening movement of the transporting material—water or wind (Soil Conservation Society of America, 1982).

Desiccant: A chemical agent used to remove moisture from a material or object (Soil Conservation Society of America, 1982).

Dike: An embankment to confine or control water, especially one built along the banks of a river to prevent overflow of lowlands; a levee (Soil Conservation Society of America, 1982).

Diversion: A channel, embankment, or other man-made structure constructed to divert water from one area to another (Soil Conservation Society of America, 1982).

Effluent: Solid, liquid, or gaseous wastes that enter the environment as a by-product of man-oriented processes (Soil Conservation Society of America, 1982).

Empirical: Originating in or relying or based on factual information, observation, or direct sense experience.

EPA: United States Environmental Protection Agency.

Erosion: Wearing away of the land surface by running water, glaciers, winds, and waves. The term erosion is usually preceded by a definitive term denoting the type or source of erosion such as gully erosion, sheet erosion, or bank erosion (Brakensiek et al., 1979).

ES: Extension Service of USDA.

Evaporation: The process by which a liquid is changed to a vapor or gas (Soil Conservation Society of America, 1982).

Fallow: Allowing cropland to lie idle, either tilled or untilled, during the whole or greater portion of the growing season (Soil Conservation Society of America, 1982).

Fertilizer: Any organic or inorganic material of natural or synthetic origin that is added to a soil to supply elements essential to plant growth (Soil Conservation Society of America, 1982).

Field capacity: The soil-water content after the force of gravity has drained or removed all the water it can, usually 1 to 3 days after rainfall (Evans et al., 1991c).

Flume: An open conduit on a prepared grade, trestle, or bridge for the purpose of carrying water across creeks, gullies, ravines, or other obstructions; also used in reference to calibrated devices used to measure the flow of water in open conduits (Soil Conservation Society of America, 1982).

Forb: A broad-leaf herbaceous plant that is not a grass, sedge, or rush.

FOTG: USDA-SCS's Field Office Technical Guide.

Grade: (1) The slope of a road, channel, or natural ground. (2) To finish the surface of a canal bed, roadbed, top of embankment, or bottom of excavation (Soil Conservation Society of America).

Grazing unit: An area of public or private pasture, range, grazed woodland, or other land that is grazed as an entity.

Herbaceous: A vascular plant that does not develop woody tissue (Soil Conservation Society of America, 1982).

Herbicide: A chemical substance designed to kill or inhibit the growth of plants, especially weeds (Soil Conservation Society of America, 1982).

Herding: The guiding of a livestock herd to desired areas or density of distribution.

Holding pond: A reservoir, pit, or pond, usually made of earth, used to retain polluted runoff water for disposal on land (Soil Conservation Society of America, 1982).

Hybrid: A plant resulting from a cross between parents of different species, subspecies, or cultivar (Soil Conservation Society of America, 1982).

Hydrophyte: A plant that grows in water or in wet or saturated soils (Soil Conservation Society of America, 1982).

Incineration: The controlled process by which solids, liquid, or gaseous combustible wastes are burned and changed into gases; the residue produced contains little or no combustible material (Soil Conservation Society of America, 1982).

Inert: A substance that does not react with other substances under ordinary conditions.

Infiltration: The penetration of water through the ground surface into subsurface soil or the penetration of water from the soil into sewer or other pipes through defective joints, connections, or manhole walls (USEPA, 1989a).

Insecticide: A pesticide compound specifically used to kill or control the growth of insects (USEPA, 1989a).

Integrated Pest Management (IPM): A pest population management system that anticipates and prevents pests from reaching damaging levels by using all suitable tactics including natural enemies, pest-resistant plants, cultural

management, and the judicious use of pesticides, leading to an economically sound and environmentally safe agriculture.

Irrigation: Application of water to lands for agricultural purposes (Soil Conservation Society of America, 1982).

Irrigation scheduling: The time and amount of irrigation water to be applied to an area.

Karst: A type of topography characterized by closed depressions, sinkholes, underground caverns, and solution channels. See *sinkhole* (Soil Conservation Society of America, 1982).

Lagoon: A reservoir or pond built to contain water and animal wastes until they can be decomposed either by aerobic or anaerobic action (Soil Conservation Society of America, 1982).

Lateral: Secondary or side channel, ditch, or conduit (Soil Conservation Society of America, 1982).

Layer: Bird that is used to produce eggs for broilers, new layers, or consumption.

Leachate: Liquids that have percolated through a soil and that contain substances in solution or suspension (Soil Conservation Society of America, 1982).

Leaching: The removal from the soil in solution of the more soluble materials by percolating waters (Soil Conservation Society of America, 1982).

Legume: A member of a large family that includes many valuable food and forage species, such as peas, beans, peanuts, clovers, alfalfas, sweet clovers, lespedezas, vetches, and kudzu (Soil Conservation Society of America, 1982).

Levee: See *dike*.

Limiting nutrient concept: The application of nutrient sources such that no nutrient (e.g., N, P, K) is applied at greater than the recommended rate.

Livestock: Domestic animals.

Load: The quantity (i.e., mass) of a material that enters a waterbody over a given time interval (Soil Conservation Society of America, 1982).

Manure: The fecal and urinary defecations of livestock and poultry; may include spilled feed, bedding litter, or soil (Soil Conservation Society of America, 1982).

Micronutrient: A chemical element necessary in only extremely small amounts (less than 1 part per million) for the growth of plants (Soil Conservation Society of America, 1982).

NOAA: United States Department of Commerce, National Oceanic and Atmospheric Administration.

Nutrients: Elements, or compounds, essential as raw materials for organism growth and development, such as carbon, nitrogen, phosphorus, etc. (Soil Conservation Society of America, 1982).

Parasites: An organism that lives on or in a host organism during all or part of its existence. Nourishment is obtained at the expense of the host (Soil Conservation Society of America, 1982).

Pasture: Grazing lands planted primarily to introduced or domesticated native forage species that receives periodic renovation and/or cultural treatments such as tillage, fertilization, mowing, weed control, and irrigation. Not in rotation with crops.

Percolation: The downward movement of water through the soil (Soil Conservation Society of America, 1982).

Perennial plant: A plant that has a life span of 3 or more years (Soil Conservation Society of America, 1982).

Permanent wilting point: The soil water content at which healthy plants can no longer extract water from the soil at a rate fast enough to recover from wilting. The permanent wilting point is considered the lower limit of plant-available water (Evans et al., 1991c).

Permeability: The quality of a soil horizon that enables water or air to move through it; may be limited by the presence of one nearly impermeable horizon even though the others are permeable (Soil Conservation Society of America, 1982).

Pesticide: Any chemical agent used for control of plant or animal pests. Pesticides include insecticides, herbicides, fungicides, nematocides, and rodenticides.

Pheromone: A substance secreted by an insect or an animal that influences the behavior or morphological development, or both, of other insects or animals of the same species (Soil Conservation Society of America, 1982).

Plant-available water: The amount of water held in the soil that is available to plants; the difference between field capacity and the permanent wilting point (Evans et al., 1991c).

Pollutant: Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water (Section 502(6) of The Clean Water Act as amended by the Water Quality Act of 1987, Pub. L. 100-4).

Range: Land on which the native vegetation (climax or natural potential) is predominantly grasses, grass-like plants, forbs, or shrubs. Includes lands revegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing. Range includes natural grasslands, savannas, shrublands, most deserts, tundra, alpine communities, coastal marshes, wet meadows, and riparian areas.

Reduced-till: A system in which the primary tillage operation is performed in conjunction with special planting procedures to reduce or eliminate secondary tillage operations (Soil Conservation Society of America, 1982).

Residue: See *crop residue.*

Resource Management System (RMS): A combination of conservation practices and management identified by land or water uses that, when installed, will prevent resource degradation and permit sustained use by meeting criteria established in the FOTG for treatment of soil, water, air, plant, and animal resources (Part 506, Glossary, SCS General Manual).

Return flow: That portion of the water diverted from a stream that finds its way back to the stream channel either as surface or underground flow (Soil Conservation Society of America, 1982).

Riparian area: Vegetated ecosystems along a waterbody through which energy, materials, and water pass. Riparian areas characteristically have a high water table and are subject to periodic flooding and influence from the adjacent waterbody.

Root zone: The part of the soil that is, or can be, penetrated by plant roots (Soil Conservation Society of America, 1982).

Runoff: That part of precipitation, snow melt, or irrigation water that runs off the land into streams or other surface water. It can carry pollutants from the air and land into the receiving waters (USEPA, 1989a).

Salinity: The concentration of dissolved solids or salt in water (Soil Conservation Society of America, 1982).

Savannas: A grassland with scattered trees, either as individuals or clumps; often a transitional type between true grasslands and woodland.

SCS: Soil Conservation Service of USDA.

SCS Soils-5 Information: SCS Soil Interpretation Records data base, which contains a wide variety of soil characteristics and interpretations. Available through the Statistical Laboratory, Iowa State University, Ames, Iowa.

Sediment: The product of erosion processes; the solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice (USDA-SCS, 1991).

Sedimentation: The process or act of depositing sediment (Soil Conservation Society of America, 1982).

Seepage: Water escaping through or emerging from the ground along an extensive line or surface as contrasted with a spring, where the water emerges from a localized spot (Soil Conservation Society of America, 1982).

Settleable solids: Solids in a liquid that can be removed by stilling a liquid. Settling times of 1 hour (APHA/AWWA/WPFC, 1975) or more are generally used (Soil Conservation Society of America, 1982).

Sheet flow: Water, usually storm runoff, flowing in a thin layer over the ground surface (Soil Conservation Society of America, 1982).

Silage: A fodder crop that has been preserved in a moist, succulent condition by partial fermentation; such crops include corn, sorghums, legumes, and grasses (Soil Conservation Society of America, 1982).

Sinkhole: A depression in the earth's surface caused by dissolving of underlying limestone, salt, or gypsum; drainage is through underground channels; may be enlarged by collapse of a cavern roof (Soil Conservation Society of America, 1982).

Slope: The degree of deviation of a surface from horizontal, measured as a percentage, as a numerical ratio, or in degrees (Soil Conservation Society of America, 1982).

Sludge: The material resulting from chemical treatment of water, coagulation, or sedimentation (Soil Conservation Society of America, 1982).

Soil profile: A vertical section of the soil from the surface through all its horizons, including C horizons (Soil Conservation Society of America, 1982).

Soil survey: A general term for the systematic examination of soils in the field and in laboratories; their description and classification; the mapping of kinds of soil; the interpretation of soils according to their adaptability for various crops, grasses, and trees; their behavior under use or treatment for plant production or for other purposes; and their productivity under different management systems (Soil Conservation Society of America, 1982).

Soil water depletion volume: The amount of plant-available water removed from the soil by plants and evaporation from the soil surface (Evans et al., 1991c).

Surface water: All water whose surface is exposed to the atmosphere (Soil Conservation Society of America, 1982).

Suspended sediment: The very fine soil particles that remain in suspension in water for a considerable period of time (Soil Conservation Society of America, 1982).

Tailwater: Irrigation water that reaches the lower end of a field (Soil Conservation Society of America, 1982).

Tillage: The operation of implements through the soil to prepare seedbeds and rootbeds, control weeds and brush, aerate the soil, and cause faster breakdown of organic matter and minerals to release plant foods (Soil Conservation Society of America, 1982).

Tilth: The physical condition of the soil as related to its ease of tillage, its fitness as a seedbed, and its impedance to seedling emergence and root penetration (Soil Conservation Society of America, 1982).

Topography: The relative positions and elevations of the natural or man-made features of an area that describe the configuration of its surface (Soil Conservation Society of America, 1982).

USDA: United States Department of Agriculture.

Waste: Material that has no original value or no value for the ordinary or main purpose of manufacture or use; damaged or defective articles of manufacture; or superfluous or rejected matter or refuse (Soil Conservation Society of America, 1982).

Watershed: A drainage area or basin in which all land and water areas drain or flow toward a central collector such as a stream, river, or lake at a lower elevation.

Water table: The upper surface of the ground water or that level below which the soil is saturated with water; locus of points in soil water at which the hydraulic pressure is equal to atmospheric pressure (Soil Conservation Society of America, 1982).

Weir: Device for measuring or regulating the flow of water (Soil Conservation Society of America, 1982).

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Appendix 2A

SCS Field Office Technical Guide Policy

United States
Department of
Agriculture

Soil
Conservation
Service

P.O. Box 2890
Washington, D.C.
20013

February 12, 1990

GENERAL MANUAL
450-TCH
AMENDMENT - 4 (PART 401)

SUBJECT: TCH - SCS TECHNICAL GUIDE POLICY

Purpose. To transmit revised Soil Conservation Service (SCS) Field Office Technical Guide (FOTG) policy.

Effective Date. This policy is effective when received.

Background. SCS Field Office Technical Guide policy was revised by 450-GM, Amendment 3, February 1987. As a result of numerous comments received on that policy, the National Technical Guide Committee (NTGC) prepared a draft revision for review by selected states and by technical guide committees at the National Technical Centers. Amendment 4 is the result of comments on the draft.

Explanation. Policy transmitted by this amendment contains guidance by which FOTG are established, changed and maintained. Following are the more important changes from Amendment 3:

1. State and NTC responsibilities in Section 401.01 for maintaining up-to-date information in technical guides have been amplified.

2. The descriptions of the six resource concerns in Section 401.03(b)(3)(iii) have been replaced with descriptions of the five resources: soil, water, air, plants, and animals.

3. Criteria for treatment required to achieve an RMS for each of the five resources have been clearly stated in Section 401.03(b)(iv).

4. The process for developing criteria for treatment required to achieve an Acceptable Management System (AMS), a new concept, has been stated in section 401.03(b)(3)(v).

5. Explanation of the content of the National Handbook for Conservation Practices (NHCP) in Subpart B has been revised to remove redundant statements and clearly states responsibilities for changes in NHCP and for issuance and review of interim standards.

6. Section V of the FOTG, described in section 401.03(b)(5), has been totally revised and is now named "Conservation Effects." Guidance on effects is provided to aid in conservation planning activities.

DIST: GM

Filing Instructions:

1. Remove and discard existing GM 450, Part 401, dated February 1987. (Amendment 3)

2. Replace with the enclosed GM 450, Part 401, dated January 1990.

Directives Cancelled:

1. Remove and discard National Instruction No. 450-301, dated October 5, 1979.

WILSON SCALING
Chief

Enclosures

PART 401 - TECHNICAL GUIDES

SUBPART A - POLICY AND RESPONSIBILITIES

401.00(d)(5)

401.00 General.

(a) This part states policy for establishing, changing, and maintaining technical guides. It also establishes supporting committees for maintaining those guides.

(b) The Soil Conservation Service (SCS) is responsible for providing national leadership and administration of programs to conserve soil, water, and related resources on the private lands of the Nation. A primary goal is to provide technical assistance to decision-makers for the planning and implementation of a system of conservation practices and management which achieves a level of natural resource protection that prevents degradation and permits sustainable use. In cases where degradation has already occurred, the goal is to restore the resource to the degree practical to permit sustainable use. Technical guides provide procedures and criteria for the formulation and evaluation of resource management systems which achieve these goals and, when needed, for the formulation and evaluation of acceptable management systems which achieve these goals to the extent feasible.

(c) Technical guides are primary technical references for SCS. They contain technical information about conservation of soil, water, air, and related plant and animal resources. Technical guides used in any office are to be localized so that they apply specifically to the geographic area for which they are prepared. These documents are referred to as Field Office Technical Guides (FOTGs). Appropriate parts of FOTG will be systematically automated as data bases, computer programs, and other electronic-based materials compatible with the Computer Assisted Management and Planning System (CAMPS) are developed.

(d) Technical guides provide:

(1) Soil interpretations and potential productivity within alternative levels of management intensity and conservation treatment;

(2) Technical information for achieving SCS's and the decisionmaker's objectives;

(3) Information for interdisciplinary planning for the conservation of soil, water, and related resources;

(4) A basis for identifying resource management system (RMS) options and, when needed, acceptable management system (AMS) options and components thereof;

(5) Information on effects of resource management systems, acceptable management

systems, and their component practices;

(6) Criteria to evaluate the quality of RMS options, AMS options, and components thereof;

(7) Standards and specifications for conservation practices;

(8) Information for evaluating the economic feasibility of conservation practices and resource management system options;

(9) Information for locating and identifying cultural resources and methods to account for their significance; and

(10) Technical material for training employees.

401.01 Responsibilities.

(a) National Headquarters (NHQ).

(1) The Deputy Chief for Technology has national leadership for policy and procedures for developing and using the FOTG.

(2) The Director, Ecological Sciences Division (ECS), chairs the National Technical Guide Committee (NTGC).

(3) The NTGC makes recommendations to the Deputy Chief for Technology regarding technical guide policy and procedure.

(b) National Technical Centers (NTCs).

(1) NTC directors are responsible for establishing a Technical Guide Committee (TGC) at each NTC.

(2) The TGC provides guidance to states in developing FOTGs.

(3) NTC directors establish procedures to coordinate NTC technical review and concurrence of state developed material that affect either policy or technical aspects in all sections of the FOTG.

(4) The TGC coordinates NTC technical review and concurrence of state developed material as described in (3). The NTC director will inform the state conservationist (STC) of NTC action and comments.

(5) The TGC refers proposed changes in the National Handbook of Conservation Practices (NHCP) to NTGC for action.

(6) NTC provide states with examples of guidance documents for RMS and AMS options, displays of conservation effects, and guidance documents developed to meet specific program requirements. NTC has primary technical oversight.

(7) NTC directors are responsible for coordination and consistency among NTC regions.

(c) State offices.

(1) The state conservationist (STC) is responsible for the development, quality, coordination, use, and maintenance of FOTG in his/her state.

(2) The STC will:

(i) Coordinate FOTG contents across state lines where Major Land Resource Areas are shared to achieve reasonable uniformity between and among states;

(ii) Request appropriate assistance from the NTC director to prepare, revise, and maintain the FOTG and to correlate FOTG contents with adjoining states;

(iii) Submit to the NTC for review and concurrence all state developed materials that affect either policy or technical aspects in all FOTG sections prior to issuance;

(iv) Propose interim standards, variances, or changes in national standards to the NTC director for action;

(v) Establish a state TGC and appoint membership;

(vi) Establish criteria for RMS and AMS with concurrence by the NTC; and

(vii) Establish procedures for maintaining up-to-date data in FOTG. All FOTG material is to be reviewed by the designated state discipline specialist at least once every two years. Material is to be updated as necessary to maintain technical adequacy. Each technical guide subsection described in section 401.03(b) is to contain a table of contents showing the issue date and the date of the last review.

(d) Area offices.

(1) The area conservationist (AC) will:

(i) Coordinate the development, use, and maintenance of FOTG in the field offices supervised;

401.01(d)(l)(ii)

(ii) Work with the specialists in the state offices to achieve high-quality FOTG; and

(iii) Establish an area-level TGC if necessary.

(e) **Field offices.**

(1) District conservationists (DC) will:

(i) Take the lead to develop and assemble the FOTG;

(ii) Use and maintain the FOTG in the office(s) they supervise;

(iii) Ensure that all field office technical assistance is based on FOTG contents;

(iv) Identify needed changes and/or additions; and

(v) Request specialist help to make improvements.

(2) All field office employees are responsible for identifying the need for improvements and for informing the DC of those needs.

401.02 National Technical Guide Committee (NTGC).

(a) **Membership. The members of the NTGC are:**

(1) Director, Ecological Sciences Division (chairperson);
(2) Director, Engineering Division;
(3) Director, Economics and Social Sciences Division;
(4) Director, Soil Survey Division;
(5) Director, Land Treatment Program Division;
(6) Director, Conservation Planning Division;
(7) Director, Watershed Projects Division;
(8) Director, Basin and Area Planning Division;
(9) Director of an NTC (on a 1-year rotation);
(10) Executive Secretary (appointed by the chairperson); and
(11) Chair of National Conservation Practice Standards Subcommittee (NCPSS) (appointed by the NTGC chairperson).
(12) A representative from the Extension Service will be invited to participate in all NTGC meetings.

(b) **Responsibilities.**

(1) Keep national FOTG policy and procedures current by recommending policy changes to the Deputy Chief for Technology.

(2) Respond to requests for FOTG policy and procedure clarification.
(3) Designate members of the National Conservation Practice Standards Subcommittee.
(4) Act upon recommendations from NCPSS.
(5) Coordinate policy and procedures established to automate FOTG contents and functions in SCS operations.
(6) Create ad hoc subcommittees as necessary.
(7) Receive and act upon requests, recommendations, referrals, and suggestions from the NTC TGC.

(c) NTGC operation.

(1) NTGC will meet quarterly and otherwise as convened by the chairperson.
(2) Materials for consideration by the NTGC will be sent to the chairperson.
(3) Minutes of each meeting will be sent to each member, the Deputy Chiefs for Technology and Programs, and NTC directors.
(4) Matters requiring action will be acted upon within 45 days of receipt.

401.03 Content of technical guides.

(a) Technical guides contain Sections I through V and appropriate subsections. Those sections are:

(1) Section I - General Resource References;

(2) Section II - Soil and Site Information;

(3) Section III - Conservation Management Systems;

(4) Section IV - Practice Standards and Specifications; and

(5) Section V - Conservation Effects.

(b) The following are descriptions of technical guide sections and subsections:

(1) Section I - General Resource References.

This section lists references and other information for use in understanding the field office working area or in making decisions about resource use and management systems. The actual references listed are to be filed to the extent possible in the same location as the FOTG. References kept in other locations will be cross-referenced. The following are subsections of Section I of the FOTG.

(i) Reference lists. These include handbooks, manuals, and reports commonly used in resource conservation planning and implementation activities such as irrigation and drainage guides; the *National List of Scientific Plant Names* (NLSPN); the *National Register of*

Historic Places; published soil surveys; basic water resources information on ground water quality, surface water quality, and water quantity; recreation potential appraisals; natural resource inventories; reports that identify such items as areas susceptible to flooding; river basin reports; seismic zones; and documentation of useful computer models.

(ii) **Cost data.** General reference data on costs, such as cost lists for practice components.

(iii) **Maps.** The SCS National Planning Manual (NPM), Part 507, Exhibits 507.09, contains a list of resource maps that should be included. Water quality problem areas and areas with a potential water quality problem are to be included here.

(iv) **Erosion prediction.** Guidance, data, and SCS approved techniques for predicting soil erosion are to be included here, or appropriately referenced.

(v) **Climatic data.** This subsection contains local climatic data needed for planning conservation management systems and installing conservation practices, such as record low and high temperatures; averages for such items as rainfall, length of growing season, temperatures, wind velocities, hail incidence, and snowfall; water supply data; probability of receiving selected amounts of precipitation by months; and frost-free periods. References should be made to other climatic data in other field office documents.

(vi) **Cultural (archaeological and historic) resource information.** This subsection contains general locational data and documentation suitable for inventory, checking and recording, and conservation planning. The law states that specific locational information, such as site maps, is not to be available to the general public; therefore they should only be referenced in this subsection.

(vii) **Threatened and endangered species list.** This subsection contains information on species of plants and animals that are threatened and endangered and are to be accounted for in conservation planning.

(viii) **Laws.** List of state and local laws, ordinances, or regulations that impact Conservation Management System development and other technical applications such as conservation practice application.

(2) Section II - Soil and Site Information.

Information from the State Soil Survey Database (3SD) will be used as the basis of this section. The 3SD contains current information on soils and their basic interpretations as tailored from the Soil Interpretations Records (SCS-SOI-5). Detailed interpretations of soils will be provided in Section II by state and area specialists.

Interpretations are specific to the soils identified and mapped in the area. Map units to which the

interpretations apply are clearly identified by name, symbol(s), or both. New map unit names and symbols resulting from reclassification of soils are cross-referenced to old names and symbols and shown on a list.

Soils are to be described and interpreted to help make decisions about use and management of land. Soil characteristics that limit or affect land use and management are to be identified, and soils are to be rated according to limitations, capability, suitability, and/or potential.

This information may be available in published soil surveys or in the State Soil Survey Database (3SD). A copy of the appropriate sections of soil surveys can be included in the applicable subsections, or reference can be made to the source document maintained in the field office.

The following are subsections of Section II of the FOTG.

(i) **Soils legend.** This list includes the names of the soil map units and, for each unit, the identification of interpretive groups (if any) of importance in the field office. For map units having two or more soils in their name, interpretive groups are identified for each soil. Where appropriate, the map unit is placed in a group that generally controls the use and management of the area.

If soil surveys of more than one vintage are used, the symbols used in each are to be identified along with appropriate interpretive groups. For remapped areas, only the legend for the most recent mapping is to be used.

(ii) **Soil descriptions.**

(A) **Nontechnical** soil descriptions for use with individuals, groups, and units of government are included. Brief references to major limitations e.g., erosion or wetness, and soil potential are a part of each description. Basic information needed to develop these descriptions is in the soil map unit descriptions and in the State Soil Survey Database (3SD).

(B) **Technical** descriptions of each soil series and of each soil map unit are provided in this section or available in the field office. If such descriptions are maintained as separate material, the source document should be listed here as a reference.

(iii) **Detailed soil interpretations.** These will be supplied by appropriate technical specialists for all land uses in the field office area. Examples follow:

(A) **Cropland interpretations.** These include soil interpretive information needed for plant adaptations, yield estimates, and the lists of soil map units that meet the soil requirements for prime farmland and highly erodible land. Interpretations are presented by land capability units, erodibility index, and soil map units in narrative or tabular form as appropriate. Where land capability unit or erodibility index is used, a list of all soil map units in each capability unit or erodibility index is included.

(B) **Rangeland, grazed forest land, and native pasture interpretations.** The required content of range and native pasture interpretive groupings is outlined in the National Range Handbook. All soils used as rangeland are to be placed in appropriate range sites. Range site descriptions and condition guides for rangeland are included. Grazed forest land and native pasture groupings include references to individual soils, grazing groups, or woodland suitability groups. Interpretations may be presented by individual soil map units or by groups of soil map units.

(C) **Forest land interpretations.** These are presented by individual soils or by woodland suitability groups (WSG). These interpretations include the woodland class symbol that denotes potential productivity for the indicator species in wood per cubic meters per hectare. Site index and annual productivity estimates in cubic feet per acre, board feet per acre, and/or cords per acre may also be provided for important tree species. The subclass indicates the primary soil or physiographic characteristic that contributes to important hazards or limitations in management. Site index information is also provided for important tree species.

(D) **Nonagricultural interpretations.** Nonagricultural uses include commercial development, subdivision development, industrial related development, roads and other transportation and transmission systems, and other land uses important to the area.

(E) **Recreation interpretations.** These include the ratings of soils for recreation uses.

(F) **Wildlife interpretations.** These are presented by wildlife habitat elements with descriptions of each element.

(G) **Pastureland and hayland interpretations.** These are arranged by pastureland and hayland suitability groups, capability units, other groupings, or soil map units.

(H) **Mined land interpretations.** These include interpretations which dictate the limitation to reclamation, revegetation, and maintenance for the different types of mined land.

(I) **Windbreak interpretations.** These interpretations are made by individual soils or by windbreak suitability groups (WISG). Interpretations provided by the WISG include the soil-adapted species recommended, the predicted height growth in 20 years, and the soil-related limitations.

(J) **Engineering interpretations.** These include engineering properties, indices, and soil interpretations for engineering uses and practices.

(K) **Waste disposal interpretations.** These are interpretations related to the suitability of soils for disposal of organic and inorganic wastes.

(L) **Water quality and quantity interpretations.** These are interpretations related to soil properties affecting water quantity and quality problems and treatments. Included are soil-pesticide interactive ratings and soil ratings for nitrates and soluble nutrients.

(M) **Hydric soils interpretations.** These are interpretations related to the identification and use of wetlands.

(3) Section III - Conservation Management Systems.

The function of SCS is to provide technical assistance to decisionmakers to protect, maintain, and improve soil, water, air, and related plant and animal resources. This section provides guidance for developing resource management systems (RMS) and acceptable management systems (AMS) for a resource area to prevent or treat problems and take advantage of opportunities associated with these resources. This section includes a description of considerations important in conservation planning of soil, water, air, and related plant and animal resources.

(i) **An RMS achieves the goal of preventing resource degradation and permitting sustainable use as stated in 401.00 (b).** An RMS is achieved if criteria for soil, water, air, and related plant and animal resources are met as defined in Section 401.03(b)(3)(iv). This section describes either national criteria or considerations that must be addressed in developing state criteria for achieving an RMS that solve identified onsite and offsite resource problems using best available technology. The concept and use of RMS is defined in the SCS National Planning Manual (NPM). RMS are not to be confused with "conservation systems," as defined in 7 CFR Section 12.2 for treatment of highly erodible land. A conservation system for Food Security Act purposes is an erosion reduction component of an RMS for cropland.

(ii) **SCS helps decisionmakers plan and apply conservation management systems to prevent and/or solve identified onsite and offsite resource problems or conditions and to achieve the decisionmaker's and public objectives.** SCS identifies and documents decisionmaker's objectives, consistent with land capability and sound environmental principles, as part of element 3 (Determining objectives) of the planning process (reference: National Planning Manual). SCS identifies and documents resource problems or conditions as part of element 4 (Providing resource inventory data) of the planning process. As part of element 6 (Developing and evaluating conservation alternatives), information on conservation effects is used to provide suitable options for addressing the decisionmaker's and public objectives.

(iii) **The five resources are soil, water, air, plants, and animals.** Each resource has several considerations important in conservation planning. Additional considerations in a specific state may need to be added to account for wide variations in soils, climate, or topography. A description of the main considerations for each resource follows:

(A) **Soil.** Considerations for the soil resource are erosion, condition, and deposition.

[1] **Erosion.** This consideration deals with one or more of the following types or locations of erosion: sheet and rill, wind, concentrated flow (ephemeral gully and classic gully), streambank, soil mass movement (land slips or slides), road bank, construction site, and irrigation-induced. All of these forms of erosion that are identified on the site to be planned need to be dealt with in developing treatment options.

[2] **Condition.** This consideration deals with the chemical and physical characteristics of soil as related to its ease of tillage, fitness as a seedbed, and ability to absorb, store, and release water and nutrients for plants. Aspects of this consideration will improve soil tilth, which reduces soil crusting and compacting; optimize water infiltration; optimize soil organic material; enhance beneficial soil organisms and biological activity; reduce subsidence; and minimize effects of excess natural and applied chemicals and elements such as salt, selenium, boron, and heavy metals. This consideration also deals with the proper and safe land application and utilization of animal wastes, other organics, nutrients, and pesticides.

[3] **Deposition.** This consideration deals with onsite or offsite deposition of products of erosion, which includes sediment causing damages to land, crops, and property, such as structures and machinery. This consideration also deals with safety hazards and decreased long-term productivity.

(B) **Water.** Considerations for the water resource are quantity and quality.

[1] **Quantity includes:**
- proper disposal of water from overland flows or seeps, both natural and man-made;
- management of water accumulations on soil surfaces or in soil profiles and vadose zones;
- optimization of irrigation and precipitation water use;
- dealing with other problems relating to irrigation — water mounding, water supply and distribution, increasing or decreasing water tables;
- management of deep percolation, runoff, and evaporation;
- water storage;
- management of water for wetland protection; and
- sediment deposition in lakes, ponds, streams and reservoirs, and restricted water conveyance capacity.

[2] **Quality includes:**
- reducing the effects of salinity and sodicity;
- minimizing deep percolation of contaminated water which will lead to unacceptable levels of pollutants in the underlying ground water;
- maintaining acceptable water quality;
- minimizing offsite effects including ground water contamination by pesticides, nutrients, salts, organics, metals and other inorganics, and pathogens; contamination of surface water (streams and lakes) by sediment, pesticides, nutrients, salts, organics, metals and other inorganics; pathogens; fecal coliform; and high temperature;
- reducing the quantity of sediment;
- improving the quality of sediment;
- ensuring that all waters will be free from substances attributable to man-caused nonpoint source discharges in concentrations that:
  - *settle to form objectionable deposits;
  - *float as debris, scum, oil or other matter to form nuisances;

*produce objectionable color, odor, taste, or turbidity;

*injure, are toxic to, or produce adverse physiological or behavior responses in humans, animals, or plants; or

*produce undesirable aquatic life or result in the dominance of nuisance species.

(C) **Air.** This resource deals with onsite and offsite airborne effects of undesirable odors, windblown particulates, chemical drift, temperature, and wind.

(D) **Plants.** The considerations for the plant resource are suitability, condition, and management.

[1] **Suitability includes:**
- plant adaptation to site; and
- plant suitability for intended use.

[2] **Condition includes:**
- productivity, kinds, amounts, and distribution of plants; and
- health and vigor of plants.

[3] **Management includes:**
- establishment, growth, and harvest (including grazing) of plants;
- agricultural chemical management (pesticides and nutrients); and
- pest management (brush, weeds, insects, and diseases).

(E) **Animals.** This includes wild and domestic animals, both terrestrial and aquatic. The considerations for the animal resource are habitat and management.

[1] **Habitat includes:**
- food;
- cover or shelter; and
- water.

[2] **Management includes:**
- population and resource balance; and
- animal health.

(iv) **Criteria for treatment required to achieve an RMS will be established by SCS.** They are to be stated in either qualitative or quantitative terms for each resource consideration. Where national criteria have not been established, the state conservationist will establish criteria with concurrence by the NTC. Where state and/or local regulations establish more restrictive criteria, these must be used in developing criteria for state and local programs. For example, some state and/or local regulations have established criteria for offsite control of water quality.

(A) **Soil.** Following are the criteria for this resource:

401.03(b)(3)(iv)(A)[1]

[1] Erosion.

• Estimated sheet and rill or wind erosion rates are reduced to the level that long term soil degradation is prevented and a high level of crop productivity can be sustained economically and indefinitely.

• Erosion from ephemeral or similar gullies is reduced to a level which permits efficient farming operations and sustains long term productivity.

• Irrigation-induced erosion is reduced to a level that sustains long term productivity.

• Other forms of erosion, such as classic gullies, streambank, roadbank, and landslides, that are identified as needing treatment (and are within the ability of the decisionmaker to treat), are reduced to the degree necessary to protect the resources or threatened man-made improvements.

[2] Condition.

• Soil tilth is maintained or improved;

• Crop production practices return adequate residue within the rotation cycle;

• Soil compaction by machinery, livestock, or other traffic is minimized:

• Water infiltration is optimized so as not to increase sheet and rill erosion;

• Wind forces and soil blowing are controlled below the crop tolerance level of young seedlings;

• Toxic chemicals affecting soil and plants are controlled to levels sufficient to prevent soil degradation and are below the tolerance of adapted crops;

• Application and utilization of animal wastes and other organics are at a rate that the soil, soil microbes and bacteria, and the plant community can assimilate, degrade, or retain the various materials.

[3] Deposition.

• Where existing or potential onsite or offsite deposition problem(s) are identified, the practices applied to the contributing land resolve the identified deposition problem(s).

• State and/or local governments may establish criteria in response to identified deposition problems. These criteria will be used to determine the adequacy of an RMS with regard to offsite effects. This may require the establishment of more

restrictive criteria for one or more of the resources to alleviate the problem. Local public perception of an acceptable level could be used where no standards have been established.

• When disposal of animal wastes and other organics is needed, it shall be done in a manner that maintains or enhances the natural resources.

(B) **Water.** In developing criteria for this resource, the state conservationist is to address:

[1] Quantity.

• Overland flows and subsurface water conveyed by conservation practices are safely conducted and disposed of through acceptable outlets.

• Water system discharges going from one ownership to another ownership are not changed from natural flow pathways unless needed land and/or water rights have been obtained consistent with local, state, and Federal regulations.

• Water quality aspects associated with outlets are accounted for.

• Appropriate water storage requirements are in accordance with the needs of the planned use.

• Drainage activities are consistent with SCS policy regarding wetland protection.

• For irrigated land, a minimum percentage level of efficiency is achieved or exceeded for each type of irrigation system and management, as stated in the SCS state irrigation guide.

• For land under supplemental irrigation where adequate water supplies exist, or for land under partial irrigation because of water deficiency or lack of seasonal availability or frequency of availability of water, water is applied in the most effective manner, so that the infiltration rate of the soil, the plant needs, and the soil water-holding capacity are not exceeded.

• Vegetation, cropping sequences, and cultural operations are managed for efficient use of precipitation by minimizing water losses to runoff and evaporation, thereby inducing positive effects on the plant-soil moisture relationship, on ground water recharge, and on water yield downstream.

[2] Quality.

• Sediment movement is controlled to minimize contamination of receiving waters.

• Percolation below the root zone is managed to minimize contamination of the percolating water and to minimize the negative effects on production.

• Water used for salt leaching and plant temperature modification is applied to minimize adverse effects.

• Acceptable water temperature is maintained.

• Irrigation water and natural precipitation are managed to minimize the movement of nutrients, pesticides, sediment, salts, and animal wastes to offsite surface and ground water.

• Water-based uses, such as aquaculture enterprises and water-based recreation facilities maintain or improve environmental quality.

• Where surface or ground water nutrient and/or pesticide problems or potential problems exist, the selection of appropriate nutrients or pesticides and the timing, chemical forms, and rate and method of application reduce adverse effects. The use of pesticides and nutrients with high potential for polluting water are avoided where site limitations, such as slope, depth to ground water, soil, and material in the vadose zone or aquifer could allow that potential to be realized. Soil-pesticide interactive ratings to identify potential problem situations from surface runoff and/or leaching are used according to FOTG guidelines. Alternative practices or other pest control methods (mechanical, cultural, or biological) or integrated methods are recommended where site limitations exist that increase the probability of degrading water supplies, either below the surface or downstream.

• Agricultural chemical containers and chemicals (including waste oil, fuel, and detergents) are used, handled, and disposed of in compliance with Federal, state, and local laws.

(C) **Air.** Criteria established by the state conservationist are to address the following onsite and offsite considerations:

• Airborne particulates from agricultural sources do not cause safety, health, machinery, vehicular, or structure problems.

• Local and state regulations are followed in minimizing undesirable odors from agricultural sources.

• Air movement and temperatures are modified when necessary using appropriate vegetative or mechanical means.

• Chemical drift from the application of agricultural chemicals is controlled by adherence to local and state application recommendations and product labels.

(D) Plants. Criteria established by the state conservationist are to address the following considerations:

- Plants on all land uses are used, maintained and improved to achieve acceptable production levels to meet conservation, environmental, decisionmaker, and public objectives.

- Nutrient applications for any land use are based on plant nutrient requirements, production requirements, soil test recommendations, soil fertility, soil potential limitations, water budget, and the types of practices planned. Nutrients from all sources (animal waste, crop residue, soil residual, commercial fertilizer, atmospheric-fixed) are considered when calculating the amount of nutrients to apply. Timing, method, and rate of application, and chemical forms of nutrients to be applied are taken into consideration in planning practices.

- Pesticide applications for any land use are applied according to the label recommendation and federal, state, and local regulations.

- On Cropland, crops are grown in a planned sequence that meets conservation, production, and decisionmaker objectives; and weeds, insects, other pests, and diseases are adequately treated.

- On Hayland, dominant native or introduced plant species are appropriate for the forage, agronomic, or commercial use; well adapted to the site; and their stand density is maintained or improved.

- On Native Pasture, herbaceous plants are properly grazed, forage value rating is medium or better, vigor is strong and is commensurate with overstory canopy.

- On Pastureland, dominant plant species are appropriate for the use, adapted to the site, and their stand density is adequate and productivity is maintained or improved.

- On Rangeland, the plant community is managed to meet the needs of the plants and animals in a manner to conserve the natural resources and meet the objectives of the decisionmaker. As a general rule, rangeland in poor or fair ecological range condition is managed for an upward range trend, and rangeland in good or excellent ecological range condition will be managed for a static or upward range trend. In some special situations, poor or fair ecological range condition could be managed for a static range trend to meet special objectives of the decisionmaker as long as there is no degradation of the soil resource.

- On Forest Land, trees are well distributed, vigorous, relatively free of insects, disease, and other damage, and the density of the stand is within 25% of forest stand density guide spacing on a stems-per-acre basis for the particular forest types. Forest Land shall be protected from wildfires and erosion. Forest Land that is grazed shall

also be managed to meet the needs of the forage plants, the animals, and the objectives of the decisionmaker.

• On Wildlife Land, Recreation Land, and Other Land, adapted or native plants are of sufficient quantity and quality to improve or protect the defined resource.

• On Urban Land uses, soil cover is maintained using suitable plants or other cover to keep soil erosion within acceptable limits, minimize runoff, and manage infiltration.

(E) Animals. Criteria established by the state conservationist are to address the following considerations:

• The adaptation, kinds, amounts, distribution, health, and vigor of livestock and wildlife are appropriate for the site.

• Adequate quality, quantity and distribution of food are provided for the species of concern.

• Adequate quantity, quality and distribution of wildlife cover for the species of concern are provided. Domestic animals are provided adequate shelter as needed.

• Adequate quantity, quality and distribution of water are provided for the species of concern.

• The decisionmaker's enterprise and the balance between forage production and livestock needs are appropriate.

• Domestic livestock are managed in a manner that meets the needs of the ecosystem, the animal, and that accomplishes the goals and objectives of the decisionmaker.

• Animal wastes and other organic wastes are managed according to an animal waste management plan developed according to SCS standards. Minimum quality criteria are met when the animal waste management plan is applied. Where surface and ground water problems exist from organic waste, bacteria, pathogens, microorganisms, or nutrients, special design considerations for each component will be necessary to eliminate further contamination of runoff or leachates.

(v) **An AMS will be established for a resource area in the event that social, cultural, or economic characteristics of the area prevent the feasible achievement of an RMS.** An AMS is achieved when soil, water, air, and related plant and animal criteria for the related resource use are established at the level which is achievable in view of the social, cultural, and economic characteristics of the resource area involved.

(A) Social, cultural, and economic considerations are used to establish the level of natural resource protection obtainable and may constrain the resource criteria used in formulating an

RMS. Criteria for treatment required to achieve an AMS will be established by SCS. They are to be stated in either qualitative or quantitative terms for each resource consideration. The state conservationist will establish criteria with concurrence by the NTC. Some of these criteria are prescribed by law or statute; e.g., the National Historic Preservation Act. Others are developed through an onsite assessment of social, cultural, and economic factors which define the reasonable and practical degree to which the resource criteria can be achieved. Where regional, state and/or local regulations establish more restrictive criteria, these must be used.

(B) The following criteria are applied to determine the practical limits of resource protection within a resource area and temper the resource criteria to be used in the formulation of an AMS.

(1) Social
- Public health is maintained or improved.
- Treatment level is compatible with community characteristics.
- Treatment level is compatible with clientele characteristics.

(2) Cultural
- Protection of cultural resources is consistent with GM 420, Part 401.

(3) Economic
- Treatment level reflects the ability to pay that is representative of the area.
- Inputs required for conservation treatment are readily available.
- Conservation treatment is consistent with government program participation.

(vi) **Additional considerations useful in the planning process to screen or select suitable conservation treatments for individual decisionmakers may include legal, social, cultural, economic, aesthetic, management, and other factors.** These are integral to the planning process and are discussed in the National Planning Manual and are displayed in Section V.

(vii) **Applications of RMS and AMS Criteria**

(A) Several factors may affect the actual level or degree of treatment achieved at a point in time or that is required to be achieved by the decisionmaker. Without legal constraints, the differing cultural, social or economic situation of a decisionmaker usually determines the degree of treatment planned or attained at any point in time. Where an RMS or AMS is not attainable during the present planning effort, the progressive planning approach in NPM 501.04 (d) may be used to ultimately achieve planning and application of an RMS or AMS. Progressive planning is the incremental process of building a plan on part or all of the planning unit consistent with the decisionmaker's ability to make decisions over a period of time. The progression on individual planning units is always toward the planning and implementation of an RMS.

(B) Legislated programs usually have varying authorities and qualifying criteria that may require more or less treatment than RMS or AMS criteria. An example is legislated practices for improving water quality. In this case, the related program manual will establish the criteria to be achieved. These applications must be coordinated across county and state lines and should be for the period of time specified in the law or in the related policies and procedures.

(C) The opportunity for establishing an RMS to achieve the non-degradation and sustainable use goal should be evaluated when ownership, land use, or cropping system changes, or when new technology becomes available.

(D) Decisionmakers may desire to plan treatment in addition to that required to meet RMS or AMS criteria to enhance resource conditions or to serve secondary or tertiary uses or objectives. This additional treatment may include conservation practices or management that contribute to further improvement of water quality; increased production, drainage, or irrigation; enhancement of cultural and environmental values, wildlife habitat, or aesthetics; or improved health and safety.

(viii) RMS, AMS, or other guidance documents will be developed by major land use in the field office area and placed in Section III of each FOTG.

(A) Only enough guidance documents to show examples of the RMS and AMS options to treat the most common identified resource problems for each locally applicable major land use will be developed. NTC will provide specific examples of format for guidance to states in the preparation of guidance documents. Guidance documents are to be developed by states for each FOTG using the NTC format. Guidance documents are to have concurrence of the NTC. NTC directors are to coordinate formats across NTC boundaries.

(B) Guidance documents will present a reasonable number of alternative combinations of practices and management that will meet the criteria for solving resource problems common to that land use.

(C) In developing guidance documents, the effects that alternative practices and combinations of practices and management have on the five resources and on the social, economic, and cultural considerations are to be used. For each guidance document developed, a display of effects of the conservation system should be included in Section V. Guidance on the development and display of effects is provided in Section 401.03(b)(5).

(D) Guidance documents may need to be developed to meet specific program requirements, in which case they are to be clearly labeled to show the program(s) or provision(s) of law to which they apply. These guidance documents may describe management actions in addition to conservation practices that can be carried out to achieve these program purposes.

(ix) Conservation practices are to be installed according to SCS practice standards and specifications. Practice standards and specifications are the same for both RMS and AMS.

(4) Section IV - Practice Standards and Specifications

(i) This section of FOTG contains conservation practice standards and specifications.

(ii) The first item of Section IV is an alphabetical list of conservation practices used by the field office, followed by the practice standards and specifications in the same order. This list will include the date of preparation or revision of each standard, supplement, specification, and interim standard in effect. This list will also show the date of the last review. This list will be revised and reissued each time a change is made in a conservation practice standard, supplement, or specification. See section 401.01(c)(2)(vii).

(iii) Practice standards establish the minimum level of acceptable quality for planning, designing, installing, operating, and maintaining conservation practices. Standards from the National Handbook of Conservation Practices (NHCP) and interim standards are to be used, and will be supplemented by states as needed.

(iv) Practice specifications describe requirements necessary to install a conservation practice so that it functions properly. For most practices in the NHCP, it is necessary to prepare state specifications to fit local soil and climatic conditions. Specifications include some or all of the following: major elements of work to be done; kind, quality, and quantity of materials to be used; essential details of installation; and other technical instructions necessary for installing and maintaining the practice.

(v) See **Part 401 - Subpart B** for policy and procedural details for standards and specifications.

(5) Section V - Conservation Effects

(i) The purpose of this section is twofold:

(A) The first purpose is to provide a repository of data on the effects of conservation activities. Such data are an important part of technical reference material used by SCS and decisionmakers in planning conservation actions. SCS determines the effects of conservation treatments in order to help formulate and facilitate the identification of suitable conservation management systems to protect the resource base and to address the decisionmaker's and society's social, cultural, and economic objectives. The concept of using conservation effects in the decisionmaking process (CED) is elaborated in the National Planning Manual.

(B) The second purpose of this section is to serve as a source of appropriate procedures and methods for collecting, analyzing, and displaying conservation effects data.

(ii) Conservation effects information will typically include the resource setting (i.e., soil, slope, etc.), the specific conservation treatments applied, the kinds, amounts, and timing of actions undertaken by decisionmakers in their operations, and the expected outcome in terms of solving resource problems and meeting social, cultural, and economic objectives.

401.03(b)(5)(ii)(A)

(A) Effects of conservation may be expressed in either narrative or quantitative terms that represent factual data on experienced or expected results of the specified conservation treatment as applied to the resource setting. Effects of conservation will normally be expressed as a condition or stage of the factors associated with a specified conservation action. For example, typical effects could be: a corn yield of 110 bushels per acre; a USLE erosion rate of 4 tons per acre; irrigation efficiency of 60%; or "a significant reduction in ephemeral gully erosion will occur with this treatment." "Impacts" is a closely related term. An impact is a measure of the change between the stage or condition of one treatment alternative to another. Guidance on the use of effects information in the conservation planning process is contained in the National Planning Manual.

(B) To the extent possible, conservation effects information will include conservation treatments on the five resources and their considerations as described in Section III above.

[1] Examples of effects of conservation treatment on the five resources include but are not limited to:

• Expected effect on sheet and rill, wind, or ephemeral gully erosion.

• Indicators or measures of soil conditions, such as tilth, compaction, and infiltration.

• Where applicable, indicators of soil deposition.

• Measures or indicators of effects on quality and quantity of surface or subsurface waters, such as chemical runoff as influenced by the conservation system.

• Effects on plant conditions and management, such as expected status of range conditions with the indicated range conservation actions.

• Measures of conservation effects on wild and domestic animals, including animal waste uses and effects on the resource base.

• Indicators of effects on air, such as airborne particulates, odors, and chemical drift.

[2] Effects information will also include management, social, cultural, and economic information. Factors such as cost, client acceptability, and physical changes to cultural resource sites associated with the specific conservation treatment component are to be identified. Included, for example, would be:

• Tillage requirements, labor inputs, quantity and costs of inputs, net economic returns, experienced yields, risk management requirements, operation and maintenance requirements, time requirements, cultural resources (archaeological and historic properties), length of life of practices, health and safety, aesthetics, and community effects.

(C) Information developed on conservation effects will vary significantly in scope and detail depending on the resource conditions in the local area as well as upon the needs for technical reference materials to carry out conservation activities in that location.

(iii) Section V of the FOTG should contain summaries of effects data relevant to the field office area. As a minimum, Section V should contain a display of the important effects for decisionmaking for each of the RMS and AMS developed and inserted in Section III. The display should be cross referenced with cropping system, soil map units, and other descriptions of the resource setting and conditions (e.g., precipitation, slope, etc.) that the RMS or AMS was formulated to address in that field office. The format of the display should be easily understandable so as to make the information valuable as ready reference material for the conservation planner and decisionmaker to facilitate planning and decisionmaking. The display will show the degree of resource protection achieved.

(A) Options may be evaluated by simply comparing the differences in the effects of the options.

(B) NTC will provide specific examples of format guidance to states for recording and displaying conservation effects data.

(C) Collection of data on conservation effects is a long term effort to be undertaken as part of the followup element in the planning process. Initial efforts may provide effect information for only the most common situations. Over time, additional resource situations and treatment alternatives will be examined to add depth and breadth to the available conservation effect information.

(D) Information on conservation effects may be refined or updated over time as needed in the local area. The data on conservation effects should be useful to field office personnel in identifying suitable conservation treatment applicable to the area, and serves as technical reference materials when working with decisionmakers in the conservation planning process. (See National Planning Manual Section 508.01).

(iv) Data on conservation effects may be developed by following two general approaches:

(A) The observation and documentation of the experiences of cooperators. Typically, conservationists will make observations of conservation treatments applied by one or more decisionmakers in the first or second year following the application and record the effects experienced. This data can be recorded in conservation field notes and be entered into CAMPS databases. Effects information may also be available from conservation field trials, university research plots, or other trials in the area.

(B) Models of processes impacted by conservation actions can be used to simulate the physical, agronomic, or other effects of treatment systems. Actual results or graphs summarizing results could be developed by state staffs and provided to field offices for inclusion in FOTG. Appropriate models or references to the appropriate models may be stored in FOTG Section V to facilitate use in collecting and analyzing conservation effects data.

401.03(b)(5)(v)

(v) Data relating effects of conservation practices on the five resources may be displayed in tabular, narrative, or matrix form. This will be useful in developing RMS or AMS for inclusion in FOTG Section III.

SUBPART B — NATIONAL HANDBOOK OF CONSERVATION PRACTICES

401.10 Purpose.

This subpart sets forth SCS policy for establishing and maintaining a National Handbook of Conservation Practices (NHCP). It also includes directions for variances, changes, interim standards, and adaptations of standards to state and local conditions.

401.11 Content.

(a) The NHCP establishes a national standard for each conservation practice, including:

(1) The official name, definition, code identity, and unit of measurement for the practice;

(2) A concise statement of the scope, purposes (including secondary purposes), conditions where the practice applies, and planning considerations for the practice; and

(3) Criteria for the practice.

(b) For some conservation practices, the NHCP also establishes items for inclusion in state-developed specifications.

(c) The NHCP contains an index of national standards, including:

(1) The practice name and unit.

(2) The SCS technical discipline leader responsible for each practice.

(3) The date of the current standard.

(4) The code number of the standard.

401.12 National Conservation Practice Standards Subcommittee (NCPSS) of National Technical Guide Committee (NTGC).

The National Conservation Practice Standards Subcommittee (NCPSS) of NTGC coordinates and updates the NHCP. The NTGC designates subcommittee members and acts on recommendations from NCPSS.

401.13 Practice standards and specifications.

(a) Practice standards establish the minimum level of acceptable quality of planning, designing, installing, operating and maintaining conservation practices.

(1) NHCP standards are to be used directly within a state, or state supplements can be added as necessary. Because of wide variations in soils, climate, and topography, state conservationists may need to add special provisions or provide more detail in the standards. State laws and local ordinances or regulations may dictate more stringent criteria.

(2) The official practice name, definition, code identity, and unit of measurement are established nationally and are not to be changed. Generally, the statement of scope, purpose, and conditions where a practice applies can be used directly.

(b) Practice specifications establish the technical details and workmanship for the various operations required to install the practice and the quality and extent of the materials to be used.

(1) Specifications enumerate items that apply when adapting the standard to site specific locations, such as considerations of site preparation and protection; instructions for use of materials described in the standard; or guidance for performing installation operations not directly addressed in the standard. Statements in the specifications are not to conflict with the requirements of the standard.

(2) Items to be included in state-developed specifications for a limited number of conservation practices are contained in the NHCP. Specifications for practices are to be developed by states or NTCs and are to consider the wide variations in soils, climate, and topography present in the various states. State developed specifications must be approved by the appropriate discipline specialist and the state conservationist. Specifications are to meet the requirements of state laws and local ordinances or regulations.

(c) National Technical Centers (NTCs) review and concur in supplements to NHCP standards and specifications prepared by a state for use within that state to ensure conformance with NHCP and consistency among states.

401.14 Variances.

Only the directors of the Engineering and/or Ecological Sciences Divisions can approve variances from requirements stated in the NHCP except that approval authority for variations in channel stability requirements has been delegated to the heads of engineering staffs at the NTC (see NEM 210 Section 501.32). Any other request for a variance is to be submitted to the NTGC and is to include recommendations of the appropriate NTC Director. The NTGC will refer the request to the appropriate division for action. Variances, when granted, are for a specific period of time or until the practice standard to which they pertain is revised, whichever is shorter. Variances will include any requirements for monitoring, evaluation, and reporting needed to determine whether or not changes in practice standards are necessary.

401.15 Changes in the National Handbook of Conservation Practices (NHCP).

(a) The NTGC will consider and recommend proposed changes in the NHCP to the Deputy Chief for Technology. Changes will be made by numbered handbook notices issued by the Deputy Chief for Technology.

(b) Each NHCP standard is to be formally reviewed by the NCPSS at least once every five years from the date of issuance or revision to determine if the standard is needed and up-to-date. If revisions are needed, the revised standard will establish the current minimum level of acceptable quality for planning, designing, installing, operating, and maintaining conservation practices.

(c) The NTC reviews all state proposed changes to NHCP and sends recommendations for approval or disapproval to NTGC. Review and approval of technical content of proposed changes is to be made by the Director, Engineering Division, or the Director, Ecological Sciences Division. Review and approval of format with respect to inclusion of items listed in Section 401.11 are to be performed by NTGC.

401.16 Interim standards.

(a) Interim standards are prepared by states or NTC to address problems for which there is no existing standard.

(b) Interim standards are to be approved by the NTC Director.

(c) Interim standards are to be issued for a period not to exceed 3 years. The NTC director can extend the period for further evaluation at the end of this period, and after an analysis of practice performance using the interim standard.

(d) Interim standards will be evaluated by NTC Technical Guide Committees at the end of the 3-year period and, if appropriate, recommendations made to the NTGC for inclusion in the National Handbook of Conservation Practices.

(e) The notice of approval of each interim standard will provide instructions to states regarding evaluation of practice performance.

(f) NTC directors are to send information copies of all interim standards and evaluation reports to NTGC.

Appendix 2B

List of References for Nonpoint Source Database - Pennsylvania State University

Articles Entered into NPSDB Listed in Order by SAN

Current as of 05/27/92

SAN	Applic. Class	First Authors	Article Title
2	Confined Livestock	Dickey, E.C.	Performance and Design of Vegetable Filters for Feedlot Runoff Treatment, Livestock Waste, A Renewable Resource
3	Confined Livestock		Livestock in Confinement - Section 10.0
10	Confined Livestock Manure Spreading	Westerman, P.W., et al.	Swine Manure and Lagoon Effluent Applied to a Temperate Forage Mixture: II Rainfall Runoff and Soil Chemical Properties, Journal of Environmental Quality, Vol. 16, No. 2, 1987
13	Conf. Livstk Manure Spreading.	Quisenberry, V.L., et al.	Management Aspects of Applying Poultry or Dairy Manures to Grassland in the Piedmant Region, Livestock Waste, A Renewable Resource
15	Manure Spreading	Doyle, R.C., et al	Effectiveness of Forest Buffer Strip in Improving the Water Quality of Manure Polluted Runoff
16	Manure Spreading	Mueller, D.H., et al.	Phosphorus Losses as Affected by Tillage and Manure Application, Soil Science Society Journal, Vol. 48, 1984
21	Manure Spreading	Gerhart, James M.,	Ground Water Recharge and Its Effects on Nitrate Concentration Beneath a Manured Field Site in Pennsylvania, Ground Water, Vol. 24, No. 4, 1986
22	Manure Spreading	Hubbard, R.K., et al.	Surface Runoff and Shallow Ground Water Quality as Affects by Center Pivot Applied Dairy Cattle Wastes, Transactions of the ASAE, 1987
23	Manure Spreading	Watters, S.P.	Water Quality Impacts on Animal Waste Application in a Northeastern Oklahoma Watershed
25	Manure Spreading	Clausen, John C.	Water Quality Achievable with Agricultural Best Management Practices, Journal of Soil and Water Conservation, 1989
26	Manure Spreading	Deiyman, Marcia M., Saied Mostaghimi	A Model for Evaluating the Impact of Land Application of Organic Wastes on Runoff Water Quality, Research Journal of the Water Pollution Control Federation, 1991
30	Cropland Erosion	Naderman, George C.	Surface Water Management for Crop Production on Highly Erodible Land
32	Cropland Erosion		Impact of Land Treatment on the Restoration of Skinner Lake Noble County Indiana

34	Cropland Erosion	McGregor, K.C., et al.	Effects of Tillage with Different Crop Residues on Runoff and Soil Loss
36	Cropland Erosion	Spomer, R.G. (duplicate)	Concentrated Flow Erosion on Conventional and Conservation Tilled Watershed
41	Cropland Erosion	Smith, S.J.	Water Quality Impacts Associated with Wheat Culture in the Southern Plains Journal of Environmental Quality, Vol. 20, No. 1, 1991
42	Cropland Erosion	Rayavian, Daryoush	Hydrologic Responses of an Agricultural Watershed to Various Hydrologic and Management Conditions
45	Cropland Erosion	Baldwin, P.L., et al.	Effects of Tillage on Quality of Runoff Water
46	Cropland Erosion	Mutchler, C.K., et al.	Erosion from Reduced-Till Cotton
51	Cropland Erosion	Unger, P.W.	Conservation Tillage Systems
53	Cropland Erosion	Mostaghimi, S., et al.	Influence of Tillage Systems and Residue Levels on Runoff, Sediment and Phosphorus Losses Transactions of the ASAE, Vol. 31, No. 1, 1988
54	Cropland Erosion	McDowell, L. L.	Nitrogen and Phosphorus Losses in Runoff from No-Till Soybeans
56	Cropland Erosion	Meek, B.D.	Infiltration Rate as Affected by an Alfalfa and No-Till Cotton Cropping System
58	Cropland Erosion	Cogo, N.P.	Soil Loss Reductions from Conservation Tillage Practices
59	Cropland Erosion	Zhu, J.C.	Runoff Soil and Dissolved Nutrients Losses from No-Till Soybeans with Winter Cover Crops
60	Cropland Erosion	Berg, W.A.	Management Effects on Runoff, Soil and Nutrient Losses from Highly Erodible Soils in the Southern Plains
62	Cropland Erosion	Dick, W.A., et al.	Surface Hydrologic Response of Soils to No-Till
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93	Nutrient Management	Gold, Arthur J., et al.	Runoff Water Quality from Conservation and Conventional Tillage
94	Nutrient Management	Staver, K. Set al.	Nitrogen Export from Atlantic Coastal Plain Soils, International Summer Meeting of the ASAE, 1988
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98	Nutrient Management	Mueller, D.H., et al.	Effect of Conservation Tillage on Runoff Water Quality: Total, Dissolved and Algal-Available Phosphorus Losses, Winter Meeting of the ASAE, 1983
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167	Cropland Erosion	Edwards, W.M., et al.	Contribution of Macroporosity to Infiltration into a Continuous Corn No-Till Watershed: Implications for Contaminant Movement
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184	Cropland Erosion	Khan, M.J., et al.	Mulch Cover and Canopy Effect of Soil Loss
185	Cropland Erosion	McGregor, K.C., et al.	Effect of Incorporating Straw Residues on Interrill Soil Erosion
212	Cropland Erosion	Mostaghimi, S., T.A. Dillaha, V.O. Shanholtz	Runoff, Sediment and Phosphorus Losses from Agricultural Lands as Affected by Tillage and Residue Levels

221	Cropland Erosion	Logan, Terry J.	Overview of Conservation Tillage, from Effects of Conservation Tillage on Groundwater Quality Nitrates and Pesticides -
226	Conf. Lvstk.	Texas Tech Univ.	Characteristics of Water from Southeastern Cattle Feedlots
235	Confined Livestock		Livestock Waste Management with Pollution Control North Central Regional Research Publication 222, June 1975
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Guidance Specifying Management Measures For Sources Of Nonpoint Pollution In Coastal Waters

Issued Under the Authority of
Section 6217(g) of the Coastal Zone Act
Reauthorization Amendments of 1990

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United States Environmental Protection Agency
Office of Water
Washington, DC

FOREWORD

This document contains guidance specifying management measures for sources of nonpoint pollution in coastal waters. Nonpoint pollution is the pollution of our nation's waters caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural pollutants and pollutants resulting from human activity, finally depositing them into lakes, rivers, wetlands, coastal waters, and ground waters. In addition, hydrologic modification is a form of nonpoint source pollution that often adversely affects the biological and physical integrity of surface waters.

In the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), Congress recognized that nonpoint pollution is a key factor in the continuing degradation of many coastal waters and established a new program to address this pollution. Congress further recognized that the solution to nonpoint pollution lies in State and local action. Thus, in enacting the CZARA, Congress called upon States to develop and implement State Coastal Nonpoint Pollution Control Programs.

Congress assigned to the U.S. Environmental Protection Agency (EPA) the responsibility to develop this technical guidance to guide the States' development of Coastal Nonpoint Pollution Control Programs, which must be in conformity with the technical guidance. EPA developed this guidance by carefully surveying the technical literature, working with Federal and State agencies, and engaging in extensive dialogue with the public to identify the best economically achievable measures that are available to protect coastal waters from nonpoint pollution.

This "management measures" guidance addresses five source categories of nonpoint pollution: agriculture, silviculture, urban, marinas, and hydromodification. A suite of management measures is provided for each source category. In addition, we have included a chapter that provides management measures that provide other tools available to address many source categories of nonpoint pollution; these tools include the protection, restoration, and construction of wetlands, riparian areas, and vegetated treatment systems.

In addition to this "management measures" guidance, EPA and the National Oceanic and Atmospheric Administration (NOAA) have jointly published final guidance for the approval of State programs that implement management measures. That guidance explains more fully how the management measures guidance will be implemented in State programs.

We at EPA strongly believe that, working together, the States, EPA, NOAA, other Federal agencies, and local communities can achieve the goal of the Clean Water Act to make our waters fishable and swimmable. We hope that the enclosed guidance will help us all achieve our common goal.

Robert H. Wayland III, Director
Office of Wetlands, Oceans, and
Watersheds

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Tuesday, February 1, 2011

The Board of Supervisors of the County of San Luis Obispo, and ex-officio the governing body of all other special assessment and taxing districts for which said Board so acts, met in regular session at 9:00 a.m.

PRESENT: Supervisors: Frank Mecham, Bruce S. Gibson, Paul A. Teixeira, James R. Patterson, and Chairperson Adam Hill

ABSENT: None

THE PLEDGE OF ALLEGIANCE TO THE FLAG IS LED BY CHAIRPERSON ADAM HILL.

Corrigenda - Posted 1-28-11

1 CA-P This is the time set for members of the public wishing to address the Board on items set on the Consent Agenda.

Mr. Todd Sensenbach and Mr. Michael Ramseck - Office Max (letters): speak on Item A-11. **No action taken.**

2 CA-1 This is the time set for consideration of the Consent Agenda.

Thereafter, on motion of Supervisor Frank Mecham, seconded by Supervisor Bruce S. Gibson, and on the following roll call vote:

AYES: Supervisors: Frank Mecham, Bruce S. Gibson, Paul A. Teixeira, James R. Patterson, Chairperson Adam Hill
NOES: None
ABSENT:None

Item A-17 is added to the Consent Agenda. Consent Agenda Items A-1 through A-17 are approved as recommended by the County Administrative Officer and as amended by this Board. Further, Consent Agenda Items A-1 through A-17, as amended, are on file in the Office of the County Clerk-Recorder and are available for public inspection.

<u>Auditor-Controller Items:</u>

A-1 **RESOLUTION NO. 2011-31,** adopting the Countywide Cost Allocation Plan for FY 2011-12, **Adopted.**

Staff Report

A-2 County's audited Comprehensive Annual Financial Report and Single Audit Report (Clerk's File) for Fiscal Year ended June 30, 2010, **Received and Filed.**

Staff Report

Board of Supervisors Items:

A-3 Reappointment of Bill Struble to the Agricultural Liaison Advisory Committee; 4th District, **Approved.**

Staff Report

A-4 Reappointment of David J. Osgood to the Adelaida Public Cemetery District; 1st District, **Approved.**

Staff Report

A-5 **RESOLUTION NO. 2011-32,** honoring Tobin James as the 2010 San Luis Obispo Wine Industry Person of the Year, **Adopted.**

Staff Report

County Fire Items:

A-6 **RESOLUTION NO. 2011-33,** resolution to ratify an ordinance adopted by the Avila Beach Community Services District which adopts and amends the 2010 California Fire Code; All Districts, **Adopted.**

Staff Report

A-7 **RESOLUTION NO. 2011-34,** resolution to ratify an ordinance adopted by the Los Osos Community Services District which adopts and amends the 2010 California Fire Code; All Districts, **Adopted.**

Staff Report

A-8 **RESOLUTION NO. 2011-35,** resolution to ratify an ordinance adopted by the San Miguel Community Services District which adopts and amends the 2010 California Fire Code; All Districts, **Adopted.**

Staff Report

General Services Agency Items:

A-9 Joint Use Agreement in an amount not to exceed $20,000 with Cambria Community Services District for joint improvement of a connector trail near Moonstone Beach Drive and Windsor Blvd in Cambria; 2nd District, **Approved.**

Staff Report

A-10 Third amendment to the lease and operating agreement with Aviation Consultants, Inc. to reimburse the lessee, in the form of rent credits, for the cost of debris cleanup and removal made on the County's behalf in an amount not to exceed $62,864, **Approved.**

Staff Report

A-11 Request to: waive the request for proposal process and select Office Depot as the vendor to provide office supplies to County departments; approve the use of a cooperative purchasing agreement (Clerk's File) through The Cooperative Purchasing Network (TCPN); and grant authority to the General Services Agency Director, as the County Purchasing Agent, to issue blanket purchase orders which can be used by all departments for the purchase of office supplies, **Approved.**

Staff Report

Public Works Items:

A-12 **RESOLUTION NO. 2011-36,** resolution amending the San Luis Obispo County Traffic Regulation Code establishing stop intersections at the intersections of Chata Street at Theodora Street, Pomeroy Road at Willow Road and Willow Road at Hetrick Avenue in Nipomo; 4th District, **Adopted.**

Staff Report

A-13 Committee appointments to the Water Resources Advisory Committee of the Flood Control and Water Conservation District; All Districts, **Approved.**

Staff Report

Other Items:

A-14 Request by the San Luis Obispo County Tourism Business Improvement District (CBID) to approve appointments to the Cambria, Cayucos and Nipomo/Oceano local area advisory boards, **Approved.**

Staff Report

A-15 Annual contracts (Clerk's File) to disperse Domestic Violence Program Special Fund and Battered Women's Shelter Trust Account monies to the Women's Shelter Program of San Luis Obispo (in the amount of $23,999) and the North County Women's Shelter and Resource Center (in the amount of $23,999); All Districts, **Approved.**

Staff Report

A-16 Request by the Sheriff-Coroner to transfer $128,129 from the Federal Asset Forfeiture Trust Account, and a request to accept two donated vehicles as Federal Forfeited Assets, **Approved.**

Staff Report

ADDED - REQUIREMENTS OF THE BROWN ACT HAVE BEEN SATISFIED AS THIS NOTICE WAS POSTED PRIOR TO THE 72-HOUR NOTICING REQUIREMENT

A-17 Appointment of Douglas Barth as a member to the Assessment Appeals Board; All Districts, **Approved.**

3 PC-1 This is the time set for members of the public wishing to address the Board on matters other than scheduled items.

Ms. Julissa Dyer - Latino Outreach President: thanks the Board for their help and support over the years.

Mr. Eric Greening: discusses the upcoming SLOCOG meeting where the unmet needs for bikeways and public transportation will be addressed.

Ms. Gewynn Taylor, Mr. Ben DiFatta, Mr. Richard Margetson, and Mr. Al

Barrow (letter from Robert Pickney): address various comments and concerns regarding the Los Osos Wastewater Project.

Ms. Gisele Naylor: addresses water issues within the Oceano Community Services District. **No action taken.**

4 C-1 This is the time set for hearing to consider a proposed spending plan for FY 2010-11 State Citizen's Options for Public Safety (COPS) Programs funds and a request to approve associated budget adjustments to appropriate COPS Program revenue and expense in the amount of $312,709 to Fund Center 136 - Sheriff-Coroner and $68,480 to Fund Center 132 - District Attorney.

Staff Report

Chairperson Hill: opens the floor to public comment without response.

Thereafter, on motion of Supervisor Frank Mecham, seconded by Supervisor James R. Patterson, and on the following roll call vote:

AYES: Supervisors: Frank Mecham, James R. Patterson, Bruce S. Gibson, Paul A. Teixeira, Chairperson Adam Hill
NOES: None
ABSENT:None

the Board approves: a budget adjustment of $312,709 in Fund Center 136 - Sheriff-Coroner, changes to the Fixed Asset List totaling $32,862 in Fund Center, and a budget adjustment of $68,480 in Fund Center 132 - District Attorney.

5 C-2 This is the time set for continued hearing (from January 11, 2011) to consider: 1) the Annual Report and Action Plan prepared in conformance with Title 29 - Affordable Housing Fund and a resolution approving the Action Plan; and 2) a resolution adopting the annual adjustment of the in-lieu and housing impact fee schedules of Title 29; All Districts.

Staff Report

Chairperson Hill: opens the floor to public comment without response.

Thereafter, on motion of Supervisor James R. Patterson, seconded by Supervisor Paul A. Teixeira, and on the following roll call vote:

AYES: Supervisors: James R. Patterson, Paul A. Teixeira, Frank Mecham, Bruce S. Gibson, Chairperson Adam Hill
NOES: None
ABSENT:None

the Board receives and accepts the Title 29 Annual Report; RESOLUTION NO. 2011-37, resolution to approve the Annual Action Plan for year 2011 pursuant to Title 29 - Affordable Housing Fund of the County of San Luis Obispo and RESOLUTION NO. 2011-38, resolution to adopt the Annual Adjustment to the In-Lieu Fee Schedule and Housing Impact Fee Schedule of Title 29 - Affordable Housing Fund, adopted.

6 D-1 This is the time set for presentation on broadband penetration and fiber optic availability within San Luis Obispo County; All Districts.

Staff Report

Chairperson Hill: opens the floor to public comment without response and receives and files the staff report.

7 CS-1 The Board does now announce it will be going into Closed Session regarding:

I. **PENDING LITIGATION (Gov. Code, §54956.9.)** It is the intention of the Board to meet in Closed Session concerning the following items:

A. **Conference with Legal Counsel - Existing Litigation (Gov. Code, §54956.9 (a).) (Formally initiated)** *(1) Herrera, et al. v. County of San Luis Obispo; (2) County of Sacramento, et al. v. State of California, et al.; (3) San Luis Obispo County Deputy County Counsel Association v. San Luis Obispo County Pension Trust Board, et al.; (4) North County Watch, et al. v. County of San Luis Obispo, et al. (Santa Margarita Ranch case, CV098031); (5) Sunny Acres, et al. v. County of San Luis Obispo, et al. (CV090360).*

B. **Conference with Legal Counsel - Anticipated Litigation (Gov. Code, §54956.9.)** *(6) Significant exposure to litigation (Gov. Code, §54956.9(b).) No. of cases 2 .* Facts and circumstances not known to potential plaintiff which indicate significant exposure to litigation. *(7) Initiation of litigation (Gov. Code, §54956.9(c).) No. of cases 2 .*

II. **CONFERENCE WITH LABOR NEGOTIATOR (Gov. Code, §54957.6.)**

A. It is the intention of the Board to meet in closed session to have a conference with its Management Representative *Tami Douglas-Schatz* concerning the following: Name of employee organizations are: *(8) San Luis Obispo County Employees Association-Public Services, Supervisors, Clerical; (9) Deputy Sheriff's Association; (10) District Attorney Investigator's Association; (11) San Luis Obispo County Employees Association -Trades and Crafts; (12) Sheriffs' Management; (13) Association of San Luis Obispo County Deputy Sheriffs; (14) Deputy County Counsel Association; (15) San Luis Obispo Government Attorney's Union.*

ADDED - REQUIREMENTS OF THE BROWN ACT HAVE BEEN SATISFIED AS THIS NOTICE WAS POSTED PRIOR TO THE 72-HOUR NOTICING REQUIREMENT

III. **PERSONNEL (Gov. Code, §54957.)**

A. It is the intention of the Board to meet in Closed Session to: *(16) Consider Public Employee Appointment for the Position Ag Commissioner/Sealer of Weights and Measures.*

IV. **CONFERENCE WITH REAL PROPERTY NEGOTIATOR (Gov. Code, §54956.8.)**
It is the intention of the Board to meet in Closed Session to have a conference with its Real Property Negotiator concerning the following: *(17)* Property Description: *3451 S. Higuera Street, San Luis Obispo (APN 053-252-081);* Parties with Whom Negotiating: *Rosenblat (CAPSLO)*; Instructions to Negotiator: *Terms and Conditions*.

Chairperson Hill: opens the floor to public comment without response.

Thereafter, pursuant to the requirements of the Brown Act, County Counsel reports out on the items discussed during Closed Session as follows: No report required as no final action was taken and the Board goes into Open Public Session.

8 B-1 This is the time set for submittal of a resolution proclaiming February 2011 as "Grand Jury Awareness Month" in San Luis Obispo County.

Staff Report

Thereafter, on motion of Supervisor Bruce S. Gibson, seconded by Supervisor James R. Patterson, and on the following roll call vote:

AYES: Supervisors: Bruce S. Gibson, James R. Patterson, Frank Mecham, Paul A. Teixeira, Chairperson Adam Hill
NOES: None
ABSENT:None

RESOLUTION NO. 2011-39, resolution proclaiming February 2011 as "Grand Jury Awareness Month" in San Luis Obispo County, adopted.

9 B-2 This is the time set for consideration of a resolution recognizing Stephanie Franks for receiving the Commission on the Status of Women 2010 "Woman of the Year" award; and a report on activities in 2010 for the Commission on the Status of Women.

Staff Report

Thereafter, on motion of Supervisor Bruce S. Gibson, seconded by Supervisor James R. Patterson, and on the following roll call vote:

AYES: Supervisors: Bruce S. Gibson, James R. Patterson, Frank Mecham, Paul A. Teixeira, Chairperson Adam Hill
NOES: None
ABSENT:None

RESOLUTION NO. 2011-40, Resolution recognizing Stephanie Franks for receiving the Commission on the Status of Women 2010 "Woman of Year" Award, adopted.

10 C-3 This is the time set for hearing to consider the Paso Robles Groundwater Basin Resource Capacity Study (Clerk's File); 1st & 5th Districts.

Staff Report - Pages 1 to 175

Staff Report - Pages 176 to 271

Correspondence - Posted 1/31/2011

Correspondence - Posted 1/31/2011

Correspondence - Posted 1/31/2011

Ms. Lisa Bodrogi - Paso Robles Wine Country Alliance Government Affairs Coordinator, Ms. Sue Luft - Water Resources Advisory Committee (WRAC) Vice Chairperson, Mr. Mike Winn - WRAC Chairperson, Ms. Dee Lacey, Ms. Jean Cross, Mr. Ray Johnson, Ms. Joy Fitzhugh - Farm Bureau, Mr. Eric Greening, Mr. Dana Merrill, Mr. Tim Woodel - Pultz and Associates, Mr. Jeff Marsden, Ms. Lauren Rava, Mr. Warren France - City of Atascadero, Ms. Roberta Fonzi - City of Atascadero Council Member, Mr. Mike Brown - COLAB, Mr. John Neal- Atascadero Mutual Water Company General Manager, Mr. Chuck Ward, Mr. Paul Hoover, Ms. Susan Harvey - North County Watch, Mr. Tony Dominguez, Mr. Ray Allen - Cattlemen's Association Chairperson, Mr. Jerry Ray, Ms. Stacy Jacob - Paso Robles Wine Country Alliance, Ms. Della Barrett, Ms. Catherine Sweet, Ms. Jamie Kirk, Mr. Joe Plumber, Ms. Ann Hatch, Mr. John Crossland, Mr. Neil Roberts, and Ms. Dorothy Jennings, speak.

On motion of Supervisor Frank Mecham, seconded by Supervisor Bruce S. Gibson, and unanimously carried the Board continues the meeting past 5 p.m.

A motion by Supervisor Gibson, seconded by Supervisor James R. Patterson, to certify the Resource Capacity Study and the Levels of Severity therein contained is discussed.

Supervisor Mecham: outlines his reasons for not supporting the motion due to the Level of Severity III.

Thereafter, on motion of Supervisor Bruce S. Gibson, seconded by Supervisor James R. Patterson, and on the following roll call vote:

AYES: Supervisors: Bruce S. Gibson, James R. Patterson, Chairperson Adam Hill
NOES: Supervisors: Frank Mecham, Paul A. Teixeira
ABSENT:None

the Board certifies the Paso Robles Groundwater Basin Resource Capacity Study and the Levels of Severity therein contained within the Study.

The Board and staff outlines changes to the Study.

Thereafter, on motion of Supervisor Frank Mecham, seconded by Supervisor James R. Patterson, and on the following roll call vote:

AYES: Supervisors: Frank Mecham, James R. Patterson, Bruce S. Gibson, Paul A. Teixeira, Chairperson Adam Hill
NOES: None
ABSENT:None

the Board amends the Study as follows: On Page C-3-33, Under Recommendations, A. Paso Robles Groundwater Basin, Recommended Monitoring Actions, adding the following: (The following actions A 1-6 also apply to the Atascadero Sub basin); After Number 6, Recommended Land Use Actions, add "(The following actions 7, 8, 9, 10 and 12 do not apply to the Atascadero Sub basin); Number 7, second paragraph, remove the following language: "that do not have access to supplemental water, no land use restrictions are imposed by this RCS".

Thereafter, on motion of Supervisor James R. Patterson, seconded by Supervisor Frank Mecham, and on the following roll call vote:

AYES: Supervisors: James R. Patterson, Frank Mecham, Bruce S. Gibson, Paul A. Teixeira, Chairperson Adam Hill
NOES: None
ABSENT:None

the Board tentatively adopts the Planning Commission's recommendations regarding Land Use actions for the Atascadero Sub-Basin.

A motion by Supervisor Bruce S. Gibson to direct staff to draft an interim urgency ordinance to establish that the Board will not accept General Plan Amendments that create land divisions that create more development potential, dies for a lack of a second.

Thereafter, on motion of Supervisor James R. Patterson, seconded by Supervisor Frank Mecham, and on the following roll call vote:

AYES: Supervisors: James R. Patterson, Frank Mecham, Bruce S. Gibson, Paul A. Teixeira, Chairperson Adam Hill
NOES: None
ABSENT:None

the Board adopts the Paso Robles Groundwanter Basin Resource Capacity Study, as previously amended by the Board, and finds the study adequately assesses the affected resources as a basis for policy decisions.

Thereafter, on motion of Supervisor James R. Patterson, seconded by Supervisor Frank Mecham, and on the following roll call vote:

AYES: Supervisors: James R. Patterson, Frank Mecham, Bruce S. Gibson, Paul A. Teixeira, Chairperson Adam Hill
NOES: None
ABSENT:None

the Board authorizes staff to prepare ordinance amendments to implement the adopted actions including an analysis of staffing needs and budget for proposed follow-up actions and will ask for direction relative to the priority of completion of the proposed amendments.

I, **JULIE L. RODEWALD**, County Clerk-Recorder and Ex-Officio Clerk of the Board of Supervisors of the County of San Luis Obispo, and ex-officio clerk of the governing body of all other special assessment and taxing districts for which said Board so acts, do hereby certify that the foregoing is a fair statement of the proceedings of the meeting held Tuesday, February 1, 2011, by the Board of Supervisors of the County of San Luis Obispo, and ex-officio the governing body of all other special assessment and taxing districts for which said Board so acts.

JULIE L. RODEWALD, County Clerk-Recorder
And Ex-Officio Clerk of the Board of Supervisors

By: /s/ Catrina Christensen, Deputy Clerk-Recorder

DATED: February 8, 2011 cmc

Paso Robles Groundwater Basin Management Plan

March 2011

in association with

GEI Consultants

FUGRO

CHG

Paso Robles Basin Groundwater Management Plan

Submitted to
Paso Robles Groundwater Basin –Groundwater Advisory Committee

Date: February 2011 V2.0
Project No: 083720

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Abbreviations and Acronyms

Basin	Paso Robles Groundwater Basin
BMOs	Basin Management Objectives
CASGEMs	California Statewide Groundwater Elevations Monitoring Program
CCVT	Central Coast Vineyard Team
City	City of Paso Robles
County	San Luis Obispo County
CSAs	County Service Areas
District	San Luis Obispo County Flood Control and Water Conservation District
DPH	California Department of Public Health (formerly Department of Health Services)
DPW	County Department of Public Works
DWR	California Department of Water Resources
GAC	Groundwater Advisory Committee
GMAs	Groundwater Management Activities
GMP	Groundwater Management Plan
IRWMP	Integrated Regional Water Management Plan
M&I	Municipal and Industrial
MCWRA	Monterey County Water Resources Agency
MOU	Memorandums of Understanding
msl	mean sea level
NRCS	Natural Resources Conservation Service
Plan	Paso Robles Groundwater Basin Management Plan
PRIOR	Paso Robles Imperiled Overlying Rights
PRWCA	Paso Robles Wine Country Alliance
RCS	Resource Capacity Study
RMS	Resource Management System
State	State of California
SWP	State Water Project

TDS	total dissolved solids
UWMP	Urban Water Management Plan
WRAC	Water Resource Advisory Committee
WPAs	Water Planning Areas

1 Introduction

1.1 Introduction

The Paso Robles Groundwater Basin (Basin) is located in northern San Luis Obispo County (County) and southern Monterey County and was described in the 1958 California Department of Water Resources (DWR) Bulletin 118, San Luis Obispo County Investigation. As part of the efforts to map the groundwater basins in the State of California (State) presented in Bulletin 118, DWR identified the Paso Robles Area Groundwater Subbasin of the Salinas Valley Groundwater Basin and designated it as Basin Number 3-4.06. The Basin boundary was later updated in the Paso Robles Groundwater Basin Study (2002) and is shown on Figure 1-1.

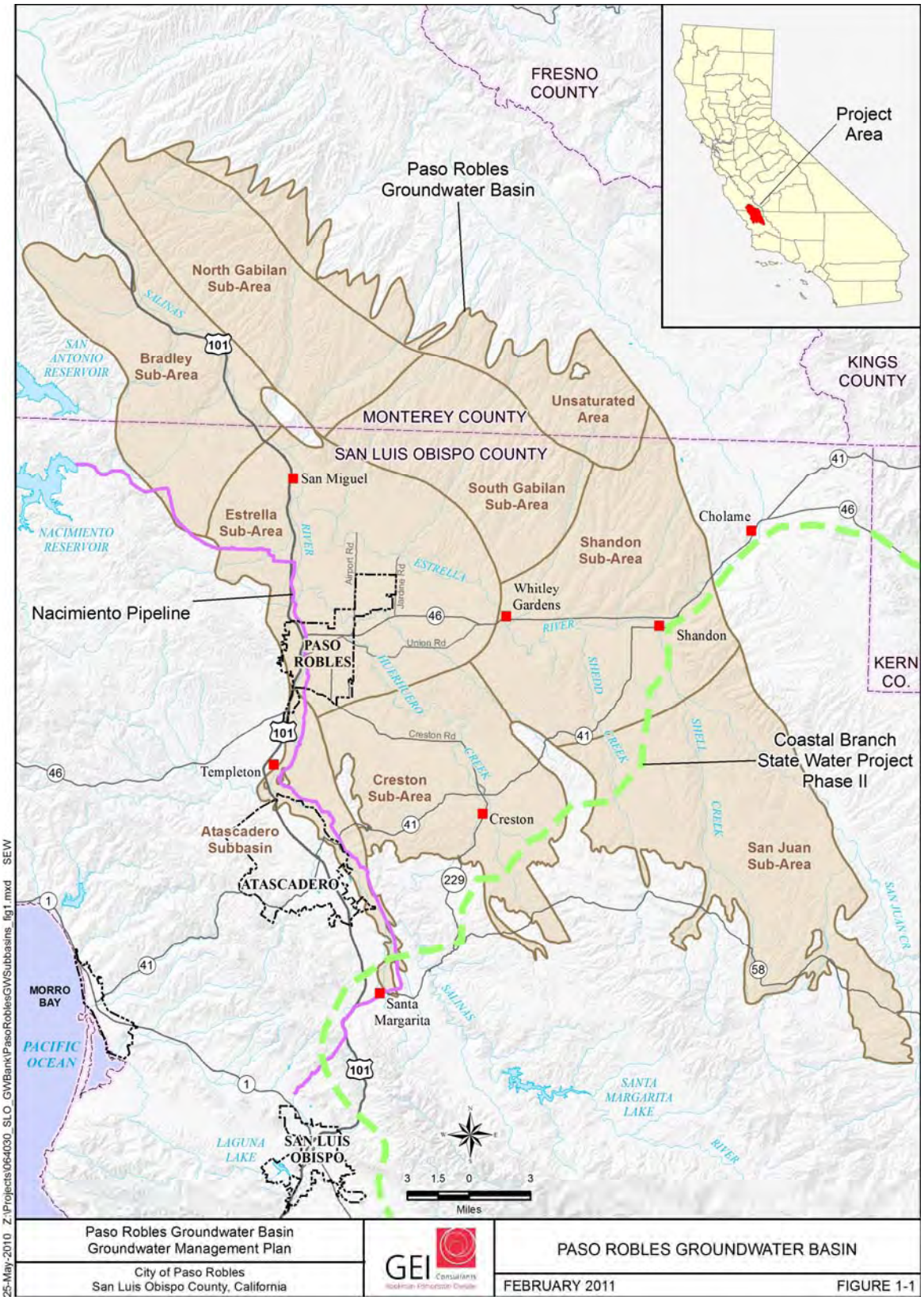
The Basin supplies water for 29 percent of the County's population and an estimated 40 percent of the agricultural production of the County. The municipal and industrial (M&I), domestic, and agricultural demands in the Basin currently rely exclusively on groundwater (including the underflow of streams). The M&I water demands include the cities of Paso Robles and Atascadero, the communities of Templeton, Shandon, Creston, and San Miguel, Bradley, Camp Roberts, and the small community systems in Whitley Gardens and Garden Farms. Individual domestic groundwater users and isolated subdivisions are located throughout the Basin, often in the more rural areas dispersed among the agricultural areas. Agricultural water users constitute an estimated 67 percent of the pumpage in the Basin and are concentrated on the alluvial valleys of the streams and rivers and along the Highway 46 corridor.

Over the past decade, the San Luis Obispo County Flood Control and Water Conservation District (District) and the City of Paso Robles (City) have worked with other pumpers in the Basin to begin a more organized approach to groundwater management as described in Section 2.

The Basin Study (Fugro, 2002) estimated the volume of groundwater storage along with basin inflows and outflows. These values were used to compile a hydrologic budget (water balance) and establish a perennial yield (also called the safe yield) for the Basin at 94,000 acre-feet per year. In 2005, the perennial yield was modified to 97,700 acre-feet per year based on additional analysis.

Based on a recent (Todd, 2007) monitoring report, the Basin was not at the safe yield although some areas were experiencing significant declines in groundwater elevations. A later study completed in 2009 suggests groundwater pumping was approaching the safe yield of the Basin, which led to the recommendation to do a groundwater management plan.

Figure 1-1. Paso Robles Groundwater Basin



The Resource Capacity Study prepared by the San Luis Obispo County Planning Department in November 2010 states that the Basin is near or at perennial yield, and contains land use and water use monitoring and conservation recommendations within the authority of the County and District to help ensure the sustainability of the Basin into the future.

The Paso Robles Basin Groundwater Management Plan was prepared coincident with the preparation of the Resource Capacity Study as well as other ongoing studies to develop a stakeholder-driven voluntary plan to provide a framework for future groundwater management activities. This project was funded by a grant from the Local Groundwater Assistance Act of 2000 (California Water Code Section 10795 et seq) to provide grants to public agencies to conduct groundwater studies or to carry out groundwater monitoring and management activities. Local Groundwater Assistance Grants (AB303) are awarded by the California Department of Water Resources (DWR). Funding was available in 2007-2008 for AB303 grants.

The purpose of this Plan is to develop a common understanding of the groundwater issues and management opportunities in the Basin and identify and support projects such as conjunctive use, recycled wastewater, and demand management, which will improve groundwater management. Following development of the Plan, the goal is to implement the activities identified in the Plan to achieve the Basin Management Objectives that are identified in the Plan. Figure 1-2 shows some of the interconnectivity of the groundwater management activities that are part of groundwater management planning and implementation. The approach illustrated in Figure 1-2 was applied during the development of this Plan.

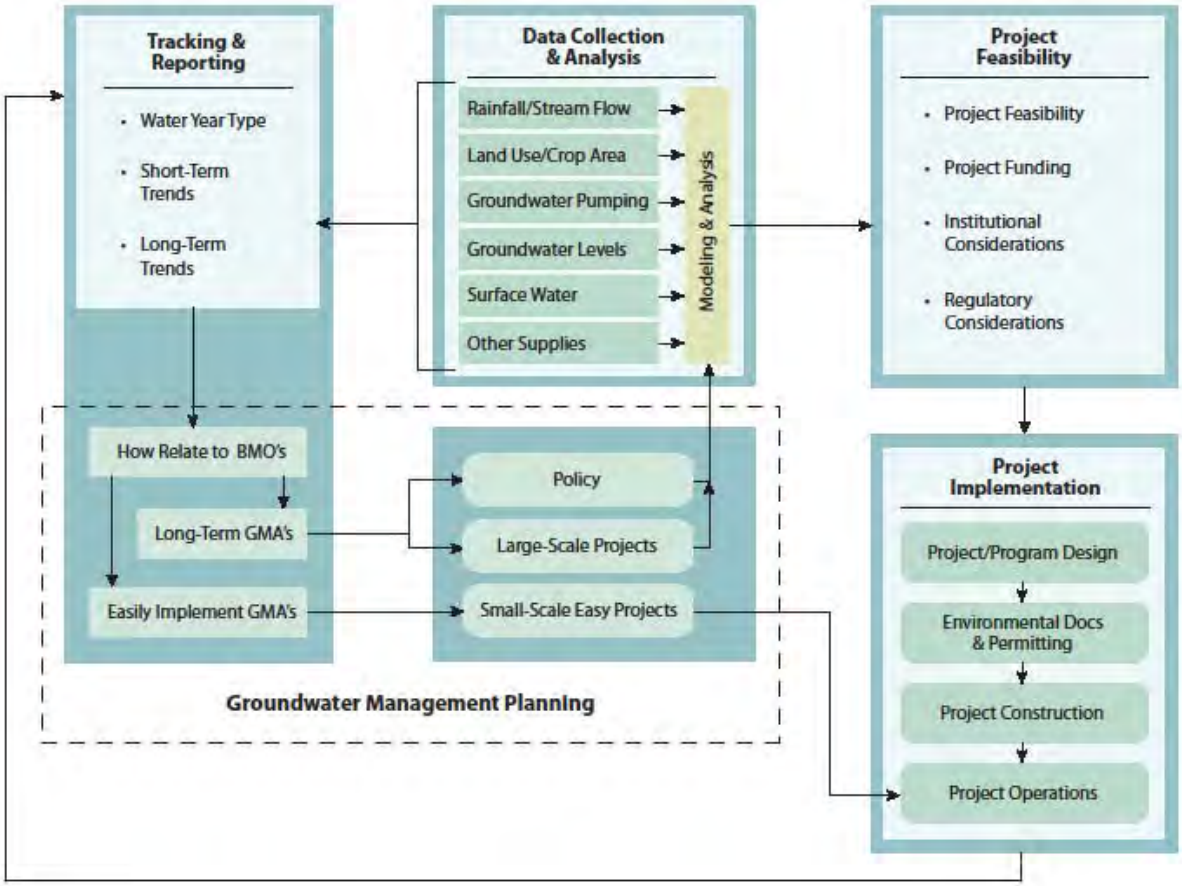
Groundwater management requires groundwater level and other data collected and analyzed on a routine basis (typically annually) to establish the current conditions of the groundwater basin. Groundwater data is tracked and reported to agencies, interested parties, and stakeholders.

This information is also used to establish groundwater management goals and objectives (referred to as Basin Management Objectives [BMOs]) and identify specific actions (referred to as Groundwater Management Activities [GMAs]).

Depending on the difficultly and complexity of GMAs, additional analysis may be needed to support their implementation. Relatively simple projects that are feasible and provide benefit may be able to be implemented easily, while more complex, large, expensive projects or projects that include multiple agencies may require additional analysis and studies to establish their feasibility and quantify their benefits.

The effects of these projects and other groundwater management activities are expected to result in changed groundwater conditions which are monitored and reported to the agencies, interested parties, and stakeholders.

Figure 1-2. Groundwater Management in the Paso Robles Groundwater Basin



1.2 Regional Groundwater Management Plan Area

The Basin was first formally defined by the California Department of Water Resources (DWR, 1958). In 1979, the DWR published a detailed investigation of the San Luis Obispo County portion of the Basin (DWR, 1979).

The Basin encompasses an area of approximately 505,000 acres (790 square miles). The Basin ranges from the Garden Farms area south of Atascadero to San Ardo in Monterey County, and from the Highway 101 corridor east to Shandon (Figure 1-1). Most of the Basin is hydraulically connected by thick sedimentary sections. The Basin is divided into smaller subareas based on water quality, source of recharge, groundwater movement, and the contours of the base of permeable sediments.

The Atascadero Subbasin is defined as that portion of the Basin west of the Rinconada fault. Between Atascadero and Creston, the Rinconada fault juxtaposes less permeable Monterey Formation rocks with the Paso Robles Formation basin sediments. South of the City of Paso Robles, the Paso Robles Formation is found on both sides of the Rinconada fault; however, the fault zone is believed to form a leaky barrier that restricts flow from the Atascadero

Subbasin to the main part of the Basin. As a result of this, the Atascadero Subbasin is considered a hydrologically distinct subbasin within the Basin. The Rinconada Fault does not act as a hydraulic barrier to groundwater flow in the Salinas River Alluvium. As such, groundwater flow in the Alluvium is continuous along the stretch of the Salinas River that traverses the entire Basin. The Atascadero Subbasin encompasses the Salinas River corridor area south of Paso Robles and includes the communities of Garden Farms, Atascadero, and Templeton.

The western boundary of the Basin roughly follows Highway 101 from Santa Margarita northward to Hames Valley. The eastern boundary follows a rough line from Highway 58 in the San Juan Creek area northward to Shandon and Cholame. The Basin is downstream of and hydraulically connected by alluvial deposits to the Pozo Groundwater Basin south of the Basin, and to the Cholame Groundwater Basin north of the Basin. The Basin outlet is northwest and downstream of Bradley, where it is hydraulically connected with the Salinas Valley Groundwater Basin.

The Basin was subdivided into subareas in the Phase I Report (Fugro, 2002) as a practical approach to organize the 790 square mile Basin into smaller informal areas (see Figure 1-1) and listed below.

1. Atascadero Subbasin
2. Creston Subarea
3. San Juan Subarea
4. Estrella Subarea
5. Shandon Subarea
6. North Gabilan Subarea
7. South Gabilan Subarea
8. Bradley Subarea

Just north of San Miguel there is an area of basement rock that extends to the ground surface that is not considered part of the groundwater basin. This area is located between the Estrella, North Gabilan, and Bradley Subareas, but is not considered to be part of any of them.

Near the edges of the Basin, the Paso Robles Formation becomes thin, and wells located in these areas may tap the Paso Robles Formation as well as basement rock. Because of this, wells tapping both the Paso Robles Formation and basement rocks may experience different groundwater level conditions than wells tapping only the Paso Robles Formation.

1.3 Existing Groundwater Management Activities

Since 1998, the local agencies and local stakeholders via a public “North County Water Forum” including Monterey County Water Resources Agency have worked in cooperation to complete several projects to support the technical investigations and improve groundwater management in the Basin. These efforts, listed below, demonstrate the interest, support, and

continuing commitment of the individual agencies, stakeholders, and interested parties in protecting the Basin's groundwater resources. Much of the information developed in the efforts was incorporated into the Plan.

- Master County Water Plan (EDAW, 1998)
- Paso Robles Groundwater Basin Study (Fugro West, 2002)
- Monitoring Program Evaluation (Cleath & Associates, 2003)
- Paso Robles Groundwater Basin Study Phase II –Numerical Model Development, Calibration, and Application (Fugro West , 2005)
- Paso Robles Groundwater Basin Agreement (2005)
- San Luis Obispo County Integrated Regional Water Management Plan (San Luis Obispo County Flood Control and Water Conservation District, 2005)
- City of Paso Robles Urban Water Management Plan (Todd Engineers,2007)
- City of Paso Robles Water Resources Plan Integration and Capital Improvement Program (T.J. Cross Engineers, 2007)
- Annual Report on the Paso Robles Groundwater Basin (Todd Engineers, 2007)
- Paso Robles Groundwater Basin Water Banking Feasibility Study (GEI Consultants, Inc., 2007)
- Evaluation of Paso Robles Groundwater Basin Pumping – Water Year 2006 (Todd Engineers, 2009)
- Paso Robles Groundwater Basin Water Balance Review and Update (Fugro, 2010)
- San Luis Obispo County Master Water Plan (Wallace Group,2010, ongoing)
- Peer Review of Paso Robles Groundwater Basin Studies (Gus Yates, 2010)
- Revised Resource Capacity Study – Water Supply in the Paso Robles Groundwater Basin (San Luis Obispo County Planning Department, 2011)

Each of these groundwater management activities is described below.

1.3.1 Master County Water Plan (1998)

This update of the Master Water Plan evaluated 12 distinct "Water Planning Areas" throughout the County, tabulating water demand and published yields of developed water sources for each area. The result of this effort was an overall inventory of how demand matched supply throughout the County, noting priorities for development of supply projects and guidance for the pace of building permit issuance. This proved to be the foundation document that pointed to the need to further study the County's largest water supply – the Paso Robles Groundwater Basin.

1.3.2 Paso Robles Groundwater Basin Study (2002)

In 2002, the Paso Robles Groundwater Basin Study (Basin Study) investigated the hydrogeologic conditions and quantified the water supply capability of the Basin by defining the lateral and vertical extent of the aquifer, groundwater flow and movement, and current water quality conditions. The Basin Study identified the subareas within the Basin and local hydrogeologic settings based upon water quality, source of recharge, groundwater movement, and basin depth.

The Basin Study estimated the volume of groundwater storage along with basin inflows and outflows. These values were used to compile a hydrologic budget (water balance) and establish a perennial yield for the Basin of 94,000 acre-feet per year. Demand at the time was estimated at 82,600 acre-feet per year and is predominantly agricultural demand. The author recommended the development of a numerical groundwater model (described below) to evaluate future hydraulic conditions.

1.3.3 Paso Robles Groundwater Monitoring Program Evaluation (2003)

The County has been monitoring groundwater levels for more than 40 years in the Basin. The Monitoring Program Evaluation was completed to evaluate the efficiency and effectiveness of the County's Groundwater Level Monitoring Program for wells located in the Basin. Based on the final report of the 154 wells in the program, County Public Works employees monitor 99 wells, and 55 wells are monitored by local municipal water company employees (who forward the data to the County's Public Works Department for inclusion in the monitoring program database). The report provides several recommendations for improving the groundwater level measuring program.

1.3.4 Paso Robles Groundwater Basin Study Phase II – Numerical Model Development, Calibration, and Application (2005)

In 2005, a numerical groundwater flow model was developed as a quantitative tool to evaluate future hydraulic conditions of the Basin. The model was used to refine uncertainties in the hydrologic budget and evaluate the Basin's response to current and future water demands with and without supplemental water, including areas of declining water levels. In 2007, the model was used in the Water Banking Feasibility Study (described below) to evaluate potential recharge and water banking projects and identify management practices that could be employed to optimize water use. This effort revised the Basin perennial yield estimate to 97,700 acre-feet per year.

1.3.5 Paso Robles Groundwater Basin Agreement (2005)

The Agreement was entered into on August 19, 2005 by the District, several overlying landowners who have organized as the Paso Robles Imperiled Overlying Rights (PRIOR) group, and the City of Paso Robles and County Service Area No. 16 (collectively referred to as Municipal Users). Since 2005, additional overlying landowners and the San Miguel Community Services District, as a Municipal User, have also signed the Agreement. The Agreement requires the District to declare the Basin to be in a state of overdraft, when appropriate, at which point a period of time is conferred to allowing overlying landowners sufficient time to react to such

a declaration. In the Agreement, the District serves as the technical advisor to both the Landowners and Municipal Users.

The Agreement recognizes the need for monitoring and appropriate management of the existing Basin supplies and also recognizes that bringing additional water resources to the Basin could delay or avoid entirely the Basin becoming overdrafted in the future. The Agreement also recognizes signatories' desire to preserve their respective groundwater rights, notwithstanding implementation of any management measures, thereby providing the framework for cooperation among the Landowners and Municipal Users to participate in the development of a groundwater management plan.

1.3.6 San Luis Obispo County Region Integrated Regional Water Management Plan (2007)

The District, in cooperation with the District's Water Resources Advisory Committee (WRAC), prepared the Region's Integrated Regional Water Management Plan (IRWMP) to align water resources management planning efforts for achieving sustainable water resources Countywide with the State planning efforts through 2030. The IRWMP was used to support the Region's water resource management planning and submittal of grant applications to fund these efforts. The IRWMP established specific goals and objectives to achieve water resources sustainability. The IRWMP integrated 19 different water management strategies that have or will have a role in protecting the region's water supply reliability, water quality, ecosystems, groundwater, and flood management objectives. The integration of these strategies resulted in a list of action items (projects, programs, and studies) needed to implement the IRWMP. District staff and the WRAC Integrated Regional Water Management Subcommittee prioritized the action items. The IRWMP was adopted in December 2005 and updated in July 2007.

The IRWMP identified the following groundwater monitoring and management objectives that are intended to ensure the region's groundwater resources remain suitable for continued use.

- Continue monitoring and reporting programs for groundwater basins in the region.
- Evaluate and consider groundwater banking programs.
- Protect and improve groundwater quality from point and non-point sources of pollution.
- Conduct public education and outreach regarding groundwater protection.
- Identify areas of known or expected conflicts and target stakeholders on specific actions that they should take to help protect groundwater basin quality and supply.
- Recharge groundwater with high-quality water.

The groundwater management objectives and strategies presented for the Region in the IRWMP will be used to guide the development of the Groundwater Management Plan for the Basin.

1.3.7 City of Paso Robles Urban Water Management Plan (2007)

The Urban Water Management Plan (UWMP) supported the IRWMP by describing the City's current and future water demands, identifying current water supply sources, and assessing supply reliability for the City. The UWMP describes the City's reliance on groundwater and its support of efforts to avoid overdraft by developing additional sources. These sources include water conservation, surface water from Lake Nacimiento, and the use of recycled water for irrigation. The Plan identifies beneficial impacts to groundwater quality through the use of these sources.

1.3.8 Water Resources Plan Integration and Capital Improvement Program (2007)

The City prepared the integrated plan at the conclusion of eight significant water resource reports prepared on the City's behalf. The integrated plan is a sequencing of the recommended actions from the eight individual plans, accompanied by a capital improvement program to provide funding. This document captures the City's overall water resource goals and identifies a self-sustaining water resource portfolio for the City, along with steps necessary to build that portfolio. The Plan reinforced the need for the City to secure entitlement of water from the Nacimiento Water Project. The City's decade long involvement in the Nacimiento Water Project culminated in 2004 when the City secured the entitlement to 4,000 acre-feet per year from the Nacimiento Water Project. Since then, the City has embarked on design of a water treatment plant in 2007, developed a private well policy in 2007, and is poised to upgrade the City's wastewater treatment plant to facilitate water recycling efforts.

1.3.9 Annual Report on the Paso Robles Groundwater Basin (2007)

The Annual Report on the Paso Robles Groundwater Basin (Annual Report) was prepared in 2007 to continue to monitor and evaluate groundwater conditions in order to delay or avoid Basin overdraft. The Annual Report provides an update of the rainfall, groundwater levels and storage, and groundwater management planning for the 1997 to 2006 period that has taken place since the completion of the Basin Study (Phase I Report) in 2002, which included the 1981 to 1997 period.

During the 1997 to 2006 period, this report estimated that groundwater storage declined by about 29,800 acre-feet (about 3,300 acre-feet per year). Recommendations from the Annual Report include continuing the cooperative efforts to improve groundwater level monitoring and updating the groundwater pumping estimates from the Phase I report.

1.3.10 Paso Robles Groundwater Basin Water Banking Feasibility Study (2007)

The Paso Robles Groundwater Basin Water Banking Feasibility Study (Feasibility Study) was identified as an "A1" priority project in the County's IRWMP and was undertaken by the District to determine the feasibility of banking available State Water Project (SWP) supplies in order to improve the overall water supply reliability in the County. This investigation is important to the region because it evaluates opportunities to more fully utilize the unused portion of the District's 25,000 acre-feet per year SWP supply, which could

improve local groundwater conditions, increase dry-year water supplies, improve local groundwater quality, provide greater flexibility in groundwater management, and reduce the dependence on imported water supplies in below normal years.

The primary purpose of the Feasibility Study was to determine the technical feasibility of a recharge or water banking project in the Basin. The technical feasibility was based on the local hydrogeologic suitability and engineering feasibility. Additional groundwater management and operational considerations as well as environmental and permitting issues were also identified. Three potential recharge areas were evaluated separately for both recharge and water banking alternatives. Two of the areas may provide opportunities for recharge or water banking operations. The Feasibility Study was only based on physical feasibility and design. Institutional and cost considerations would need to also be addressed to determine if the project should be implemented in those locations.

Some of the groundwater management related recommendations from this project included:

1. Preparing a groundwater management plan to provide a framework for managing the Basin and establishing Basin Management Objectives.
2. Continue the District's annual groundwater monitoring plan to track changes in groundwater levels and quality.
3. Installing dedicated monitoring wells, as needed, to fill data gaps.

1.3.11 Evaluation of Paso Robles Groundwater Basin Pumping – Water Year 2006 (2009)

This report updates the pumping estimate from the Paso Robles Groundwater Basin Study (Basin Study), which provided estimates of pumping for water years 1997 and 2000.

This report utilized land use, population, well production, well locations, and water demand information to estimate the 2006 groundwater pumping by use sector including agricultural, urban, small water systems, and rural groundwater use for the different subareas within the Basin. The estimated groundwater pumping in 2006 totaled 88,154 acre-feet, about 90 percent of the estimated perennial yield (97,700 acre-feet) for the entire Basin. Pumping within the Atascadero Subbasin in 2006 totaled 15,532 acre-feet, about 94 percent of the estimated perennial yield (16,400 acre-feet).

A new estimate of projected groundwater pumping in 2025 was made based upon this information. The annual groundwater pumping projected for 2025 totaled 107,779 acre-feet (adjusted for gross agricultural pumping), about 110 percent of the perennial yield.

1.3.12 Paso Robles Groundwater Basin Water Balance Review and Update (2010)

This report provides an update of the water balance for the Paso Robles Groundwater Basin and the Atascadero Subbasin for the water years 1998 to 2009, as well as an analysis of the effect of importing water on the water balance for both the Basin and Subbasin for the future period of 2010 to 2025.

The water balance calculations presented in the report show that demand in both the Atascadero Subbasin and the Paso Robles Groundwater Basin as a whole is approaching the average annual perennial yield. The results of this study suggest that future groundwater storage investigations should evaluate the groundwater storage separately for the three different aquifer regimes (shallow alluvial aquifers, the Paso Robles Formation in the Subbasin, and the Paso Robles Formation within the entire Basin). This study reinforces the need for the implementation of an effective monitoring plan to further improve the understanding of the relationships between the aquifer regimes and support improved groundwater management in the Basin.

1.3.13 San Luis Obispo County Master Water Plan (2010, ongoing)

The purpose of the County Master Water Plan is to present a complete picture of the water resources management in San Luis Obispo County and how the practices (i.e., water use, policy adoption, planning, and project implementation) of all the entities within the County influence each other with respect to water resources. This ongoing project separates the County into three sub-regions (North Coast, South Coast, and Inland) and further divides them into sub-regional Water Planning Areas (WPAs) that were formed in consideration of physical boundaries such as groundwater basins and watershed and jurisdictional boundaries. Information is summarized in the Master Water Plan for the WPAs.

Technical Memorandum No. 3 titled 'Task C.3 Water Supply Inventory and Assessment-Water Supply, Demand, and Water Quality provides a draft summary of the existing and projected water demands and supplies within the County for local purveyors. The Paso Robles Groundwater Basin is included within WPA 13 and 14 within the Inland Sub-Region.

1.3.14 Peer Review of Paso Robles Groundwater Basin Studies

An independent review of the groundwater basin studies was prepared to compare some approaches and conclusions of previous reports regarding the status of the conditions in the Paso Robles Groundwater Basin. A total of five reports were reviewed as part of the peer review, which included a more detailed comparison of the Todd 2009 Report and the Fugro 2010 Report. The Todd report found declines in the basin and subbasin storage between the 2000 and 2006. The peer review concluded that groundwater pumping was nearing the perennial yield, and those efforts to supplement the groundwater supplies will help to maintain the balance. The peer review recommended several courses of action that included:

- Continuing to monitor groundwater levels across the Basin and improve monitoring in areas not currently covered in the County's water level monitoring program.
- Update and enhance the groundwater flow model.
- Secure supplemental water supplies to reduce groundwater pumping.
- Support cooperative groundwater management in the Basin.

1.3.15 Revised Resource Capacity Study – Water Supply in the Paso Robles Groundwater Basin

The Resource Capacity Study (RCS) addresses the state of the Paso Robles Groundwater Basin based on work already completed, which included:

- Paso Robles Groundwater Basin Study (Fugro, 2002)
- Paso Robles Groundwater Basin Study Phase II – Numerical Model Development, Calibration, and Application (Fugro, 2005)
- Evaluation of Paso Robles Groundwater Basin Pumping – Water Year 2006 (Todd, 2009)
- Paso Robles Groundwater Basin Water Balance Review and Update (Fugro, 2010)

These studies have calculated the water use by major water use sectors (agriculture, rural land uses, small commercial uses, municipal systems, and small community systems). The results of these studies show that groundwater use has increased during the 1980 to 2009 period to the point where the Basin outflows (including groundwater pumping) will soon be greater that Basin inflows (recharge).

The County's Resource Management System (RMS) provides a mechanism for ensuring a balance between land development and the resources necessary to sustain such development. When a resource deficiency becomes apparent, efforts are made to determine how the resource capacity might be expanded, where conservation measures could be introduced to extend the availability of the unused capacity, or where development should be limited or redirected to areas with remaining resource capacity.

The RMS uses three levels of severity designations from Level of Severity I (least severe) to Level of Severity III (most severe) based on the rate of depletion and an estimate of the remaining capacity, if any. The Levels of Severity for water supply are summarized below:

1. **LOS I:** Level I is reached for a water resource when increasing water demand projected over nine years equals or exceeds the estimated dependable supply.

2. **LOS II:** Level II for a water resource occurs when water demand projected over seven years (or other lead time determined by a resource capacity study) equals or exceeds the estimated dependable supply.

3. **LOS III:** A Level of Severity III exists when water demand equals the available resource; the amount of consumption has reached the dependable supply of the resource.

According to the above designation, an LOS III can be established if a basin has reached its perennial yield *or dependable supply will be depleted before new supplies are developed* (emphasis added in RCS). The January RCS recommends a Level of Severity III for the Paso Robles Groundwater Basin and a level of Severity I for the Atascadero Basin.

The RCS also recommended actions to include:

- Water conservation measures that will lead to more efficient water use.
- Land use controls that will reduce conflicts over the limited groundwater resource.

The RCS also recognizes the following important decision-making constraints, which complicate any action the County may wish to take:

- The County has a limited regulatory role in water use, especially by cities and agriculture. Therefore it will be difficult for the County to directly affect the use of water by the two primary groundwater users.
- The County's primary regulatory role is land use regulation and building permit issuance.
- The major portion of the basin outflows are not measured, but are estimated. While municipal pumping is measured, agricultural, rural, and small community/commercial pumping is estimated. This adds uncertainty regarding actual groundwater use.
- Identification of changing groundwater levels is based on somewhat limited data.

Because the County's primary regulatory role is land use regulation and issuance of building permits, it had developed recommended actions that emphasize this regulatory role. These actions are consistent with the County's General Plan in the Conservation and Open Space Element and the Agricultural Element.

2 Need for Groundwater Management Planning

2.1 Legislative Requirements

Groundwater management is planned and coordinated locally to ensure a sustainable groundwater basin to meet future water supply needs. With the passage of AB 3030 in 1992, local water agencies were provided a systematic way of formulating Groundwater Management Plans (GMPs) (California Water Code, Sections 10750 et seq.). AB 3030 also encourages coordination between local entities through joint power authorities or Memorandums of Understanding (MOU).

AB 3030 was amended in 2002 with the passage of The Groundwater Management and Planning Act of 2002 (SB 1938). The act amends existing law related to groundwater management by local agencies. The law requires any public agency seeking State funds administered through DWR for the construction of any groundwater projects or groundwater quality projects to prepare and implement a GMP with certain specified components. Prior to this legislation, there were no required plan components. New requirements include establishing Basin Management Objectives, preparing a plan to involve other local agencies in a cooperative planning effort, and adopting monitoring protocols that promote efficient and effective groundwater management.

2.2 GMP Components

The Paso Robles Groundwater Management Plan includes three types of components: SB 1938 mandatory components, AB 3030 and SB 1938 voluntary components, and DWR Bulletin 118-suggested components. The seven mandatory components that are required to be compliant with SB 1938 are addressed in the GMP. The GMP also addresses the 12 specific technical elements identified in the California Water Code, along with the seven recommended components identified in DWR Bulletin 118 (DWR 2003). Table 2-1 lists the required and recommended components and identifies the specific location within this GMP where the information can be found.

Table 2-1. Paso Robles Basin GMP Components

Components	Section
SB 1938 Mandatory Components	
1. Documentation of public involvement statement	Appendix C
2. Basin Management Objectives (BMOs)	Section 4
3. Monitoring and management of groundwater elevations, groundwater quality, inelastic land subsidence, and changes in surface water flows and quality that directly affect groundwater levels or quality or are caused by pumping	Section 4 and Appendix D
4. Plan to involve other agencies located in the groundwater basin	Section 6
5. Adoption of monitoring protocols	Appendix E
6. Map of groundwater basin boundary, as delineated by DWR Bulletin 118, with agency boundaries that are subject to GMP	Section 3
7. For agencies not overlying groundwater basins, prepare the GMP using appropriate geologic and hydrogeologic principles	Not Applicable
AB 3030 and SB 1938 Voluntary Components	
1. Control of saline water intrusion	Section 5
2. Identify and manage well protection and recharge areas	Section 5
3. Regulate the migration of contaminated groundwater	Section 5
4. Administer well abandonment and destruction program	Section 5
5. Control and mitigate groundwater overdraft	Section 5
6. Replenish groundwater	Section 5
7. Monitor groundwater levels	Section 4 and Appendix E
8. Develop and operate conjunctive use projects	Section 7
9. Identify well-construction policies	Section 5
10. Develop and operate groundwater contamination cleanup, recharge, storage, conservation, water recycling, and extraction projects	Section 5
11. Develop relationships with State and federal regulatory agencies	Section 6
12. Review land use plans and coordinate with land use planning agencies to assess activities that create reasonable risk of groundwater contamination	Section 5 and Section 7
DWR Bulletin 118 Suggested Components	
1. Manage with guidance of advisory committee	Section 6
2. Describe area to be managed under GMP	Section 1
3. Create links between BMOs and goals and actions of GMP	Section 4
4. Describe GMP monitoring programs	Section 4 and Appendix E
5. Describe integrated water management planning efforts	Section 7
6. Report of implementation of GMP	Section 7
7. Evaluate GMP periodically	Section 7

2.3 Purpose and Goals of the Groundwater Management Plan

This document presents a locally developed, stakeholder-driven GMP that reflects current State law; coordinates existing groundwater management; and defines actions for developing projects and management programs to monitor the operation of the groundwater basin and to improve the long-term sustainability of groundwater resources in the Paso Robles Groundwater Basin.

This GMP provides action items that, when implemented, will maintain or enhance groundwater levels and water quality, minimize inelastic land subsidence, and manage available surface and groundwater conjunctively to allow greater operational flexibility.

The purpose of the GMP is to provide a framework for coordinating groundwater and surface water management activities into a cohesive set of management objectives and implementing the actions necessary to meet those objectives.

The purposes of this project include:

- Build upon the existing organization of local water purveyors, agricultural interests, and individual stakeholders to develop a regional understanding of the groundwater setting and groundwater management opportunities in the Basin.
- Formulate groundwater management actions that lead to improved groundwater information gathering and data management within the Basin.
- Identify water supply and demand management projects and programs that can be implemented to improve long-term water supply reliability in the Basin.
- Establish a regional and on-going approach to groundwater management that is accepted in the Basin and recognized by other local, State, and federal agencies and that can be used successfully to pursue grant funding to implement projects that support improved groundwater management.

The project goals include:

- Alert stakeholders to the state of the Basin and the actions needed to keep this Basin in balance and avoid heading into the projected state of overdraft.
- Complete and adopt the GMP, particularly the BMOs.
- Expand the existing groundwater monitoring program, consider additional monitoring efforts, and develop an annual reporting format for the Basin Plan area.
- Continue to coordinate recent land and water use analysis for the Basin with countywide planning efforts such as the Resource Capacity Study and implementation of the Conservation Element of the General Plan, which is led by the Planning Department, and County Master Water Plan, which is led by the Public Works Department.

Key results of the planning process documented in this GMP include:

- Developing general consensus among stakeholders regarding the characterization of the area's water problems, current and future demands, and groundwater conditions.
- Documenting the area's groundwater management goals and objectives, including specific BMOs, to help measure progress in attaining goals.
- Developing specific groundwater management actions and common programs for the Paso Robles Groundwater Basin.
- Developing management plan components to maintain groundwater quality and prevent land subsidence in the basin.
- Providing an implementation plan to direct future groundwater management activities.

2.4 Authority to Prepare Regional Groundwater Management Plan

The San Luis Obispo County Flood Control and Water Conservation District has the authority to prepare a groundwater management plan within the unincorporated portions of the Paso Robles Groundwater Basin within San Luis Obispo County through California Water Code, Division 6, Part 2.75 (Sections 10750 et seq.). The City of Paso Robles has the authority to manage the groundwater resources within their city limits. The City of Paso Robles and the District acted as co-project managers in development of this GMP. This GMP is consistent with the provisions of California Water Code, Sections 10750 et seq., as amended January 1, 2003.

3 Water Resources Setting

This section summarizes the water resources conditions present in the GMP area. It describes the historical and baseline conditions of the water resources in the Paso Robles Basin and contains an overview of the physical setting, including the climate, soils, and geology and describes the major planning considerations related to those issues. This section includes a discussion of the current and future land use and associated water demands, water supplies and sources, existing water supply facilities, groundwater levels, and water quality conditions.

3.1 Scope and Approach

Previous reports were reviewed and the available data were analyzed to document the historical and existing conditions of the groundwater basin and to identify unique characteristics of the GMP area. Groundwater data were analyzed to evaluate trends, document changes in storage, and assess groundwater occurrence, flow, and quality. Groundwater hydrographs were prepared at different locations throughout the GMP area. The results of the analyses were used by the Groundwater Advisory Committee (GAC) stakeholders to establish GMP goals and objectives. The data and results of the analyses are summarized in this section. More detailed data and results are provided in the appendices.

3.2 Physical Setting

3.2.1 Groundwater Basin

The Basin was first formally defined by the California Department of Water Resources (DWR, 1958). In 1979, the DWR published a detailed investigation of the San Luis Obispo County portion of the Basin (DWR, 1979).

The Basin encompasses an area of approximately 505,000 acres (790 square miles). The Basin ranges from the Garden Farms area south of Atascadero to San Ardo in Monterey County, and from the Highway 101 corridor east to Shandon (Figure 1-1). Most of the Basin is hydraulically connected by thick sedimentary sections. The Basin is divided into smaller subareas based on water quality, source of recharge, groundwater movement, and the contours of the base of permeable sediments.

The Atascadero Subbasin is a hydrologically distinct subbasin within the Basin, and encompasses the Salinas River corridor area south of Paso Robles and includes the communities of Garden Farms, Atascadero, and Templeton. The Atascadero Subbasin is defined as that portion of the Basin west of the Rinconada fault. Between Atascadero and Creston, the Rinconada fault juxtaposes less permeable Monterey Formation rocks with the Paso Robles Formation basin sediments. South of the City of Paso Robles, the Paso Robles Formation is found on both sides of the Rinconada fault; however, the fault zone is believed to form a leaky barrier that restricts flow from the Atascadero Subbasin to the main part of

the Basin in the Paso Robles Formation. The alluvial deposits along the Salinas River overlie the Paso Robles Formation and are not affected by the fault, so groundwater flow in the alluvium between the Atascadero Subbasin and the rest of the Basin is not impeded.

The western boundary of the Basin roughly follows Highway 101 from Santa Margarita northward to Hames Valley. The eastern boundary follows a rough line from Highway 58 in the San Juan Creek area northward to Shandon and Cholame. The Basin is downstream of and hydraulically connected by alluvial deposits to the Pozo Groundwater Basin south of the Basin, and to the Cholame Groundwater Basin north of the Basin. The Basin outlet is northwest of and downstream of Bradley, where it is hydraulically connected with the Salinas Valley Groundwater Basin.

These adjacent basins do not provide significant recharge to the Paso Robles Groundwater Basin. Recharge to the Basin occurs by percolation of stream water and by infiltration of precipitation. No distinct areas of recharge have been identified (i.e. forebay), so it is assumed to be distributed throughout the Basin.

The Basin was subdivided into subareas in the Phase I Report as a practical approach to organize the 790 square mile Basin into smaller informal areas (see Figure 1-1) and listed below:

1. Atascadero Subbasin
2. Creston Subarea
3. San Juan Subarea
4. Estrella Subarea
5. Shandon Subarea
6. North Gabilan Subarea
7. South Gabilan Subarea
8. Bradley Subarea

These subareas are not hydrologically distinct. Groundwater and surface water flows occur between subareas. However, dividing the Basin into subareas enables Basin Management Objectives and Groundwater Management Activities (GMAs) to be tailored to the water use characteristics of the subareas.

3.2.2 Basin Topography

The Paso Robles Groundwater Basin is a broad, flat valley with the Estrella River running westward into the Salinas River. The Salinas River runs along the western side of the valley northward toward Monterey County and out of the basin. Surrounding the basin are rolling hills and mountains. To the north and northeast are the Gabilan Highlands and Cholame Hills, and to the west and south are the Santa Lucia and La Penza Ranges. Numerous drainages flow from these hills into the Estrella and Salinas Rivers.

3.2.3 Geology

The stratigraphy in the watershed of the Basin includes the water-bearing geologic units that form the Basin aquifer, and the non-water bearing geologic units that underlie and are adjacent to the Basin sediments. Brief descriptions of the water bearing and non-water bearing geologic formations are provided below. The complete description of the geology and hydrogeologic setting is provided in the Paso Robles Groundwater Basin Study (Fugro, 2002).

3.2.3.1 Alluvium

Alluvial deposits occur beneath the flood plains of the rivers and streams within the basin. These deposits reach a depth of about 100 feet below ground surface and are typically comprised of coarse sand and gravel.

3.2.3.2 Paso Robles Formation

The Paso Robles Formation extends from ground surface and is typically 700 to 1,200 feet thick, although thicknesses of more than 2,500 feet occur in some areas. The formation is a Plio-Pleistocene, predominantly non-marine geologic unit comprised of relatively thin, often discontinuous sand and gravel layers interbedded with thicker layers of silt and clay. It was deposited in alluvial fan, flood plain, and lake depositional environments. The formation is typically unconsolidated and generally poorly sorted.

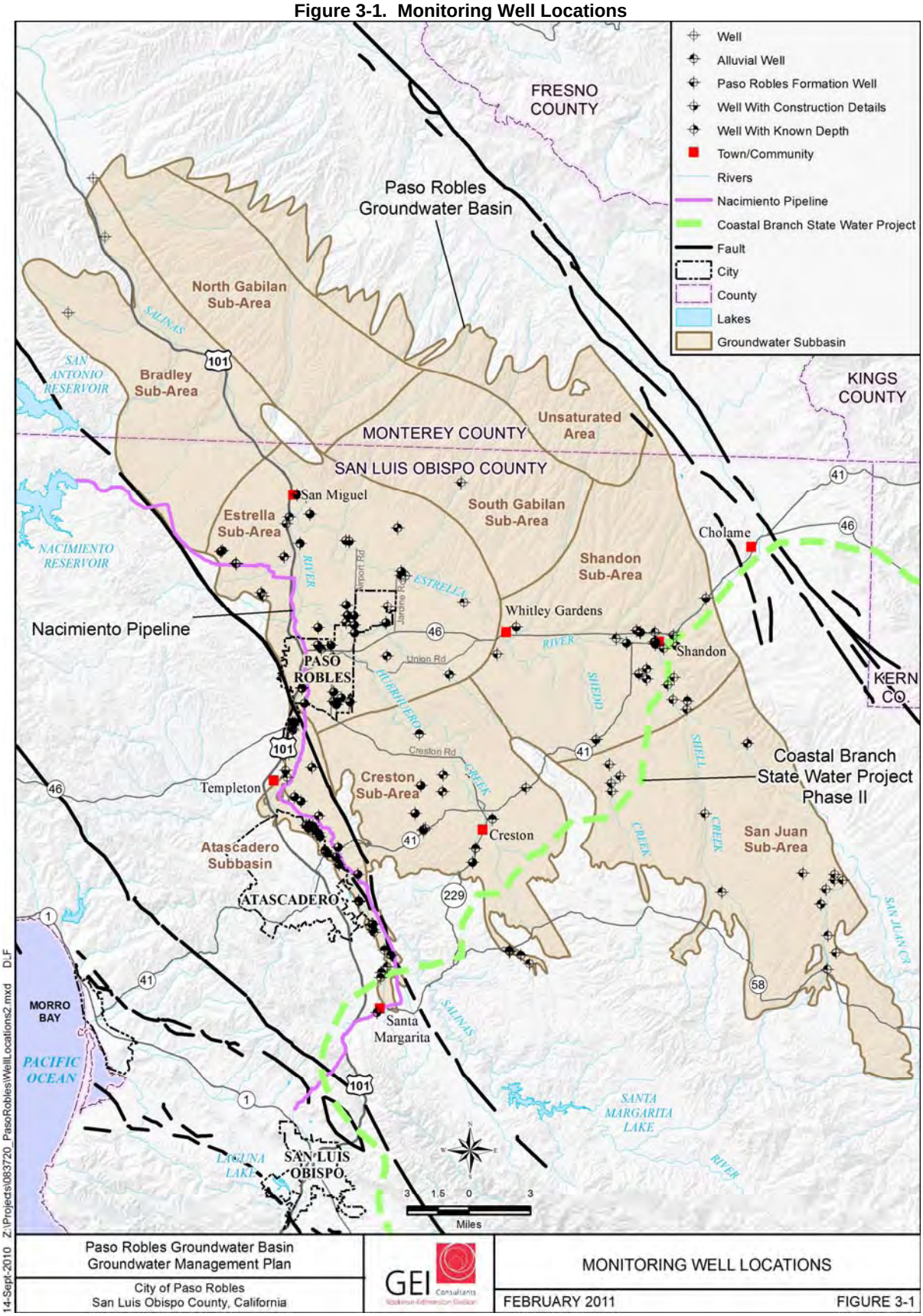
3.2.3.3 Older Formations

Underlying the basin sedimentary beds are older geologic formations that typically have lower permeability and/or porosity. In some cases, these older beds yield in excess of 50 gpm but they often have poor quality water or are of limited extent, such as are found along a fault fracture zone. The older geologic units crop out along the basin border. In general, the geologic units underlying the basin include Tertiary-age consolidated sedimentary beds, Cretaceous-age metamorphic rocks, and granitic rock.

3.3 Groundwater Conditions

In the Basin, the County has been monitoring groundwater levels for more than 40 years. In 2003, an evaluation of the monitoring network was completed to evaluate the efficiency and effectiveness of the County's Monitoring Program for wells located in the Basin. Based on the final report, approximately 159 wells in the monitoring program (see Figure 3-1). Most wells are monitored by County Public Works employees and remaining wells are monitored by local municipal water company employees (who forward the data to the County's Public Works Department for inclusion in the monitoring program database). Additionally, three wells are located in Monterey County and are monitored by the Monterey County Water Resources Agency.

Figure 3-1. Monitoring Well Locations



San Luis Obispo County's existing groundwater level monitoring network in the Basin was used as the initial data set to identify potential wells that are representative of groundwater conditions in different areas of the Basin. This initial set of wells was screened to identify a short list of representative wells for each subarea. Table 3-1 identifies the number wells currently included in the monitoring network.

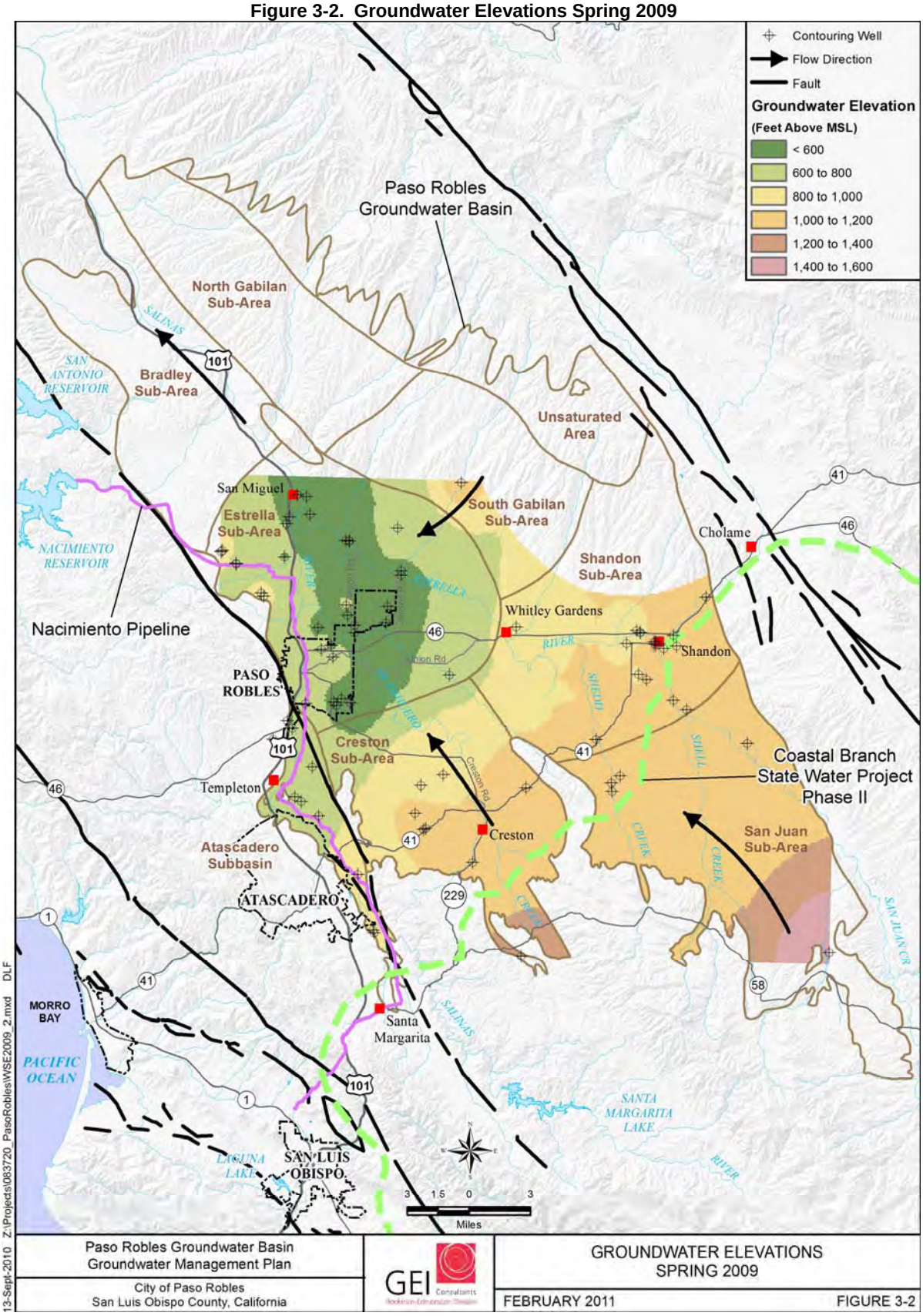
Table 3-1. Wells in the San Luis Obispo County Monitoring Network

Groundwater Subarea	Wells Currently in Program
Atascadero Subbasin	51
Bradley	0
Creston	17
Estrella	50
Gabilan (North and South)	1
San Juan	16
Shandon	24
TOTAL	**159**

3.3.1 Current Groundwater Levels

The most recent groundwater level elevation map is from the spring of 2009 shows that groundwater levels in the Basin range from approximately 1,500 feet above mean sea level (msl) in upland areas to less than 600 feet msl in the northwestern Bradley area as shown on Figure 3-2. Groundwater moves generally northwesterly from the San Juan area into Shandon and then into the Estrella area. Groundwater flow from Creston is also northerly into the Estrella area. In the northern portion of the Basin, groundwater moves southwesterly toward Estrella and the Salinas River in the area near San Miguel.

Figure 3-2. Groundwater Elevations Spring 2009



3.3.2 Change in Groundwater Levels

A groundwater elevation change map has been prepared that represents the changes in groundwater levels for the 1997 to 2009 period and is shown on Figure 3-3. This map shows that the greatest change in groundwater elevations has occurred in the Estrella Subarea, and to a lesser extent in the Creston and Shandon Subareas. Groundwater levels in the western portion of the Paso Robles Basin have declined in excess of 70 feet since 1997 during a period when precipitation was just slightly less than the to the long-term average annual precipitation.

The area with the greatest change in groundwater elevation has been identified in the Resource Capacity Study as the Estrella/Creston Area of Concern, and has been shown to have the greatest and most consistent decline of water levels since 1980. While there is no perennial yield estimate for this area, the sustained groundwater level decline represents a stressing of the groundwater resource and has resulted in water quality problems or has required wells to be deepened.

Additional information on the changes in groundwater levels for each of the subareas is provided in Section 4.4.The continuing decline suggests that, at least locally, the rate of extraction exceeds the ability of the basin to recharge the area.

3.3.3 Soil Characteristics and Surface Recharge Potential

Most of the groundwater recharge in the Paso Robles Basin results from the infiltration of precipitation. Surface recharge potential in the Paso Robles Basin is a function of soil type. As such, the surface soil conditions are one of the primary factors affecting groundwater recharge in the Paso Robles Basin.

The surface recharge potential of the soil was interpreted based on the hydrologic soil groups as categorized by the Natural Resources Conservation Service (NRCS). Hydrologic soil groups are classified according to their ability to infiltrate water and affect runoff. The soils are grouped according to the amount of water infiltration when the soils are thoroughly wet and receive additional precipitation. The four hydrologic soil groups are:

Group A: Soils having a high infiltration rate (low runoff potential) when thoroughly wet.
Group B: Soils having a moderate infiltration rate when thoroughly wet.
Group C: Soils having a slow infiltration rate when thoroughly wet.
Group D: Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet.

Figure 3-4 shows the hydrologic soil groups in the Paso Robles Basin. The areas associated with soils with highest infiltration rate (Group A) are located along small stretches of the larger rivers and creeks in the basin, including the Salinas River, Estrella River, and Huerhuero Creek. In general, Group B soils (i.e., those with moderate infiltration rate) are located predominately on the valley areas of the Paso Robles Basin in the Atascadero Subbasin, San Juan Subarea, and portions of the Creston and Estrella Subareas. Group C and Group D soils are present on the hills surround the basin floor.

Figure 3-3. Difference in Spring Groundwater Elevations 1997 to 2009

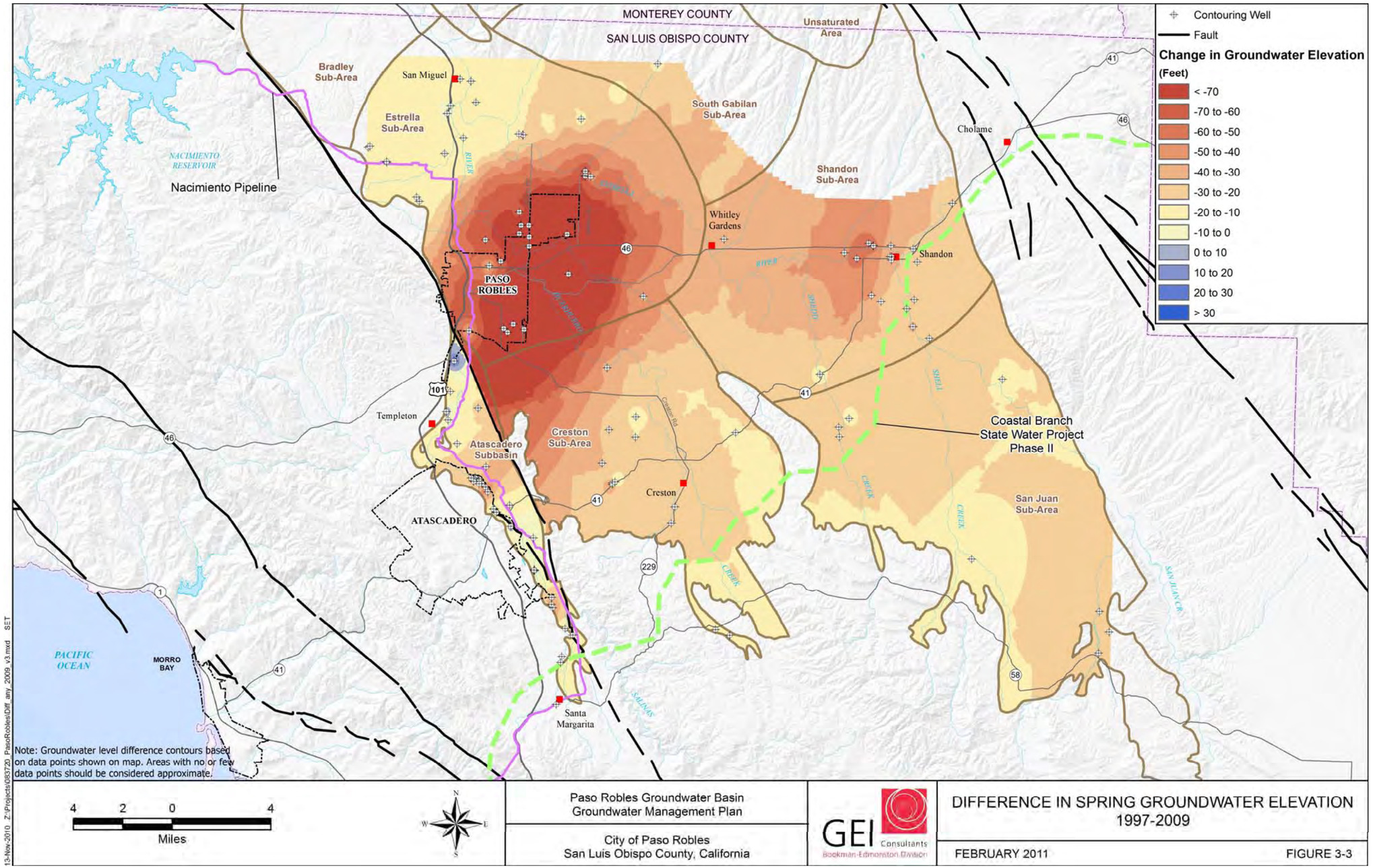
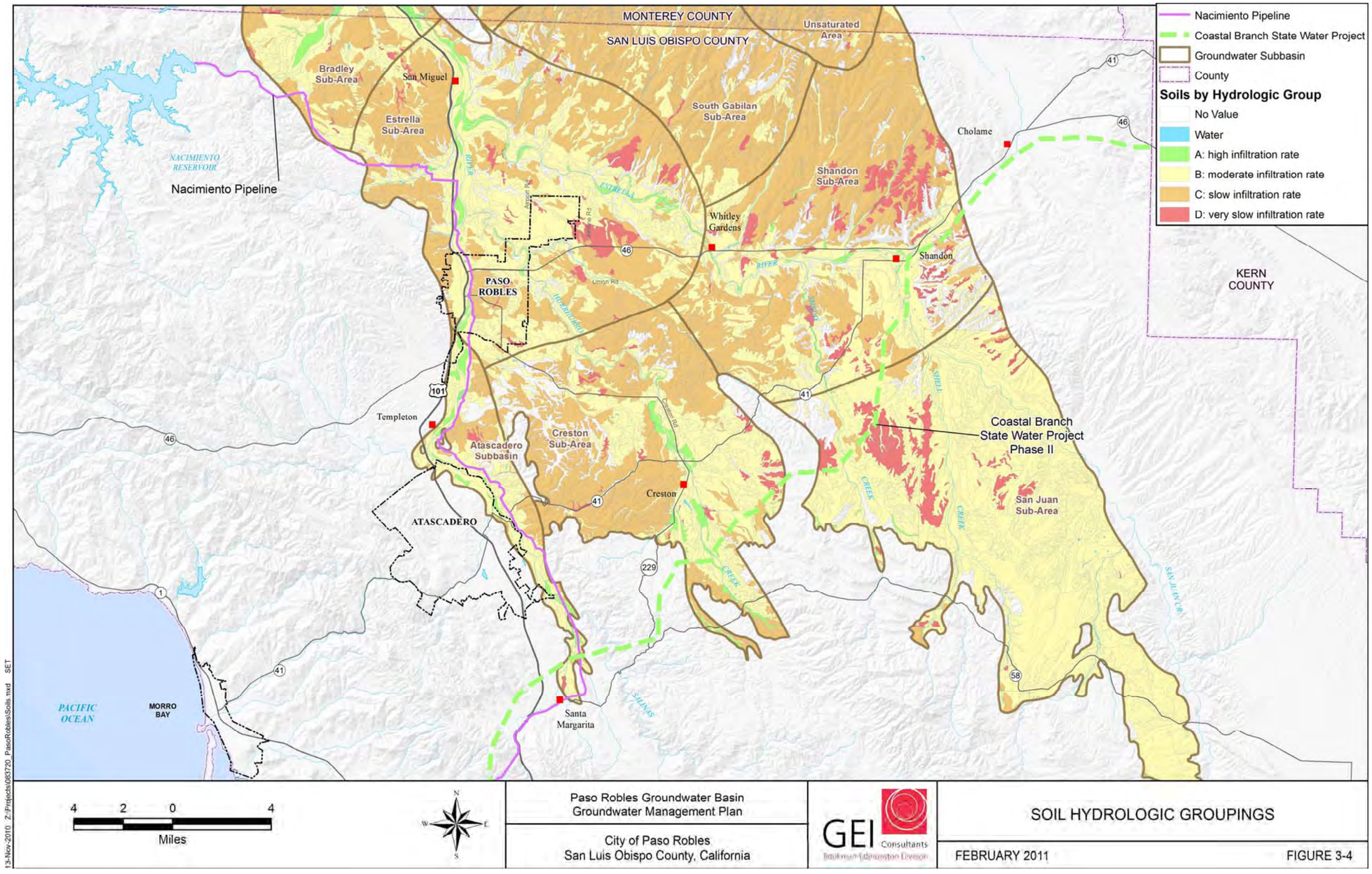


Figure 3-4. Soil Infiltration Rates



3.4 Land Subsidence Conditions

Land subsidence is the lowering of the land surface elevation due to changes that occur underground. Common causes of land subsidence from human activities include pumping water, oil, and gas from subsurface reservoirs; dissolution of limestone, causing sinkholes; collapse of underground mines; drainage of organic soils; and hydro-compaction. Historically, there has been land subsidence in California resulting from over drafting of the groundwater basin.

No direct measurements of subsidence have been made in the area using extensiometers or repeat benchmark calibration. However, InSAR has been used in the area to remotely map land-surface displacements. This technology uses radar images taken from satellites that are used to create maps of change in land surface elevation. The studies done in the area show that an area three miles northeast of Paso Robles has shown a downward displacement from 0.6 to 2.1 inches (Valentine, D. W. et al., 1997). There is no direct correlation of the measured land subsidence with change in groundwater levels over a long period in time, but some of the areas of land subsidence appear to correspond with areas of significant groundwater level decline between the spring of 1997 and fall of 1997.

3.5 Groundwater Quality Conditions

The Phase I Report (Fugro and Cleath, 2002) describes the general water quality of the groundwater Basin with respect to general minerals and selected minor constituents. The Phase I Report analysis indicated generally good overall water quality, but noted some areas of rising concentrations of total dissolved solids (TDS), chloride, and nitrate. Potential sources of these three constituents could include wastewater discharges, agricultural practices, irrigation with recycled water, and/or pumping or upwelling from deeper aquifers.

In general, the quality of groundwater in the Basin is relatively good, with few areas of poor quality and few significant trends of ongoing water quality deterioration. Historical water quality trends were evaluated to identify areas of deteriorating water quality. A major water quality trend is defined as a clear trend that would result in a change in the potential use of water within 50 years, if continued. The following major trends of water quality deterioration in the Basin were identified:

- Increasing TDS and chlorides in shallow Paso Robles Formation deposits along the Salinas River in the central Atascadero Subbasin.
- Increasing chlorides in the deep, historically artesian aquifer northeast of Creston.
- Increasing TDS and chlorides near San Miguel.
- Increasing nitrates in the Paso Robles Formation in the area north of Highway 46, between the Salinas River and the Huerhuero Creek.
- Increasing nitrates in the Paso Robles Formation in the area south of San Miguel.
- Increasing TDS and chlorides in deeper aquifers near the confluence of the Salinas and Nacimiento rivers.
- Increasing levels of arsenic and manganese in the City of Paso Robles wells.

These trends underscore the need for improved management of the Basin to mitigate declining groundwater levels in several areas of the Basin.

3.6 Climate-Precipitation

The Paso Robles Groundwater Basin has a semi-arid Mediterranean climate, which is characterized by hot sunny summers and cool winters. Most of the precipitation occurs in the winter between November and April.

Rainfall is the primary source of recharge to the groundwater basin, and it is pertinent to understand rainfall's relationship to groundwater management activities in the basin. The average rainfall over the basin ranges from about 18 inches in the west (at the Atascadero MWC Gage #34) to 11 inches in the east (at the Shandon #73) as shown on Table 3-2. Figure 3-5 shows the location of selected precipitation stations in the basin. The historical annual rainfall recorded is represented along the Salinas River at Paso Robles Gage (Gage #10) for the 1960 to 2009 period (50 years), shown on Figure 3-6. During this period, rainfall was highly variable, ranging from about 5 inches to over 30 inches per year, and averaging 14.88 inches per year.

Table 3-2. Precipitation Stations in the Paso Robles Groundwater Basin

Precipitation Station	Period of Record	Average Annual Precipitation (inches)			
		Period of Record	1960 to 2009	1981 to 2009	1997 to 2009
Paso Robles Gage #10	1901 to 2009	15.04	14.88	14.49	13.73
Atascadero Mutual WC #34	1931 to 2009	17.65	17.85	17.58	17.49
Erickson Ranch 52.1	1928 to 2009	11.89	12.81	12.85	13.15
Shandon # 73	1937 to 2009	10.69	10.76	11.10	11.06
Sinclair #125	1949 to 2009	11.69	12.02	12.21	11.67

Figure 3-5. Precipitation and Surface Water Gaging Stations in the Paso Robles Area

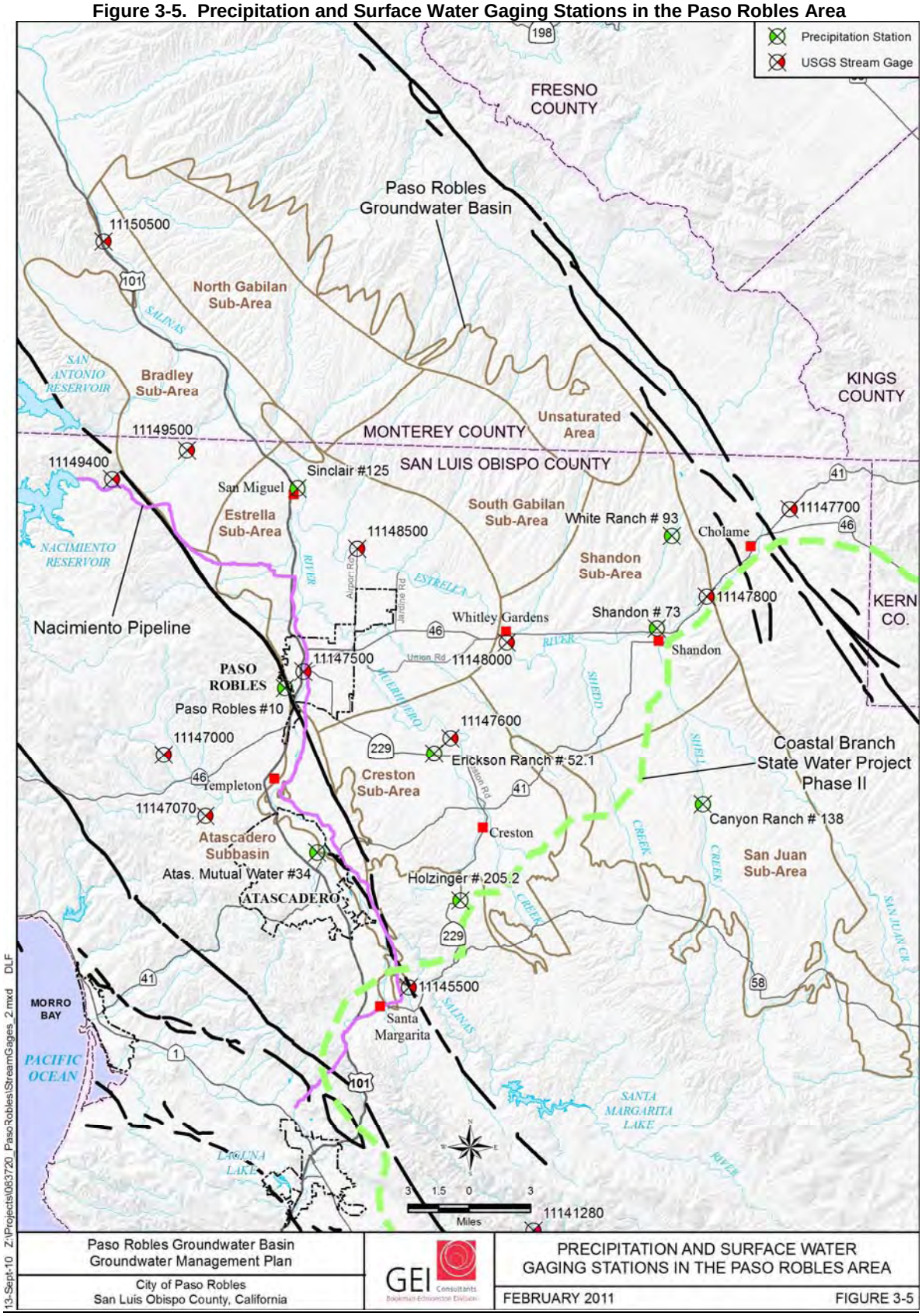
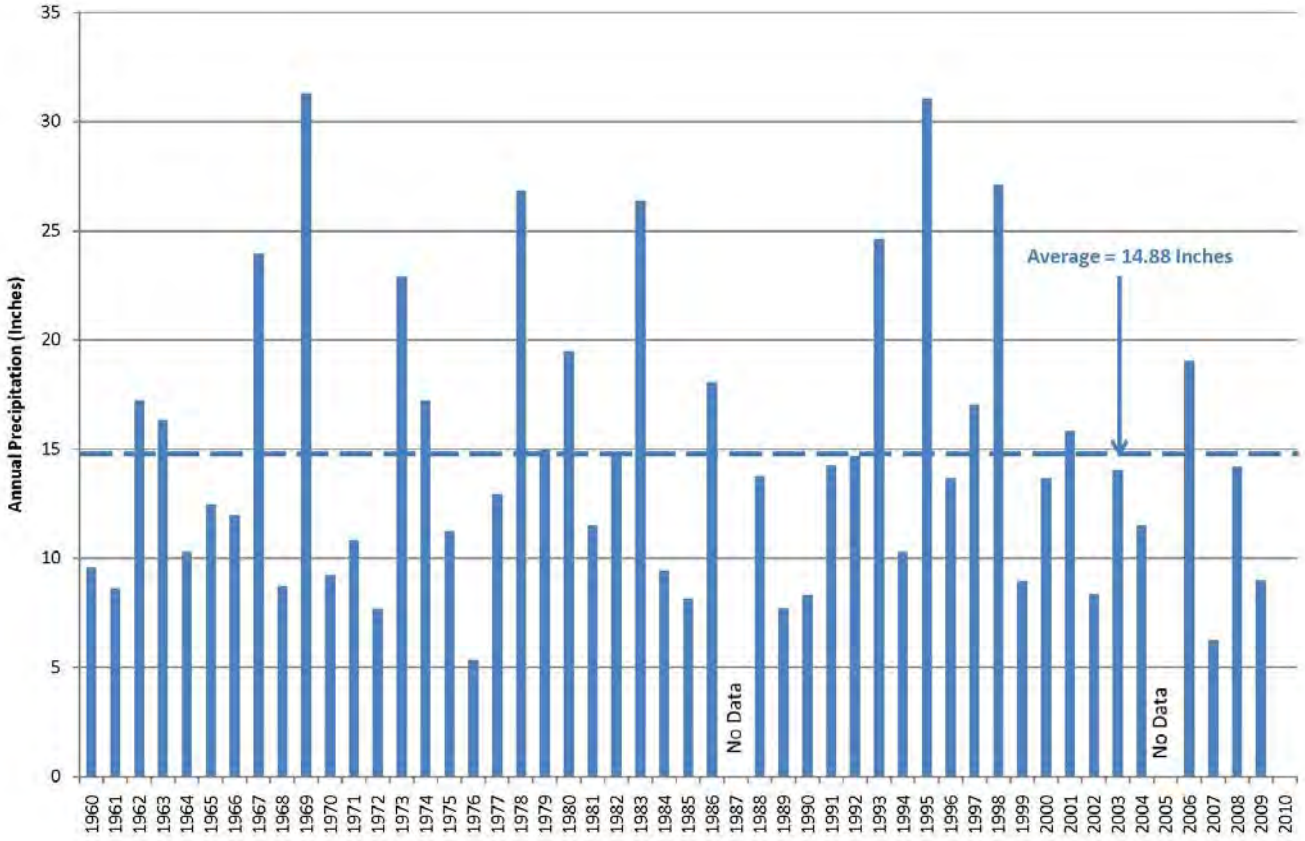


Figure 3-6. Annual Precipitation at the Paso Robles Gage for 1960-2009



For the last 13 years (1997 to 2009) the rainfall at this gage has averaged 14.6 inches per year as shown on Figure 3-6 and included both dry and wet periods typical of the long-term record. This period (2000-2009) is fairly representative of the overall rainfall annual amounts and variation.

3.7 Water Supplies

Historically, California water users have relied on multiple sources of water supply in order to meet changing and increasing water demands. Typically, local water providers mix and match their supply sources to maximize water supply and quality and minimize costs to meet both current and long-term water supply requirements. Water users in the Paso Robles Groundwater Basin have relied almost exclusively on groundwater. Beginning in 2010 surface water will become available to some purveyors on the west side of the basin to reduce the local groundwater pumping demand. This section briefly describes the groundwater and surface water supplies available in the Basin.

3.7.1 Surface Water Supplies

Two water supplies available to the Basin include the State Water Project and the Nacimiento Water Project.

3.7.1.1 State Water Project

The California Department of Water Resources operates the State Water Project (SWP). It is the largest State-built water and power project in the United States. Though the SWP first started delivering water in the 1960s, the Central Coast was not served until 1997 when the Coastal Branch Aqueduct, supplying Santa Barbara and San Luis Obispo counties, was completed.

The SWP was built with a capacity to deliver about 4.2 million acre-feet (maf) of water. Recent annual deliveries to the 29 contractors have averaged about 2.3 maf and peaked at 3.5 maf in 2000, so the SWP has available physical capacity to make additional deliveries, assuming the water supply is also available at the same time.

An individual contractor's portion of its SWP annual allocation is presented on Table A of their contract. Table A contract amounts are not a guarantee of the available supply to the contractor each year, but rather a tool in an allocation process that defines an individual contractor's share. The Table A annual allocation for the San Luis Obispo County Flood Control and Water Conservation District totals 25,000 acre-feet at an instantaneous rate of delivery of 35 cfs. This corresponds to a monthly delivery rate of 2,083 acre-feet. The County currently utilizes 4,830 acre-feet per year of the Table A annual allocation, which is delivered to 11 urban water users in the County listed on Table 3-3.

The community of Shandon (through C.S.A No. 16) is the only subscriber to SWP water located in the Basin. They have not accessed this supply. The location for a turnout to the Shandon area was constructed on Coastal Branch. The turnout and additional facilities would need to be completed before SWP water could be delivered to Shandon.

Table 3-3. State Water Project Subscribers Water Users

State Water Project Subscribers Water Users	Amount (AFY)
Avila Beach CSD	100
Avila Valley MWC	20
California Men's Colony	400
C.S.A. No. 16-1	100
County Operations Center	425
City of Morro Bay	1,313
Oceano CSD	750
City of Pismo Beach	1,240
San Luis Coastal USD	7
San Miguelito MWC	275
Cuesta College	200
TOTAL	**4,830**
Drought Buffer	variable
Unassigned Supply	20,170
Total SWP Table A Supply	**25,000**

3.7.1.2 Nacimiento Water Project

The Nacimiento Dam was constructed in 1957 by Monterey County Flood Control and Water Conservation District (now known as the Monterey County Water Resources Agency [MCWRA]). In 1959, San Luis Obispo County secured the rights to 17,500 acre-feet of water per year from Lake Nacimiento. After a long series of studies and negotiations, the Nacimiento Water Project was initiated. Agencies and communities that are participating in the project are listed below and the amount of water they have contracted to receive is shown on Table 3-4. The City of Paso Robles, Atascadero Mutual Water Company, and Templeton Community Services District, which are all part of the Paso Robles Groundwater Basin, currently subscribe to 6,250 acre-feet of water from the Nacimiento Water Project. When these supplies become available, they can be used to offset groundwater pumping and accommodate additional growth.

Table 3-4. Nacimiento Water Project Water Users

NWP Water Users	Amount (AFY)
City of Paso Robles	4,000
Atascadero MWC	2,000
City of San Luis Obispo	3,380
Templeton CSD	250
CSA 10 A	25
Total Assigned	**9,655**
Unassigned Supply	7,845
Total NWP Supply	**17,500**

3.7.2 Groundwater Supplies

The hydrogeologic analysis and later groundwater modeling of the Paso Robles Groundwater Basin estimated the perennial yield for the Basin to be about 97,700 acre-feet per year. The demands on the groundwater basin listed on Table 3-5 show that in 1997, the total annual demand of 76,404 acre-feet per year was about 78 percent of the perennial yield. By 2006, demands had increased to 89,473 acre-feet per year representing about 92 percent of the perennial yield. Projected groundwater demands are estimated to be almost 108,000 acre-feet per year by 2025. This represents 110 percent of the estimated perennial yield.

Table 3-5. Groundwater Pumping Demand in the Paso Robles Groundwater Basin for Selected Years

Demand Type	1997(1)	2006(2)	2025(3)
Agricultural (Estimated Gross Pumping)	51,791	60,000	66,860
Municipal	13,513	15,665	19,373
Small Community Systems(4)			
Small Commercial Systems	1,700	2,323	5,042
Rural	9,400	11,485	16,504
Total Demand	76,404	89,473	107,779
Percent Increase in Demands from 1997			141%
Perennial Yield(5)	97,700	97,700	97,700
Groundwater Demand as Percent of Perennial Yield	78%	92%	110%

Values in Acre-Feet
Notes:
(1)Source: Fugro, 2002 (Table 59)
(2)Source: Todd 2009 (Table 14)
(3)Source: Todd 2009 (Table 14, modified to reflect gross agriculture pumping)
(4)Included in Rural Demands
(5)Source: Fugro, 2005

The water demands and corresponding groundwater pumping is not uniformly distributed across the entire basin. As a result of long-term localized areas of groundwater pumping, groundwater declines are occurring in some parts of the Basin, including the Estrella, Creston, and Shandon Subareas.

3.8 Land Uses and Water Demands within Plan Area

The water demands and supplies for the Paso Robles Groundwater Basin are summarized from several of the documents identified in Section 1. Historically, all water demands in the Basin have been meet with groundwater. This is expected to change in 2010 when Nacimiento Project Water becomes available for use for some of the water users in the Basin.

Water demands in the Basin have generally been organized into five different "user sectors" including:

- **Agricultural** - Agricultural water demands are estimated using the crop acreage and water demands of different types of crops to determine the overall agricultural water demand. This method is used because records of agricultural pumping are not kept and reported.
- **Municipal** - Municipal pumping in the Basin includes four public water purveyors: 1) City of Paso Robles; 2) Atascadero Mutual Water Company; 3) Templeton Community Services District (CSD); and 4) San Miguel Community Services District. Pumping records were used to accurately calculate total municipal pumping.
- **Rural Residential** - Rural pumping includes domestic water use by development in rural areas. The estimate was derived by using parcel data and applying a water use factor, since records are not kept and reported.
- **Small Community Systems** - Small community systems include mutual water companies, county service areas and mobile home parks. For systems that report groundwater pumping, well records were used to accurately determine their pumping. Using these reports, estimates were derived for the systems that do not report their water use.
- **Small Commercial Systems -** Small commercial pumping includes such users as wineries, golf courses, and schools. Water use estimates are based on factors from the Pacific Institute and information from consultation with winery operators.

The demands were distributed to the subareas in the Basin to support the development of subarea-specific Basin Management Objectives as part of the preparation of the Groundwater Management Plan. Table 3-6 shows the distribution of the demands by demand type by subarea for 2006. In 2006, agricultural demands were about 67 percent of the total demand in the Basin, with about one-third of the total agricultural demand occurring in the Estrella Subarea. Municipal demands were about 18 percent of the total demand and are concentrated in the Atascadero Subbasin and the Estrella Subarea. The small community demands are included as part of rural domestic demands. Rural domestic demands were about 13 percent of the total demand. Small commercial demands total about three percent of the total demand, and are concentrated in the Estrella Subarea.

Table 3-6. Distribution of 2006 Water Demands to Subareas

Subarea	Demand Type						
	Agriculture	Municipal	Small Community Systems	Small Commercial Systems	Rural Domestic	Total	Percentage
Atascadero Subbasin	1,348	11,735	0	430	2,032	15,545	17%
Bradley	6,933	0	0	184	109	7,226	8%
Creston	9,936	0	0	37	2,338	12,311	14%
Estrella	23,111	3,930	0	1,603	5,433	34,077	38%
North Gabilan	1,758	0	0	0	50	1,808	2%
San Juan	5,347	0	0	0	105	5,452	6%
Shandon	9,896	0	0	69	1,205	11,170	12%
South Gabilan	1,671	0	0	0	213	1,884	2%
Total	**60,000**	**15,665**	**0**	**2,323**	**11,485**	**89,473**	**100%**
Percent of Total	**67%**	**18%**	**0%**	**3%**	**13%**	**100%**	

The following sections describe the historic water demands for each of the subareas in the Basin.

3.8.1 Atascadero Subbasin

The Atascadero Subbasin is located in the western portion of the Paso Robles Groundwater Basin and has an area of approximately 14,577 acres, which makes up about three percent of the area of the Basin. The Rinconada Fault separates the Atascadero Subbasin from the Paso Robles Basin. The Salinas River flows north roughly paralleling Highway 101 through the subbasin, entering the Estrella Subarea of the Basin near the City of Paso Robles.

This subarea includes the City of Paso Robles and the City of Atascadero's community of Templeton. The Atascadero Mutual Water Company is the water purveyor to the City of Atascadero, but wastewater treatment is provided by the City of Atascadero. The Templeton Community Services District (CSD) provides potable water and wastewater treatment services to the community of Templeton.

Table 3-7 presents the estimated water demands by type for years 1997 and 2006. Municipal demands make up most of the total demand. The total water use in 1997 was estimated at about 14,500 acre-feet and by 2006 totaled about 15,545 acre-feet, representing about 17 percent of the total water use in the Basin. All these demands were met with groundwater, including the Salinas River underflow. Water demands in the Atascadero subbasin increased by about 1,000 acre-feet during the 1997 to 2006 period as shown on Table 3-7.

Table 3-7. Estimated Water Demands in the Atascadero Subbasin for 1997 and 2006

Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	1,348	11,735	0	430	2,032	15,545
Estimated 1997 Demand	(acre-feet)	1,023	11,376	0	300	1,800	14,499
Difference (2006 less 1997)	**(acre feet)**	**325**	**359**	**0**	**130**	**232**	**1,046**

2006 Demand Assumptions: Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009) and Agricultural Commissioner records in 2006

2006 Municipal demand includes City of Paso Robles groundwater pumping from river wells in the subbasin (3,933 acre-feet)

1997 Demand Assumptions: 1997 Demands from Paso Robles Groundwater Basin Study (Fugro 2002).

Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.

Small community demands included in rural domestic demand

Beginning in 2011, Nacimiento Pipeline will begin delivering surface water to the Atascadero Mutual Water Company (up to 2,000 acre-feet per year) and the Templeton Community Services District (up to 250 acre-feet per year) to offset some of the municipal groundwater pumping.

3.8.2 Bradley Subarea

The Bradley Subarea is located along the northwestern portion of the Paso Robles Groundwater Basin and has an area of approximately 55,500 acres, which makes up about 11 percent of the area of the Basin. Much of the subarea is located in Monterey County. The Salinas River flows northwest through the subarea. The Nacimiento River and the San Antonio River drain the western portion of the Basin. Several creeks draining the North Gabilan Subarea flow into the Salinas River within the subarea. Highway 101 parallels the Salinas River through the subarea. Much of the subarea south of the San Antonio River is within the limits of Camp Roberts.

The water use in 2006 totaled about 7,226 acre-feet representing about eight percent of the water use in the Basin. The water users in the Bradley Subarea and their uses are shown in Table 3-8. All water demands in the subarea are met with groundwater, and the total demand has increased by about 1,000 acre-feet between 1997 and 2006 as shown on Table 3-8.

Table 3-8. Estimated Water Demands in the Bradley Subarea for 1997 and 2006

Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	6,933	0	0	184	109	7,226
Estimated 1997 Demand	(acre-feet)	6,001	0	0	136	88	6,225
Difference (2006 less 1997)	**(acre feet)**	**932**	**0**	**0**	**48**	**21**	**1,001**

2006 Demand Assumptions: Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)

1997 Demand Assumptions: 1997 Demands from Paso Robles Groundwater Basin Study (Fugro 2002).

Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.

3.8.3 Creston Subarea

The Creston Subarea is located in the southern portion of the Paso Robles Groundwater Basin and has an area of approximately 57,000 acres, which makes up about 11 percent of the area of the Basin. The Rinconada fault separates the Creston Subarea from the Atascadero Subbasin. The Huerhuero Creek flows northwest through the subarea, entering the Estrella Subarea southeast of the City of Paso Robles. This subarea includes the community of Creston. There are no public water purveyors in the subarea.

The water use in 2006 totaled about 12,311 acre-feet representing about 14 percent of the water use in the Basin. The primary use of groundwater in this subarea is for agriculture, with rural uses making up most of the remaining water use. Water demands in the Creston Subarea increased by about 1,800 acre-feet during the 1997 to 2006 period as shown on Table 3-9.

Table 3-9. Estimated Water Demands in the Creston Subarea for 1997 and 2006

Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	9,936	0	0	37	2,338	12,311
Estimated 1997 Demand	(acre-feet)	8,600	0	0	27	1,880	10,507
Difference (2006 less 1997)	**(acre-feet)**	**1,336**	**0**	**0**	**10**	**458**	**1,804**

2006 Demand Assumptions: Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)

1997 Demand Assumptions: 1997 Demands from Paso Robles Groundwater Basin Study (Fugro 2002).

Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.

3.8.4 Estrella Subarea

The Estrella Subarea is located in the western portion of the Paso Robles Groundwater Basin and has an area of approximately 82,500 acres, which makes up about 16 percent of the area of the Basin. This subarea includes the City of Paso Robles (City) and the San Miguel Communities Services District. The Salinas River flows north, roughly paralleling Highway 101. Huerhuero Creek enters the subarea from the Creston Subarea and flows into the Salinas River near the City of Paso Robles. The Estrella River flows from the Shandon Subarea and enters the Salinas River north of the City.

The water use in 2006 totaled about 34,077 acre-feet representing about 38 percent of the water use in the Basin. The water users in the Estrella Subarea and their uses are shown in Table 3-10. In 2006, the entire demand was met with groundwater. There is a diverse group of water users in this subarea. About two-thirds of the pumping in this subarea is for agricultural uses. Rural and municipal users account for about one-third of the groundwater pumping. Water demands in the Estrella Subarea increased by about 6,300 acre-feet during the 1997 to 2006 period as shown on Table 3-10.

Table 3-10. Estimated Water Demands in the Estrella Subarea for 1997 and 2006

Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	23,111	3,930	0	1,603	5,433	34,077
Estimated 1997 Demand	(acre-feet)	20,004	2,137	0	1,186	4,368	27,695
Difference (2006 less 1997)	**(acre feet)**	**3,107**	**1,793**	**0**	**417**	**1,065**	**6,383**

2006 Demand Assumptions: Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)

1997 Demand Assumptions: 1997 Demands from Paso Robles Groundwater Basin Supply (Fugro, 2002).

Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.

1997 Municipal demand includes City of Paso Robles groundwater pumping from basin wells (1,911 acre-feet)

Small community demands included in rural domestic demand

Beginning in 2011, up to 4,000 acre-feet of surface water from the Nacimiento Pipeline will be available to the City of Paso Robles to offset some of the municipal groundwater pumping. The City will not be able to use this supply until a water treatment plant is constructed, which is anticipated to come on-line by 2013.

3.8.5 North Gabilan Subarea

The North Gabilan Subarea is located along the northeastern portion of the Paso Robles Groundwater Basin. The North Gabilan Subarea has an area of approximately 52,600 acres, which makes up about 11 percent of the area of the Basin. Almost all of the North Gabilan Subarea is located in Monterey County.

The water use in 2006 totaled about 1,808 acre-feet representing about two percent of the water use in the Basin. The water users in the North Gabilan Subarea and their uses are shown on Table 3-11. Water demands in the North Gabilan Subarea have increased by total of about 250 acre-feet between 1997 and 2006 as shown on Table 3-11.

Table 3-11. Estimated Water Demands in the North Gabilan Subarea for 1997 and 2006

Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	1,758	0	0	0	51	1,808
Estimated 1997 Demand	(acre-feet)	1,522	0	0	0	41	1,563
Difference (2006 less 1997)	**(acre-feet)**	**236**	**0**	**0**	**0**	**10**	**246**

2006 Demand Assumptions: Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)

1997 Demand Assumptions: 1997 Demands from Paso Robles Groundwater Basin Study (Fugro 2002).

Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.

3.8.6 San Juan Subarea

The San Juan Subarea is located in the southeastern portion of the Paso Robles Groundwater Basin and has an area of approximately 84,000 acres, which makes up about 17 percent of the area of the Basin. The San Juan Subarea lies south-southeast of Shandon and includes the agricultural land along San Juan Creek, Camatta Canyon, Shell Creek Road, and Shedd Canyon. These creeks flow northward through the subarea where they eventually become part of the Estrella River in the Shandon Subarea.

The water use in 2006 totaled about 5,452 acre-feet representing about six percent of the water use in the Basin. The water users in the San Juan Subarea and their uses are delineated in Table 3-12. Water demands in the San Juan Subarea are met by groundwater. The demands have increased by a total of about 740 acre-feet between 1997 and 2006 as shown on Table 3-12.

Table 3-12. Estimated Water Demands in the San Juan Subarea for 1997 and 2006

Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	5,347	0	0	0	105	5,452
Estimated 1997 Demand	(acre-feet)	4,628	0	0	0	84	4,712
Difference (2006 less 1997)	**(acre-feet)**	**719**	**0**	**0**	**0**	**21**	**740**

2006 Demand Assumptions: Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)

1997 Demand Assumptions: 1997 Demands from Paso Robles Groundwater Basin Study (Fugro 2002).

Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County

3.8.7 Shandon Subarea

The Shandon Subarea is located in the eastern portion of the Paso Robles Groundwater Basin and has an area of approximately 74,800 acres, which makes up about 15 percent of the area of the Basin. This subarea includes the communities of Whitley Gardens and Shandon. Cholame Creek enters the Basin from the northeast flowing westward. It is joined by the San Juan Creek which flows northward from the San Juan Subarea, near the town of Shandon to form the Estrella River, which then flows west and northwest through the Estrella Subarea and enters the Salinas River north of the City of Paso Robles.

The water use in 2006 totaled about 11,170 acre-feet representing about 12 percent of the water use in the Basin. The water users in the Shandon Subarea and their uses are delineated in Table 3-13. Water demands in the Shandon Subarea met by groundwater increased by about 1,600 acre-feet during the 1997 to 2006 period as shown on Table 3-13.

Table 3-13. Estimated Water Demands in the Shandon Subarea for 1997 and 2006

Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	9,896	0	0	69	1,205	11,170
Estimated 1997 Demand	(acre-feet)	8,566	0	0	51	969	9,586
Difference (2006 less 1997)	**(acre-feet)**	**1,330**	**0**	**0**	**18**	**236**	**1,584**

2006 Demand Assumptions: Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)

1997 Demand Assumptions: 1997 Demands from Paso Robles Groundwater Basin Study (Fugro 2002).

Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County

3.8.8 South Gabilan Subarea

The South Gabilan Subarea is located along the northeastern portion of the Paso Robles Groundwater Basin. The South Gabilan Subarea has an area of approximately 44,500 acres, which makes up about nine percent of the area of the Basin. The northern portion of the South Gabilan Subarea is located in Monterey County. The South Gabilan Subarea is drained by several small creeks that flow into the Estrella River; the small creeks draining the North Gabilan Subarea flow into the Salinas River.

The water use in 2006 totaled about 1,884 acre-feet representing about two percent of the water use in the Basin. The water users in the South Gabilan Subarea and their uses are shown on Table 3-14. Water demands in the South Gabilan Subarea have increased by total of about 250 acre-feet between 1997 and 2006 as shown on Table 3-14.

Table 3-14. Estimated Water Demands in the South Galiban Subarea for 1997 and 2006

Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	1,671	0	0	0	213	1,884
Estimated 1997 Demand	(acre-feet)	1,446	0	0	o	171	1,617
Difference (2006 less 1997)	**(acre-feet)**	**225**	**0**	**0**	**0**	**42**	**267**

2006 Demand Assumptions: Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)

1997 Demand Assumptions: 1997 Demands from Paso Robles Groundwater Basin Study (Fugro 2002).

Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County

4 Goals and Objectives

Groundwater management involves understanding the available groundwater resources in order to make informed decisions about meeting existing and future water needs. This section establishes the goals and objectives that will be used to direct groundwater management activities.

4.1 Overview of Basin Management Objectives

The State advocates the concept of Basin Management Objectives (BMOs) that are locally-developed guidelines for groundwater management that describe actions to be taken by well owners in response to well-monitoring data. The BMOs allow for more generalized objectives to be developed that are quantified and measureable so that improvements in groundwater management can be tracked and monitored. The BMO concept was also developed to meet the groundwater management needs within a basin that has different groundwater users and/or overlapping jurisdictional agencies. This approach allows the BMO concept to overcome some of the common difficulties associated with defining safe yield and overdraft in a groundwater Basin.

A feature of the BMO method includes the flexibility to modify management objectives as knowledge of the Basin increases. Each area can set its own BMO for one or more wells within the area and pursue its specific groundwater management goals as long as they do not negatively affect neighboring areas. This is a key concept of BMO development – that water management practices or activities in one management area should not negatively affect the water management objectives of another area.

The BMO method of management seeks to protect the Basin from:

- Unacceptable depletion of groundwater in storage
- Degradation of groundwater quality
- Inelastic land subsidence, which is a permanent lowering of the ground surface resulting from compaction of geologic materials caused by groundwater extraction.

4.2 Development of BMOs and GMAs

The groundwater level data collected by the County is the most comprehensive groundwater-related data set in the Basin. Additionally, the stakeholders identified groundwater level declines as the most pressing issue in the Basin. These two factors lead to the determination that at this time, BMOs would be developed for groundwater levels. In addition to groundwater levels affecting total groundwater in storage, groundwater levels are also used as a surrogate for potential groundwater quality impacts and land subsidence impacts associated with groundwater level decline.

In the future, specific BMOs may be developed for groundwater quality and land subsidence when more data is available for either of those subjects.

4.2.1 BMO Workshops

Three workshops were held to meet with the stakeholders in each subarea to review the available information, develop draft BMOs, and identify some activities that could be implemented to meet the BMOs.

The workshops were as follows:

> BMO Workshop No. 1 – April 11, 2010: for the Atascadero, Creston, and Estrella Subareas
>
> BMO Workshop No. 2 – May 10, 2010: for the Bradley and North Gabilan Subareas
>
> BMO Workshop No. 3 – May 10, 2010: for the San Juan, Shandon, and South Gabilan Subareas

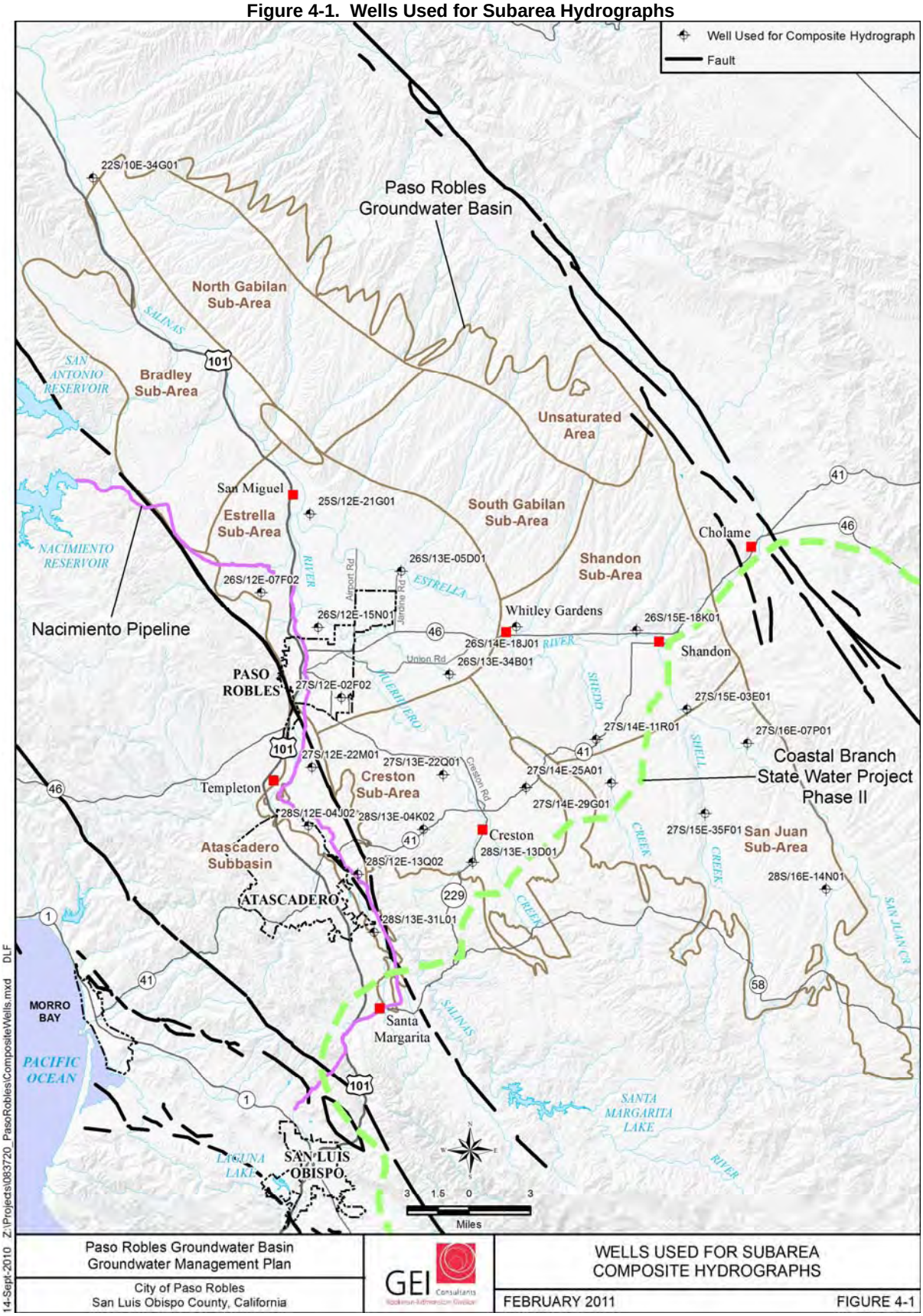
Each of the workshops was well attended by interested parties and stakeholders from each subarea. The list of attendees for the BMO workshops is included in Appendix D. Each subarea stakeholder was provided a packet of subarea-specific information that was used to support the development of BMOs and identification of groundwater management activities (GMAs).

A summary document was produced following the workshops and distributed to the stakeholders for review and comment. The results of the BMO workshops were used to develop the BMOs described below.

4.2.2 BMO Key Wells and Subarea Hydrographs

As part of the development of groundwater level BMOs, key wells were identified within the each subarea to establish the representative groundwater levels that will be used to monitor the change in groundwater levels. Since the Paso Robles Basin groundwater monitoring network is voluntary, there is a limited amount of information that is available to identify key wells. The key wells were selected based on number of monitoring observations during the 1981 to 2009 period of record and the geographic location within the subarea. The wells meeting these two criteria were identified as key wells and used to develop the subarea hydrographs. The locations of these key wells used to create the subarea-specific BMO hydrographs are shown on Figure 4-1.

Figure 4-1. Wells Used for Subarea Hydrographs



4.2.3 Groundwater Management Activities

Groundwater Management Activities (GMAs) are intended to identify the steps or actions taken to meet the BMOs. It should be recognized that both BMOs and GMAs should be evaluated and updated routinely (every few years) as additional information is collected or in response to changing conditions.

4.3 General Basin Management Objectives

The goal of the GMP is to locally manage and protect groundwater resources for all beneficial uses in a long-term sustainable, environmentally sound, economical, and equitable manner. For purposes of meeting the goals of groundwater management stated in Section 2.3 the agencies and stakeholders will support the Basin Management Objectives described in this section. Two sets of BMOs have been developed reflecting the regional nature of this groundwater management plan: (1) broad level BMOs are designed to have basin-wide, regional perspectives [Section 4.3], and (2) more specific BMOs have been developed for each Subarea [Section 4.4].

4.3.1 Maintain and Improve Groundwater Levels

Groundwater levels in the basin generally reflect the overlying level of development of all use types (agricultural, municipal, small commercial, small community, and rural domestic). Groundwater levels have experienced the greatest levels of decline in the areas with the highest level of development, and near the center of those areas with the greatest level of development. This objective is intended to ensure that the overall groundwater levels in the basin are maintained to provide long-term reliable sources of water for the economic well-being of the area. General activities and projects that maintain and improve groundwater levels include projects that:

- Reduce groundwater pumping
- Increase overall water supply
- Increase water reuse or recycled water supply
- Protect and increase groundwater recharge
- Limit future increases in groundwater pumping

Some of the considerations for implementing these activities to improve groundwater levels are summarized on Table 4-1, including agencies that may be responsible for implementation of the various projects, the relative cost and schedule for the projects, and the overall implementation complexity.

Table 4-1. Implementation of GMAs to Maintain and Improve Groundwater Levels

Groundwater Management Activity	Implementation Considerations			
	Implementation Responsibility	Relative Implementation Schedule	Relative Implementation Cost	Overall Implementation Complexity
Potential activities to reduce groundwater pumping:				
1) Reduce agricultural pumping	Individual Growers	Short	low-medium	low-medium
2) Reduce municipal pumping	Urban Purveyors Customers	Ongoing	low-medium	low-medium
Potential activities to increase water supply:				
1) Import Nacimiento Project Water	Organized Water Purveyors	Short (6 months) to medium (2-3 years)	high	high
2) Import State Water Project Water	Organized Water Purveyors	Long - More than 10 years	high	high
Potential reuse or recycled water projects:				
1) Implement agricultural water reuse program	Individual Growers	Additional savings generally not feasible because use of drip irrigation	low-medium?	low-medium?
2) Increase municipal water recycling program	Organized Water Purveyors	Long - More than 10 years	high	high
Potential groundwater recharge projects:				
1) Protect natural recharge areas	Organized Water Purveyors / Landowners	Medium to long	Medium - high	Medium - high
2) Recharge imported surface water	Organized Water Purveyors	Long - More than 10 years	high	high
3) Recharge municipal reclaimed water	Organized Water Purveyors	Long - More than 10 years	high	high
4) Recharge storm water	Organized Water Purveyors / Landowners	Medium to long	medium - high	high
Manage future increases in groundwater pumping:				
1) Land use planning policies that do not allow net increase in groundwater pumping	County/City			

4.3.2 Maintain and Improve Groundwater Quality

The general water quality of the groundwater basin with respect to general minerals and selected minor constituents is good, but there are some areas of rising concentrations of total dissolved solids (TDS), chloride, and nitrate. Potential sources of these constituents include wastewater discharges (septic and municipal), agricultural practices, and irrigation with recycled water. General activities and projects that maintain and improve groundwater quality include projects that:

- Protect the water quality in the confined aquifer from by ensuring the proper construction of groundwater wells, including seals to separate the aquifer systems.
- Limit the impacts of the migration of contamination groundwater by incorporating available groundwater quality data into groundwater management operations.
- Limit upwelling of groundwater from the deeper aquifers by maintaining groundwater levels.

4.3.3 Protect Against Potential Inelastic Land Surface Subsidence

Historically, no land surface subsidence has been identified within the Basin. General activities and projects that protect against inelastic land subsidence resulting from groundwater level declines include those projects that maintain and improve groundwater levels. Additional activities could include projects that:

- Coordinate potential future land subsidence monitoring opportunities with State and federal agencies.
- Manage the groundwater basin to prevent land subsidence.
- Adjust groundwater management activities if land subsidence resulting from declining groundwater level is identified.

4.3.4 Protect Against Adverse Impacts to Surface Water Flows

Except along the Salinas River, there is little information regarding the relationship and interaction between surface water and groundwater in the Basin. There are few, if any, perennial streams in the Basin. Information on this relationship is needed to develop an understanding of the implications on the recharge/discharge areas and water quality conditions. General activities and projects that improve the understanding of groundwater and surface water interaction include projects that:

- Monitor river stage and nearby unconfined groundwater levels along the Salinas River.
- Evaluate this information to understand the relationship between surface water flows and groundwater levels at specific locations to determine the effect on groundwater levels and quality, including the potential impact of agricultural return flows on groundwater quality (to the extent any exist within the basin) and runoff from rural residences, horse pastures, roads, etc.

4.3.5 Groundwater Monitoring and Assessment

Groundwater monitoring provides the data and information needed to make groundwater management decisions. Groundwater level monitoring program is currently conducted by San Luis Obispo County. The California Statewide Groundwater Elevation Monitoring Program was created by legislation SBx7-6 in 2009. It will formalize how groundwater levels are reported to the State.

Current groundwater monitoring efforts include participation by various local districts and purveyors and San Luis Obispo County. An updated Monitoring Plan was developed for this GMP and is included in Appendix E.

The Monitoring Plan identifies the extent of the existing groundwater monitoring program in the unconfined and confined aquifer systems for groundwater elevations. The Monitoring Plan was prepared based on the existing wells monitored by several different agencies in the basin and provided recommendations for additional groundwater elevation and quality monitoring. This plan will be implemented by the GAC member agencies. Specific activities and projects that improve groundwater monitoring and assessment of groundwater conditions include projects that:

- Implement the Monitoring Plan included in Appendix E.
- Fill the data gaps in the Monitoring Plan with new dedicated multi-completion monitoring wells (if funding is available).

4.3.6 Evaluate and Implement Feasible Water Conservation Measures

Certain water conservation practices may be evaluated to determine their ability to improve water levels and water quality in the Basin. These may include water conservation opportunities for all land use types (agricultural, municipal, small commercial, small community, and rural domestic). General activities that support improved water demand management and water conservation include projects that:

- Identify current and potential conservation practices for each land use type.
- Quantify existing conservation practices being implemented.
- Develop outreach programs to encourage water conservation.
- Identify water reuse and water recycling opportunities
- Identify potential Low Impact Development (LID) opportunities for existing and new residential and commercial developments
- Provide incentives for water conserving devices/practices.

4.4 Subarea Basin Management Objectives

This section describes the identification of the groundwater level BMOs for individual subareas within the Basin.

The groundwater level BMOs established by the stakeholders for each subarea are listed in Table 4-2. In general, BMOs were selected to maintain or stabilize groundwater levels at or

near current conditions. Several subareas identified this as the initial BMO with the expectation that stabilizing groundwater levels needed to be achieved before improving groundwater levels could be considered.

Table 4-2. Basin Management Objective by Subarea

Subarea/Subbasin	Basin Management Objective (BMO)
Atascadero	Stabilize groundwater levels at 2009 levels
Bradley	Maintain groundwater levels
Creston	Stop decline and stabilize levels at 2009 levels
Estrella	Stabilize groundwater levels
North Gabilan	Maintain groundwater levels
San Juan	Maintain groundwater levels
Shandon	Stabilize groundwater levels
South Gabilan	Maintain groundwater levels

The initial Groundwater Management Activities identified during the stakeholder workshops are listed on Table 4-3. Many of the GMAs identified are common to several subareas. The subarea descriptions that follow include more detailed information about the draft BMOs and GMAs identified by the stakeholders through the workshops.

Table 4-3. Identified Groundwater Level GMAs by Subarea

Subarea/ Subbasin	Increase monitoring and reporting	Increase water conser-vation	Manage Growth	Use Nacimiento Project Water	Cloud-seeding	Prevent export from basin	Ground-water recharge and banking	Use State Water Project Water	Form irrigation or water district
Atascadero	X	X	X	X			X		
Bradley	X				X				
Creston	X	X	X			X	X		
Estrella	X	X		X					
North Gabilan									
San Juan	X								
Shandon		X			X		X	X	X
South Gabilan									

4.4.1 Atascadero Subbasin

The changes in groundwater levels in the Atascadero Subbasin are currently recorded at 51 wells that are included in the groundwater monitoring network. Four of these wells were selected to be representative of changes in groundwater level conditions in the subbasin. The locations of these four wells are shown on Figure 4-1.

The composite hydrograph showing the annual change and cumulative change in the average groundwater levels during the 1981 to 2009 period in the Atascadero Subbasin is included in Figure 4-2. This figure shows that in a single year, the average groundwater level can increase or decrease by up to 15 feet. The overall trend of the average groundwater levels has remained relatively constant since the early 1980s with groundwater levels rising and falling primarily in response to changing hydrologic conditions and increasing demands.

Representative precipitation data for the Atascadero Subbasin is recorded at the Atascadero Mutual Water Company precipitation Gage # 34. Precipitation data is available for this gage for the 1931 to 2009 period, during which annual precipitation averaged 17.65 inches. The annual rainfall for 1981 to 2009 period was about average (17.58 inches) compared to the period of record at that gage.

Figure 4-2. Atascadero Subbasin Composite Hydrograph and Annual Precipitation

Sub-Area Information	
Sub-Area	Atascadero
Basin Name	Atascadero

Sub-Area Well Records	
Period of Record	1966-2009
Num. BMO Wells	4

Report Information	
Report Start Year	1981
Period of Record	1981-2009

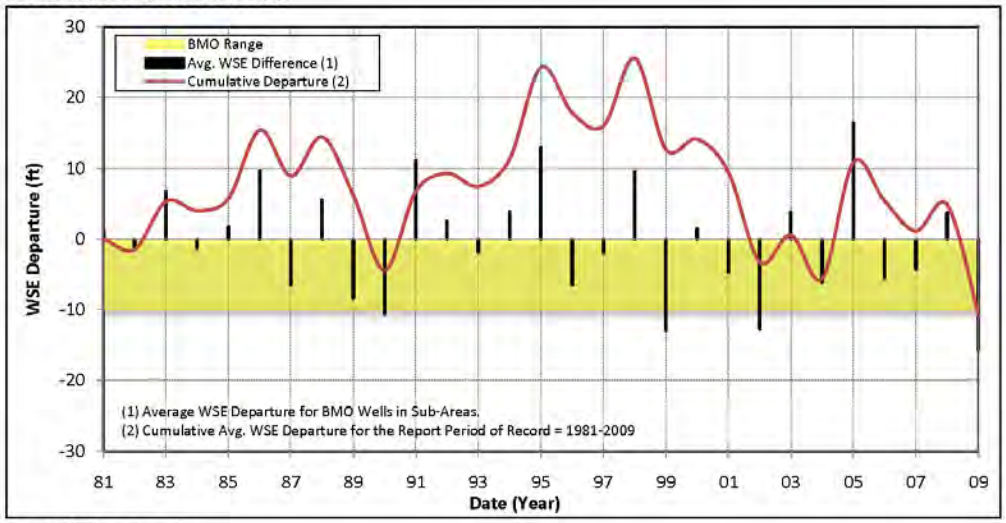
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1966-2009
Average Precip.	17.64 in

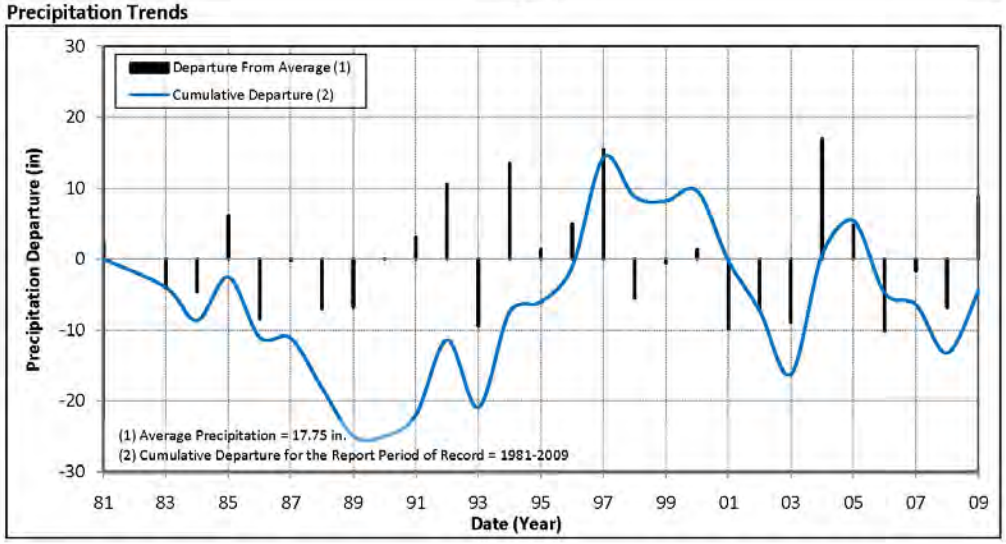
Trend Analysis Results	
BMO Departure[1)]	(10.00 ft)
2009 Departure	(10.75 ft)

NOTES: 1) BMO Cumulative Departure Since 1981

Water Surface Elevation Trends



Precipitation Trends



Based in part on this information, the stakeholders representing the Atascadero Subbasin determined that an acceptable draft BMO for groundwater levels that would include stabilizing groundwater levels at about the 2009 level. This represents a decline of about 10 feet from the 1981 groundwater levels as shown on Figure 4-2.

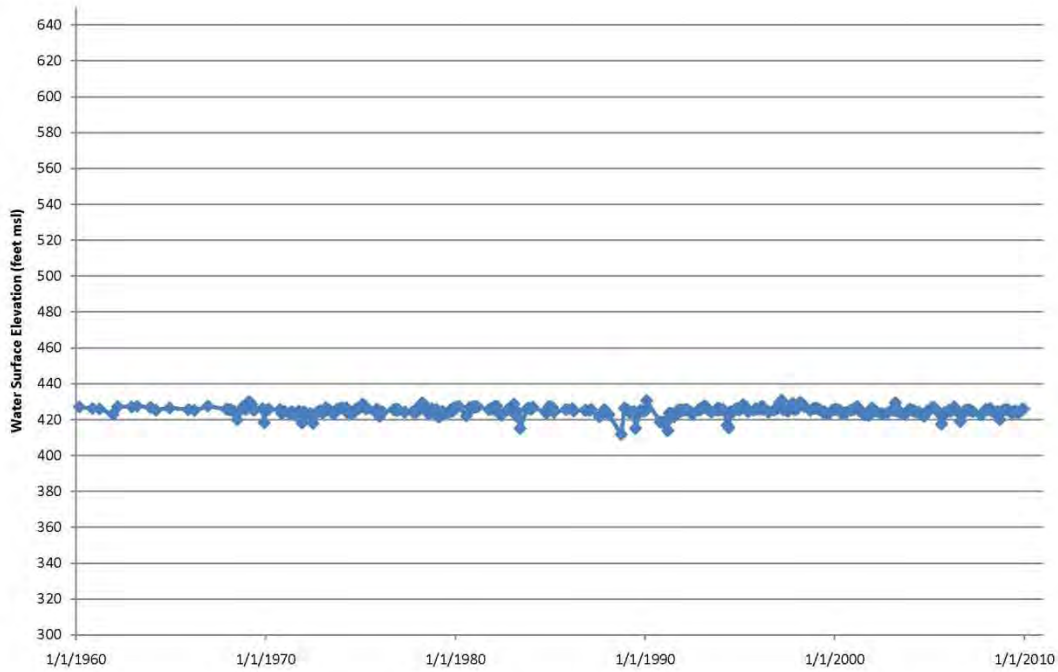
The following actions GMAs were identified by the stakeholders to stabilize groundwater levels in the Atascadero Subbasin. The GMAs are briefly described below.

- **Increase monitoring and reporting on groundwater conditions:** This GMA includes expanding the groundwater monitoring network in the Atascadero Subbasin through the addition of new wells to the volunteer monitoring network.
- **Increase water conservation education and implementation**: This GMA includes increasing the awareness of the impact of water conservation on reducing groundwater pumping. The effectiveness of the water conservation program will be difficult to verify for rural and agricultural areas without metering well production. The effectiveness of the GMA will be based on the changing behavior of individual water users and impacts on groundwater level trends in the area. The effectiveness of this GMA will be evaluated on an annual basis.
- **Managing the growth and corresponding increase in water demands**: This GMA includes identifying potential land use planning activities that may be used to reduce the rate of growth of water demand in the subbasin. In areas outside the jurisdiction of the cities of Atascadero and Paso Robles, land use planning is the responsibility of the San Luis Obispo County Department of Planning and Building.
- **Maximize the amount of Nacimiento Project Water in the Subbasin**: This GMA includes utilizing the existing Nacimiento Project Water already acquired for use in the subbasin, and explore opportunities to utilize unassigned Nacimiento Project Water.
- **Consider storm water management opportunities to increase local groundwater recharge**: This GMA includes evaluating the feasibility of recharging storm water runoff in the streams and creeks of the Basin. The potential benefit (in groundwater recharge) has not been evaluated for this GMA at this time.

4.4.2 Bradley Subarea

The changes in groundwater levels in the Bradley Subarea are currently recorded at one well that is included in the groundwater monitoring network of Monterey County Water Resources Agency (MCWRA). Construction details for this well are unknown and it may not be representative of groundwater levels throughout the Bradley or North Gabilan Subareas. The lack of data prevents the development of groundwater level hydrographs or composite hydrographs as developed for other subareas. The lone hydrograph available for these two subareas is shown in Figure 4-3. The location is shown on Figure 4-1.

Figure 4-3. Well Hydrograph in the Bradley Subarea



The hydrograph shown in Figure 4-3 is for a well located near the Salinas River downstream of the confluence of the Salinas River and the Nacimiento River. It appears that groundwater levels in this well reflect the interaction of the Salinas River and the alluvial aquifer materials adjacent to the river. Flows from the Salinas River, along with releases from Nacimiento Reservoir, help maintain groundwater levels in the alluvial aquifer near the Salinas River.

At this time, we are not aware of any reports or anecdotal information that suggests groundwater levels in the Bradley Subarea is declining to the point of causing problems for local groundwater users.

The different levels of BMOs were discussed at the workshop. As described above, there is very little available information to support the development of much targeted BMOs. Based on the available information, the BMO for the Bradley Subarea is to maintain high groundwater levels. The lack of an extensive monitoring network in this part of the Basin will prevent more detailed analysis at this time.

- **Continue monitoring and reporting on groundwater conditions:** Continue and improve monitoring – look to add monitoring well near the San Luis Obispo-Monterey County boundary between the Nacimiento River and the town of San Miguel.
- **Consider reestablishing Cloud Seeding Program:** Consider benefits of re-establishing the cloud seeding program in the Nacimiento and San Antonio watersheds. Cloud seeding was conducted in the past by MCWRA, and is estimated to have increased inflow into Lake Nacimiento and San Antonio Reservoirs by about 20 percent.

4.4.3 Creston Subarea

The changes in groundwater levels in the Creston Subarea are currently recorded at 17 wells that are included in the groundwater monitoring network. Four of these wells were selected to be representative of changes in groundwater level conditions in the eastern portion of the subarea. The locations of these four wells are shown on Figure 4-1. Since a well was not available in the northwestern portion of the subarea where well levels have declined most dramatically, these wells are not representative of the entire subarea.

The composite hydrograph showing the annual change and cumulative change in the average groundwater levels during the 1981 to 2009 period in the Creston Subarea is shown on Figure 4-4. This figure shows the average groundwater levels in the subarea appear to have peaked at about 1999. Since this time, groundwater levels have generally declined. This may be due in part to the increase in water demands between 1997 and 2006.

Representative precipitation data for the Creston Subarea is recorded at the Erickson Ranch precipitation Gauge # 52.1. Precipitation data is available for this gauge for the 1928 to 2009 period, during which annual precipitation averaged 11.89 inches. The annual rainfall for the 1981-2009 period was about one inch higher on average (12.85 inches) compared to the period of record at that gauge.

Based in part upon this information, the stakeholders representing the Creston Subarea determined that an acceptable draft BMO for groundwater levels in the Creston Subarea would include stopping the current rate of decline experienced in the last 10 years, and stabilizing groundwater levels at about the 2009 level as presented in the composite hydrograph (average of four wells) in the next five to ten years.

Figure 4-4. Creston Subarea Composite Hydrograph and Annual Precipitation

Sub-Area Information	
Sub-Area	Creston
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1960-2009
Num. BMO Wells	4

Report Information	
Report Start Year	1981
Period of Record	1981-2009

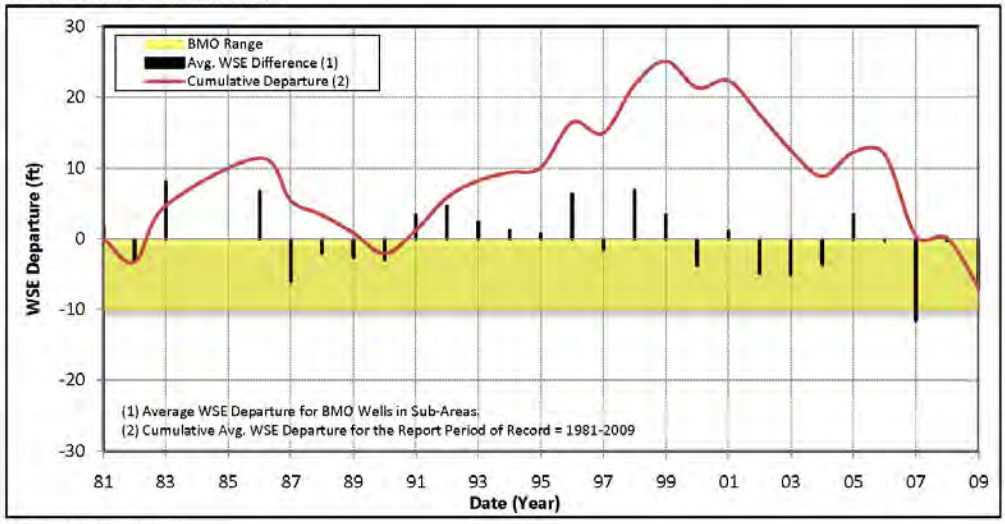
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1960-2009
Average Precip.	17.64 in

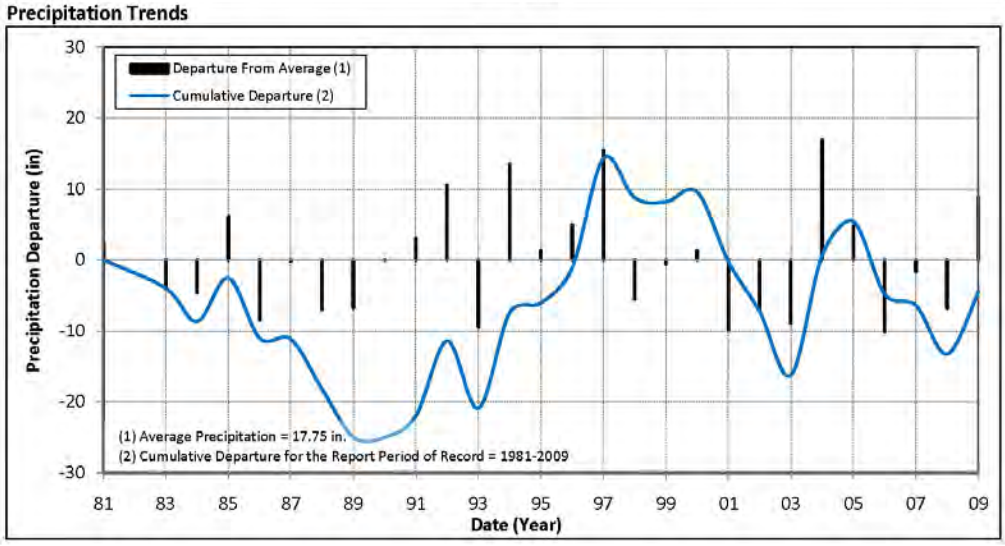
Trend Analysis Results	
BMO Departure[1)]	(10.00 ft)
2009 Departure	(6.91 ft)

NOTES: 1) BMO Cumulative Departure Since 1981

Water Surface Elevation Trends



Precipitation Trends



The following GMAs were identified by the Creston Subarea stakeholders to stabilize groundwater levels in the Creston Subarea.

- **Increase monitoring and reporting on groundwater conditions**: This GMA includes expanding the groundwater monitoring network in the Creston Subarea through the addition of new wells to the volunteer monitoring network. Additional wells are needed in the northwest portion of the subarea near the Estrella Subarea where historic groundwater level decline has been the greatest.
- **Increase water conservation education and implementation**: This GMA includes increasing the awareness of the impact of water conservation on reducing groundwater pumping. The effectiveness of the water conservation program will be difficult to verify for rural and agricultural areas without metering well production. The effectiveness of the GMA will be based on the changing behavior of individual water users and stabilized groundwater levels. The effectiveness of this GMA will be evaluated on an annual basis.
- **Managing the growth and corresponding increase in water demands**: This GMA includes identifying potential land use planning activities that may be used to reduce the rate of growth of rural residential development in the subarea. Throughout this subarea, land use planning is the responsibility of the San Luis Obispo County Department of Planning and Building. This GMA may include:
    - Moratorium on lot splits and subdivisions.
    - No net increase in groundwater use resulting from additional rural residential development via General Plan Amendments.
- **Preventing export of groundwater from the Basin:** This GMA includes identifying potential activities that result in exporting groundwater from the Basin. At this time, additional information is necessary to quantify the occurrence of groundwater pumping for export from the Basin. [to date this has not been quantified]
- **Consider storm water management opportunities to increase local groundwater recharge:** This GMA includes evaluating the feasibility of recharging storm water runoff in the streams and creeks of the Basin, at offstream locations and by retaining storm water onsite. The potential benefit (in groundwater recharge) has not been evaluated for this GMA at this time.

4.4.4 Estrella Subarea

The changes in groundwater levels in the Estrella Subarea are currently recorded at 50 wells that are included in the groundwater monitoring network. Six of these wells were selected to be representative of changes in groundwater level conditions in the subarea. The locations of these six wells are shown on Figure 4-1.

The composite hydrograph showing the annual change and cumulative change in the average groundwater levels during the 1981 to 2009 period in the Estrella Subarea is shown on Figure 4-5. Groundwater levels steadily declined during the period by over 70 feet.

Representative precipitation data for the Estrella Subarea is recorded at the Paso Robles precipitation Gage # 10. Precipitation data is available for this gage for the 1901 to 2009

period, during which annual precipitation averaged 15.04 inches. The annual rainfall for the 1981 to 2009 period was about one-half inch below average (14.49 inches) compared to the period of record at that gage.

The Estrella Subarea recorded the largest decline in groundwater levels (about 50 feet) during the 1997 to 2009 period. During this time, the average annual precipitation at the Paso Robles Gage was just below average (13.73 inches), suggesting that increased groundwater demands contributed significantly to the decline in groundwater levels in this subarea.

Based on this information, the stakeholders representing the Estrella Subarea determined that an acceptable draft BMO for groundwater levels in the subarea would include stabilizing groundwater levels at about the 2009 level. The goal of recovery of groundwater levels was identified as desirable by private domestic well owners, but the group agreed that such an objective was over-reaching at this time. The following GMAs were identified by the stakeholders to stabilize groundwater levels in the Estrella Subarea.

- **Increase data collection and monitoring and reporting on groundwater conditions:** It was determined that there is enough information to know that there is a problem, however, additional and better information is needed to further understand the problem.
- **Increase water conservation education and implementation:** The stakeholders recognized that additional conservation is needed. Some stakeholders felt that the amount of savings that can be achieved is limited. Other stakeholders felt that additional conservation in the agricultural sector could play a significant role in reducing groundwater demand and achieving the BMO of stabilizing water levels.
- **Nacimiento Project Water:** The stakeholders reached consensus regarding the use of Nacimiento Project Water to help alleviate the groundwater decline problem, but it was also recognized as not being the sole solution.

Figure 4-5. Estrella Subarea Composite Hydrograph and Annual Precipitation

Sub-Area Information	
Sub-Area	Estrella
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1967-2009
Num. BMO Wells	6

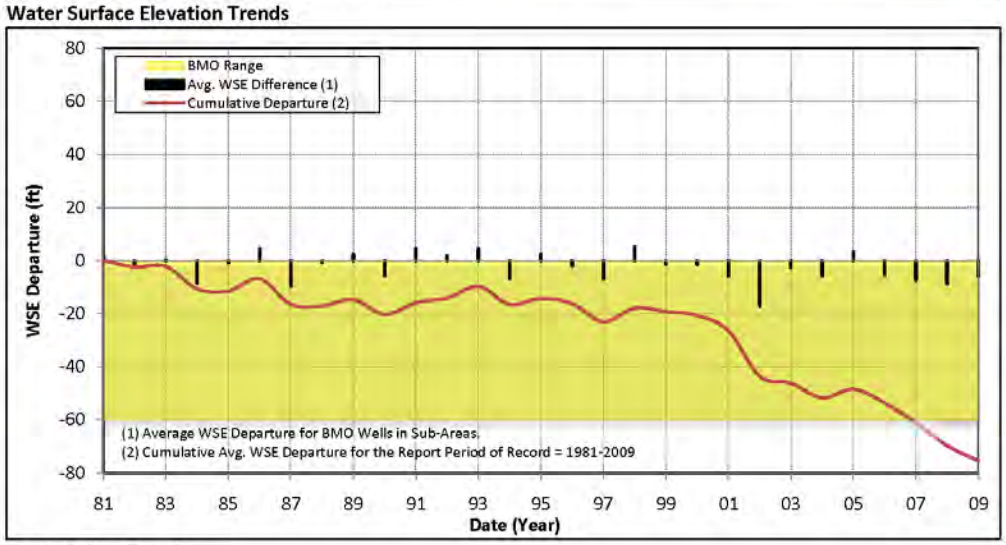
Report Information	
Report Start Year	1981
Period of Record	1981-2009

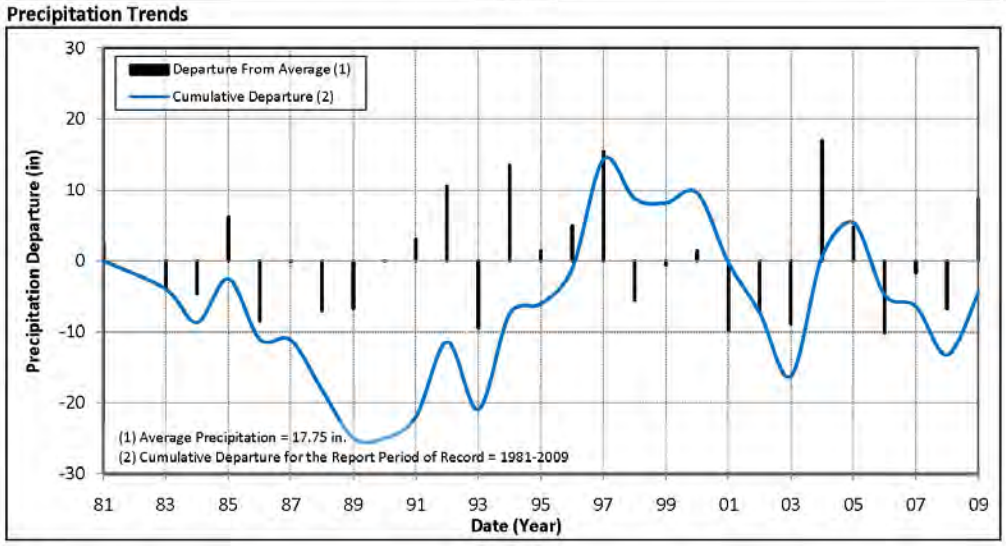
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1967-2009
Average Precip.	17.64 in

Trend Analysis Results	
BMO Departure[1]	(60.00 ft)
2009 Departure	(75.43 ft)

NOTES: 1) BMO Cumulative Departure Since 1981





4.4.5 North Gabilan Subarea

Overall water demand and groundwater use is low in the North Gabilan Subarea. There is also limited groundwater level data available, and no data that could be used to represent average groundwater levels in the subarea. Additionally, there are not identified groundwater problems or issues that have been presented to the Groundwater Advisory Committee. Because of the limited available data and identification of groundwater issues in the subarea, it is not practical to identify BMOs that can be measured at this time. The initial GMA

proposed at this time would include additional groundwater level monitoring to begin to track changes in groundwater levels. BMOs and additional GMAs may be developed after additional groundwater level data has been collected.

4.4.6 San Juan Subarea

4.4.6.1 Basin Management Objective

The changes in groundwater levels in the San Juan Subarea are currently recorded at 15 wells that are included in the groundwater monitoring network. Four of these wells were selected to be representative of changes in groundwater level conditions in the subarea. The locations of these four wells are shown on Figure 4-1.

The composite hydrograph showing the annual change and cumulative change in the average groundwater levels during the 1981 to 2009 period in the San Juan Subarea is shown on Figure 4-6. This figure shows that the groundwater levels in the San Juan Subarea are highly variable on an annual basis. It appears that groundwater levels in the San Juan Subarea respond quickly to changes in hydrologic conditions, with average groundwater levels increasing or decreasing by as much as 35 feet in a single year.

Representative precipitation data for the San Juan Subarea is recorded at the Shandon precipitation Gage # 73. Precipitation data is available for this gage for the 1937 to 2009 period, during which annual precipitation averaged 10.69 inches. The annual rainfall for 1981-2009 period was about one-half inch above average (11.06 inches) compared to the period of record at that gage.

During the 1981 to 1997 period, average groundwater levels changed considerably on a year-to-year basis, but there was no net significant difference in the cumulative groundwater levels at the end of the 16-year period. During the 1997 to 2006 period, the average groundwater levels in the San Juan Subarea declined by about 20 feet. Finally, during the 2006 to 2009 period, the average groundwater levels declined slightly (less than 5 feet). Overall, during the 1981 to 2009 period, average groundwater levels in the San Juan Subarea declined by about 25 feet.

Figure 4-6. San Juan Subarea Composite Hydrograph and Annual Precipitation

Sub-Area Information	
Sub-Area	San Juan
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1960-2009
Num. BMO Wells	4

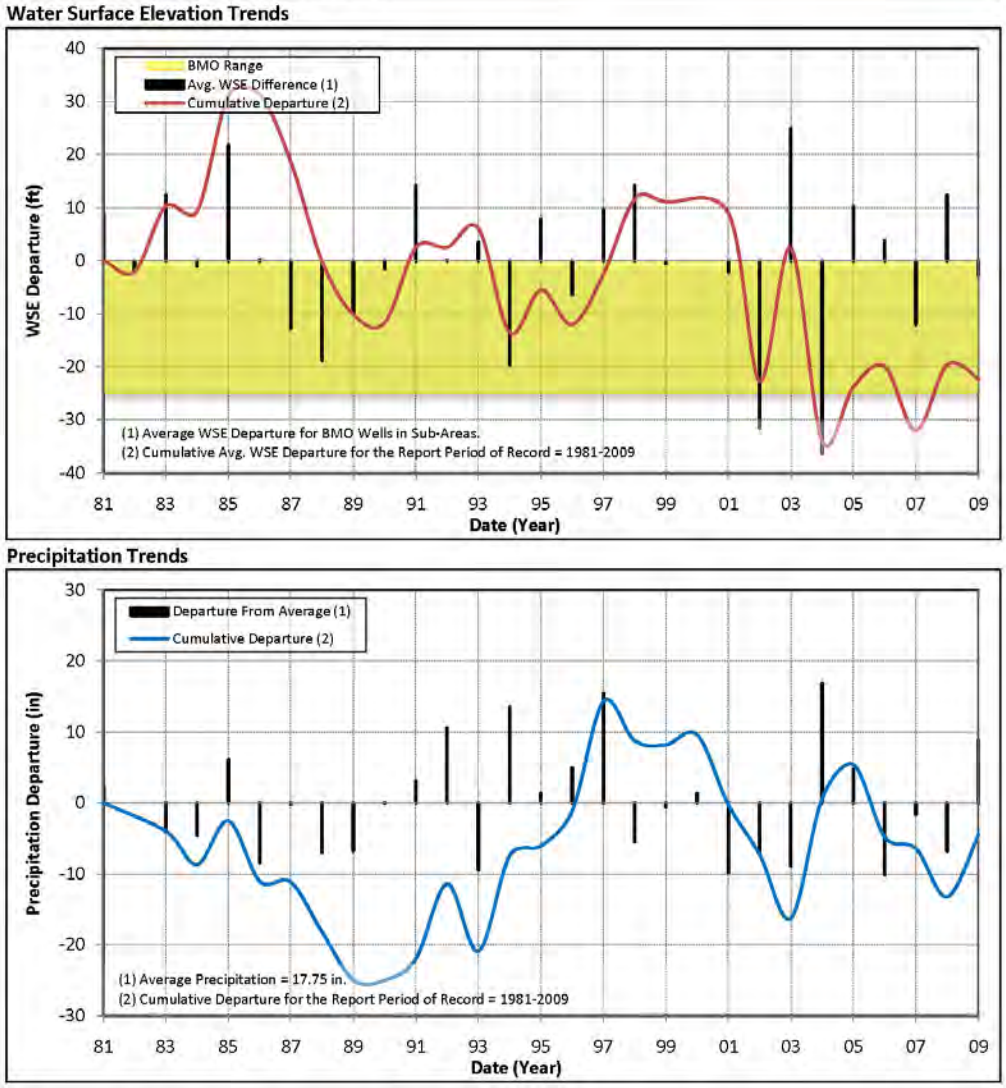
Report Information	
Report Start Year	1981
Period of Record	1981-2009

Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1960-2009
Average Precip.	17.64 in

Trend Analysis Results	
BMO Departure[1]	(25.00 ft)
2009 Departure	(22.24 ft)

NOTES: 1) BMO Cumulative Departure Since 1981



Based on this information, the stakeholders representing the San Juan Subarea determined that an acceptable draft BMO for groundwater levels in the subarea would include stabilizing groundwater levels at about the 2009 level. The following GMAs were identified by the stakeholders to stabilize groundwater levels in the San Juan Subarea.

- **Continue monitoring and reporting on groundwater conditions:** The stakeholders suggest continuing the groundwater level monitoring and reporting program. The

existing monitoring network provides reasonable coverage for the subarea at this time based upon the current groundwater level conditions. Additional monitoring wells could be added, but are not considered as important as continuing to actively monitor and report on groundwater levels to extend the historical period of record.

4.4.7 Shandon Subarea

The changes in groundwater levels in the Shandon Subarea are currently recorded at 24 wells that are included in the groundwater monitoring network. Four of these wells were selected to be representative of changes in groundwater level conditions in the subarea. The locations of these four wells are shown on Figure 4-1.

The composite hydrograph illustrating the annual change and cumulative change in the average groundwater levels during the 1981 to 2009 period in the Shandon Subarea is shown on Figure 4-7.

This figure shows that the average groundwater levels the Shandon Subarea are highly variable on an annual basis. During the 1981 to 1997 period, average groundwater levels in the Shandon Subarea have declined by about 33 feet.

During the 1997 to 2006 period, average groundwater levels fluctuated annually, but resulted in very little net decline (about 2 feet) compared to 1997 levels.

Finally, from 2006 to 2009 period, the average groundwater levels declined by about 30 feet. Overall, during the 1981 to 2009 period (28 years), average groundwater levels in the Shandon Subarea declined by about 65 feet (about 2.3 feet per year), in response to a combination of increasing water demands that are met by groundwater.

Representative precipitation data for the Shandon Subarea is recorded at the Shandon precipitation Gage # 73. Precipitation data is available for this gage for the 1937 to 2009 period, during which annual precipitation averaged 10.69 inches. The annual rainfall for 1981-2009 period was about one-half inch above average (11.06 inches) compared to the period of record at that gage.

Based on this information, the stakeholders representing the Shandon Subarea determined that an acceptable draft BMO for groundwater levels in the subarea would include stabilizing groundwater levels at about the 2009 level, but there was concern about the cost of the program. The following GMAs were identified by the stakeholders to stabilize groundwater levels in the Shandon Subarea.

- **Groundwater Recharge and Banking Programs:** The discussions did not focus on the details of this project or the approach, but did identify potential groundwater recharge or banking of either imported supplies or from storm water runoff as potential sources of groundwater recharge. One potential project that was discussed was an inflatable dam project such as was done along the Salinas River in Northern Monterey County. No additional details were provided on that potential project.

- **State Water Project supplies for Shandon:** The community of Shandon has not used its 100 acre-feet of State Water Project water (SWP) to date. This project would include tying in to the Coastal Branch were it passes through Shandon to access the 100 acre-feet of supply. SWP supplies on the Coastal Branch are treated at the Polonio Pass Water Treatment Plant. This project would reduce municipal groundwater pumping in the Shandon area by the amount delivered from the SWP, thereby reducing groundwater pumping.

  An alternative of this GMA would be to pursue additional SWP supplies that could also be delivered to Shandon. San Luis Obispo County has a contract allocation to additional SWP supplies that it has not used, and is not currently using. These supplies could be a potential source of water to the area. Additional capacity in Phase II of the Coastal Branch would be needed to deliver water in excess of the 100 acre-feet supply currently contracted to Shandon by the County. An investigation regarding the additional capacity of the Coastal Branch is currently being pursued by the District.

- **Formation of Irrigation District or Water District:** The discussion focused on the **potential** need to form an irrigation district or water district to import surface water into the Basin. Irrigation districts/water districts are often formed to pursue large projects that benefit a larger group of water users. Such a district may be formed to pursue a groundwater recharge or water banking project that would rely on imported surface water.

- **Increase water conservation education and implementation:** The stakeholders recognized that additional conservation may result in a water savings, but were not sure if it **would** be cost effective. There was no objection to promoting conservation, and some discussions explored different conservation methods (such as alternative frost-control measures) since most growing operations are already on drip, and landscaping in Shandon is generally modest.

- **Precipitation Enhancement:** This was brought up for discussion, but it was unclear whether this project would work for the Shandon area.

Figure 4-7. Shandon Subarea Composite Hydrograph and Annual Precipitation

Sub-Area Information	
Sub-Area	Shandon
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1967-2009
Num. BMO Wells	4

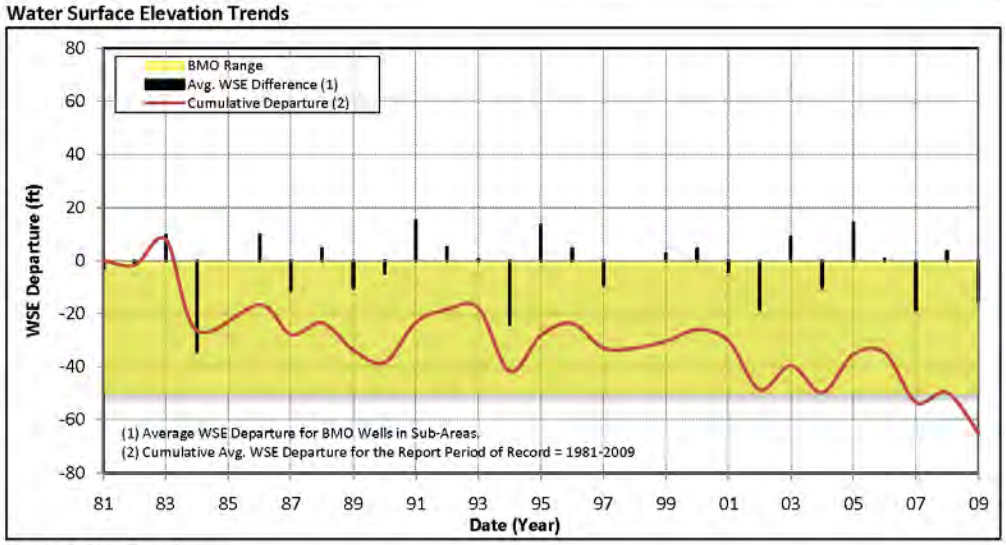
Report Information	
Report Start Year	1981
Period of Record	1981-2009

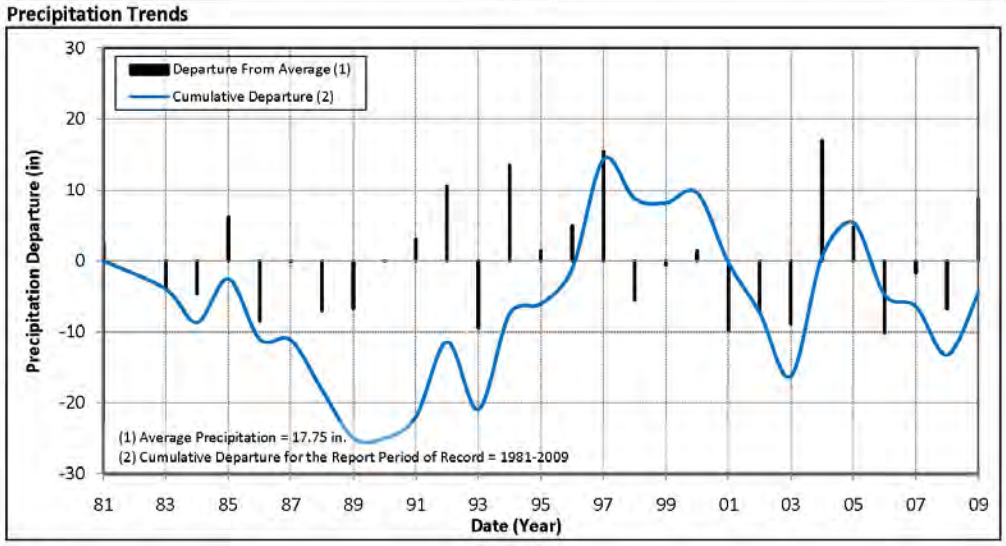
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1967-2009
Average Precip.	17.64 in

Trend Analysis Results	
BMO Departure[1]	(50.00 ft)
2009 Departure	(64.99 ft)

NOTES: 1) BMO Cumulative Departure Since 1981





4.4.8 South Gabilan Subarea

Overall water demand and groundwater use is low in the South Gabilan Subarea. There is also limited groundwater level data available, and no data that could be used to represent average groundwater levels in the subarea. Additionally, there are no identified groundwater problems or issues that have been presented to the Groundwater Advisory Committee.

Because of the limited available data and identification of groundwater issues in the subarea, it is not practical to identify BMOs that can be measured at present. The initial GMA proposed at this time would include additional groundwater level monitoring to begin to track changes in groundwater levels. BMOs and additional GMAs may be developed after additional groundwater level data have been collected.

5 Groundwater Management Plan Components

The Plan includes a variety of actions that are required by the Water Code, recommended by DWR Bulletin 118 California's Groundwater (DWR, 2003), and identified as optional programs under the Water Code. These actions are grouped into the following groundwater management components.

1. Stakeholder Involvement
2. Groundwater Monitoring and Data Collection
3. Groundwater Resource Protection
4. Groundwater Sustainability
5. Water Demand Management

The relationship of these components to the Basin Management Objectives identified in Section 4 is presented on Table 5-1. Each of these components is described in more detail in this section.

Table 5-1. Groundwater Management Component Summary

Groundwater Management Components		Basin Management Objectives					
		Maintain and Improve Groundwater Levels	Maintain and Improve Groundwater Quality	Protect Against Potential Inelastic Land Surface Subsidence	Protect Against Adverse Impacts to Surface Water Flows	Groundwater Monitoring and Assessment	Evaluate and Implement Feasible Water Conservation Measures
1. Stakeholder Involvement and Coordination							
1.1	Involvement with Stakeholders and Public	X				X	
1.2	Formation of a GAC for GMP Development and Implementation	X				X	X
1.3	Coordination with other agencies	X	X		X	X	X
1.4	Coordination with other water management planning efforts	X				X	X
2. Groundwater Monitoring and Data Collection							
2.1	Groundwater Elevation Monitoring	X				X	
2.2	Groundwater Quality Monitoring		X			X	
2.3	Inelastic Land Subsidence Monitoring			X		X	
2.4	Data Management System	X	X	X	X	X	X
2.5	Project Reporting	X	X	X	X	X	X
3. Groundwater Resource Protection							
3.1	Well Construction, Abandonment and Destruction Policies		X				
3.2	Wellhead Protection Measures		X				
3.3	Monitor Contaminated and Poor Quality Groundwater		X			X	
3.4	Control of Saline Water Intrusion		X			X	
4. Groundwater Sustainability							
4.1	Replenishment of High Quality Groundwater Extracted by Water Producers	X		X	X		
4.2	Construction and Operation of Recharge, Storage, and Extraction Projects	X	X	X	X		
4.3	Management of Sustained Groundwater Levels	X	X	X	X		
4.4	Modeling and Technical Analysis	X				X	X
5. Water Demand Management and Conservation							
5.1	Agricultural Water Management Practices	X	X				X
5.2	Urban Water Management Practices	X	X				X
5.3	Rural residential Water Management Practices	X	X				X

5.1 Component 1 – Stakeholder Involvement and Coordination

This component outlines the ongoing processes that will be used during the implementation of the Plan to involve stakeholders and coordinate with appropriate agencies involved in groundwater management activities in the Basin. A Governance Subcommittee was formed during the development of the Plan to consider the potential governance process for the implementation of the Plan. The subcommittee met on January 6, 2011. The results of the subcommittee meeting are described below.

5.1.1 Steering Committee

The Governance Subcommittee determined that a Steering Committee would be formed with the purpose of facilitating the implementation of the Plan. The Steering Committee would consist of 15 representatives from (one from each entity):

- Cities of Atascadero and Paso Robles
- Atascadero Mutual Water Company, Templeton CSD, San Miguel CSD – if they each choose to send a representative
- SLO County (Flood Control and Water Conservation District)
- Paso Robles Wine Country Alliance
- Central Coast Vineyard Team
- SLO County Farm Bureau
- SLO Cattlemen's Association
- PRIOR
- Four general At-Large positions, trying to balance vineyards, other agriculture, and rural residential

The qualifications for membership on the Steering Committee would include being a stakeholder or representative of a stakeholder group, years of relevant experience, and demonstrated commitment to the process. The listed agencies and organizations will select their representatives.

The Steering Committee would meet monthly at the beginning of the implementation process and probably quarterly as implementation continues. These meetings would be open to the public.

The Steering Committee will continue to hold public meetings to provide opportunities for additional public outreach and communication.

The Steering Committee will continue to coordinate water management activities within the Basin to work cooperatively with stakeholders and interested parties to achieve the agreed-upon BMOs through the implementation of the Groundwater Management Activities. The GAC will also develop an outreach and educational program to engage other water interests in management of the Paso Robles Basin.

Historically, the water issues and efforts in the Basin have been discussed via a stakeholder – run "North County Water Forum." The District, County, and City have developed reports

regarding the Basin, as noted, utilizing the North County Water Forum (NCWF) as a stakeholder review group at significant milestones in the development of the reports. Similarly, the GAC, in implementing the Plan, can utilize the group of contacts associated with the NCWF to obtain feedback on deliverables and activities.

5.1.2 Agricultural Interests

In the Paso Robles Basin, no water districts or irrigation districts exist to provide water to agricultural water users because all agricultural water demands have been meet with groundwater pumped from landowner wells. While there are no agricultural water purveyors in the Basin, organized groups have formed to represent agricultural water interests in the Basin.

In 2006, vineyards make up approximately 85 percent of the agricultural acreage and 76 percent of the agricultural water demand. In the Paso Robles Basin, the Paso Robles Wine Country Alliance (PRWCA) and the Central Coast Vineyard Team (CCVT) are working to address vineyard-related water use issues.

Other crops, including row crops, olives, alfalfa, and row crops are also grown within the Paso Robles Basin, but may not have local industry-specific organizations to directly represent these interests, so non-vineyard, agricultural related groundwater management activities will be coordinated with the County Farm Bureau. As those groups become engaged, their representatives may become involved in the GAC.

5.1.2.1 Paso Robles Wine Country Alliance

The PRWCA actively promotes water use efficiency and sustainable practices. PRWCA recently formed the Wine Industry Water Committee (Water Committee), which is intended to '*… provide a broader coordination for inputs and feedback to our government partners in water evaluation, water quality, and water management planning.'* The Water Committee's role is to oversee, prioritize, and guide innovative, sustainable conservation efforts that promote and maintain a sound wine growing region; while preserving and protecting the long-term availability of water supply for all users. The Water Committee represents over 15,000 acres through its membership, and as part of the PRWCA, will encourage the implementation of voluntary, industry-accepted water management practices aimed at improving water use efficiency.

5.1.2.2 Central Coast Vineyard Team

The Central Coast Vineyard Team is a network of 300 local farmers that strive to protect the resources valuable to our farms and our communities by educating and guiding towards sustainable vineyard practices. The CCVT identifies and promotes the most environmentally safe, viticulturally and economically sustainable farming methods, while maintaining or improving quality and flavor of wine grapes. The CCVT looks to be a model for wine grape growers and will promote the public trust of stewardship for natural resources. Since 1996, the CVTT has helped growers conduct self assessments that address resource conservation, including water use efficiency best management practices.

5.1.3 Coordination with Agencies with Land Use Planning Responsibilities

Several of the management actions identified have clear policy requirements and implications. For example, effective protection of natural recharge areas will require coordination and communication with entities responsible for land use policies.

The development of consistent land use policies could be assisted by a regional groundwater forum such as the GAC. The purpose of this forum would be to foster coordination and cooperation among participating agencies to manage the Basin and to provide a framework for the formulation of Basin-wide projects and programs for the protection and use of groundwater resources.

For example, given the mutual concern of agencies within the Basin regarding the preservation of natural recharge areas and the protection of these areas from pollutants, local agencies could work through the forum to inform one another about land use practices that may contribute to groundwater degradation and the importance of reducing the occurrence of these land use practices. Some of these agencies with land use responsibilities in the Basin include:

- San Luis Obispo County Planning Department
- Monterey County Planning Department
- City of Paso Robles
- City of Atascadero
- State of California

Other issues may require coordination with additional local agencies.

5.1.4 Integration with Other Water Management Planning Efforts

This component addresses the need to integrate the Plan with other water–related efforts when making decisions to ensure multiple viewpoints are addressed. This requires coordination with individual local agencies, other regional planning efforts as well as Statewide planning efforts. The Plan is a living document that supports other planning efforts and in turn is also dependent upon other water management planning efforts that may occur in the Basin over time. The GAC and the Plan will need to be accessible to those efforts and Plan implementation should be coordinated with them. Some of these related water management efforts may include:

- Urban Water Management Plans
- Watershed Management Plans
- Integrated Regional Water Management Plans
- Water Master Plans
- General Plan Updates
- Resource Management System/Resource Capacity Study
- California Water Plan Update

5.2 Component 2 – Groundwater Monitoring and Data Collection

Improved groundwater monitoring and analysis and archiving of collected data are needed to implement several of the recommended management actions (e.g., conjunctive management and water quality management). The existing groundwater monitoring program is described in Section 3.3.1.

Additional monitoring is needed to fill several data gaps identified in the Plan. It is also recommended that the GAC utilize the existing County groundwater elevation database to facilitate the storage, retrieval, and archiving of groundwater data in the future.

5.2.1 Groundwater Elevation Monitoring

Groundwater elevation data is one of the primary sets of information available to the Groundwater Advisory Committee to understand the current groundwater conditions and longer term trends in groundwater elevations. To date, the District has used groundwater level data from the voluntary monitoring network to determine groundwater elevations in the Paso Robles Basin. Additional groundwater elevation data is needed to improve the understanding of the groundwater basin and support future management efforts such as updating the groundwater model.

The following actions could improve the groundwater monitoring and reporting program in the Paso Robles Basin. The recommendations are organized into improvements to the voluntary monitoring network, and development of a dedicated monitoring network. These are described in more detail in Appendix E.

5.2.1.1 Improvements to Voluntary Monitoring Network

Recommended steps needed to improve voluntary groundwater level monitoring network include:

- Increase the number of wells in groundwater level monitoring network in the Paso Robles Basin.
- Obtain well construction data for existing wells included in monitoring network to improve understanding of aquifer being represented by each well.
- Increase groundwater level monitoring frequency from semi-annual to quarterly. If this cannot be done for all wells in the monitoring network, it should at least be done for selected wells (such as the key BMO wells) that have construction information and a historical water level record.
- Expand the monitoring network to include areas experiencing changes in groundwater levels (see Figure 3-3) or changing land use conditions.

The GAC should assist the District with soliciting volunteers.

5.2.1.2 Development of a Dedicated Monitoring Network

The groundwater level monitoring network could be expanded by including dedicated monitoring wells to provide long-term continuity of the monitoring program and fill existing gaps in the monitoring network. The GAC should provide recommendations on the need for dedicated monitoring wells. Dedicated monitoring wells should be outfitted with transducers to record water level data at selected time intervals. This information should be downloaded routinely and included into annual reporting. This would provide additional information on the seasonal changes in water levels that are currently not captured in the spring and fall monitoring.

The dedicated monitoring well network could be expanded to include monitoring wells:

- In critical areas of concern where groundwater levels have declined or are experiencing groundwater level declines.
- In areas where there are data gaps either because there are no wells in the existing monitoring well network.
- At the edges of the developed land use in the Basin. These areas may not be experiences seasonal or long-term trends associated with localized pumping, so may be able to provide additional background water level data.

Some of the areas identified for dedicated monitoring network include:

- City of Paso Robles
- Creston Road Area
- Union Road Area
- Highway 46 west of Whitley Gardens
- Jardine Road Area
- Airport Road- Highway 101
- Highway 46 east of Whitley Gardens
- Creston Area
- Shandon Area
- Highway 41 south of Shandon
- North of San Miguel
- East of San Miguel

Some of the locations for additional monitoring are shown on Figure 5-1. Additional information is provided in Appendix E.

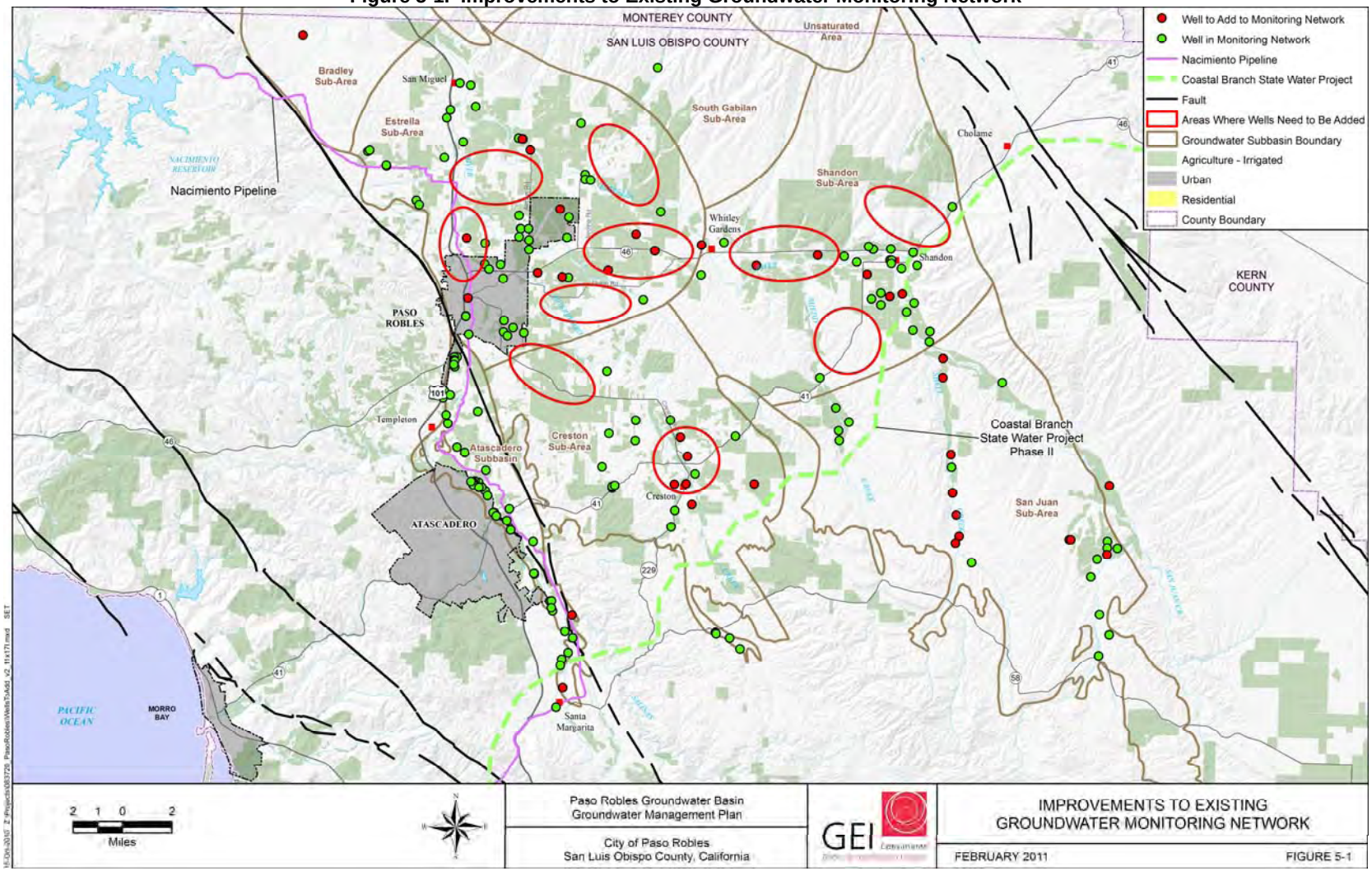
5.2.2 Groundwater Quality Monitoring

Many of the wells in the Paso Robles Basin are used for agricultural purposes. These wells are often monitored by well operators to ensure crop productivity. These monitoring records are typically kept private and are not public information. Water quality monitoring of drinking water sources has been performed by municipalities and private water purveyors in the Paso Robles Basin as required by the California Department of Public Health under Title 22, California Code of Regulations. Sources of water quality data include DWR, local

municipalities, USGS, and local growers. This information has been sufficient to develop an assessment of the general water quality conditions in the Basin necessary to support the existing land uses. Future conditions including land use changes may be served by expanding the water quality monitoring network to serve as a warning for changes in groundwater quality. Steps to improve groundwater quality monitoring network may include:

- Increase number of wells in groundwater quality monitoring network.
- Get well construction data for existing wells included in monitoring network to improve understanding of aquifer being represented by each well.
- Include groundwater quality considerations during the development of a dedicated groundwater monitoring network.
- Collect privately maintained water quality data from willing providers for purposes of project feasibility analysis. Confidentiality of the original data must be maintained.

Figure 5-1. Improvements to Existing Groundwater Monitoring Network



5.2.3 Inelastic Land Subsidence Monitoring

Because there has been no significant long-term land subsidence in the Basin there are no plans to develop a formal program to monitor and measure the rate of inelastic land surface subsidence within the Basin. The need for land subsidence monitoring will continue to be considered on an annual basis.

5.2.4 Data Management and Project Reporting Recommendations

Data management and project reporting are essential components of groundwater management. These efforts support all the monitoring activities described above, and involve communication with stakeholders and agencies. The data management and reporting activities associated with Plan implementation are described below.

5.2.4.1 County Groundwater Level Database

The County manages the groundwater level data it collects in a Microsoft Access database. The database contains approximately 159 wells that are monitored by the County or their cooperating partners within the Basin. Much of the information is considered confidential, so there are currently no plans to make the database accessible to the public.

As part of this Plan, a data management tool was developed to improve the capability of the existing database to extract specified data and display it in a report-ready format. This tool can be used in the future to generate individual well hydrographs or subarea hydrographs (as presented in Section 4).

5.2.4.2 County GIS Data

The District and the County collect water usage information and agricultural crop permit records and land use information that is in GIS format that could be accessed to support groundwater basin management efforts as needed.

5.2.4.3 Paso Robles Groundwater Basin Annual Report

Routine reporting of the conditions of the groundwater basin is an essential component of long-term groundwater management. Several reports have been prepared in the Basin documenting the groundwater conditions at a certain point in time. Part of this Plan is to development of an annual reporting framework that will facilitate consistent reporting on several aspects of groundwater management that are needed to make decisions on future groundwater management activities. The purpose of the Annual Report is to:

- Document the current conditions of the groundwater basin based on current data.
- Compare the current conditions to the established Basin Management Objectives.
- Evaluate the progress of the implementation of the Groundwater Management Activities identified in the Plan.

- Determine the effectiveness of the current management of the Basin at meeting the BMOs.
- Recommend the next steps to be undertaken to continue managing the groundwater resources of the Basin.

The 2009 Annual Report is included in Appendix E.

5.2.4.4 CASGEM Water Level Reporting Requirements

Future groundwater elevation monitoring and reporting will need to comply with the California Statewide Groundwater Elevations Monitoring Program (CASGEMs). This legislation, passed in 2009, is intended to establish a collaborative process between local monitoring parties and DWR to collect groundwater elevations statewide and make them available to the public.

To comply with CASGEMS:

- Local parties may assume responsibility for monitoring and reporting groundwater elevations.
- DWR will work cooperatively with local monitoring entities to achieve monitoring programs that demonstrate seasonal and long-term trends in groundwater elevations.
- A 'Monitoring Entity' is identified for each basin to coordinate monitoring in the basin and the reporting to DWR.
- Where a Monitoring Entity is not established, DWR will perform the monitoring functions. If local parties do not volunteer to perform the groundwater monitoring functions, DWR will assume those functions, and those parties will become ineligible for water grants and loans from the State.

The major deadlines for this effort include:

- On or before January 1, 2011: Parties seeking to assume groundwater level elevation monitoring functions must notify DWR. The District has notified DWR that they will be the monitoring entity for the Paso Robles Groundwater Basin.
- On or before January 1, 2012: Monitoring entities shall begin reporting seasonal groundwater elevation measurements.

5.3 Groundwater Resource Protection

The groundwater users of the Basin consider groundwater resource protection a critical component for ensuring its long-term sustainability. Groundwater resource protection includes basin recovery and sustainability as well as contamination prevention. Prevention measures include well construction, abandonment, and destruction policies, wellhead protection, and the monitoring and control of contaminated, poor quality, or saline water.

5.3.1 Well Construction, Abandonment, and Destruction Policies

Well construction and demolition standards are designed specifically to protect groundwater quality. Management actions to assist local agencies in complying with public health standards include the following components:

- Installation of sanitary well seals on all new wells in accordance with the California Well Standards.
- Installation of wells that conform to San Luis Obispo County and Monterey County standards include an impermeable seal between the upper and lower aquifers to prevent low quality water in the upper aquifer from entering the lower aquifer, where such low quality water exists.
- Abandonment of wells in accordance with the California Well Standards.

These management actions (currently enforced by California Department of Public Health and San Luis Obispo County and Monterey County) are particularly valuable in unincorporated areas not served by a water purveyor and could also apply to agricultural wells within the Basin in the future.

5.3.1.1 Implementation of Well Construction Policies

The San Luis Obispo County Environmental Health Services (in San Luis Obispo County) and Monterey Environmental Health Services (in Monterey County) administer the well permitting program within the Paso Robles Groundwater Basin. The well construction standards implemented by Environmental Health Services are consistent with those recommended in State Water Code Section 13801. This section of the State Water Code requires that counties, cities, and water agencies to adopt the State Model Well Ordinance as a minimum standard for well construction or a more rigorous standard if desired. The Environmental Health Services Departments have enacted well ordinances adopting the *California Well Standards, Bulletin 74-81*, and all supplements for the two counties. The Environmental Health Services staff also issue applications and review construction plans and specifications for wells drilled in the county and require and maintain well logs and water well driller reports for constructed wells.

The GAC will facilitate the following actions:

- Ensure that all member agencies are provided a copy of the applicable county well construction ordinance and that they understand the proper well construction procedures.
- Coordinate with member agencies to provide guidance, as appropriate, on well construction to prevent creating conduits through regionally confining beds.

5.3.1.2 Administration of Well Abandonment and Destruction Programs

It is believed that there may be many unknown, obsolete, or abandoned water supply wells within the Paso Robles Basin. These wells may provide potential conduits for contamination between aquifers or from saline water sources at depth.

One of the primary concerns of local agencies is the groundwater contamination risk posed by unused wells that have not been properly destroyed. Section 21 of DWR Bulletin 74-81 and revisions contained in Part II of Bulletin 74-90 allow classification of unused wells into two types: abandoned and inactive. An abandoned well is defined as one that has not been used for a period of one year and whose owner has declared the well will not be used again. If the well has not been used during the past year but the owner demonstrates his/her intention to use the well again for supplying water, the well is considered inactive. Four criteria must be met in order for a well to be maintained in inactive rather than abandoned classification. These criteria are:

- The well has no defects.
- The well is securely covered.
- The well is clearly marked.
- The surrounding area is kept clear of brush and debris.

Failure to meet these criteria could result in the well being classified as abandoned under current regulations. All abandoned wells, exploration, or test holes and monitoring wells must be destroyed as stated in Section 22 of Bulletin 74-81 and revisions contained in Bulletin 74-90.

An abandonment program should focus on those wells that pose the greatest threat to groundwater; however, numerous factors make the abandonment and destruction of wells difficult. These factors include lack of consistency in records regarding well construction, location, and use; cost of well destruction; and the defined classification for abandonment of wells. Well construction within the study area has taken place for nearly a century, with records and standards altered over time. Recent records pertinent to construction and location of new wells are more complete than earlier records that are often inconsistent. The lack of financial incentive for well owners to declare a well as abandoned also reduces the effectiveness of the well abandonment program.

The San Luis Obispo County Environmental Health Services and the Monterey County Environmental Health Services administers the well destruction program for those portions of the Paso Robles Groundwater Basin within their jurisdiction. The standards for construction are identified in the County code sand are based on State of California standards.

The GAC members, including San Luis Obispo and Monterey County, should facilitate the following actions for lands within their jurisdictions:

- Ensure that all GAC members and local agencies are provided a copy of the code and understand the proper destruction procedures and support implementation of these procedures.
- Follow up with local agencies and well owners on reported abandoned and destroyed wells to confirm information collected from DWR and receive information on abandoned and destroyed wells to fill gaps in county records.
- Obtain “wildcat” maps from California Division of Oil, Gas, and Geothermal Resources to ascertain the extent of historic gas well drilling operations in the area

because these wells could function as conduits of contamination if not properly destroyed.
- Seek funding to develop and implement a program to assist well owners in the proper destruction of abandoned wells.

5.3.2 Wellhead Protection Measures

The purpose of wellhead protection is to protect the groundwater used as a public supply, thereby reducing the costly treatment otherwise needed to meet relevant drinking water quality standards. A Wellhead Protection Area (WHPA), as defined by the Federal Wellhead Protection Program established by Section 1428 of the Safe Drinking Water Act Amendment of 1986, is "…the surface and subsurface area surrounding a water well or wellfield supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield." The WHPA may also be the recharge area that provides the water to a well or wellfield. Unlike surface watersheds that can be easily determined from topography, WHPAs can vary in size and shape depending on subsurface geologic conditions, the direction of groundwater flow, pumping rates, and aquifer characteristics.

Identification of WHPAs is a component of the Drinking Water Source Assessment and Protection (DWSAP) Program administered by the California DPH. DPH set a goal for all water systems Statewide to complete Drinking Water Source Assessments by December 31, 2002. Table 5-2 identifies the water suppliers that have completed their required assessments by performing the three major components required by DPH listed below:

- Delineation of capture zones around sources (wells).
- Inventory of Potential Contamination Activities (PCAs) within protection areas.
- Vulnerability analysis to identify the PCAs to which the source is most vulnerable.

The GAC will facilitate the following actions:

- Request that member agencies provide vulnerability summaries from the DWSAP Program to be used for guiding management decisions in the basin.
- Contact groundwater basin managers in other areas of the State for technical advice, effective management practices, and "lessons learned," regarding establishing wellhead protection areas.

Table 5-2. Water Supplier DWSAP in the Paso Robles Groundwater Basin

System Number	System Name	Number of Sources
4000210	Creston's Country Store	1
4000649	Los Robles Mobile Home Estates	3
4000656	Santa Margarita KOA	2
4000693	Creston Elementary School	2
4000699	Paso Robles Truck Plaza, LLC	1
4000714	Santa Margarita Recreation Area	1
4000790	Paso Robles RV Ranch	1
4010002	Atascadero Mutual Water Co	18
4010003	San Miguelito MWC	3
4010006	Paso Robles Beach Water Assn	1
4010007	Paso Robles Water Department	15
4010010	San Miguel Community Services District	2
4010019	Templeton CSD	11
4010024	SLO CWWD No. 6-Santa Margarita	4
4010028	SLO CSA No. 16 -Shandon	2
4010080	Nacimiento Water Project	1
4010831	El Paso De Robles Youth Corr. Facility	3
4010832	Atascadero State Hospital	3
4010900	Caltrans -Shandon Rest Stop	1

5.3.3 Monitor Contaminated and Poor Quality Groundwater

The potential migration of poor quality groundwater is of concern to all groundwater users. Also of concern is any localized contamination of groundwater by point sources in the Basin.

While the GAC does not have authority or responsibility, it will coordinate with responsible parties and regulatory agencies to keep GAC members informed of the status of any groundwater contamination in the basin.

The GAC will facilitate the following:

- Coordinate with San Luis Obispo County and other groundwater users to continue the water quality data reporting program data for public supply wells and Basin characterization.
- If detections are found, facilitate meetings to inform groundwater users of the contamination and its potential spread. Specifically, the consideration of altering groundwater extraction patterns or altering production wells in the vicinity of areas of poor groundwater quality or pollutant plume to change the groundwater gradient.
- Provide a forum to share all information on mapped contaminant plumes and hazardous materials release sites. This mapping can be used to show where future monitoring wells should be located.
- Track upcoming regulations on septic systems, agricultural discharges, and other regulatory programs that pertain to water quality and inform groundwater users.

5.3.4 Control of Saline Intrusion

There are no known occurrences of saline water intrusion within the Basin. Although currently not a problem, there are hydraulic conditions such as depressed groundwater levels that could allow saline water intrusion to occur in the future from water at depth in the aquifer. If saline intrusion is identified by the monitoring program in the future, then an approach can be developed to address the problem.

The GAC will coordinate with member agencies to facilitate the following:

- Continue the existing groundwater quality monitoring in the Paso Robles Subbasin to identify occurrences of saline water.
- Observe total dissolved solids (TDS) concentrations in public supply wells that are routinely sampled under the DPH Title 22 Program for potentially increasing levels of salinity.

5.4 Groundwater Sustainability

To ensure a viable and sustainable groundwater resource, the Plan seeks to increase the amount of groundwater in storage in the Basin over the long term. This includes protecting natural recharge areas, supplementing natural recharge to better manage groundwater levels in the Basin.

5.4.1 Replenishment of High Quality Groundwater Extracted by Water Producers

An important component of groundwater management is the protection of major recharge and withdrawal zones. This strategy has far-reaching effects in the Paso Robles Groundwater Basin because rainfall infiltration provides much of the recharge to the Basin. To ensure an adequate supply of high quality groundwater, groundwater recharge must be adequate to replenish extracted groundwater.

Groundwater recharge from the surface occurs primarily from 1) infiltration and recharge of precipitation and 2) infiltration from streamflow. As shown on Figure 3-4, the soils of Basin have varying infiltration rates. Because infiltration of rainfall upon the ground surface is considered to be the primary source of recharge, the areas with the highest infiltration rates (greatest potential for recharge) should be preserved.

Planned urban development in the Paso Robles Basin may impact these natural recharge areas. These trends underscore the need to more precisely identify and map the remaining natural recharge areas and to use this mapping to protect important sources of recharge. The objective is to develop specific planning actions that offer varying degrees of protection, depending upon an area's significance as a source of recharge. Types of protection could include programs to educate public and planning entities about the importance of protecting recharge areas.

The first step in implementing this management action would be to identify recharge areas and develop a GIS-based analysis of natural recharge areas, to inform land use planning entities (San Luis Obispo County and cities of Paso Robles and Atascadero) of the importance of these areas and to make recommendations for their protection. Databases that are maintained by the Water Board and local land trust organizations may be helpful. Additional information such as groundwater levels in undeveloped portions of the basin and identification of near surface impediments to percolation of water is needed to support the identification and ultimate projection of recharge areas in the Basin.

A comprehensive approach to the protection and management of the major recharge and withdrawal zones is needed to preserve and protect recharge areas. The GAC supports the evaluation of the surface soils and surface geology within and directly adjacent to its boundary for the purpose of delineating areas having potentially high recharge rates. The GAC supports land use measures that will preserve potential recharge areas from development that would reduce or eliminate their effectiveness as recharge sites. These efforts will need to be coordinated with the San Luis Obispo County Planning Department and/or with other agencies associated with land use planning authority in the Basin.

The GAC member agencies will facilitate the following:

- Support the identification of areas having high potential for contributing to aquifer recharge and continue to communicate with land use planning entities to enact measures that will protect these lands from development that would reduce their value as recharge sites.
- Communicate with DWR and other governmental agencies studying groundwater and river interactions and infiltration potential.
- Collaborate with local land trust organizations (e.g., Land Conservancy of SLO County, California Rangeland Trust) and resource conservation agencies/organizations (e.g., Resource Conservation Districts, NRCS) to encourage protection of recharge areas.

5.4.2 Construction and Operation of Recharge, Storage, and Extraction Projects

All the groundwater users in the Basin including the District, cities, water providers, and agricultural interests share responsibility for the development and operation of recharge, storage, and extraction projects to provide long-term sustainability of the available groundwater resources.

The Paso *Robles Groundwater Banking Feasibility Study* completed in 2008 contains a feasibility-level evaluation of groundwater recharge and groundwater banking potential using a portion of the County's unused State Water Project allocation in the Paso Robles Basin using the existing available information and models. The feasibility study evaluated three locations for recharge or groundwater banking operations. Two of the three locations evaluated may provide opportunities for groundwater recharge/groundwater banking, but additional analysis would be needed to further refine the project yield and evaluate project costs, environmental and legal constraints and the impacts on overlying landowners. A significant portion of the costs for any of the alternatives evaluated construction of a new pipeline to convey the water from the Polonio Pass Water Treatment Plant to the recharge locations. The implementation timeframe for this project or similar projects is typically about 10 to 20 years.

To the extent feasible, the GAC may also support measures to coordinate development and optimize operation of facilities to improve the basin-wide effectiveness and efficiency of water management.

The GAC will facilitate the following:

- Encourage sharing of information on project planning, design, and operation among local agencies and private groundwater users.
- Promote a coordinated approach toward project development and operation to lower the costs and increase the benefits of water management efforts.
- Seek State and federal funding for projects and programs that will contribute to recharge of the groundwater basin, if determined to be feasible.
- Attempt to identify viable, cost effective projects that contribute to increased recharge within the Basin.
- Support update of the existing groundwater model that can be used to evaluate groundwater management opportunities, which may include groundwater recharge projects.

5.4.2.1 Imported Water Supplies

Imported water supplies may be available to water users in the Paso Robles Basin as described in Section 3 from the State Water Project (imported from outside of the County) and the Nacimiento Water Project (imported from outside the Basin, but within the County). The Nacimiento Water Project will provide a new supply of surface water to the Paso Robles Basin. When these supplies become available, they can be used to offset groundwater pumping and accommodate additional growth based on the use of surface water.

5.4.2.1.1 City of Paso Robles

The City of Paso Robles is a participant in the Nacimiento Water Project, with a current allocation of 4,000 AFY. A water rate increase was adopted by the City in 2010 that will take effect beginning January 2011. The rate increase will enable the design and construction of a 4 mgd capacity potable water treatment plant to move forward. The plant is currently under design and is scheduled for completion in 2013. The water treatment plant will enable the City to utilize its full Nacimiento Water Project water allocation and reduce groundwater pumping significantly from current levels. Use of this new supply is projected to have a beneficial effect on groundwater level decline rates in the Estrella sub-area and the basin as a whole.

5.4.2.1.2 City of Atascadero

The City of Atascadero is a participant in the Nacimiento Water Project, with a current allocation of 2,000 AFY. The water will be used to recharge the groundwater table in the vicinity of the current Salinas River underflow well fields so that it can be treated in the same manner as the rest of their groundwater supply.

5.4.2.1.3 Templeton CSD

The Templeton CSD is a participant in the Nacimiento Water Project, with a current allocation of 250 AFY. TCSD plans to receive raw water from the Nacimiento Water Project and is currently evaluating their plans to treat this water.

5.4.2.1.4 County Service Area No. 16

CSA 16 is located in the Shandon area and has the rights to 100 AFY from the State Water Project. Because of the high cost to develop this supply and the lack of need at the time, in 1995, the Board of Supervisors approved offering their 100 AFY allocation for sale to other entities in the County.

5.4.2.2 Recycled Water Potential in the Paso Robles Groundwater Basin

Currently, there is no direct use of treated wastewater in the basin. The cities of Atascadero and Paso Robles, and Templeton and San Miguel CSDs each operate wastewater treatment plants that discharge treated secondary effluent to the Salinas River using percolation ponds. However, direct use of recycled water for irrigation and indirect use for groundwater recharge could provide a significant quantity of water to offset current and future groundwater use within the basin.

The quantity of water available for potential recycled uses will increase as population increases. The amount of wastewater available for recycling is typically 40 to 50 percent of urban potable water deliveries on an annual basis. While some of this water is treated and contributes to basin return flows, much is now discharged from the basin to the north as Salinas River underflow.

Future direct and indirect use of recycled water within the Paso Robles basin can play a significant role in improved basin management. However, the primary impediment to implementation in the near-term is the high cost of upgrading treatment plant processes and the recycled water distribution system. Water quality concerns for recycled water users must also be addressed. Potential State and federal grant funding sources could help defray these costs, making these projects more feasible. It is recommended that the municipalities and service districts providing wastewater services pursue all potential county, State, and federal grant and loan sources to move these projects forward.

Table 5-3. 2009 Wastewater Discharges

	City of Paso Robles	City of Atascadero	Templeton CSD	San Miguel CSD
Year 2009	3,291	1,050	144	134
Average (1998 to 2009)	3,189	1,083	163	130
Minimum (1998 to 2009)	2,948	965	134	115
Maximum (1998 to 2009)	3.389	1,334	235	176

5.4.2.2.1 City of Paso Robles Water Recycling Plans

In 2000, the City of Paso Robles prepared a Comprehensive Recycled Water Study (Carollo, July 2000). The study assessed the existing wastewater treatment and disposal system and evaluated several alternatives for recycled water use. More recently, the City's Urban Water Management Plan (2005) and the Recycled Water Study Update (Boyle, 2006) identified alternatives for the reuse of treated wastewater. Four recycled water options were identified, including: 1) Groundwater recharge (requiring tertiary treatment and denitrification), 2) restricted irrigation (second effluent), 3) unrestricted irrigation (tertiary treatment), and 4) groundwater recharge (tertiary treatment and desalination).

The City of Paso Robles wastewater treatment plant currently produces secondary effluent with limited reuse potential. However, several thousand acre-feet of water of treated wastewater could be available for reuse if treatment capabilities at the Paso Robles Wastewater Treatment Plant are upgraded to include tertiary treatment and denitrification.

To prepare for future use of recycled water, Paso Robles is currently in the process of designing a wastewater treatment plant upgrade that will include denitrification in the first phase and the addition of tertiary treatment in the second phase. The project schedule calls for the Phase 1 plant upgrade to be completed in 2013, pending the approval of an increase in customer wastewater rates in 2011. The Phase I upgrade will set the stage for implementation of water recycling in the future. The Urban Water Management Plan 2005 identified 2025 as a target date for implementation of water recycling. The implementation of the Phase II upgrade and the construction of the first phase of a recycled water distribution system to deliver irrigation water to Barney Schwartz Park, local golf courses, and new development will depend on available funding. Paso Robles plans to complete a water

recycling master plan in 2010/11 that will identify potential direct users, groundwater recharge sites, pipeline routes, and project cost estimates.

5.4.2.2.2 Templeton CSD Water Recycling Plans

In addition, the Templeton CSD may be making future provisions to expand and divert additional wastewater flows (which currently flow to the City of Paso Robles WWTP) in order to recycle additional treated effluent into the Salinas River underflow via percolation ponds, increasing available water for extraction.

5.4.3 Management of Sustained Groundwater Levels

While the Basin is experiencing declining groundwater levels over a significant area of the Basin, it has not been identified to be in a state of overdraft. The GAC will continue to facilitate actions to support groundwater levels in the Basin, which include:

- Continue to support existing groundwater elevation monitoring and reporting programs in the Basin.
- Support efforts to expand the voluntary groundwater monitoring network while at the same time pursuing the development of a dedicated groundwater monitoring network to supplement the existing network.
- Encourage the implementation of water conservation programs in all water use sectors (agricultural, municipal, small commercial, small community, and rural residential) to reduce groundwater pumping.
- Seek funding for programs and projects that would improve groundwater conditions in the Basin.
- Support programs that reduce groundwater pumping through substitution of surface water or recycled water for groundwater.
- Be aware of the impact of potential changing land use conditions on groundwater resources in the Basin.
- Identify other opportunities to reduce water demand such as rainwater harvesting and storm water capture for groundwater recharge.

5.4.4 Modeling and Technical Analysis

The original groundwater model developed for the Paso Robles Basin has been used to support several different groundwater related projects including establishing an initial perennial yield estimate and evaluating the effects of groundwater recharge and banking alternatives. The recent peer review of the model and other technical analyses completed in the basin has lead to the recommendation that the model should be updated in the next three to five years.

A model update framework needs to be developed to guide the update process that identifies the specific issues to be addressed by the model, appropriate approaches, and data sets necessary to support the model update. The GAC will support the ongoing technical analysis undertaken in the Basin and the steps necessary to update the groundwater model, which may include:

- Developing modeling goals and objectives for the model update to identify:
    - What questions do we want the model to answer?
    - What methods or approaches should be used to calculate soil moisture budgets, water budgets, and change in storage?
- Identifying the data sets that need to be developed or improved to support model development, which may include:
    - Groundwater level data
    - Groundwater pumping data
    - Agricultural demand data (including irrigated acreages, irrigation methods and implementation of BMPs)
    - Hydrogeologic data
    - Surface water and groundwater level data to improve understanding of the surface-groundwater interaction at selected locations across the basin
    - Developing other data sets as needed to support specific analyses

5.5 Water Demand Management and Conservation

Water demand management and water conservation provides the primary management activities to reduce groundwater pumping in the Paso Robles Basin and influence groundwater level declines. Water conservation opportunities apply to all water use categories. Water demand and conservation are organized below by water use category for the agricultural, urban, and rural residential water use categories.

5.5.1 Agricultural Water Demand Management and Conservation

5.5.1.1 Statewide Agricultural Water Management Requirements

Agricultural water management in California is addressed at the State, County, and local levels, and includes input from industry organizations such as the Agricultural Water Management Council. The State of California recently passed the Water Conservation Act of 2009 as part of SBx7-7. SBx7-7 includes two provisions related to agricultural water management. The first provision includes water conservation, measurement, and reporting activities for agricultural water suppliers. This provision focuses on the measurement of the volume of water delivered to customers and adopting a pricing structure based at least in part on the quantity of water delivered. In this legislation, a 'customer' is defined as "a *purchaser of water from a water supplier who uses water for agricultural purposes.*"

There are currently no agricultural water suppliers in the Paso Robles Groundwater Basin, so this provision does not apply within the Paso Robles Groundwater Management Plan Area.

SBx7-7 also includes provisions for DWR along with the Agricultural Water Management Council, academic experts, and other stakeholders to develop a methodology for quantifying the efficiency of agricultural water use. DWR is required to report back to the Legislature on or before December 31, 2011 on the proposed methodology and plan for implementation.

There is currently no requirement for implementation of the methodology in the State. While neither of these provisions currently apply to agricultural water management in the Basin, the intent of these activities should be considered while developing an agricultural water management strategy and appropriate water management actions in the Paso Robles Basin.

5.5.1.2 GMP Coordination with the Local Agricultural Interests

The following potential activities have been identified by PRWCA and other stakeholders to facilitate coordination between the Plan implementation, the PRWCA Water Committee, the CCVT and other agricultural groups. Those activities that were identified by PRWCA as potential actions they favor are indicated by "(PRWCA)" following the action. The Plan encourages that the following actions be reviewed and implemented as appropriate by the PRWCA, CCVT, other agricultural groups, and other stakeholders.

Near-term Actions (next three years)

- Identify and disseminate vineyard and winery Best Management Practices (BMPs) in the Paso Robles Basin based on industry accepted standards. (PRWCA)
- Continue programs that educate and encourage the advantages to conduct self audits to optimize water use efficiency and water budgeting through a business plan perspective. (PRWCA)
- Conduct regular outreach activities within PRWCA and CCVT membership and other vineyards and other ag commodities in the Basin to further the implementation of BMPs. (PRWCA)
- Coordinate with the County to conduct an outreach program to encourage growers to voluntarily make wells available to the County's groundwater level monitoring program in the Basin. (PRWCA)
- Participate in the UC Extension Irrigation Study, which is scheduled for completion in 2012. (PRWCA)
- Develop an approach to benchmark estimate water savings from future BMP implementation. (PRWCA)
- Develop a report that identifies vineyard Best Management Practices (BMPs) in the Paso Robles basin, based on industry-accepted standards. The report would also provide data on the number of acres of vineyards that have implemented various BMPs.
- Develop a report that identifies BMPs for other agricultural commodities in the Basin.
- Establish a methodology to estimate the volume of additional water that can be conserved through additional BMP implementation among growers.

Long-term Actions (beyond three years)

- Continue to support BMP implementation.
- Continue to support groundwater level monitoring activities in the Basin.

- Continue to encourage participation in BMP implementation programs and groundwater level monitoring activities.

5.5.2 Urban Water Demand Management and Conservation

5.5.2.1 City of Paso Robles

From 1999 to 2008, total annual per capita water use within the City of Paso Robles (based on total water pumped) average was 241 gallons per capita per day (gpcd). In 2009, the City established a Water Conservation Manager position, implemented mandatory outdoor watering use restrictions and began the process of implementing comprehensive, long-range water conservation programs. The immediate goal of the watering restrictions was to reduce peak summer demand by 20 percent to alleviate water production shortage cause by lowering water levels in City wells. The restrictions have been successful the last two summers and will be continued until the Nacimiento WTP is on-line. The long-term objectives of ongoing conservation programs are: 1) Meet the California Senate Bill 7 mandate of achieving a 20 percent reduction in per capita use by the year 2020 (approximately 193 gpcd), and 2) implement the comprehensive list of Municipal Best Management Practices programs outlined in the California Urban Water Conservation Coalition Memorandum of Understanding.

In 2008/09, the City of Paso Robles implemented a comprehensive water conservation program that included the following:

- Toilet replacement rebates.
- Turf replacement rebates for conversion to drought-tolerant landscaping.
- Home water surveys (audits).
- Large turf area audits and commercial/industrial water surveys (CII).
- Workshops on low-water-use landscaping.
- Conservation outreach and education programs (includes radio and print media advertising, brochures, direct mail, bill stuffers, bill messages, signage, event sponsorship and participation).
- School Education programs in the Paso Robles Schools.
- Conservation website development.
- Passage of a Water Efficient Landscape Ordinance that limits the amount of turf in new residential and commercial development, and prohibits turf in new public road rights-of-way. The ordinance also includes new efficient irrigation design standards.
- Continued enforcement of summer watering restrictions (3-day watering schedule).

Additional programs that may be considered for implementation in the future include:

- Rebates for High Efficiency Clothes Washers.
- CII customer incentive programs (rebates) for conservation technology investments.

The combined effect of Paso Robles' water conservation programs and the conservation impact of planned water rate increases is projected to achieve an estimated 20 percent reduction in overall per capita water use, compared to historical water use rates prior to mandatory summer water use restrictions.

5.5.2.2 Atascadero Mutual Water Company

Atascadero Mutual Water Company is a member of the California Urban Water Conservation Council, Groundwater Guardian Program, Alliance for Water Efficiency, Water Education Foundation, and SLO County Partners in Water Conservation.

5.5.2.3 Templeton Community Services District

The Templeton Community Service District (TCSD) currently promotes water conservation throughout the TSCD service area. The District has a full-time water conservation coordinator who works to educate the public through informational workshops, literature, handouts, and occasional rebate programs. Recently, the TCSD has revised their Water Conservation Ordinance to ensure that conservation standards for the TCSD remain current and effective. The TCSD is an active member in the SLO County Partners in Water Conservation, Central Coast Partners in Water Quality, and the California Urban Water Conservation Council.

5.5.3 Rural Residential Demand Management and Conservation

Rural residential areas are located throughout the valley floor portion of the Paso Robles Basin, and rely on groundwater to meet their water needs. Increased groundwater use in and around these areas has added to the regional decline in groundwater levels over time. Because some rural residential users rely on relatively shallow individual wells, drawdown in pumping wells as the basin overall has declined has resulted in groundwater levels dropping below the bottom of their wells.

A conservation program is needed to reduce water use and improve efficiency among rural residential water users. Such a program could include components to reduce indoor and outdoor water use. Some components for Rural Residential demand management and water conservation program could include:

- Development of a water conservation incentive program for rural residential water users.
- Development of water education and outreach materials for rural residential water users.
- Development and dissemination of landscape planning materials that encourage conservation and increase or promote storm water capture and recharge. These efforts could be coordinated with the identification of soil infiltration rates to encourage local groundwater recharge.
- Development of programs that increase water reuse opportunities such as:
    - Rainwater harvesting

- Greywater use
- Water recycling

The likely entity to conduct a conservation program for rural residential users is the County. Partnering with other organizations (cities and CSDs with programs already in place, the RCD, NRCS, Ag Commissioner, etc.) and seeking grants will help with staffing and financial resources.

6 Stakeholder Involvement

The City of Paso Robles along with the San Luis Obispo County Flood Control and Water Conservation District lead the preparation of the Paso Robles Regional Groundwater Management Plan. This plan was developed to comply with provisions of the Groundwater Management Planning Act of 2002, including provisions related to public involvement processes. Some of the components of the stakeholder involvement process are described below.

6.1 Groundwater Advisory Committee

A Groundwater Advisory Committee was formed to discuss the groundwater management issues of the Basin and guide the planning process to develop the Plan. The GAC was formed from interested parties and stakeholder, many of whom had participated in previous groundwater-related efforts as part of the North County Water Forum. Through detailed discussions, the GAC with input from stakeholders and interested parties representing the seven subareas of the Basin developed the initial BMOs and related implementation plan. The GMP is the result of an approximately two-year effort, including, a six-month suspension of the project from February 2009 until November 2009 because of grant funding issues.

6.2 Public Involvement

An extensive public involvement process was included in the efforts to develop the GMP. Some of the components of the public involvement process include the following:

The initial mailing list included over 40 contacts. A flyer (included in Appendix C) announcing the preparation of the groundwater management plan was sent to each person on the contact list. Emails were also sent to each email address with an electronic version of the flyer attached.

During the completion of the Paso Robles Groundwater Basin Water Banking Feasibility Study in 2007, and during grant application preparation process (to prepare the Plan), the City of Paso Robles and the District notified stakeholders for their intent to prepare a groundwater management plan.

6.2.1 GAC Communications

Communications regarding the GAC meetings and the opportunity to participate in the GMP development were distributed electronically via the email distribution list, and by posting information on the County's and the City's websites along with other Paso Robles Groundwater Basin information.

During the project, draft deliverables, meeting notices, and briefings were distributed electronically via email. Project deliverables and presentations were also posted on the County's website.

GAC members and stakeholders provided comments to the County and/or City by email or by mail or phone conversation.

6.2.2 GAC Meetings and Workshops

- GAC No. 1 - January 15, 2009: This was the project kickoff meeting. Goals for this meeting included:
  - Provide project overview and approach
  - Describe project schedule and coordination activities
  - Identify the GAC members (listed on Table 6-1 below)

Table 6-1. GAC Members and Subarea Representatives

Name	Affiliation	Subarea
Jay Short	Templeton CSD	Atascadero
John Neil	Atascadero Mutual Water Co.	Atascadero
Sue Luft	WRAC	Creston
Duane Picanco	Paso Robles City	Creston Estrella
Dave & Debra Compton	Private	Estrella
Ray Allen	SLO Co Cattlemen	Estrella
Robert Johnson	Monterey County Water Resources Agency	North Gabilan Bradley
Steve Sinton	PRIOR	San Juan
Willy Cunha	Sunview Shandon	San Juan
Dennis Bowman	Green River MWC	Shandon
Mike Kelley	Green River MWC	Shandon
Mike Steinboer	Green River MWC	Shandon
Randy Diffenbaugh	Shandon Advisory Committee	Shandon
Bob Roos	North County Water Forum	
Joy Fitzhugh	SLO Co Farm Bureau	

Additional GAC meetings were held on the dates listed below. The attendance lists and presentation materials for each meeting and workshop are included in Appendix G.

- GAC No. 2 – November 12, 2009
- GAC No. 3 – February 25, 2010
- BMO Workshop No. 1 – April 19, 2010
- BMO Workshop No. 2 – May 10, 2010
- BMO Workshop No. 3 – May 10, 2010
- GAC No. 4 – August 2, 2010
- GAC No. 5 – December 2, 2010
- GAC No. 6 – February 10, 2011

The Basin Management Objective Workshops were held in April and May 2010 with the different subareas to support their development of groundwater Basin Management Objectives.

The GAC meetings and workshops generally coincided with project deliverables to get review and comment from the GAC during the development of the Plan. Draft materials were generally made available ahead of the meetings, and reviewed at the GAC meetings to identify and address any questions related to the draft materials. Each GAC member, stakeholder, and interested parties were provided the opportunity to review and comment on the draft materials. Comments were provided to the County or City, and forwarded to the project team for incorporation into the Plan.

6.2.3 Involvement of Other Agencies and Entities

The preparation of the GMP was coordinated by the City of Paso Robles and the District, and included participation from a wide variety of stakeholders and local agencies that represented interests in the Paso Robles Basin. Throughout the planning process, all the entities, stakeholders, and interested parties were invited and encouraged to participate in developing the Plan. The sign-in lists from the GAC meetings and workshops include over 40 different entities that represent the different water user groups in the basin. Additionally, the City of Paso Robles and the District met several times with representatives of the PRWCA/CCVT to discuss agricultural water conservation opportunities.

6.2.4 Coordination with Other Agencies

The GAC has coordinated the planning process with other neighboring water agencies and subbasins. Monterey County Water Resources Agency is a member of the GAC for the Paso Robles Basin GMP, and also represents Monterey County interests and coordinates with activities associated with the Salinas Valley Groundwater Basin and Nacimiento Reservoir. The GMP has also coordinated within San Luis Obispo County through the San Luis Obispo County Integrated Regional Water Management Plan and the San Luis Obispo County Master Water Plan. Draft copies of the GMP were provided to these agencies.

6.2.5 Public Involvement

The GAC will continue to coordinate water management activities within the basin and to work cooperatively for implementation of the BMOs outlined in this Plan. The GAC will also develop an outreach and educational program to engage other water interests in water management within the Basin.

The GAC will continue to work with the PRWCA/CVVT and other agricultural groups to improve data collection efforts in the Basin and coordinate groundwater management efforts.

6.2.6 Developing Relationships with State and Federal Agencies

Over the last several years, the water interests in the Paso Robles Basin have been working with a variety of State and federal agencies including:

- University of California Extension to assess vineyard irrigation practices and water usage.
- United States Geological Survey to investigate land subsidence.
- Natural Resources Conservation Service, through their participation in numerous groundwater projects.
- California Department of Water Resources:
    - Investigated groundwater banking feasibility in the Paso Robles Basin (grant funded project)
    - Preparation of an Integrated Regional Water Management Plan for San Luis Obispo County

Additional coordination is expected with the Central Coast Regional Water Quality Control Board due to anticipated changes to the Agricultural Waiver Program and salt nutrient management planning.

6.2.7 Dispute Resolution Process

The groundwater users in the Paso Robles Basin have used the following approaches to resolve issues in the Basin which demonstrate their ability to work together:

- North County Water Forum has served forum for discussion of water related issues in the Paso Robles Basin over the last ten years during many of the projects identified in Section 1 of the Plan. The GAC is an extension of this group, and will continue to provide a forum for discussion and early resolution of groundwater issues in the Basin.
- The Water Resources Advisory Committee has been used as a venue to address water management issues affecting San Luis Obispo County, including the Paso Robles Basin.
- The Paso Robles Groundwater Basin Agreement was developed in 2005 in response to groundwater rights issues among the Landowners and Municipal Users in the Basin. The Agreement stated that the Basin was not in a state of overdraft at that time, and outlined the procedures for determining the Basin is in a condition of overdraft.

The dispute resolution process will be formalized as part of the Basin governance during the implementation of the Plan.

7 Plan Implementation

This section includes a discussion of the approach, schedule, and funding information to support the implementation of the Plan.

The County of San Luis Obispo (County), including the San Luis Obispo County Flood Control and Water Conservation District is the local agency with the authority to lead Plan implementation. The lead agency will coordinate with the other ongoing efforts in the Basin and their respective lead agencies.

7.1 Implementation of Groundwater Management Activities

This section of the implementation plan identifies the specific Groundwater Management Activities and the lead parties responsible for their implementation. The GMAs presented on Table 7-1 are organized by the Groundwater Components described in Section 5. Each GMA includes its relative implementation priority and status, approximate schedule for implementation, and the lead parties responsible for its implementation, including the identification of a lead agency. It should be emphasized that all actions and participation of agencies and stakeholders is voluntary in nature, and subject to annual budgeting approvals.

It should be noted that several County departments are currently involved in work efforts associated with this Plan, including Public Works, Planning and Building, Public Health, and the Agricultural Commissioner's Office. Determining the specific roles and support of Plan efforts by those departments is also an implementation recommendation, and will be considered in annual budgeting and other decisions.

Table 7-1
Summary of Plan Implementation Progress

Component Category	Priority/ Status	Implementation Schedule			Stakeholder and Agency Participation				
		Reoccurring (Annual)	Within Three-Years	Beyond Three Years	Steering Committee	County	Urban Water Purveyors	Agriculture	Rural Residential
Component Category 1: Stakeholder Involvement and Coordination									
1.1 Involvement with Stakeholders and Public									
1. Provide public briefings at meetings (WRAC, Board Meetings, Other) and GMP annual meetings regarding GMP implementation progress.	High - Ongoing	X			Facilitate				
2. Work with private groundwater users and local water purveyors to maximize outreach on GMP activities.	High - Ongoing	X			Facilitate				
1.2 Formation of a Groundwater Advisory Committee for GMP Development and Implementation									
1. Invite local agencies that are managing groundwater, local advisory committees, and private well owners to participate on GAC through Steering Committee	Completed	X			Facilitate				
2. Develop a semi-annual GAC meeting schedule to report on the state of the Basin and address ongoing issues. These meetings may be incorporated into ongoing projects in the Basin as appropriate.	High	X			Facilitate				
3. Develop a formal mechanism for ongoing implementation of this GMP that includes a Steering Committee and Technical Advisory Committee	High	X			Facilitate				
1.3 Coordination with Other Agencies									
1. Coordinate with agencies with land use planning authority to coordinate land use planning regulations with groundwater management activities.	Ongoing	X			Facilitate	X	City Paso Robles City of Atascadero		
2. Coordinate implementation of the recommendations of the Paso Robles Groundwater Basin Resources Capacity Study	Medium		X		Facilitate	X			
1.4 Integration with Other Water Management Planning Efforts									
1. Integrate with San Luis Obispo County IRWMP Efforts.	Completed - Ongoing	X			Facilitate	X			
2. Integrate with San Luis Obispo County Master Water Plan.	Ongoing				Facilitate	X			
Component Category 2: Groundwater Monitoring and Data Collection									
2.1 Groundwater Elevation Monitoring									
1. Coordinate with local purveyors, San Luis Obispo County, DWR, and other basin groundwater extractors to identify additional appropriate wells for monitoring in addition to the County's water level monitoring.	High - Ongoing	X			Facilitate	X	All water purveyors	PRWCA & Other Growers	Individual Residents
2. Coordinate with local purveyors, San Luis Obispo County, DWR, and other basin groundwater extractors to ensure that the selected wells are maintained as part of a long-term monitoring network.	High - Ongoing	X				X	All water purveyors	PRWCA & Other Growers	Individual Residents
3. Coordinate with local agencies, DWR, and other basin groundwater extractors to ensure that needed water level data are collected, verify that uniform data collection protocols are used among agencies, and confirm that data sharing and archiving procedures are implemented.	High - Ongoing	X				X	All water purveyors	PRWCA & Other Growers	Individual Residents
4. Consider ways to fill gaps in the monitoring well network by identifying additional suitable existing wells or identifying opportunities for constructing new monitoring wells.	High - Ongoing	X			Facilitate	X			
5. Annually assess groundwater storage and elevation trends and conditions based on the network. Compare current trends to historical trends. Present findings to DWR and coordinate on future program modifications.	High	X			Facilitate	X			
6. Establish District as Monitoring Entity in California Statewide Groundwater Elevation Monitoring Program. Submit groundwater elevation data to DWR annually.	High - Immediate	X				X			
7. Assess the adequacy of the groundwater storage and elevation monitoring well networks annually.	High - Ongoing	X			Facilitate	X			
2.2 Groundwater Quality Monitoring									
1. Coordinate with County to ensure that the selected wells are maintained as part of a long-term monitoring network.	High	X				X	All Water Purveyors		
2. Consider ways to fill gaps in the monitoring well network by identifying additional suitable existing wells or identifying opportunities for constructing new monitoring wells.	Medium	X			Facilitate	X	All Water Purveyors		
3. Coordinate with County, other basin groundwater extractors, and other local, State, and federal agencies to identify where wells may exist in areas with sparse groundwater quality data. Identify opportunities for collecting and analyzing water quality samples from those wells. If wells are sampled through other programs, coordinate with the appropriate agency on sharing of data.	Medium	X				X	All Water Purveyors		

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		Reoccurring (Annual)	Within Three-Years	Beyond Three Years	Steering Committee	County	Urban Water Purveyors	Agriculture	Rural Residential
4. Assess Current groundwater trends in comparison to historical trends. Present findings to DWR and coordinate on future program modifications.	Medium	X				X	All Water Purveyors		
5. Assess the adequacy of the groundwater quality monitoring well network annually.	Medium	X				X	All Water Purveyors		
2.3 Inelastic Land Subsidence Monitoring									
1. Coordinate with DWR on the necessity of developing and implementing a monitoring program.	Low			X		X	All Water Purveyors		
2. Explore funding opportunities for the installation of subsidence extensometers and other benchmarks to perform periodic repeat-level surveys at the benchmarks if a monitoring program is determined to be warranted.	Low			X		X			
3. Educate local agencies on the potential for land surface subsidence and signs that could be indicators of subsidence.	Low			X		X			
2.4 Data Management System									
1. Continue to coordinate with County and other water purveyors to determine what types of data are currently available and in what formats.	High - Ongoing	X				X			
2. Incorporate recommendations from County's Data Enhancement Plan to improve data management storage, analysis, and dissemination.	High	X				X			
3. Develop data management methods on an "as needed" basis for data determined critical to the management of water resources in the Basin.	Medium	X				X			
2.5 Project Reporting									
1. Reporting groundwater levels to DWR as part of CASGEMs Program	High	X				SLOC FCWCD			
2. Establish Annual Monitoring Report Format to support annual reporting in the Basin	Completed	X				SLOC FCWCD			
3. Develop implementation reporting format to communicate GMP progress to stakeholders and interested parties.	High	X			Facilitate	SLOC FCWCD			
Component Category 3: Groundwater Resource Protection									
3.1 Well Construction, Abandonment and Destruction Policies									
1. Schedule a meeting with the County Department of Public Health, interested M&I water purveyors, and private well owners to facilitate the exchange of information of existing County well ordinances and discuss possible new ordinances.	High	X			Facilitate	X	X	X	X
2. Request copies of the most recent delineated investigation borders for remediation sites or other known groundwater contaminant sources to; County, M&I water purveyors, and private well owners within the Basin for their review and possible use.	Medium		X		Facilitate	X	X	X	X
3. Provide support to local agencies and private well owners on well construction, destruction, and abandonment as requested. For example, providing access to existing analysis on subsurface hydrogeology for the construction of new wells.	Medium	X			Facilitate	X	X	X	X
4. Obtain "wildcat" well map from California Division of Oil and Gas to ascertain the extent of historical gas well drilling operations in the area as these wells could function as conduits of contamination if not properly destroyed.	Low		X		Facilitate	X			
3.2 Wellhead Protection Measures									
1. Request that municipalities provide vulnerability summaries from the DWSAP to the GAC to be used for guiding management decisions in the basin.	Medium				Facilitate	X	X		
3.3 Monitor Contaminated and Poor Quality Groundwater									
1. Request information from the RWQCB and other responsible agencies with regard to water quality concerns within the basin.	Low		X			X			
2. Provide local agencies with all information obtained from OES and the RWQCB on the extent of the investigation areas of contaminant plumes and contaminated sites for their information in developing groundwater extraction patterns and in the siting of future production or monitoring wells.	Low		X			X			
3.4 Control of Saline Water Intrusion									
1. Request information from the RWQCB and other responsible agencies with regard to water quality concerns within Basin.	Medium			X		X			
2. Acquire geophysical logs for oil and gas exploration borings. These logs are available through the State of Department of Conservation Division of Oil and Gas. These electrical geophysical logs will delineate the base of freshwater at each boring location.	Low			X		X			

Table 7-1
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		Reoccurring (Annual)	Within Three-Years	Beyond Three Years	Steering Committee	County	Urban Water Purveyors	Agriculture	Rural Residential
3. Publish information on salinity trends in annual basin report.	Low			X		X			
Component Category 4: Groundwater Sustainability									
4.1 Replenishment of High Quality Groundwater Extracted by Water Producers									
1. Complete analysis of groundwater recharge areas in Basin	Medium		X			X			
2. Collaborate with other resource organizations to encourage protection of recharge areas.	Medium		X		Facilitate	X		Resource Conservation Districts, Land Trust Organizations	
3. Continue pursuing the projects to deliver Nacimiento Water Project within the Paso Robles Groundwater Basin	High		X			X			
4.2 Construction and Operation of Recharge, Storage, and Extraction Projects									
1. Refine instituional, economic, and environmental analysis at locations identified for groundwater banking	Low			X		X			
4.3 Additional Groundwater Management Opportunities									
1. Identify potential storm water recharge opportunities in the Basin	Medium		X			X	City of Paso Robles City of Atascadero		
4.4 Modeling and Technical Analysis									
1. Develop modeling goals and objectives to guide model update	High		X		Facilitate	X			
2. Identify additional technical analyses necessary to support model update	High		X			X			
3. Collect data needed to support technical analyses and model update.	High	X				X			
4. Complete technical analysis necessary to support future groundwater model update	High	X				X			
5. Complete groundwater model update	High			X		X			
6. Meet with County and local agencies that may experience surface water and groundwater interaction to understand the importance of issues, and the need for future studies.	Medium		X			X			
7. Develop program to understand groundwater surface water interaction along the Salinas River.	Medium			X		X			
8. Coordinate with DWR on the development of uniform data collection protocols and data sharing and archiving procedures.	High	X				X			
Component Category 5: Water Management									
5.1 Agricultural Water Management Practices									
1. Coordinate groundwater management activities with Paso Robles Wine Country Alliance Water Committee (Semi-Annual Meetings) with GAC	High	semi-annual			Facilitate	X		PRWCA/ CCVT	
2. Complete UC Extension study on vineyard irrigation practices and disseminate results to stakeholders	High		X			X		PRWCA/ CCVT	
3. Develop and disseminate to area growers vineyard irrigation BMPs	High		X		Facilitate	X		PRWCA/ CCVT	
4. Develop and disseminate to area growers, agricultural (non-vineyard) irrigation BMPs	High		X		Facilitate	X		PRWCA, CCVT, Farm Bureau, RCD's	
5. Evaluate effectiveness of BMPs outreach programs	High	X			Facilitate	X		PRWCA, CCVT, Farm Bureau, RCD's	
6. Identify water conservation measures for wine making operations. Prepare and disseminate outreach materials.	High	X			Facilitate	X		PRWCA/ CCVT	

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		Reoccurring (Annual)	Within Three-Years	Beyond Three Years	Steering Committee	County	Urban Water Purveyors	Agriculture	Rural Residential
7. Develop winery water use efficiency materials and landscape BMP's	Medium		X		Facilitate	X		PRWCA/ CCVT	
8. Make available water use efficiency outreach materials for non-PRCWA vineyards and wineries.	High - Ongoing	X			Facilitate	X		PRWCA/ CCVT	
9. Develop and disseminate region-specific BMPs that support long-term vineyard and winery water sustainability.	High - Ongoing	X			Facilitate	X		PRWCA/ CCVT	
10. Develop outreach program to encourage growers to participate in County's voluntary groundwater level monitoring program.	High - Ongoing	X			Facilitate	X		PRWCA/ CCVT Farm Bureau	
11. Support outreach and communication of groundwater management planning activities to growers.	High - Ongoing	X			Facilitate	X		PRWCA/ CCVT Farm Bureau	
12. Identify well owners located in gaps in the existing voluntary groundwater level monitoring network.	High - Ongoing	X			Facilitate	X		PRWCA/ CCVT Farm Bureau	
13. Develop water conservation BMPs for non-viticulture agriculture.	Medium				Facilitate	X		PRWCA/ CCVT Farm Bureau	
5.2 Urban Water Management Practices									
1. Evaluate Low Impact Development opportunities to improve local groundwater recharge.	Medium	X					City of Paso Robles City of Atascadero		
2. Identify Water Conservation BMPs	Medium	X					City of Paso Robles City of Atascadero		
3. Develop urban landscaping guidelines to promote water use efficiency, reduce runoff and encourage groundwater recharge	Medium	X					City of Paso Robles City of Atascadero		
4. Investigate stormwater capture and recharge program	Medium		X			X	City of Paso Robles City of Atascadero		
5.3 Rural Residential Water Management Practices									
1. Develop a water conservatoin outreach and educaiton program for rural areas. The outreach program will inform rural groundwater users of the state of the Basin, include suggested conservation and efficiency measures, and if possible, provide incentives to water conservation and efficiency efforts	Medium		X			X	Partner	RCD's	Individual Residents
3. Develop a rural residential landscape ordinance to promote water use efficiency, reduce runoff and encourage groundwater recharge	Medium		X			X	Partner		Individual Residents
4. Facilitate programs to support homeowner water recycling, greywater reuse and stormwater capture (SLO GreenBuild does much of this already, the Planning Departmetn already has these in their code)	Medium		X			X			Individual Residents

Key:
DWR = California Department of Water Resources
DWSAP = Drinking Water Source Assessment and Protection Program
GAMA = Groundwater Ambient Monitoring and Assessment Program
GMP = Groundwater Management Plan
LUST = Leaky Underground Storage Tank
MWC = Mutual Water Company
OES = Office of Emergency Services
PRIOR – Paso Robles Imperiled Overlying Rights
PRWCA = Paso Robles Wine Country Alliance
RWQCB = Regional Water Quality Control Board
WRAC – Water Resources Advisory Committee

SLOC-FCWCD
SLOC - Planning
SLOC - Public Health

7.2 Implementation Schedule

The prioritization of project, programs, and strategies is included on Table 7-1. The result of the discussions was the identification of phases instead of a specific priority list. Implementation of the GMAs recommended in the Plan is scheduled in three phases:

7.2.1 Phase I - Ongoing Groundwater Management Activities:

These activities may continue throughout the planning horizon, including:

- Participation in Semi-annual GAC meetings.
- Preparation and distribution of annual reports.
- Development of funding mechanism to support ongoing groundwater management activities.
- Performance of groundwater monitoring and sharing of data.
- Coordination and cooperation with water entities, Monterey County, and State and federal agencies.
- Periodic review of groundwater monitoring and groundwater management activities
- Compliance with California Statewide Groundwater Elevation Monitoring Program requirements.
- Coordination of Plan with implementation of San Luis Obispo County's land use policies in the Basin.

7.2.2 Phase II-Near Term Projects (Next Three Years):

These projects are intended to be implemented within the next three years and include:

- Implementation of water conservation projects, including agricultural, urban, and rural residential water conservation projects.
- Development and continued implementation of best management practices for agricultural, urban, and rural residential water users.
- Identification of potential conjunctive use project.
- Identification of groundwater recharge areas.
- Improvements to the County's data management system consistent with the Data Enhancement Plan.
- Improvements to the groundwater monitoring network by installing some dedicated monitoring wells and bringing additional production wells into the network.
- Pursuit of grant funding opportunities to improve the groundwater monitoring network.
- Development of a strategy to update the existing groundwater model.
- Collection of the data sets necessary to update the existing groundwater model.
- Identification projects to utilize unallocated Nacimiento Project Water within the Basin.
- Identification water reuse and water recycling opportunities.
- Inclusion of Paso Robles Basin groundwater recharge and conjunctive use projects in update of San Luis Obispo County IRWMP.

7.2.3 Phase III-Long-Term Projects (Beyond Three Years):

These projects are planned for implementation beyond three years:

- Update and enhance the existing basin-wide groundwater model.
- Implementation of wastewater treatment and capacity enhancements.
- Development of conjunctive use projects.
- Identification and development of recharge projects.
- Continue implementation of conservation and demand management programs.

7.3 Annual Implementation Report

Each year, the District will prepare a report describing the progress made in implementing Groundwater Management Activities and the effects of these activities on meeting basin-wide and subarea BMOs. The report will include maps of spring groundwater elevations and tabular summaries of ongoing management actions. The report narrative will present details of implementation activities and describe developments in the basin that are not part of the groundwater management plan implementation but that impact groundwater conditions in the basin (e.g., hydrologic conditions, siting of new industrial facilities, newly identified contaminant plumes, and trends on water quality). The report is dependent on the Basin stakeholders providing groundwater data to the District through the GAC.

7.4 Financial Planning for Recommended Actions and Project Implementation

Progress toward the implementation of the GMP is contingent upon securing adequate funding to complete the program. Two avenues that are available for funding are grant funding and funds generated internally by the groundwater users in the Basin.

7.4.1 Grant Funding

Identified grant funding opportunities include the following:

- **Local Groundwater Assistance Act (AB303)** – There is anticipated to be one more round of AB303 funding to be available either in late 2010 or early 2011. This funding is focused on groundwater related projects such as improvements to the groundwater monitoring network. This program has a $250,000 limit for projects.
- **Proposition 84 – IRWMP Implementation Grants** – Projects must be included in the San Luis Obispo County IRWMP project list to be eligible for this funding opportunity. The project priority would be established through the IRWMP project prioritization process for the IRMWP. San Luis Obispo County is not planning to update their IRWMP (add new projects to the project list) until 2011.

7.4.2 Developing a Zone of Benefit

Revenue generated internally by local agencies through the development of a Zone of Benefit may provide a long-term source of funding available for implementation of the plan. Internally generated revenues are important because they are controlled by the member entities and represent a local commitment to plan implementation and achievement of the BMOs. Local financial support is often required by grant programs and by other sources of outside financing.

7.4.3 Joint Funding Agreement

The basin could develop a Joint Funding Agreement (either as a JPA or a MOU) to fund ongoing groundwater management activities in the Basin. This agreement would establish an annual budget to fund the continued and ongoing groundwater management efforts within the Basin. These funds could be used to finance:

- Annual groundwater level monitoring and reporting
- Other data collection efforts
- Technical investigations
- Model update and application

7.5 Periodic Review and Updated of the Plan

In addition to the annual reports of the state of the Basin and implementation progress, there is a need to periodically review and, if necessary, refine the Plan. These reviews would be scheduled at five-year intervals and would concentrate on analyzing information presented in the previous annual reports and consolidating the observations of GAC members and local agencies. The reviews would identify areas where the plan has been successfully implemented as well as areas where deficiencies were apparent. In areas where implementation has proceeded satisfactorily, the plan revision might include increasingly detailed information regarding the specifics of implementation. In areas where progress was less than anticipated, approaches would be discussed to either bring implementation of specific actions back on track or to change course and focus efforts on other actions believed to have a higher likelihood of success.

8 References

California Department of Water Resources, California's Groundwater, Bulletin 118 – Update 2003, 2003.

Fugro West and Cleath and Associates, Paso Robles Groundwater Basin Study, 2002.

Fugro West, Inc. Paso Robles Groundwater Basin Water Balance Review and Update, 2010.

San Luis Obispo County Flood Control and Water Conservation District, San Luis Obispo County Integrated Regional Water Management Plan, 2005.

San Luis Obispo County Planning Department, Revised Resource Capacity Study – Water Supply in the Paso Robles Groundwater Basin, 2010.

Todd Engineers, Update for the Paso Robles Groundwater Basin, 2007.

Todd Engineers, Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006, 2009.

Valentine, D.W., et al. Use of InSAR to Identify Land-surface Displacements Caused by Aquifer-System Compaction in the Paso Robles Area, San Luis Obispo County, California. USGS Open File Report 00-447, 1997.

Wallace Group, Technical Memorandum No. 3 Water Supply Inventory and Assessment – Water Supply, Demand, and Water Quality.

Yates, Gus, Peer Review of Paso Robles Groundwater Studies, 2010.

Appendix A Paso Robles GMP Preparation Resolutions

C Howard
File

San Luis Obispo County Flood Control and Water Conservation District Notice of Public Hearing Paso Robles Basin Groundwater Management Plan

Tribune 3/8/11

NOTICE IS HEREBY GIVEN that on March 22, 2011, at the San Luis Obispo County Flood Control and Water Conservation District (District) Board Room, 1055 Monterey Street (Monterey and Santa Rosa Streets), San Luis Obispo, California 93408, the District will hold a public hearing on whether or not to adopt a resolution of intention to draft a groundwater management plan (GMP) for the Paso Robles Groundwater Basin pursuant to California Water Code section 10750 et seq. This matter is scheduled to be heard on or after 9:00 a.m. on March 22, 2011. For further information, the Board's agenda will be available at **http://www.slocounty.ca.gov/archivedmeetings.htm** on or after March 16, 2011.

Dated: February 18, 2011

Julie L. Rodewald
County Clerk-Recorder and Ex-Officio Clerk of the Board of Supervisors

By: /s/*Sandy Currens*
Deputy Clerk

March 8, 14, 2011 6930415

Appendix B Paso Robles GMP Adoption Resolutions

Paso Robles Basin Groundwater Management Plan –

Adoption of the Groundwater Management Plan

Notices of adoption of the Groundwater Management Plan will be added as Agencies and Stakeholder groups adopt the Plan.

Appendix C Meeting Announcements

SAN LUIS OBISPO COUNTY
DEPARTMENT OF PUBLIC WORKS
Paavo Ogren, Director
County Government Center, Room 207 • San Luis Obispo, CA 93408 • (805) 781-5252
Fax (805) 781-1229 email address: pwd@co.slo.ca.us

December 31, 2008

Subject: Participation in the Development of the Paso Robles Groundwater Basin Management Plan

Dear Paso Robles Groundwater Basin Stakeholder:

Over the past several years, there have been many activities related to managing and monitoring the Paso Robles Groundwater Basin (Basin), including the completion of a comprehensive Basin study, update and computer model, Groundwater Level Measuring Program Evaluation, Paso Basin Agreement and Water Banking Feasibility Study. In addition, several organizations in the Basin have conducted, or will conduct, their own management, monitoring and project-specific activities. The City of Paso Robles (City), in cooperation with the San Luis Obispo County Flood Control and Water Conservation District (District), was recently awarded an AB 303 Local Groundwater Assistance Grant to consolidate these efforts into a comprehensive, coordinated, Senate Bill (SB) 1938-compliant Groundwater Management Plan (GMP) for the Basin.

Completion of a SB 1938-compliant GMP, will have many benefits, including:

- Provision of a framework for improved groundwater management to maintain groundwater levels, protect groundwater quality, and avoid subsidence.
- Development of a regional understanding of the groundwater setting and groundwater management opportunities in the Basin by building upon the existing organization of local water purveyors, agricultural interests, and stakeholders of the North County Water Forum to form the Groundwater Advisory Committee in the hopes of mitigating future conflicts.
- Identification of existing and future projects and programs that can be implemented to improve long-term water supply reliability in the Basin.
- Establishment of a locally-controlled and comprehensive approach to groundwater management that will be accepted in the Basin and recognized by other state and federal agencies and that can be used to pursue grant funding for groundwater related projects and programs in the Basin.

In order to address a broad range of groundwater related issues in the Basin, your organization is invited to participate in the development of the GMP through the public outreach and stakeholder involvement process, including participation in the Groundwater Advisory Committee.

Please complete and return the enclosed survey, indicating your organization's willingness to participate in the development of a Groundwater Management Plan for the Paso Robles Groundwater Basin. A copy of the scope of work and project schedule to complete the GMP is also enclosed for your reference.

On behalf of the City of Paso Robles and all of the entities that depend upon the water in the Paso Robles Groundwater Basin, I hope your organization is able to join us in taking this proactive, cooperative step. If you have any questions, please contact me (805-781-1016; choward@co.slo.ca.us) or the City's Water Resources Manager, Christopher Alakel (805-237-3861; calakel@prcity.com). We hope to see you at the Project Kick-off Meeting on January 15th – flyer enclosed.

Sincerely,

COURTNEY HOWARD, P.E.
Water Resources Engineer

Enclosures

c: Christopher Alakel, City of Paso Robles
Dean Benedix, Utilities Division Manager
Sylas Cranor, Engineer

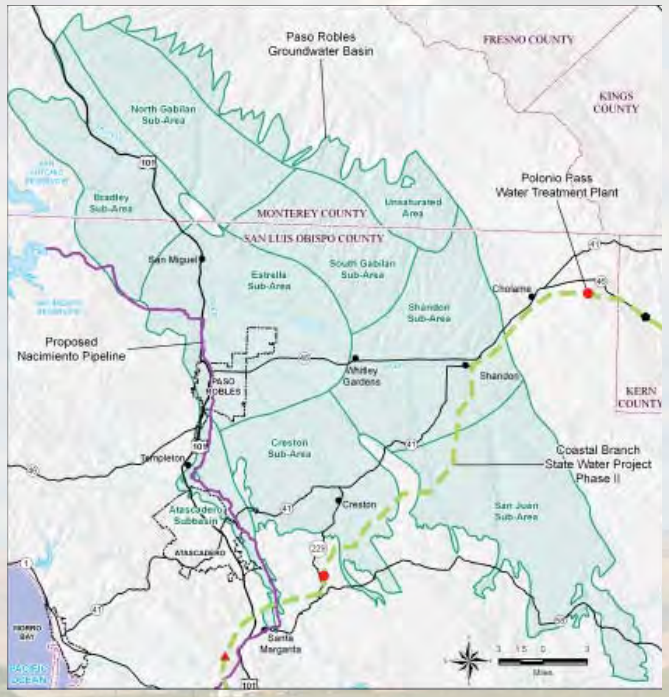
File: CF 500.132.01

L:\UTILITY\DEC08\Agency Outreach Letter final123108 #2.doc.choward.taw

Introducing

The Paso Robles Groundwater Basin Management Plan

San Luis Obispo County recently completed an Integrated Regional Water Management Plan. The plan contains groundwater monitoring and management objectives for the groundwater basins in the County, including the Paso Robles Groundwater Basin. In response to these objectives, The City of Paso Robles and San Luis Obispo County are leading the preparation of a groundwater management plan (GMP) for the Paso Robles Groundwater Basin. The GMP will address groundwater conditions, identify local and basin-wide groundwater issues, and outline measures to protect groundwater resources within the plan area (shown at right).



A Project Kickoff Meeting will be held:

Thursday, January 15, 2009
5 p.m. — 7 p.m
City of Paso Robles
Emergency Operations Center
900 Park Street

The meeting will include a review of the project purpose, approach, and schedule. Additionally, the formation of the Groundwater Advisory Committee will be discussed. The purpose of the Groundwater Advisory Committee is to assist in developing the GMP. The draft GMP is scheduled to be released in July 2009, with the final GMP due December 2009.

Parties interested in the GMP are encouraged to participate in the planning process by attending public meetings scheduled by the Groundwater Advisory Committee.

Paso Robles Groundwater Basin Groundwater Management Plan
Project Schedule (updated Dec 10, 2008)

Task Name	2008	2009											
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Task 1 - Administrative Requirements of Groundwater Management Plan Process													
Task 2 - Public Outreach and Stakeholder Involvement		△	△		△			△ WRAC		△			△ WRAC
Task 3 - Identify Groundwater Issues and Develop Basin Management Objectives				TM1									
Task 4 - Water Demand and Supply Analysis					TM2								
Task 5 - Prepare 2009 Annual Groundwater Report			SAP										DMS GWR
Task 6 - Prepare Groundwater Management Plan								DGMP					FGMP
Task 7 - Technical Review - QA/QC		SAP	TM1	TM2			DGMP			DMS GWR		FGMP	
Task 8 - Project Management													

△ Groundwater Advisory Committee (GAC) Meetings
WRAC - Water Resouce Advisory Committee Meetings

TM 1 - Groundwater Issues and Provisional BMOs
TM 2 - Exising and Projected Land and Water Use
SAP - Sampling and Analysis Plan
DMS - Groundwater Data Management System
GWR - 2009 Annual Groundwater Report
DGMP - Draft Groundwater Management Plan
FGMP - Final Groundwater Management Plan

Task Specified Activity

Ongoing, intermittent Activity

Exhibit A

Scope of Work

The Scope of Work is divided into the following eight major tasks:

Task 1 – Administrative Requirements of Groundwater Management Plan Process
Task 2 – Public Outreach and Stakeholder Involvement
Task 3 – Identify Groundwater Issues and Develop Basin Management Objectives
Task 4 – Water Demand and Supply Analysis
Task 5 – Prepare 2009 Annual Groundwater Report
Task 6 – Prepare Groundwater Management Plan
Task 7 – Technical Review – QA/QC
Task 8 – Project Management

Task 1 – Administrative Requirements of Groundwater Management Plan Process

The purpose of this task is to provide support to satisfy the administrative requirements for completing an SB 1938-compliant Plan. These administrative requirements occur primarily at the beginning and end of the preparation of the Plan. The consultant will assist the project participants (City, County, and other agencies that state intent to adopt plan) in:

- Establishing a public participation/public involvement process including:
  - Inviting and encouraging public participation in the development of the Plan.
  - Forming the Paso Robles Basin Groundwater Advisory Committee (Paso Robles Basin GAC) of interested parties and stakeholders. The North County Water Forum will be used as the starting point for the formation of the Paso Robles Basin GAC.
  - Reviewing notices prior to publication of City Council and other meetings in local newspapers regarding development of the Plan; notice of intent to develop the Plan; notice of the availability of the draft Plan; and notice of the availability of the final Plan to be circulated for agency adoption.

- Assisting the project participants in complying with the public involvement requirement in SB 1938.
- Assisting the project participants with other administrative procedures.

Task 2 – Public Outreach and Stakeholder Involvement

This task includes activities associated with the public outreach and stakeholder involvement process, such as communication with Basin stakeholders and other interested parties. There is an established and very active stakeholder process in northern San Luis Obispo County. This process has been used extensively to address issues and build consensus among a very diverse group of stakeholders.

The consultant will support the City and County with this task. This task involves 14 meetings:

- Ten regularly scheduled workshops for the Paso Robles Basin GAC to guide development of the Plan, review of project deliverables, and receipt of comments on the plan development and interim deliverables.
- Three briefings to the WRAC at selected times in the project schedule to provide meaningful updates to the WRAC.
- Paso Robles City Council and possibly County Board of Supervisors briefings.
- Up to four additional briefings will be provided to the local advisory bodies during the preparation of the Plan to keep the local stakeholders and interested parties informed of the progress of the Plan and to elicit feedback.

Additional efforts under this task may include:

- Circulation of newsletters in advance of the meetings as part of public outreach and stakeholder involvement.
- Providing visual aids, copies of presentations and deliverables, and refreshments at meetings.
- Providing meeting agenda and minutes as well as other announcements regarding the Plan on the City's and County's websites and distributing this information at the meetings.
- Coordinating with local and federal agencies.

Task 3 – Identify Groundwater Issues and Develop Basin Management Objectives

The purpose of this task is to identify the groundwater management issues within the Plan Area and develop BMOs that identify the groundwater management activities that are linked to each BMO. The BMOs will include objectives for water levels, water quality, and land subsidence. The activities associated with the development of BMOs will address the groundwater management components and may be organized into the following groups.

- Groundwater protection issues may include:
  - Control of saline water
  - Identification of well protection and recharge areas
  - Regulation of the migration of contaminated groundwater
  - Administration of a well abandonment and well destruction program
  - Identification of well construction policies
  - Coordination with agencies responsible for groundwater contamination cleanup, recharge, storage, recycling, and extraction projects
  - Review of land use plans and coordination with planning agencies to assess activities that create a reasonable risk for groundwater contamination
- Groundwater use/recharge issues may include:
  - Prevention and mitigation of conditions of overdraft
  - Replenishment of groundwater extracted by water producers
  - Monitoring of groundwater quality and storage levels
  - Facilitating conjunctive use operations

The groundwater subareas listed below were identified in the Basin Study (Fugro, 2002) based on water quality, source of recharge, groundwater movement, and contours on the base of permeable sediments. The Annual Report (Todd Engineers, 2007) used these same subbasin/subarea delineations. It is expected that the BMOs will be developed based upon the groundwater subarea delineations from the Basin Study:

- North Gabilan Subarea
- Bradley Subarea
- South Gabilan Subarea
- Estrella Subarea
- Creston Subarea
- Shandon Subarea
- Atascadero Subbasin

This task will be led by the consulting team. Independent technical review of this task will be completed by the consulting team as described in Task 7. The deliverable for this task will be a technical memorandum documenting the groundwater issues and provisional BMOs for each subarea.

Task 4 – Water Demand and Supply Analysis

The purpose of this task is to document the current and future land use and the associated water uses in the Basin based on readily available information. There are three land use and water use planning activities in the County that are coincident with the proposed schedule for the development of the Plan whose scope includes analyzing the water demand and water supply in the Basin.

- **Resource Capacity Study** - In its June 5, 2007, meeting, the Board recommended a Level of Severity I designation for the Basin, indicating a low immediacy of resource deficiency. This designation was made with reference to the 1980-1997 groundwater level decreases in the Estrella subarea and to increases in the extent of overlying land uses, including ranchettes, golf courses, and vineyards. As a result of this designation, County staff was directed to prepare a Resource Capacity Study that will focus on the area of groundwater level decrease. A draft Resource Capacity Study is expected to be available in January 2009.

- **Conservation Element of the County General Plan** - The Conservation Element of the County's General Plan is being updated to improve, consolidate, and revise the existing policies and programs, including those related to water resources. "Cutting edge" policies will be developed related to green building, watershed protection, water conservation, biological resource protection, and conservation-oriented land use patterns such as smart growth that may have an impact on future groundwater basin management efforts. The Conservation Element of the County General Plan will be completed by the County Planning Department. A draft Conservation Element is anticipated to be available in November 2008.

- **Countywide Master Water Plan** - In addition, the Countywide Master Water Plan update is scheduled for 2010. Incorporating recent documents such as urban water management plans, general plan updates, and water/wastewater master plans, the Countywide update will include current and future water use projections for water planning areas. The Groundwater Management Plan development will coincide with the Master Water Plan development and it is anticipated that the consultant and the County Public Works Department will support one another during the process.

The County Department of Planning staff will be responsible for completing the Resource Capacity Study and Conservation Element, and the Public Works staff will be responsible for completing the Countywide Master Water Plan update described above.

The *Update for the Paso Robles Groundwater Basin* (Update) (Todd Engineers, December 2007) provided an overview of the current conditions of the Basin building on the Groundwater Basin studies (Fugro 2002 and 2005). The report provided an update from 1997 through 2006 on rainfall, groundwater levels and storage, and groundwater management. An update of pumping in the Basin will be completed in the next few months The Update report and pumping update will become part of the Resource Capacity Study. The first Annual Groundwater Report, prepared as part of this Plan, will include monitoring data collected in 2007 through 2009 and discuss changes in land use, water use, pumping, groundwater levels, and groundwater quality.

Independent technical review of this task will be provided by the consulting team as described in Task 7. The deliverable for this task is a technical memorandum documenting the existing and expected future land and water use conditions. In addition, the GIS files used in the analysis will be provided to the City and County Planning Department.

Task 5 – Prepare 2009 Annual Groundwater Report

The purpose of this task is to build upon the existing groundwater monitoring taking place in the Basin and to formalize the groundwater monitoring program. This includes the following activities:

- Prepare a Sampling and Analysis Plan (SAP) that includes monitoring protocols for the Basin.
- Develop a data management system to store, manage, analyze, and present monitoring data.
- Review available data to identify wells for each subarea that represent the overall trends for use in development of provisional BMOs.
- Prepare groundwater level maps for spring and fall 2009.
- Summarize groundwater level and quality data.
- Develop the format for future annual groundwater reports.
- Prepare the 2009 Annual Groundwater Report.

This task will be led by the consulting team. The deliverables for this task include the Sampling and Analysis Plan and the 2009 Annual Groundwater Report, which will present the results of the 2007 through 2009 monitoring activities. In addition, this task will include a data management system. The data management system software will be non-proprietary and the consultant will provide the County and City with all the data files and provide general guidance in operation of the data management system, if needed.

Independent technical review of this task will be provided by the consulting team as described in Task 7. In addition, the draft 2009 Annual Groundwater Report will be presented to the Paso Robles Basin GAC, WRAC, and interested local advisory committees in order to obtain review and comment by the stakeholders and interested parties.

Task 6 – Prepare Groundwater Management Plan

A draft and final version of the Plan will be completed as part of this task. The draft document will be made available to the project participants, stakeholders, and DWR for review and comment. The final document will be prepared, based on information collected on the draft document. The final Plan will be provided to the project participants for adoption. Project costs associated with this task are for the production and distribution of 10 draft and 20 final copies of the Plan.

This task will include the preparation of an implementation plan that will be used to guide groundwater management in the Basin and support other planning efforts such as the IRWMP. The project participants and stakeholders will develop the implementation plan, which will address:

- Continuation of the groundwater monitoring program, including the analysis and reporting of annual groundwater conditions
- Continuation of monitoring groundwater protection efforts
- Ongoing planning for groundwater recharge and conjunctive use opportunities
- Planning to periodically update the Plan as additional information is developed
- Identifying funding for continued groundwater management activities in the subbasin.

This task will be led by the consulting team. Independent technical review of this task will be completed by the consulting team as described in Task 7. In addition, the draft GMP will be presented to the Paso Robles Basin GAC, the WRAC and interested local advisory committees in order to get review and comment by the stakeholders and interested parties.

Task 7 – Technical Review – QA/QC

This task includes an independent technical review by the members of the consulting team experienced in groundwater management, but not directly involved in the development of this GMP. This internal QA/QC will provide additional review and expertise to the project to ensure that it meets the expectations of the local project participants and stakeholders, provides a vision and framework for the implementation of groundwater management in the Basin, and meets the requirements for SB 1938. The technical review is expected to focus on four specific areas:

- Identification of groundwater issues and development of BMOs (Task 3)
- Documentation of the water demand and supply analysis (Task 4)
- Preparation of the Sampling and Analysis Plan and the 2009 Annual Groundwater Report (Task 5)
- Review of the draft groundwater management plan including the implementation plan (Task 6).

Task 8 – Project Management

This task includes general project management and coordination during throught the project. This task includes:

Preparing monthly invoices and progress reports

- The progress report is to conclude a brief narrative of the task that are underway and their progress to date. Also, the consultant shall develop and maintain a project scheduled that will be updated regularly and submitted with the monthly progress reports.

Project Deliverables

The project deliverables identified in the work plan are listed below.

- Participation in six project meetings and up to eight briefings **(Task 2)**
- Technical memorandum documenting BMOs **(Task 3)**
  - Techical memorandum draft and final report – A task outline and approach shall be submitted, reviewed, and approved prior to commencing with a TM Draft and final.
- Interim technical memorandum documenting water use and supply analysis **(Task 4)**
  - Technical memorandum draft and final report – A task outline and approach shall be submitted, reviewed, and approved prior to commencing with a TM Draft and final.
- Sampling and Analysis Plan and Groundwater Report Draft, and Final **(Task 5)**
- 2009 Annual Groundwater Report **(Task 5)**
- Water level and water quality data management system **(Task 5)**
- Draft and final Plan **(Task 6)**
- Monthly progress reports and schedule updates **(Task 8)**

NORTH COUNTY WATER FORUM

Templeton Community Services District
420 Crocker Street
Templeton

Thursday, September 4, 2008
5:00 to 6:30 p.m.

Paso Robles Groundwater Basin Topics for Discussion:

- Agenda Amendments

- Relationships between Paso Basin planning/projects, local planning/projects and county-wide planning/projects

- Current and Future Basin Pumping Analysis

- Resource Capacity Study of the area of significant groundwater level decline

  Results of the pumping analysis will be incorporated into a draft RCS currently scheduled to be presented during the December NCWF meeting.

- Grant to complete a Paso Robles Basin Groundwater Management Plan

  The State Department of Water Resources has funded the grant application to develop a Groundwater Management Plan for the Paso Robles Groundwater Basin. The original Groundwater Management Plan Grant Application is posted at www.slocountywater.org/site/Water%20Resources/Reports/index.htm, however it is very large (40 mb). A hard copy for viewing at the Public Works Department in San Luis Obispo or CD upon request is available. The scope and schedule will be modified to reflect the reduced funding amount of $208,000 and Grant Agreement deadline of May 15, 2010.

Questions? Please contact Courtney Howard at (805) 781-1016 or choward@co.slo.ca.us

PASO ROBLES GROUNDWATER BASIN
GROUNDWATER MANAGEMENT PLAN
GROUNDWATER ADVISORY COMMITTEE MEETING

Emergency Operations Center
900 Park Street
Paso Robles

Thursday, January 15, 2009
5:00 to 7:00 p.m.

All Paso Robles Groundwater Basin (Basin) stakeholders are invited to attend this Paso Robles Groundwater Basin Management Plan (GMP) Kick-off Meeting.

Topics for Discussion:

- Scope of Work
- Schedule
- Participation

Questions? Please contact Courtney Howard at (805) 781-1016 or choward@co.slo.ca.us

View Basin reports online at:

http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/index.htm

PASO ROBLES GROUNDWATER BASIN
GROUNDWATER MANAGEMENT PLAN
GROUNDWATER ADVISORY COMMITTEE MEETING

Emergency Operations Center
900 Park Street
Paso Robles

Thursday, November 12, 2009
5:30 to 7:30 p.m.

All Paso Robles Groundwater Basin (Basin) stakeholders are invited to attend this Paso Robles Groundwater Basin Management Plan (GMP) re-Kick-off Meeting. Grant funding is available again to move forward with this important project. See attached brochure for additional information.

Topics for Discussion:

- Scope of Work
- Schedule
- Participation

Questions? Please contact Courtney Howard at (805) 781-1016 or choward@co.slo.ca.us

View Basin reports online at:

http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/index.htm

PASO ROBLES GROUNDWATER BASIN
GROUNDWATER MANAGEMENT PLAN
GROUNDWATER ADVISORY COMMITTEE MEETING

Paso Robles City Hall Council Chambers
1000 Spring Street
Paso Robles

Thursday, December 2, 2010
5:30 to 7:30 p.m.

All Paso Robles Groundwater Basin (Basin) stakeholders are invited to attend.

The meeting presentation and the Draft Groundwater Management Plan will be available on the following websites by Thursday:

www.prcity.org/government/

http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/index.htm

The purpose of the meeting will be to provide an overview of the Draft Plan in order to facilitate your review, and discuss components of the Plan not addressed previously.

Comments on the Draft Plan will be due January 5th in order to provide a proposed final draft in advance of a February meeting.

Questions? Please contact Courtney Howard at (805) 781-1016 or choward@co.slo.ca.us

View Basin reports online at:

http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/index.htm

PASO ROBLES GROUNDWATER BASIN
GROUNDWATER MANAGEMENT PLAN
GROUNDWATER ADVISORY COMMITTEE MEETING

Paso Robles City Hall Council Chambers
1000 Spring Street
Paso Robles

Thursday, February 25, 2010
5:30 to 7:30 p.m.

All Paso Robles Groundwater Basin (Basin) stakeholders are invited to attend.

Topics for Discussion:

- Basin Issues
- Basin Management Objectives

Questions? Please contact Courtney Howard at (805) 781-1016 or choward@co.slo.ca.us

View Basin reports online at:

http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/index.htm

PASO ROBLES GROUNDWATER BASIN
GROUNDWATER MANAGEMENT PLAN

ATASCADERO, ESTRELLA, AND CRESTON SUBAREAS
GROUNDWATER ADVISORY COMMITTEE MEETING

Paso Robles City Hall Council Chambers
1000 Spring Street
Paso Robles

Monday, April 19, 2010
5:30 to 8:30 p.m.

As the next step in developing the Groundwater Management Plan for the Paso Basin, the project team will be holding a workshop to develop basin management objectives and potential actions for the **Atascadero, Estrella, and Creston subareas**. While the three subareas will meet at the same time, we will be breaking into your subareas for separate discussions.

A similar workshop for the San Juan, Shandon, North Gabilan, South Gabilan and Bradley subareas will be held at a later date.

In order to have a successful workshop, we would like at least one representative to be available from the following entities/groups (thank you to those that have responded):

- The agricultural community (vineyards, wineries, ranching, other crops)
- Rural residents from each subarea
- RCD and/or NRCS
- Advisory Bodies
- PRIOR
- San Miguel CSD
- City of Paso Robles
- Templeton CSD
- Atascadero MWC
- City of Atascadero

Any other entities/groups that can help to provide input and distribute information for these subareas are also welcome.

Questions? Please contact Courtney Howard at (805) 781-1016 or choward@co.slo.ca.us

View Basin reports online at:

://www.slocountywater.org/site/Water%20Resources/Water%20Forum/index.htm

PASO ROBLES GROUNDWATER BASIN
GROUNDWATER MANAGEMENT PLAN

SAN JUAN, SHANDON, BRADLEY AND GABILAN SUBAREAS
GROUNDWATER ADVISORY COMMITTEE MEETING

Shandon High School Gym
First Street
Shandon

Monday, May 10, 2010
7:00 p.m.

As the next step in developing the Groundwater Management Plan for the Paso Basin, the project team will be holding a workshop to develop basin management objectives and potential actions for the **San Juan, Shandon, Bradley, North Gabilan and South Gabilan subareas**. While the five subareas will meet at the same time, we will be breaking into your subareas for separate discussions.

In order to have a successful workshop, we would like at least one representative to be available from the following entities/groups (thank you to those that have responded):

- Shandon
- Green River MWC
- the agricultural community (vineyards, wineries, ranching, other crops)
- rural residents from each subarea
- Upper Salinas-Las Tablas RCD and/or NRCS
- Shandon Advisory Council
- PRIOR

Any other entities/groups that can help to provide input and distribute information for these subareas are also welcome.

Questions? Please contact Courtney Howard at (805) 781-1016 or choward@co.slo.ca.us

View Basin reports online at:

://www.slocountywater.org/site/Water%20Resources/Water%20Forum/index.htm

PASO ROBLES GROUNDWATER BASIN
GROUNDWATER MANAGEMENT PLAN
GROUNDWATER ADVISORY COMMITTEE MEETING

Paso Robles City Hall Council Chambers
1000 Spring Street
Paso Robles

Monday, August 2, 2010
5:30 to 7:30 p.m.

All Paso Robles Groundwater Basin (Basin) stakeholders are invited to attend.

A draft agenda is attached for your review.

Questions? Please contact Courtney Howard at (805) 781-1016 or choward@co.slo.ca.us

View Basin reports online at:

http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/index.htm

PASO ROBLES GROUNDWATER BASIN
GROUNDWATER MANAGEMENT PLAN
GROUNDWATER ADVISORY COMMITTEE MEETING

Paso Robles City Hall Council Chambers
1000 Spring Street
Paso Robles

Thursday, February 10, 2010
5:30 to 7:30 p.m.

All Paso Robles Groundwater Basin (Basin) stakeholders are invited to attend.

The revised Draft Groundwater Management Plan and Monitoring Plan are available on the following websites:

www.prcity.org/government/

http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/index.htm

Additional appendices will be added to the websites over the next several days.

The purpose of the meeting will be to review changes to the Draft Plan, discuss the composition of the Groundwater Advisory Committee and potentially consider or nominate at-Large members, and discuss the next steps in Plan implementation.

Key updates to the Plan included:

- More clearly defining the role of the Paso Robles Wine Country Alliance as to their members, rather than the broader agricultural community.
- Refining the role of the County in Plan implementation.
- Incorporating the results of the Governance Subcommittee meeting into the governance for Plan implementation.
- Incorporating general edits and comments.

Questions? Please contact Courtney Howard at (805) 781-1016 or choward@co.slo.ca.us

View Basin reports online at:

http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/index.htm

Appendix D BMO Workshop Summaries

Summary of Basin Management Objective Workshop
For the Atascadero Subbasin

The draft Basin Management Objectives (BMOs) for groundwater levels in the Atascadero Subbasin were discussed and developed by stakeholders of Atascadero Subbasin at the Paso Robles Groundwater Basin Management Plan BMO Workshop held on April 19 at the City of Paso Robles City Council Chambers. The stakeholders from the Atascadero Subbasin that attended the Workshop are listed below:

Name	Affiliation
Della Barret	Resident (private well or AMCW)
Kathy Sweet	Resident (private well or AMCW)
Keith Larson	City of Paso Robles
Bob Roos	Resident (private well or AMCW)
Jackie Magill	Resident (private well or AMCW)
John Neil	Atascadero Mutual Water Company
John Hollenbeck	Resident (private well or AMCW)
Carrie Jones	Resident (private well or AMCW)
Jay Short	Templeton CSD
Susan Litteral	Resident (private well or AMCW)/NRCS

Jim Magill recorded the information discussed by the Atascadero Subarea Stakeholders. The Atascadero Subbasin Stakeholders generally reached consensus on most of the issues presented below.

Basin Management Objectives are intended to provide quantifiable and measureable targets so that progress towards improved groundwater management can be tracked. BMOs are being developed for subareas within the Paso Robles Groundwater Basin (Basin) to represent the differing groundwater conditions and necessary management activities.

Groundwater Management Activities (GMAs) are intended to identify the steps or actions taken to meet the BMOs. It should be recognized that both BMOs and GMAs should be evaluated and updated routinely (every few years) as additional information is collected, or in response to changing conditions.

Groundwater Levels in the Atascadero Subarea are affected by:

- Annual hydrologic conditions
- Changes in water demands that are met with groundwater

There are currently about 150 wells located within the limits of the Paso Robles Groundwater Basin that are monitored by the San Luis Obispo County Department of Public Works and the Monterey County Water Resources Agency. These wells are used to track the changes in groundwater level trends through time at a specific location, or across an area for a specific date. The changes in groundwater levels in the Atascadero Subbasin are currently recorded at 33 wells that are included in the groundwater monitoring network.

Groundwater Levels in the Atascadero Subbasin are affected by:

- Annual hydrologic conditions
- Changes in water demands that are met with groundwater

The rate of decline changes through time in response to changing hydrologic conditions and changes in the amount of local groundwater pumping. The composite hydrograph of four wells (currently in the monitoring network) was selected to represent the conditions in the subbasin is shown on Figure 1. These wells will be used as an indicator to how groundwater levels in the subarea are changing over time.

Groundwater levels in the Atascadero Subbasin tend to have a greater range in annual response than other subareas, with average groundwater levels increasing or decreasing by up to 15 feet in single years. The overall trend of the average groundwater levels has remained relatively constant since the early 1980s with groundwater levels rising and falling in response to changing hydrologic conditions and increasing demands. The 2009 average groundwater levels are within ten feet of the 1981 levels as shown on Figure 1. Based on the pattern exhibited on this figure, a single wet year could return the average groundwater levels to the 1981 conditions. It is not clear how the increase in demands since the late 1990s likely contributes to the overall declining groundwater levels of about 30 feet during the 1997 to 2009 period.

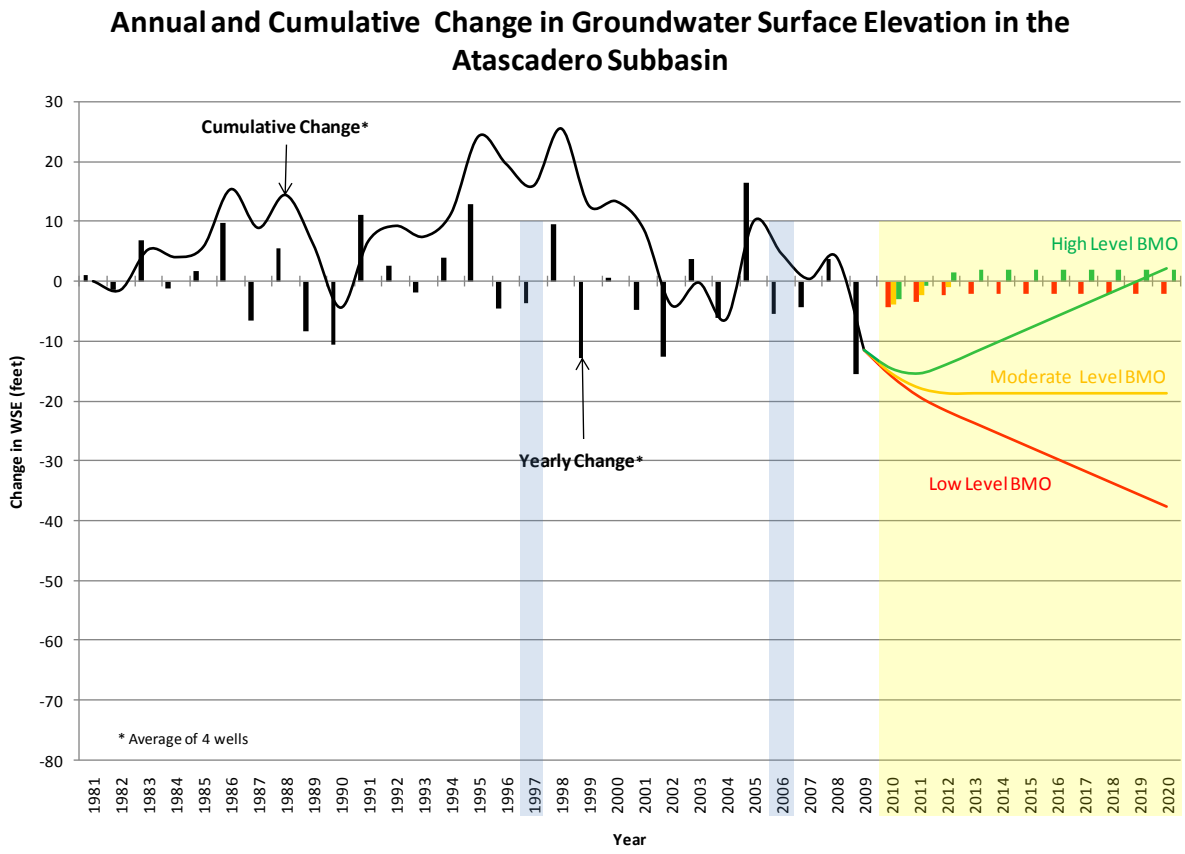


Figure 1. Composite Hydrograph of Four Selected Wells in the Atascadero Subbasin

The 2010 to 2020 period included on Figure 1 shows potential range of changes in groundwater levels in the subarea under different levels of BMOs. Low level BMOs would be expected to result in a continuing decline or groundwater levels similar to those experienced during the 1997 to 2009 period. The moderate level BMO would eventually result in no change in groundwater levels (stabilized groundwater levels). The high level BMO would result in improvement of groundwater levels over time. These projected groundwater levels are intended to show the differences in groundwater levels based on target groundwater levels (BMOs) selected for the subarea, and the magnitude of the GMAs implemented. Additional analysis is needed to quantify the result (in terms of groundwater levels) due to the implementation of GMAs in the subarea.

Water demands in the Atascadero Subarea met by groundwater increased by about 1,000 acre-feet during the 1997 to 2006 period as shown on Table 1. This increase in demands may have contributed to the decline of groundwater levels during this period. These higher demands, along with drier conditions during the 2006 to 2009 period, likely contributed to the increased rate of groundwater level decline (about five feet per year) during this period.

Table 1. Estimated Water Demands in the Atascadero Subarea for 1997 and 2006

GROUNDWATER DEMAND BY DEMAND TYPE FOR 1997 AND 2006 FOR THE ATASCADERO SUBBASIN							
Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	1,348	11,735	0	430	2,032	15,545
Estimated 1997 Demand	(acre-feet)	1,023	11,376	0	300	1,800	14,499
Difference (2006 less 1997)	(acre-feet)	325	359	0	130	232	1,046

2006 Demand Assumptions: Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)

1997 Demand Assumptions: 1997 Demands form Paso Robles Groundwater Basin Study (Fugro, 2002)
Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.
1997 Municipal demand includes City of Paso Robles groundwater pumping from river wells(3,933 acre-feet)
Small community demands included in rural domestic demand

Draft Basin Management Objectives

The Atascadero Subbasin stakeholders determined that an acceptable draft BMO for groundwater levels in the Atascadero Subbasin would include stabilizing groundwater levels at about the 2009 level as presented in the composite hydrograph (average of four wells). This draft BMO had strong consensus among the participants.

Potential Groundwater Management Activities

The following Groundwater Management Activities (GMAs) were identified by the Atascadero Subbasin Stakeholders to stabilize groundwater levels in the Atascadero Subbasin. The potential benefit from these GMAs has not been quantified for the Atascadero Subbasin (in terms of changes in groundwater

levels), so it has not been determined if implementation of the GMAs will result in stabilized groundwater levels.

GMA 1: Increase monitoring and reporting on groundwater conditions: This GMA includes expanding the groundwater monitoring network in the Atascadero Subbasin through the addition of new wells to the volunteer monitoring network.

Groundwater level measurements are currently taken by the County in the spring and fall of each year. Spring water levels will be used to track year-to-year changes and long-term trends in groundwater levels because they represent more stable conditions. Groundwater levels will be made available on a regular basis (semi-annually) within two months after most current readings, and will be included in the Paso Robles Groundwater Basin Annual Report. This level of monitoring and reporting of groundwater levels should be sufficient for determining the effectiveness of the GMAs at this time. Additional monitoring and reporting may be needed at some future date.

While this GMA does not directly result in changes in groundwater levels, it will help communicate conditions to individuals and support implementation of groundwater management activities in the subarea.

The San Luis Obispo County Flood Control and Water Conservation District would likely be the lead entity of a cooperative group formed to collect, organize, and report on groundwater conditions in the Paso Robles Groundwater Basin on a regular basis. Atascadero Mutual Water Company, City of Paso Robles and Templeton Community Services District collect water level data that is provided to the District for inclusion in the monitoring program.

GMA 2: Increase water conservation education and implementation: This GMA includes increasing the awareness of the impact of water conservation on reducing groundwater pumping. The effectiveness of the water conservation program will be difficult to verify for rural and agricultural areas without metering well production. The effectiveness of the GMA will be based on the changing behavior of individual water users and impacts on groundwater level trends in the area. The effectiveness of this GMA will be evaluated on an annual basis.

This GMA had large consensus of the Atascadero Subbasin stakeholders. Some of the specific water conservation activities identified include:

- Municipal water purveyors have implemented some level of conservation to date. The effectiveness of these efforts can be tracked by the delivery volumes. Because municipal water demands compose the largest single demand type in the subbasin, there is the greatest opportunity for reduction in groundwater pumping. Based on 2006 municipal demands in the Atascadero Subbasin, a 10% level conservation could result in a reduction in demand of about 880 acre-feet per year.
- Agricultural Water Conservation (opportunities for reductions in groundwater pumping resulting from agricultural conservation programs may be limited in the Atascadero Subbasin due to the comparatively small agricultural demand). Based on 2006 agricultural

demands in the Atascadero Subbasin, a 10% level conservation could result in a reduction in demand of about 130 acre-feet per year.

- Rural Residential Water Conservation (opportunities for reductions in groundwater pumping resulting from rural residential conservation programs may be limited in the Atascadero Subbasin due to the comparatively small rural residential demand). Based on 2006 rural domestic demands in the Atascadero Subbasin, a 10% level conservation could result in a reduction in demand of about 200 acre-feet per year. Water conservation programs in the rural residential sector may focus on the following:
    - Landscape Water Use
    - Consider controls on non-agricultural ponds
    - Development of conservation outreach and incentive programs implemented by San Luis Obispo County

Responsibility for implementing certain components of this GMA may include both the San Luis Obispo County Department of Planning and Building, and the San Luis Obispo County Flood Control and Water Conservation District. The Atascadero Mutual Water Company, City of Paso Robles, and Templeton Community Services District are responsible for implementing water conservation programs within their service areas.

GMA 3: Managing the growth and corresponding increase in water demands: This GMA includes identifying potential land use planning activities that may be used to reduce the rate of growth of water demand in the subbasin. In areas outside the jurisdiction of the cities of Atascadero and Paso Robles, land use planning responsibilities are the responsibility of the San Luis Obispo County Department of Planning and Building. The cities have implemented land use policies that limit water use rates and promote water conservation, such as limiting turf in new development. In addition, higher water rates paid by city water customers encourage efficient water use. Any policies established in areas where San Luis Obispo County has jurisdiction would be applied to the entire Basin, not just this subarea. This GMA may include:

- Building moratorium on lot splits and subdivisions
- Discretionary lots splits would require meters on the new well and the existing well
- No net increase in water use resulting from additional rural residential development
- Promote greywater use
- Minimize turf areas
- Meter new wells
- Offset water use
- Explore opportunities for residential rainwater harvesting

Responsibility for implementing this GMA may include both the San Luis Obispo County Department of Planning and Building and the cities of Atascadero and Paso Robles.

GMA 4: Maximize the amount of Nacimiento Project Water in the Subbasin: This GMA includes utilizing the existing Nacimiento Project Water already acquired for use in the subbasin, and explore opportunities to utilize unassigned Nacimiento Project Water.

The San Luis Obispo County Flood Control and Water Conservation District would be one of the lead agencies responsible for implementing this GMA. Local water purveyors would be responsible for developing and implementing projects to acquire supplies from the Nacimiento Water Project.

GMA 5: Consider storm water management opportunities to increase local groundwater recharge: This GMA includes evaluating the feasibility of recharging storm water runoff in the streams and creeks of the Basin. The potential benefit (in groundwater recharge) has not been evaluated for this GMA at this time.

The San Luis Obispo County Flood Control and Water Conservation District and Department of Planning and Building, and City of Atascadero would likely be the lead agencies responsible for implementing this GMA.

DRAFT

Summary of Basin Management Objective Workshop
For the Bradley and North Gabilan Subareas

The draft Basin Management Objectives (BMOs) for groundwater levels in the Bradley and North Gabilan Subareas were discussed and developed by stakeholders at the Paso Robles Groundwater Basin Management Plan BMO Workshop held on May 10 at the Paso Robles City Council Chambers. The stakeholders from the subareas that attended the workshop are listed below:

Name	Affiliation
Robert Johnson	Monterey County Water Resources Agency
Keith Larson	City of Paso Robles
Christopher Alakel	City of Paso Robles
Courtney Howard	San Luis Obispo County

Courtney Howard recorded the information discussed by the stakeholders.

Basin Management Objectives are intended to provide quantifiable and measureable targets so that progress towards improved groundwater management can be tracked. BMOs are being developed for subareas within the Paso Robles Groundwater Basin (Basin) to represent the differing groundwater conditions and necessary management activities.

Groundwater Management Activities (GMAs) are intended to identify the steps or actions taken to meet the BMOs. It should be recognized that both BMOs and GMAs should be evaluated and updated every few years as additional information is collected, or in response to changing conditions.

Groundwater Levels in the Bradley and North Gabilan Subareas are affected by:

- Annual hydrologic conditions
- Changes in water demands that are met with groundwater

There are currently about 150 wells located within the limits of the Paso Robles Groundwater Basin that are monitored by the San Luis Obispo County Department of Public Works and the Monterey County Water Resources Agency. These wells are used to track the changes in groundwater level trends through time at a specific location, or across an area for a specific date.

The changes in groundwater levels in the Bradley Subarea are currently recorded at one well that is included in the groundwater monitoring network of Monterey County Water Resources Agency (MCWRA). This well is located near the Salinas River just north of the subarea boundary, and may not be representative of groundwater levels throughout the Bradley or North Gabilan Subareas. The lack of data prevents the development of groundwater level hydrographs, or composite hydrographs as developed for other subareas. The lone hydrograph available for these two subareas is shown in Figure 1.

The hydrograph shown in Figure 1 is for a well located near the Salinas River downstream of the confluence of the Salinas River and the Nacimiento River. It appears that groundwater levels in this well reflect the interaction of the Salinas River and the alluvial aquifer materials adjacent to the river. Flows

from the Salinas River, along with releases from Nacimiento Reservoir, help maintain groundwater levels in alluvial aquiver near the Salinas River.

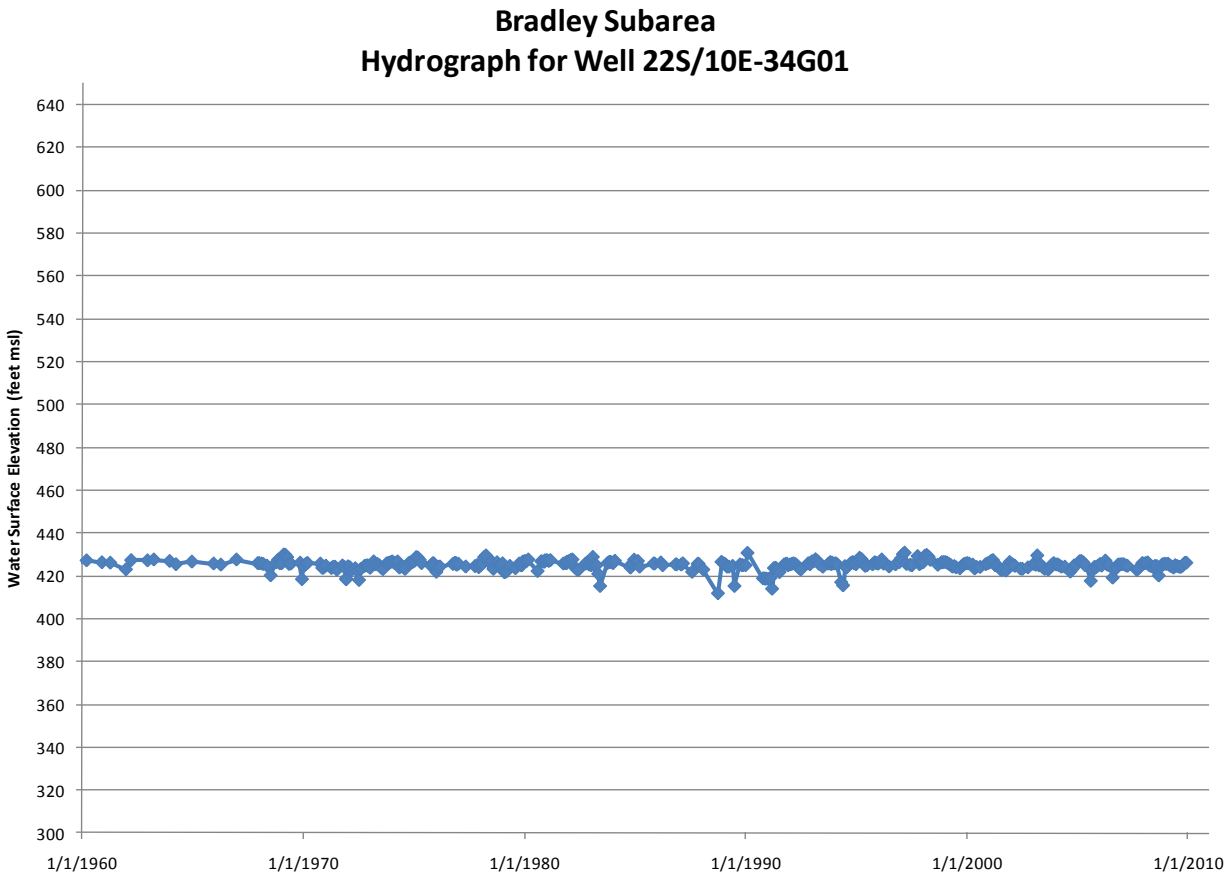


Figure 1. Well Hydrograph in the Bradley Subarea

At this time, we are not aware of any reports or anecdotal information that suggests groundwater levels in the Bradley Subarea or the North Gabilan Subarea are declining to the point of causing problems for local groundwater users.

Water demands in the Bradley Subarea met by groundwater have increased by total of about 1,000 acre-feet between 1997 and 2006 as shown on Table 1.

Table 1. Estimated Water Demands in the Bradley Subarea for 1997 and 2006

GROUNDWATER DEMAND BY DEMAND TYPE FOR 1997 AND 2006 FOR THE BRADLEY SUBAREA							
Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	6,933	0	0	184	109	7,226
Estimated 1997 Demand	(acre-feet)	6,001	0	0	136	88	6,225
Difference (2006 less 1997)	(acre-feet)	932	0	0	48	21	1,001
2006 Demand Assumptions:	Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)						
1997 Demand Assumptions:	1997 Demands from Paso Robles Groundwater Basin Study (Fugro, 2002)						
	Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.						

Water demands in the North Gabilan Subarea met by groundwater have increased by total of about 250 acre-feet between 1997 and 2006 as shown on Table 2.

Table 2. Estimated Water Demands in the North Gabilan Subarea for 1997 and 2006

GROUNDWATER DEMAND BY DEMAND TYPE FOR 1997 AND 2006 FOR THE NORTH GABILAN SUBAREA							
Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	1,758	0	0	0	51	1,809
Estimated 1997 Demand	(acre-feet)	1,522	0	0	0	41	1,563
Difference (2006 less 1997)	(acre-feet)	236	0	0	0	10	246
2006 Demand Assumptions:	Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)						
1997 Demand Assumptions:	1997 Demands from Paso Robles Groundwater Basin Study (Fugro, 2002)						
	Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.						

Draft Basin Management Objectives

The different levels of BMOs were discussed at the workshop. As described above there is very little available information to support the development of very targeted BMOs. Based on the available information, the BMO for the Bradley Subarea and the North Gabilan Subarea are to maintain groundwater levels high. The lack of an extensive monitoring network in this part of the Basin will prevent more detailed analysis of this.

Potential Groundwater Management Activities

GMA 1: Continue monitoring and reporting on groundwater conditions: Continue and improve monitoring – look to add monitoring well near the SLO-Monterey county boundary between the Nacimiento River and the town of San Miguel

GMA 2: Consider reestablishing Cloudseeding Program: Consider benefits of re-establishing the cloud seeding program in the Nacimiento and San Antonio watersheds. Cloud seeding was conducted in the past by MCWRA, and is estimated to have increased outflow of Lake Nacimiento and San Antonio Reservoirs by about 20 percent.

Summary of Basin Management Objective Workshop
For the Creston Subarea

The draft Basin Management Objectives (BMOs) for groundwater levels in the Creston Subarea were discussed and developed by stakeholders of Creston Subarea at the Paso Robles Groundwater Basin Management Plan BMO Workshop held on April 19 at the City of Paso Robles City Council Chambers. The stakeholders from the Creston Subarea that attended the Workshop are listed below:

Name	Affiliation
Sue Luft	WRAC/Grower/RR
Karl Luft	Grower/RR
Sheila Lyons	Rural Resident
David Lyons	Rural Resident
Dana Merrill	Grower
Fritz Helzer	Grower
Claudia Engel	Creston AB
Pam Finley	Templeton AAG

Sue Luft recorded the information discussed by the Creston Subarea Stakeholders. The Creston Subarea Stakeholders generally reached consensus on most of the issues presented below.

Basin Management Objectives are intended to provide quantifiable and measureable targets so that progress towards improved groundwater management can be tracked. BMOs are being developed for subareas within the Paso Robles Groundwater Basin (Basin) to represent the differing groundwater conditions and necessary management activities.

Groundwater Management Activities (GMAs) are intended to identify the steps or actions taken to meet the BMOs. It should be recognized that both BMOs and GMAs should be evaluated and updated routinely (every few years) as additional information is collected, or in response to changing conditions.

Groundwater Levels in the Creston Subarea are affected by:

- Annual hydrologic conditions
- Changes in water demands that are met with groundwater

There are currently about 150 wells located within the limits of the Paso Robles Groundwater Basin that are monitored by the San Luis Obispo County Department of Public Works and the Monterey County Water Resources Agency. These wells are used to track the changes in groundwater level trends through time at a specific location, or across an area for a specific date.

The changes in groundwater levels in the Creston Subarea are currently recorded at 13 wells that are included in the groundwater monitoring network. Based on the groundwater level data collected in the Creston Subarea, there has been a general decline in groundwater levels observed and recorded at selected wells located throughout the subarea since the 1960s. The rate of decline changes through time in response to changing hydrologic conditions and changes in the amount of local groundwater pumping. The composite hydrograph of four wells (currently in the monitoring network) was selected to

represent the conditions in the subarea is shown on Figure 1. These wells will be used as an indicator to how groundwater levels in the subarea are changing over time.

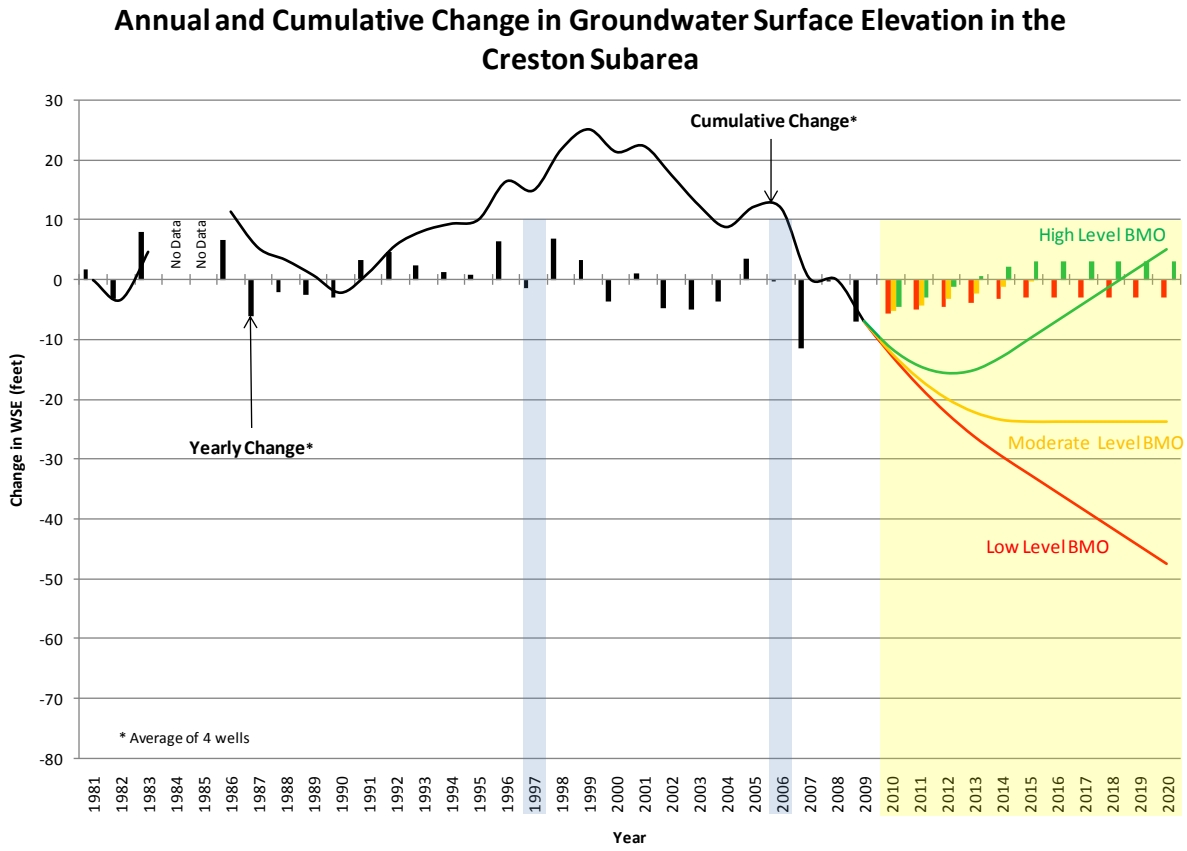


Figure 1. Composite Hydrograph of Four Selected Wells in the Creston Subarea

The average groundwater levels in the subarea appear to have peaked at about 1999. Since this time, groundwater levels have generally declined. This may be due in part to the increase in water demands between 1997 and 2006. During the 1997 to 2006 period, average groundwater levels have declined by less than five feet, but during the 2006 to 2009 period, the average groundwater levels declined by about 20 feet, so it appears that the increase in demands and the numerous dry years have contributed to the declining groundwater levels currently being experienced.

The 2010 to 2020 period included on Figure 1 shows potential range of changes in groundwater levels in the subarea under different levels of BMOs. Low level BMOs would be expected to result in a continuing decline of groundwater levels similar to those experienced during the 1997 to 2009 period. The moderate level BMO would eventually result in no change in groundwater levels (stabilized groundwater levels). The high level BMO would result in improvement of groundwater levels over time. These projected groundwater levels are intended to show the differences in groundwater levels based on target groundwater levels (BMOs) selected for the subarea, and the magnitude of the GMAs implemented. Additional analysis is needed to quantify the result (in terms of groundwater levels) due to the implementation of GMAs in the subarea.

Water demands in the Creston Subarea met by groundwater increased by about 1,800 acre-feet during the 1997 to 2006 period as shown on Table 1. This information does identify when this increase occurred, but it is likely to have contributed to the slight decline of groundwater levels during this period. These higher demands, along with drier conditions during the 2006 to 2009 period likely contributed to the increased rate of groundwater level decline (about seven feet per year) during this period.

Table 1. Estimated Water Demands in the Creston Subarea for 1997 and 2006

GROUNDWATER DEMAND BY DEMAND TYPE FOR 1997 AND 2006 FOR THE CRESTON SUBAREA							
Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	9,936	0	0	37	2,338	12,311
Estimated 1997 Demand	(acre-feet)	8,600	0	0	27	1,880	10,507
Difference (2006 less 1997)	(acre-feet)	1,336	0	0	10	458	1,804
2006 Demand Assumptions:	Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)						
1997 Demand Assumptions:	1997 Demands from Paso Robles Groundwater Basin Study (Fugro, 2002)						
	Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.						

Draft Basin Management Objectives

The Creston Subarea stakeholders determined that an acceptable draft BMOs for groundwater levels in the Creston Subarea would include stopping the current rate of decline experienced in the last 10 years, and stabilizing groundwater levels at about the 2009 level as presented in the composite hydrograph (average of four wells) in the next five to ten years.

Potential Groundwater Management Activities

The following Groundwater Management Activities (GMAs) were identified by the Creston Subarea Stakeholders to stabilize groundwater levels in the Creston Subarea. The potential benefit from these GMAs has not been quantified for the Creston Subarea (in terms of changes in groundwater levels), so it has not been determined if implementation of the GMAs will result in stabilized groundwater levels.

GMA 1: Increase monitoring and reporting on groundwater conditions: This GMA includes expanding the groundwater monitoring network in the Creston Subarea through the addition of new wells to the volunteer monitoring network. Additional wells would be needed in the northwest portion of the subarea near the Estrella Subarea where historic groundwater level decline has been the greatest.

Groundwater level measurements are currently taken by the County in the spring and fall of each year. Spring water levels will be used to track year-to-year changes and long-term trends in groundwater levels because they represent more stable conditions. Groundwater levels will be made available on a regular basis (semi-annually) within two months after most current readings, and will be included in the

Paso Robles Groundwater Basin Annual Report. This level of monitoring and reporting of groundwater levels should be sufficient for determining the effectiveness of the GMAs at this time. Additional monitoring and reporting may be needed at some future date.

While this GMA does not directly result in changes in groundwater levels, it will help communicate conditions to individuals and support implementation of groundwater management activities in the subarea.

The San Luis Obispo County Flood Control and Water Conservation District would likely be the lead entity of a cooperative group formed to collect, organize, and report on groundwater conditions in the Paso Robles Groundwater Basin on a regular basis.

GMA 2: Increase water conservation education and implementation: This GMA includes increasing the awareness of the impact of water conservation on reducing groundwater pumping. The effectiveness of the water conservation program will be difficult to verify for rural and agricultural areas without metering well production. The effectiveness of the GMA will be based on the changing behavior of individual water users. The effectiveness of this GMA will be evaluated on an annual basis. Some of the specific water conservation activities identified include:

- Agricultural Water Conservation
- Rural Residential Water Conservation
    - Landscape Water Use
    - Consider controls on non-agricultural ponds

Responsibility for implementing this GMA may include both the San Luis Obispo County Department of Planning and Building, and the San Luis Obispo County Flood Control and Water Conservation District.

GMA 3: Managing the growth and corresponding increase in water demands: This GMA includes identifying potential land use planning activities that may be used to reduce the rate of growth of rural residential development in the subarea. Throughout much of the Basin, land use planning responsibilities are the responsibility of the San Luis Obispo County Department of Planning and Building. Any policies established would be applied to the entire Basin, not just this subarea. This GMA may include:

- Building moratorium on lot splits and subdivisions
- No net increase in water use resulting from additional rural residential development

The San Luis Obispo County Department of Planning and Building would likely be responsible for implementing this GMA.

GMA 4: Preventing export of groundwater from the Basin: This GMA includes identifying potential activities that result in exporting groundwater from the Basin. At this time, additional information is necessary to quantify the occurrence of groundwater pumping for export from the Basin.

The San Luis Obispo County Flood Control and Water Conservation District and Department of Planning and Building would likely be the lead agencies responsible for implementing this GMA.

GMA 5: Consider storm water management opportunities to increase local groundwater recharge: This GMA includes evaluating the feasibility of recharging storm water runoff in the streams and creeks of the Basin. The potential benefit (in groundwater recharge) has not been evaluated for this GMA at this time.

The San Luis Obispo County Flood Control and Water Conservation District and Department of Planning and Building would likely be the lead agencies responsible for implementing this GMA.

DRAFT

Summary of Basin Management Objective Workshop
For the Estrella Subarea

The draft Basin Management Objectives (BMOs) for groundwater levels in the Estrella Subarea were discussed and developed by stakeholders of Estrella Subarea at the Paso Robles Groundwater Basin Management Plan BMO Workshop held on April 19 at the City of Paso Robles City Council Chambers. The stakeholders from the Estrella Subarea that attended the Workshop are listed below:

Name	Affiliation
Joy Sprague	Rural Resident
Walter Heer	
Christopher Alakel	City of Paso Robles
Chuck Pritchard	Upper Salinas/Las Tablas Resource Conservation District (US/LT RCD)
Jerry Reaugh	Grower
Lisa Bodrogi	(Paso Robles Wine Country Alliance (PRWCA)
Joe Plummer	Grower
Debra Compton	Grower
Steve Carter	Grower
John Wallace	San Miguel CSD
Tom Zehnder	

Iris Priestaf recorded the information discussed by the Estrella Subarea Stakeholders. The Estrella Subarea Stakeholders generally reached consensus on the level of Basin Management Objectives, but did not reach consensus on the Groundwater Management Activities.

Basin Management Objectives are intended to provide quantifiable and measureable targets so that progress towards improved groundwater management can be tracked. BMOs are being developed for subareas within the Paso Robles Groundwater Basin (Basin) to represent the differing groundwater conditions and necessary management activities.

Groundwater Management Activities (GMAs) are intended to identify the steps or actions taken to meet the BMOs. It should be recognized that both BMOs and GMAs should be evaluated and updated routinely (every few years) as additional information is collected, or in response to changing conditions.

Groundwater Levels in the Estrella Subarea are affected by:

- Annual hydrologic conditions
- Changes in water demands that are met with groundwater

There are currently about 150 wells located within the limits of the Paso Robles Groundwater Basin that are monitored by the San Luis Obispo County Department of Public Works and the Monterey County Water Resources Agency. These wells are used to track the changes in groundwater level trends through time at a specific location, or across an area for a specific date.

The changes in groundwater levels in the Estrella Subarea are currently recorded at 50 wells that are included in the groundwater monitoring network. Based on the groundwater level data collected in the Estrella Subarea, there has been a general decline in groundwater levels observed and recorded at selected wells located throughout the subarea since the 1960s. The rate of decline changes through time in response to changing hydrologic conditions and changes in the amount of local groundwater pumping. The composite hydrograph of six wells (currently in the monitoring network) was selected to represent the conditions in the subarea is shown on Figure 1. These wells will be used as an indicator to how groundwater levels in the subarea are changing over time.

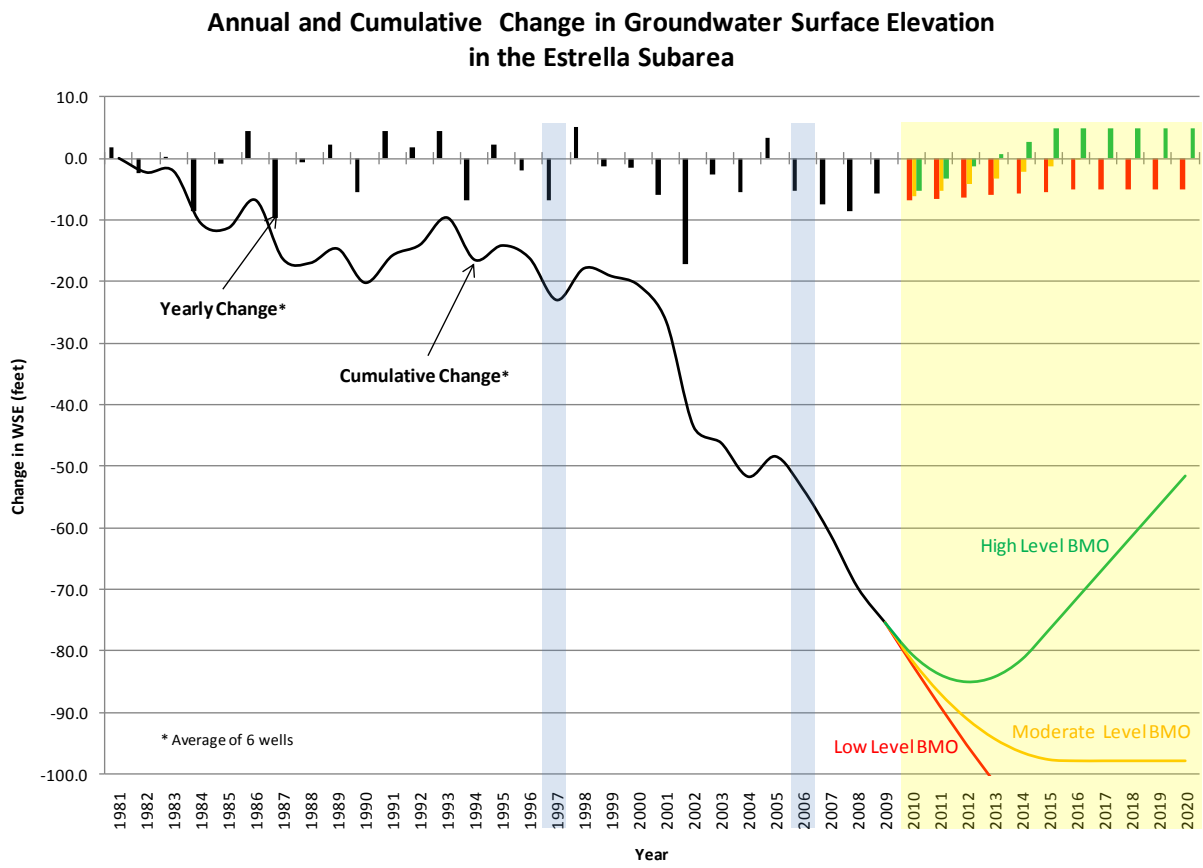


Figure 1. Composite Hydrograph of Six Selected Wells in the Estrella Subarea

Based on the composite hydrograph shown in Figure 1, the average groundwater levels in the Estrella Subarea have declined by about 20 feet between 1981 and 1997. Then, between 1997 and 2006 average groundwater levels have declined by an additional 30 feet. During this same period, water demands in the Estrella Subarea met by groundwater have increased by a total of about 6,300 acre-feet as shown on Table 1. Finally, from 2006 to 2009 the average groundwater levels declined by about 35 feet. During the 1981 to 2009 period, average groundwater levels in the Estrella Subarea declined by about 80 feet, in response to a combination of increasing in water demands that are met by groundwater and a series of dry years in the later years of the period.

The 2010 to 2020 period included on Figure 1 shows potential range of changes in groundwater levels in the subarea under different levels of BMOs. Low level BMOs would be expected to result in a continuing decline or groundwater levels similar to those experienced during the 1997 to 2009 period. The moderate level BMO would eventually result in no change in groundwater levels (stabilized groundwater levels). The high level BMO would result in improvement of groundwater levels over time. These projected groundwater levels are intended to show the differences in groundwater levels based on target groundwater levels (BMOs) selected for the subarea, and the magnitude of the GMAs implemented. Additional analysis is needed to quantify the result (in terms of groundwater levels) due to the implementation of GMAs in the subarea.

Water demands in the Estrella Subarea met by groundwater increased by about 6,300 acre-feet during the 1997 to 2006 period as shown on Table 1. This increase in demands contributed to the significant decline of groundwater levels during this period. These higher demands, along with drier conditions during the 2006 to 2009 period likely contributed to the increased rate of groundwater level decline (almost 10 feet per year) during this period.

CALCULATION OF NEAR-TERM GROUNDWATER PUMPING ESTIMATES FOR THE ESTRELLA SUBAREA WITH IMPLEMENTATION OF SELECTED GROUNDWATER MANAGEMENT ACTIVITIES (1)

Table 1. Estimated Water Demands in the Estrella Subarea for 1997 and 2006

GROUNDWATER DEMAND BY DEMAND TYPE FOR 1997 AND 2006 FOR THE ESTRELLA SUBAREA							
Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	23,111	3,930	0	1,603	5,433	34,077
Estimated 1997 Demand	(acre-feet)	20,004	2,137	0	1,186	4,368	27,695
Difference (2006 less 1997)	(acre-feet)	3,107	1,793	0	417	1,065	6,382
2006 Demand Assumptions:	Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)						
1997 Demand Assumptions:	1997 Demands from Paso Robles Groundwater Basin Study (Fugro, 2002)						
	Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.						
	1997 Municipal demand includes City of Paso Robles groundwater pumping from basin wells(1,911 acre-feet) and San Miguel (226 acre-feet)						
	Small community demands included in rural domestic demand						

POTENTIAL REDUCTION IN GROUNDWATER DEMAND FROM GROUNDWATER MANAGEMENT ACTIVITIES FOR THE ESTRELLA SUBAREA

Groundwater Management Activity		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
Monitoring and Reporting		0	0	0	0	0	0
Establish Groundwater Level Monitoring		0	0	0	0	0	0
Prepare Annual Groundwater Level Report		0	0	0	0	0	0
Improve Groundwater Monitoring Network		0	0	0	0	0	0
Conservation and Demand Management		**2,310**	**0**	**0**	**160**	**540**	**3,010**
Reduction of Agricultural Groundwater Pumping(4)	percent	10%	0%	0%	0%	0%	
	(acre-feet)	2,310	0	0	0	0	2,310
Reduction of Municipal and Domestic Groundwater Pumping (2)	percent	0%	20%	10%	10%	10%	
	(acre-feet)	0	(3)	0	160	540	700
Land Use Planning/zoning (6)	percent	0%	0%	0%	0%	0%	
	(acre-feet)	0	0	0	0	0	0
New Supplies		**0**	**2,000**	**0**	**0**	**0**	**2,000**
Increase Use of Surface Water (5)	(acre-feet)	0	2,000	0	0	0	2,000
Increase Use of Recycled Water (6)	(acre-feet)	0	0	0	0	0	0

Draft Basin Management Objectives

Three levels of BMOs were discussed by the Estrella Subarea stakeholders. There was consensus that groundwater level declines are a shared problem for the subarea, and that the severity of decline varies across the area. It was also identified that the proposed low-level BMO (essentially do-nothing) was unacceptable.

The medium level BMO of stabilizing groundwater levels was identified as a reasonable objective at this time, but there was concern about the cost and feasibility.

The high level BMO of recovery of groundwater levels was identified as desirable by private domestic wells owner, but the group agreed that such an objective was over-reaching at this time.

Potential Groundwater Management Activities

The stakeholders reached consensus that there is no magic bullet that will solve the problem, but that the solution will likely involve a combination of activities such as additional water conservation, Nacimiento water supplies, a groundwater recharge program (e.g. using State Water Project or urban runoff), redistribution of pumping, and wastewater discharge/water recycling.

The following Groundwater Management Activities (GMAs) were identified by the Estrella Subarea Stakeholders to stabilize groundwater levels in the Estrella Subarea. The potential benefit from these GMAs has not been quantified for the Estrella Subarea (in terms of changes in groundwater levels), so it has not been determined if implementation of the GMAs will result in stabilized groundwater levels.

GMA 1: Increase data collection and monitoring and reporting on groundwater conditions: It was determined that there is enough information to know that there is a problem, however, additional and better information is needed to further understand the problem.

The stakeholders recognize that this GMA does not directly result in changes in groundwater levels, but will help communicate condition to individuals and support implementation of groundwater management activities in the subarea. It was recognized that additional private wells need to be made part of the County well network on a voluntary basis. This is particularly true in specific areas within the subarea currently lacking wells in the water level monitoring network.

GMA 2: Increase water conservation education and implementation: The stakeholders recognized that additional conservation is needed. Some stakeholders felt that the amount of savings that can be achieved is limited. Other stakeholders felt that additional conservation in the agricultural sector could play a significant role in reducing groundwater demand and achieving the BMO of stabilizing water levels. There were several discussions about the potential additional savings from conservation, but consensus could not be reached about the potential savings that could be achieved by the different water use categories (urban, agricultural, and rural). During the conversations each group stated that they believed there was limited opportunity for additional gains from conservation in their demand type, but believed additional conservation could be achieved in other demand types.

GMA 3: Nacimiento Project Water: The stakeholder reached consensus regarding the use of Nacimiento Project Water help alleviate the groundwater decline problem, but it was also recognized as not being the sole solution.

Issues Lacking Consensus

The two primary issues lacking consensus in the subarea was the degree to which additional conservation could be implemented for urban, agricultural, and rural uses.

The Paso Robles Groundwater Basin has largely centralized management because of a lack of water districts or local water agencies, so there was no consensus about the agency or organization that would have the responsibility for prioritizing and implementing the identified groundwater management activities.

DRAFT

Summary of Basin Management Objective Workshop
For the San Juan Subarea

The draft Basin Management Objectives (BMOs) for groundwater levels in the San Juan Subarea of the Paso Robles Groundwater Basin (Basin) were discussed and developed by stakeholders of San Juan Subarea at the Paso Robles Groundwater Basin Management Plan BMO Workshop held on May 10 at the Shandon High School Gymnasium. The stakeholders from the San Juan Subarea that attended the Workshop are listed below:

Name	Affiliation
Amy Gillman	5th District Legislative Assistant
Steve Sinton	Shandon
Randy Diffenbaugh	Shandon Advisory Committee
Susan Litteral	Natural Resource Conservation Service
Doug Felipponi	SJV FET
Mary Russell	Shandon

Susan Litteral recorded the information discussed by the San Juan Stakeholders.

The San Juan Subarea Stakeholders generally reached consensus on the level of Basin Management Objectives and on the Groundwater Management Activities.

Basin Management Objectives are intended to provide quantifiable and measureable targets so that progress towards improved groundwater management can be tracked. BMOs are being developed for subareas within the Paso Robles Groundwater Basin (Basin) to represent the differing groundwater conditions and necessary management activities.

Groundwater Management Activities (GMAs) are intended to identify the steps or actions taken to meet the BMOs. It should be recognized that both BMOs and GMAs should be evaluated and updated routinely (every few years) as additional information is collected, or in response to changing conditions.

Groundwater Levels in the San Juan Subarea are affected by:

- Annual hydrologic conditions
- Changes in water demands that are met with groundwater

There are currently about 150 wells located within the limits of the Paso Robles Groundwater Basin that are monitored by the San Luis Obispo County Department of Public Works and the Monterey County Water Resources Agency. These wells are used to track the changes in groundwater level trends through time at a specific location, or across an area for a specific date.

The changes in groundwater levels in the San Juan Subarea are currently recorded at 10 wells that are included in the groundwater monitoring network. Overall, groundwater levels have been fairly stable in the San Juan Subarea. The composite hydrograph of four wells (currently in the monitoring network) was selected to represent the conditions in the subarea is shown on Figure 1 for the 1981 to 2009

period. These wells will be used as an indicator to how groundwater levels in the subarea are changing over time.

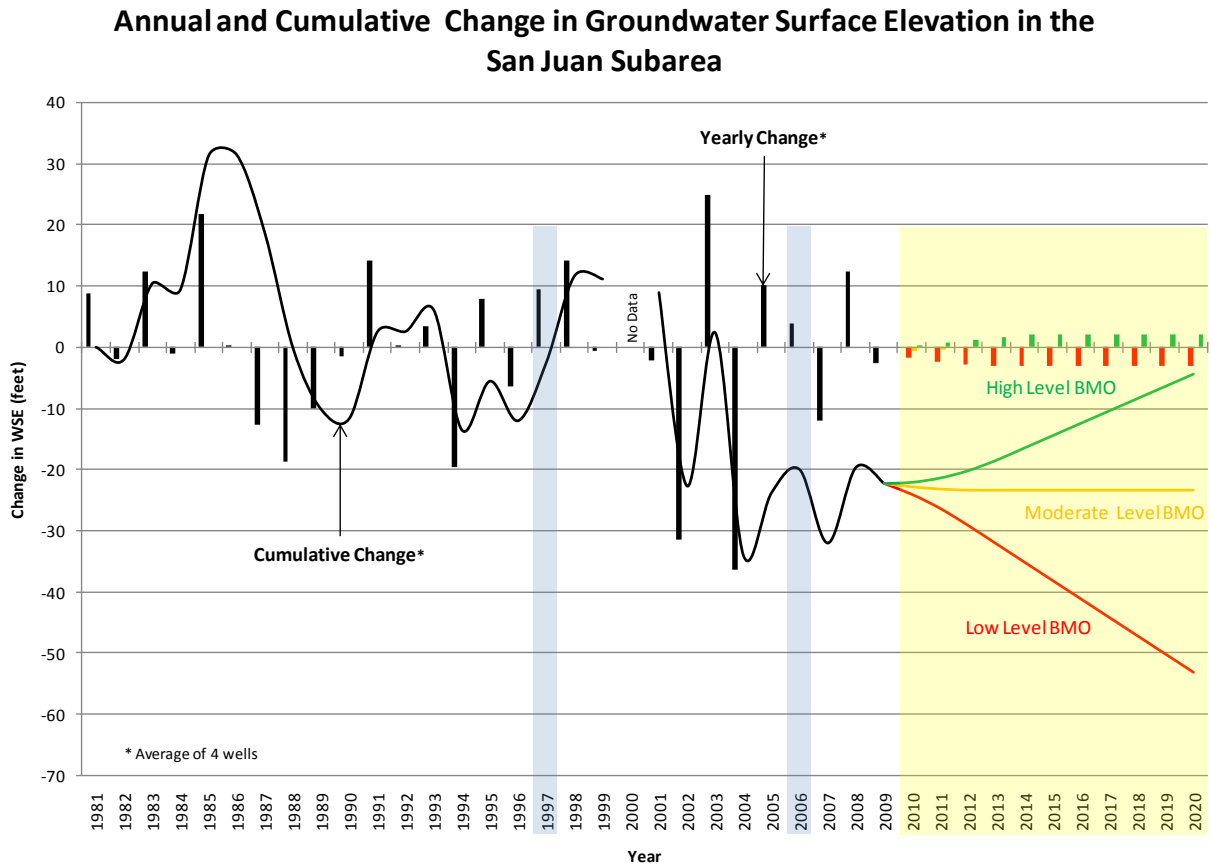


Figure 1. Composite Hydrograph of Four Selected Wells in the San Juan Subarea

Based on the composite hydrograph shown in Figure 1, the San Juan Subarea shows highly variable annual changes in groundwater levels. It appears that groundwater levels in the San Juan Subarea respond quickly to changes in hydrologic conditions, with average groundwater levels increasing or decreasing by as much as 35 feet in a single year.

During the 1981 and 1997 period, average groundwater levels changed considerably on a year-to-year basis, but there was no net significant difference in the cumulative groundwater levels at the end of the 16-year period. During the 1997 and 2006 period, the average groundwater levels in the San Juan Subarea declined by about 20 feet. Finally, during the 2006 to 2009 period, the average groundwater levels declined slightly (less than 5 feet). Overall, during the 1981 to 2009 period, average groundwater levels in the San Juan Subarea declined by about 25 feet.

The 2010 to 2020 period included on Figure 1 shows potential range of changes in groundwater levels in the subarea under different levels of BMOs. Low level BMOs would be expected to result in a continuing decline or groundwater levels similar to those experienced during the 1997 to 2009 period. The moderate level BMO would eventually result in no change in groundwater levels (stabilized groundwater

levels). The high level BMO would result in improvement of groundwater levels over time. These projected groundwater levels are intended to show the differences in groundwater levels based on target groundwater levels (BMOs) selected for the subarea, and the magnitude of the GMAs implemented. Additional analysis is needed to quantify the result (in terms of groundwater levels) due to the implementation of GMAs in the subarea.

The stakeholders mentioned that the area is primarily planted with field crops, and very few permanent crops. The statement was made that the amount of annual plantings are based in part on the depth to groundwater, because greater depth to groundwater increases pumping costs, at some point it will become uneconomical to grow some crops. This pattern of behavior (not planting some crops when groundwater levels are low) may contribute to the recovery response in groundwater levels, and preventing long-term groundwater level declines in the subarea.

Water demands in the San Juan Subarea met by groundwater have increased by a total of about 740 acre-feet between 1997 and 2006 as shown on Table 1. Looking at just these two single years of estimated water demand data may not provide a clear picture of the annual variation in agricultural water demand in the subarea.

Table 1. Estimated Water Demands in the San Juan Subarea for 1997 and 2006

Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	5,347	0	0	0	105	5,452
Estimated 1997 Demand	(acre-feet)	4,628	0	0	0	84	4,712
Difference (2006 less 1997)	(acre-feet)	719	0	0	0	21	740
2006 Demand Assumptions:	Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)						
1997 Demand Assumptions:	1997 Demands from Paso Robles Groundwater Basin Study (Fugro, 2002)						
	Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.						

Draft Basin Management Objectives

The different levels of BMOs were discussed at the workshop. There was consensus among the stakeholders that groundwater levels fluctuate considerably, but that there was no real concern of long-term declining groundwater levels at this time. Because the subarea experiences periods of rising and falling groundwater levels, the stakeholders expect the cumulative change in average groundwater levels to fluctuate over time, but return to zero net change in groundwater levels (no change from 1981 levels) without implementation of large scale groundwater management activities.

Potential Groundwater Management Activities

Because of the nature of the subarea, and pattern of groundwater use, this subarea may not have the same need for Groundwater Management Activities (GMAs) as other subareas in the

Basin. The following GMA was identified by the San Juan Subarea Stakeholders to stabilize groundwater levels in the San Juan Subarea.

GMA 1: Continue monitoring and reporting on groundwater conditions: The stakeholders suggest continuing the groundwater level monitoring and reporting program. The existing monitoring network provides reasonable coverage for the subarea at this time based upon the current groundwater level conditions. Additional monitoring wells could be added, but are not considered as important as continuing to actively monitoring and reporting on groundwater levels to extend the historical period of record.

DRAFT

Summary of Basin Management Objective Workshop
For the Shandon Subarea

The draft Basin Management Objectives (BMOs) for groundwater levels in the Shandon Subarea of the Paso Robles Groundwater Basin were discussed and developed by stakeholders of the Shandon Subarea at the Paso Robles Groundwater Basin Management Plan BMO Workshop held on May 10 at the Shandon High School Gymnasium. The stakeholders from the Shandon Subarea that attended the Workshop are listed below:

Name	Affiliation
Mike Clay	Red Cedar Vineyard
Dennis Bowman	Green River Mutual Water
Greg Jaeger (South Gabilan)	Rural Resident
Sydney Wattles	Shandon Home-Owner
Keith Larson	City of Paso Robles
Frank Mecham	SLO County
Kate Twisselman	Shandon Advisory Committee
Raymond Twisselman	Shandon Resident
Les Diffenbaugh	Shandon Resident
Fritz Helzer	Shandon Hills Vineyard

Courtney Howard (San Luis Obispo County Public Works Department Staff) recorded the information discussed by the Shandon Subarea Stakeholders. One stakeholder from the South Gabilan Subarea attended the workshop and participated in the discussions of the Shandon Subarea stakeholders.

While not all of the Shandon Subarea stakeholders are experiencing the same magnitude of groundwater level decline or type of groundwater quality deterioration, they generally reached consensus on the level of Basin Management Objectives, and some of the Groundwater Management Activities. One of the biggest concerns was the cost of the GMAs identified, and their overall cost effectiveness at improving groundwater levels in the subarea.

Basin Management Objectives are intended to provide quantifiable and measureable targets so that progress towards improved groundwater management can be tracked. BMOs are being developed for subareas within the Paso Robles Groundwater Basin (Basin) to represent the differing groundwater conditions and necessary management activities.

Groundwater Management Activities (GMAs) are intended to identify the steps or actions taken to meet the BMOs. It should be recognized that both BMOs and GMAs should be evaluated and updated routinely (every few years) as additional information is collected, or in response to changing conditions.

Groundwater Levels in the Shandon Subarea are affected by:

- Annual hydrologic conditions
- Changes in water demands that are met with groundwater

There are currently about 150 wells located within the limits of the Paso Robles Groundwater Basin that are monitored by the San Luis Obispo County Department of Public Works and the Monterey County Water Resources Agency. These wells are used to track the changes in groundwater level trends through time at a specific location, or across an area for a specific date.

The changes in groundwater levels in the Shandon Subarea are currently recorded at 18 wells that are included in the groundwater monitoring network. Based on the groundwater level data collected in the Shandon Subarea, there has been a general decline in groundwater levels observed and recorded at selected wells located throughout the subarea since the 1960s. The rate of decline changes through time in response to changing hydrologic conditions and changes in the amount of local groundwater pumping. The composite hydrograph of four wells (currently in the monitoring network) was selected to represent the conditions in the subarea (shown on Figure 1) for the 1981 to 2009 period. These wells will be used as an indicator to how groundwater levels in the subarea are changing over time.

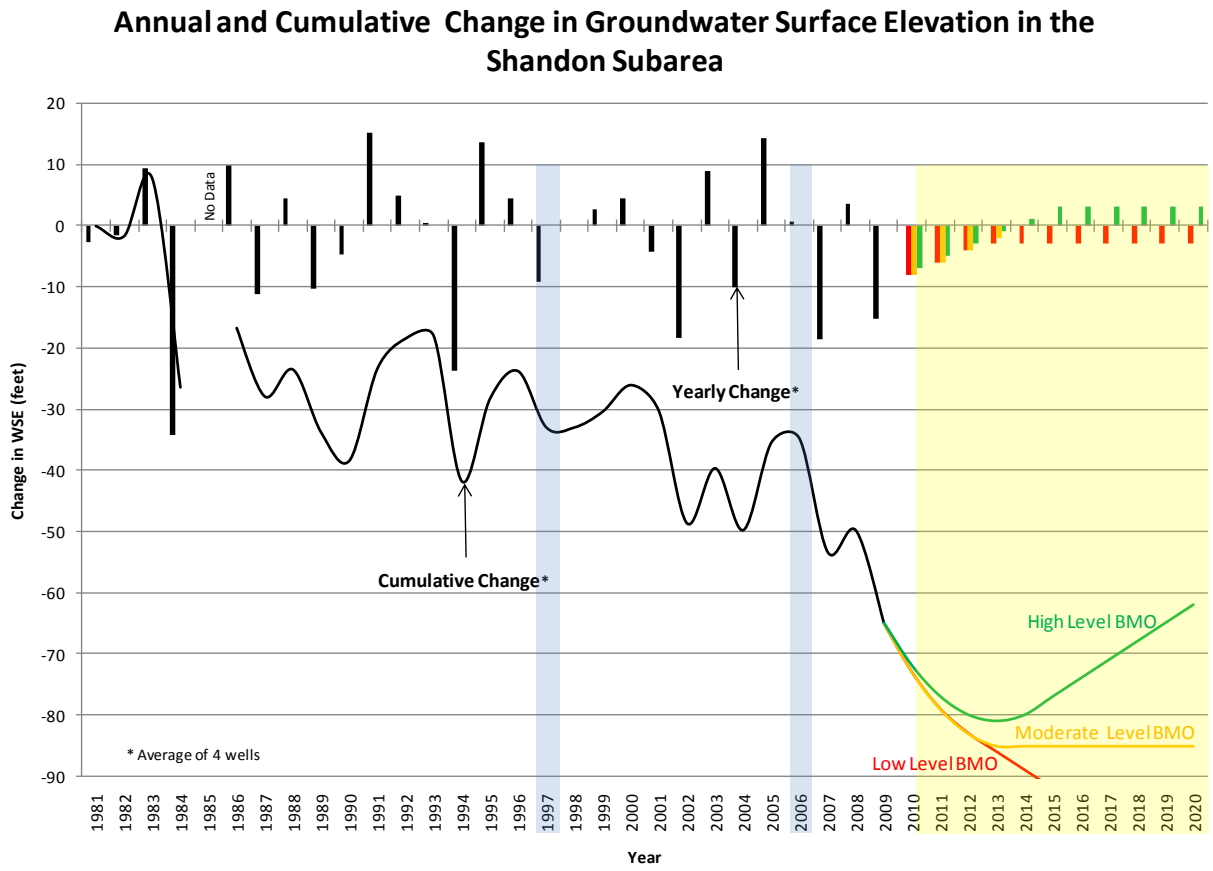


Figure 1. Composite Hydrograph of Four Selected Wells in the Shandon Subarea

Based on the composite hydrograph shown in Figure 1, the Shandon Subarea shows a wide range of annual changes in groundwater levels, with a general trend of declining groundwater levels.

During the 1981 to 1997 period, average groundwater levels in the Shandon Subarea have declined by about 33 feet. During the 1997 to 2006 period, average groundwater levels fluctuated annually, but resulted in very little net decline (about 2 feet) compared to 1997 levels. Finally, from 2006 to 2009 period, the average groundwater levels declined by about 30 feet. Overall, during the 1981 to 2009 period (28 years), average groundwater levels in the Shandon Subarea declined by about 65 feet (about 2.3 feet per year), in response to a combination of increasing in water demands that are met by groundwater, and in the later years of the period, a series of dry years.

The 2010 to 2020 period included on Figure 1 shows potential range of changes in groundwater levels in the subarea under different levels of BMOs. Low level BMOs would be expected to result in a continuing decline or groundwater levels similar to those experienced during the 1997 to 2009 period. The moderate level BMO would eventually result in no change in groundwater levels (stabilized groundwater levels). The high level BMO would result in improvement of groundwater levels over time. These projected groundwater levels are intended to show the differences in groundwater levels based on target groundwater levels (BMOs) selected for the subarea, and the magnitude of the GMAs implemented. Additional analysis is needed to quantify the result (in terms of groundwater levels) due to the implementation of GMAs in the subarea.

Water demands in the Shandon Subarea met by groundwater increased by about 1,600 acre-feet during the 1997 to 2006 period as shown on Table 1. This increase in demands may have contributed to the slight decline of groundwater levels during this period. These higher demands, along with drier conditions during the 2006 to 2009 period likely contributed to the increased rate of groundwater level decline (about 10 feet per year) during this period.

Table 1. Estimated Water Demands in the Shandon Subarea for 1997 and 2006

GROUNDWATER DEMAND BY DEMAND TYPE FOR 1997 AND 2006 FOR THE SHANDON SUBAREA							
Groundwater Demand		Demand Type					
		Agricultural	Municipal	Small Community	Small Commercial	Rural Domestic	TOTAL
2006 Demand	(acre-feet)	9,896	0	0	69	1,205	11,170
Estimated 1997 Demand	(acre-feet)	8,566	0	0	51	969	9,586
Difference (2006 less 1997)	(acre-feet)	1,330	0	0	18	236	1,584
2006 Demand Assumptions:	Based on Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006 (Todd, May 2009)						
1997 Demand Assumptions:	1997 Demands from Paso Robles Groundwater Basin Study (Fugro, 2002)						
	Distribution of agricultural demands based on crop acreages from 1997 DWR land use survey for San Luis Obispo County.						

Draft Basin Management Objectives

The stakeholders were initially concerned that the only way to stop the declining groundwater levels was to force people to stop pumping. Initially, the discussions of the group suggested a 'survival of the fittest' approach to groundwater pumping where only those with the deepest wells and the ability to afford pumping would continue to pump as costs increased. The others would be put out of business or be forced to make changes to their water use requirements.

After continued discussions, it was generally agreed that stabilizing groundwater levels was an appropriate objective at this time, but there is a concern about the cost and feasibility of stabilizing groundwater levels.

Potential Groundwater Management Activities

The stakeholders reached consensus that there was no single activity that would solve the problem, but that the solution will likely involve a combination of activities. The following Groundwater Management Activities (GMAs) were identified by the Shandon Subarea stakeholders to stabilize groundwater levels in the Shandon Subarea. The potential benefit from these GMAs has not been quantified for the Shandon Subarea (in terms of changes in groundwater levels), so it has not been determined if implementation of the GMAs will result in stabilized groundwater levels.

GMA 1: Groundwater Recharge and Banking Programs: The discussions did not focus on the details of this project or the approach, but did identify potential groundwater recharge or banking of either imported supplies or from storm water runoff as potential sources of groundwater recharge. One potential project that was discussed was an inflatable dam project such as was done along the Salinas River in Northern Monterey County. No additional details were provided on that potential project.

GMA 2: State Water Project supplies for Shandon: The community of Shandon has not used its 100 acre-feet of State Water Project water (SWP) to date. This project would include tying in to the Coastal Branch were it passes through Shandon to access the 100 acre-feet of supply. SWP supplies on the Coastal Branch are treated at the Polonio Pass Water Treatment Plant. This project would reduce municipal groundwater pumping in the Shandon area by the amount delivered from the SWP, thereby reducing groundwater pumping.

An alternative of this GMA would be to pursue additional SWP supplies that could also be delivered to Shandon. San Luis Obispo County has a contract allocation to additional SWP supplies that it has not used, and is not currently using. These supplies could be a potential source of water to the area. Additional capacity in Phase II of the Coastal Branch would be needed to deliver water in excess of the 100 acre-feet supply currently contracted to Shandon by the County. An investigation regarding the additional capacity of the Coastal Branch is currently being pursued by the District.

GMA 3: Formation of Irrigation District or Water District: The discussion focused on the potential need to form an irrigation district or water district to import surface water into the Paso Robles Groundwater Basin. Irrigation Districts/Water Districts are often formed to pursue large projects that benefit a larger group of water users. Such a district may be formed to

pursue a groundwater recharge or water banking project that would rely on imported surface water.

GMA 4: Increase water conservation education and implementation: The stakeholders recognized that additional conservation may result in a water savings, but were not sure if it would be cost effective. There was no objection to promoting conservation, and some discussions explored different conservation methods (such as alternative frost-control measures) since most growing operations are already on drip, and landscaping in Shandon is generally modest.

GMA 5: Precipitation Enhancement: This was brought up for discussion, but it was unclear whether this project would work for the Shandon area.

DRAFT

Appendix E Groundwater Elevation Monitoring Program

Paso Robles Groundwater Basin Management Plan

Groundwater Level Monitoring Network Plan for the Paso Robles Groundwater Basin

Paso Robles Groundwater Basin – Groundwater Advisory Committee

February 2011

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Abbreviations and Acronyms

Basin	Paso Robles Groundwater Basin
BMOs	Basin Management Objectives
City	City of Paso Robles
County	San Luis Obispo County
CSAs	County Service Areas
District	San Luis Obispo County Flood Control and Water Conservation District
DPW	County Department of Public Works
DWR	California Department of Water Resources
GAC	Groundwater Advisory Committee
IRWMP	Integrated Regional Water Management Plan
M&I	Municipal and Industrial
MCWRA	Monterey County Water Resources Agency
State	State of California
TDS	total dissolved solids
UWMP	Urban Water Management Plan
WRAC	Water Resources Advisory Committee

1 Introduction

1.1 Introduction

The Paso Robles Groundwater Basin (Basin) is located in northern San Luis Obispo County (County) and southern Monterey County and was described in the 1958 California Department of Water Resources (DWR) Bulletin 118, San Luis Obispo County Investigation. As part of the efforts to map the groundwater basins in the State of California (State) presented in Bulletin 118, DWR identified the Paso Robles Area Groundwater Subbasin of the Salinas Valley Groundwater Basin and designated it as Basin Number 3-4.06. The Basin boundary was later updated in the Paso Robles Groundwater Basin Study (2002) and is shown on Figure 1-1.

The Basin encompasses an area of approximately 505,000 acres (790 square miles). The Basin ranges from the Garden Farms area south of Atascadero to San Ardo in Monterey County, and from the Highway 101 corridor east to Shandon (Figure 1-1). Most of the Basin is hydraulically connected by thick sedimentary sections. The Basin is divided into smaller subareas based on water quality, source of recharge, groundwater movement, and the contours of the base of permeable sediments.

The Atascadero Subbasin is defined as that portion of the Basin west of the Rinconada fault. Between Atascadero and Creston, the Rinconada fault juxtaposes less permeable Monterey Formation rocks with the Paso Robles Formation basin sediments. South of the City of Paso Robles, the Paso Robles Formation is found on both sides of the Rinconada fault; however, the fault zone is believed to form a leaky barrier that restricts flow from the Atascadero Subbasin to the main part of the Basin. As a result of this, the Atascadero Subbasin is a hydrologically distinct subbasin within the Basin. The Rinconada Fault does not act as a hydraulic barrier to groundwater flow in the Salinas River Alluvium. As such, groundwater flow in the Alluvium is continuous along the stretch of the Salinas River that traverses the entire Basin. The area encompasses the Salinas River corridor area south of Paso Robles and includes the communities of Garden Farms, Atascadero, and Templeton.

The Basin was subdivided into subareas in the Phase I Report (Fugro, 2002) as a practical approach to organize the 790 square mile Basin into smaller informal areas (see Figure 1-1) and listed below.

1. Atascadero Subbasin
2. Creston Subarea
3. San Juan Subarea
4. Estrella Subarea
5. Shandon Subarea

6. North Gabilan Subarea
7. South Gabilan Subarea
8. Bradley Subarea

Over the past decade, the San Luis Obispo County Flood Control and Water Conservation District (District) and the City of Paso Robles (City) have worked with other pumpers to develop a more organized approach to groundwater management in the Basin. The preparation of the Paso Robles Basin Groundwater Management Plan (Plan) is one of the current activities to improve groundwater management.

The Plan was prepared coincident with the preparation of the Resource Capacity Study as well as other ongoing studies to develop a stakeholder-driven voluntary plan to provide a framework for future groundwater management activities. This project was funded by a grant from the Local Groundwater Assistance Act of 2000 (California Water Cost Section 10795 et seq) to provide grants to public agencies to conduct groundwater studies or to carry out groundwater monitoring and management activities. Local Groundwater Assistance Grants (AB303) are awarded by the California Department of Water Resources (DWR). Funding was available in 2007-2008 for AB303 grants.

Groundwater management requires groundwater level and other data collected and analyzed on a routine basis (typically annually) to establish the current conditions of the groundwater basin. This information is tracked and reported to agencies, interested parties, and stakeholders.

There are currently about 160 wells located within the limits of the Paso Robles Basin that are monitored by the San Luis Obispo County Department of Public Works, cooperating agencies, and the Monterey County Water Resources Agency.

The goals of the groundwater level monitoring and reporting program in the Paso Robles Basin include:

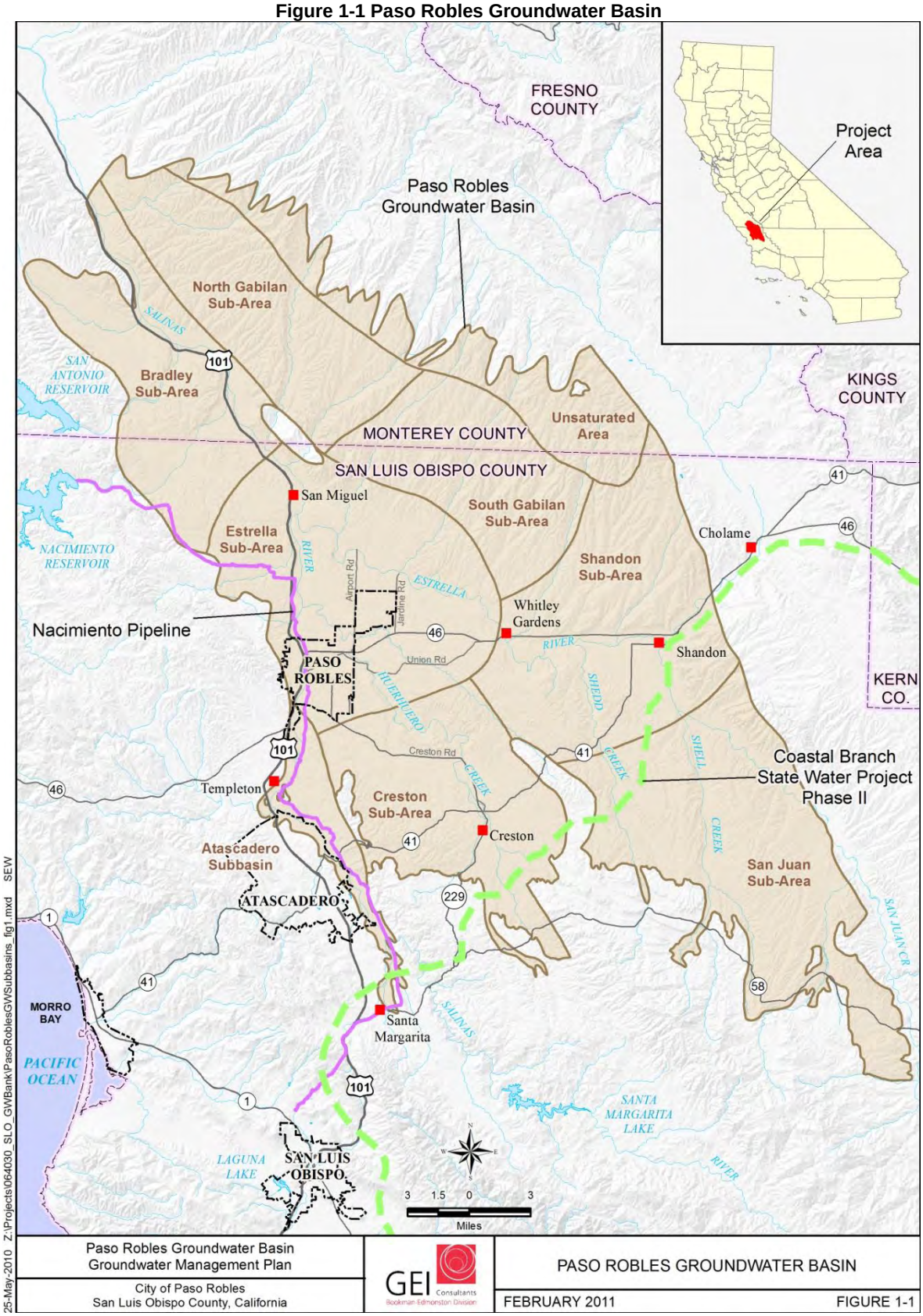
- Assessing groundwater elevations on an annual basis including trends, conditions, and adequacy of the groundwater level monitoring network.
- Preparing and distributing annual groundwater level monitoring reports to the public and public officials.
- Developing an outreach program to obtain groundwater level data from private pumpers and private well owners in the Basin.
- Coordinating with local, state, and federal agencies to develop better information on groundwater level monitoring and comply with current monitoring and report requirements such as California Statewide Groundwater Elevation Monitoring (CASGEMs) Program.

There are gaps in the monitoring network both laterally and vertically which, if filled, would improve the ability of groundwater users and managers in the Basin to fully understand the state of the groundwater conditions.

This Groundwater Level Monitoring Network Plan was prepared as part of the Paso Robles Groundwater Basin Management Plan to identify and document the groundwater level monitoring network and potential actions to improve the network. This Groundwater Level Monitoring Network is organized as follows:

- Section 1 – Introduction
- Section 2 – Existing Monitoring Network
- Section 3 – Monitoring Protocols
- Section 4 – Recommendations for Improving Groundwater Level Monitoring Network
- Section 5 – References

Figure 1-1 Paso Robles Groundwater Basin



2 Existing Monitoring Network

In the Paso Robles Basin, the County has been monitoring groundwater levels on a semi-annual basis (spring and fall) for more than 50 years to support general planning and engineering purposes.

The monitoring takes place from a voluntary monitoring network of production wells. The voluntary monitoring network has changed over time as wells have been lost, or new wells have been added to the network. In 2003, an evaluation of the monitoring network in the Paso Robles Basin was completed by Cleath and Associates to evaluate the efficiency and effectiveness of the County"s Monitoring Program for wells located in the Basin. In 2008, this analysis was updated by Cleath & Associates for San Luis Obispo County"s county-wide monitoring program, and included changes in the Paso Robles Basin since the 2003 report.

These reports are used as the basis for describing the groundwater level monitoring network in the Paso Robles Basin. The Paso Robles Basin monitoring network should include wells that produce water from either the alluvial aquifers or the Paso Robles Formation aquifers.

- **Shallow Aquifer Monitoring** - The report identified the importance of including monitoring wells in the shallow alluvial aquifers of the Salinas River, Estrella River, Huer Huero Creek, and San Juan Creek. If possible, these wells should be located near stream gages to support future analysis of stream recharge.

- **Paso Robles Formation Monitoring** - The Paso Robles Formation includes various aquifer types including shallow-unconfined zones, lower-confined zones (pressure zones) and thermal aquifer zones. Monitoring wells should be included in the monitoring network which taps each of these different aquifer zones.

The wells included in the monitoring network are selected based on aquifer definition and uniform areal distribution. There are approximately 159 wells in the current monitoring program (see Figure 2-1), County Public Works employees monitor 100 wells, and 57 wells are monitored by local municipal water company employees (who forward the data to the County"s Public Works Department for inclusion in the monitoring program database). Additionally, three wells are located in Monterey County and are monitored by the Monterey County Water Resources Agency.

Table 2-1 lists the number of monitoring wells in each subarea, with more wells in the areas of the greatest population density (in the urban areas) and the largest developed agricultural areas. In general, many of the wells in the Atascadero Subbasin and the Estrella Subarea are associated with urban land uses. In the Creston Subarea and the rest of the Basin, monitoring wells are located adjacent to agricultural lands.

During the 2008 Monitoring Program Evaluation, criteria were developed to improve the monitoring network by identifying existing wells to add to the monitoring program, and identify existing wells to be eliminated from the monitoring program. The general criteria for selecting wells for inclusion in the monitoring network included:

- Wells included in the program should be located geographically throughout the Basin and vertically throughout the aquifer system to provide groundwater level data that represents natural static water levels that are not influenced by transient conditions.
- Selected wells should not pump frequently or be within 1,000 feet of a high producing well or wells tapping the same aquifer.
- Two wells that tap different aquifers may be located in close proximity to each other without producing redundant monitoring data.
- Because younger alluvial deposits contain aquifers separated from deeper aquifers, and the Paso Robles Formation typically contains multiple aquifers, there should be separate program wells in a particular subarea that tap these various aquifers.
- The various Paso Robles Formation aquifer types to be represented by program wells include shallow-unconfined zones, lower-confined (pressure) zones, and in some locations thermal aquifer zones.
- Monitoring well distribution should be based on population density and projected population growth, and on current and projected land use because of the greater well pumping impacts in these areas.

Groundwater level data is currently recorded in bound field books containing card files from each well. Each well card file includes the well name, a location sketch, description of the well head and access, water level measurement and reference point, depth to water by date, observer"s initials and comments. Well construction reports should be obtained for all wells included in the monitoring network that would include much of this information.

During development of the Paso Robles Groundwater Management Plan, recent land use data was collected to compare the current land use to the existing monitoring network. This identified additional gaps in the monitoring network.

These gaps are located adjacent to areas currently experiencing declining groundwater levels, or are in areas where limited or no water level data is available. Figure 2-2 shows the locations of the wells to be added to the existing groundwater monitoring network (listed on Table 2-1) and areas that need additional monitoring where existing wells have not been identified.

Some of these areas include:

- Around the City of Paso Robles
- Creston Road Area
- Union Road Area
- Highway 46 west of Whitley Gardens
- Jardine Road Area

- Airport Road- Highway 101
- Highway 46 east of Whitley Gardens
- Creston Area
- Shandon Area
- Highway 41 south of Shandon
- North of San Miguel
- East of San Miguel

Table 2-1. Monitoring Program in the Paso Robles Groundwater Basin

Groundwater Subarea	Wells Currently in Program	Wells Added to Program	Wells Dropped From Program	Wells In Updated Program
Atascadero Subbasin	51	2	0	53
Bradley	0	1	0	1
Creston	17	6	2	21
Estrella	50	11	5	56
Gabilan (North and South)	1	0	0	1
San Juan	16	10	2	24
Shandon	24	5	4	25
TOTAL	**159**	**35**	**13**	**181**

Figure 2-1 Existing Well Monitoring Network

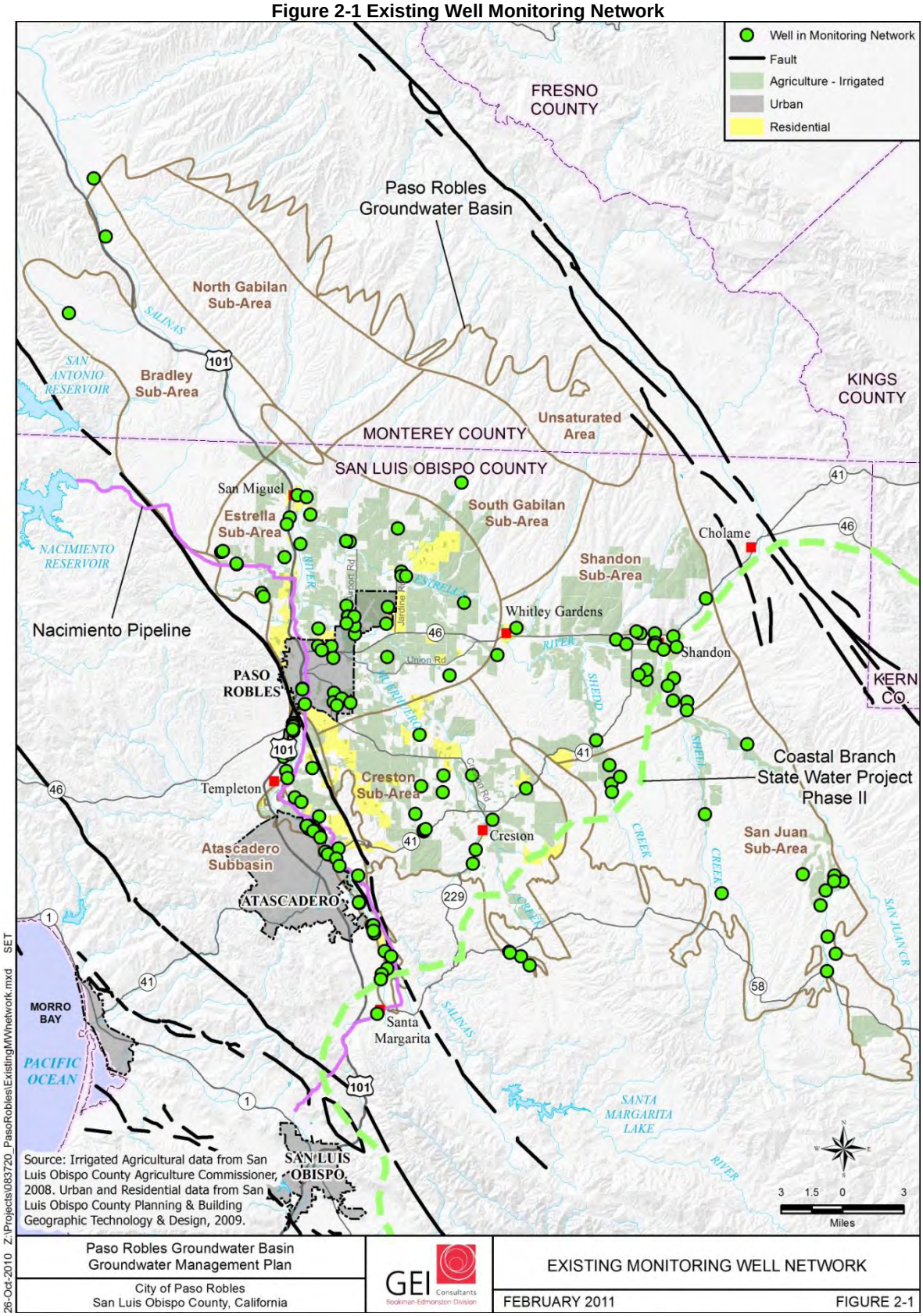
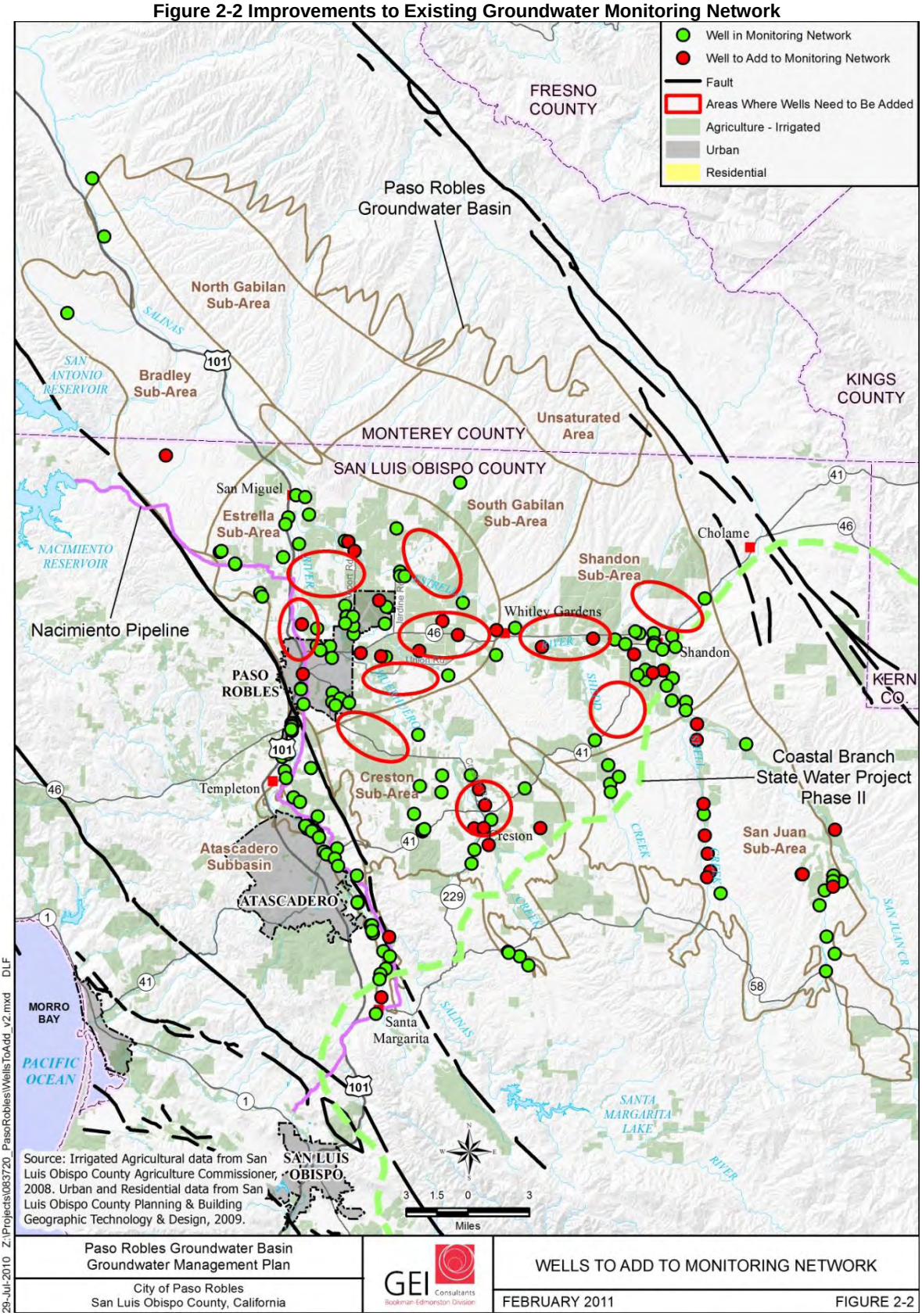


Figure 2-2 Improvements to Existing Groundwater Monitoring Network



3 Monitoring Protocols

The following is the standard operating procedure used by the County for the determination of groundwater surface elevations for wells in the Paso Robles Groundwater Basin monitoring network. These procedures may be varied or changed as required, depending on the site conditions, and equipment limitations.

In all instances, the actual procedures employed will be documented and described on the Groundwater Level Form. The water level measurements are used to construct water table or potentiometric surface maps and to determine flow direction as well as other aquifer characteristics.

Groundwater levels shall be measured in all wells on a semi-annual basis. If possible, sampling personnel should make groundwater level measurements in the same week but at no time should the measurements be taken over a period exceeding two-weeks.

3.1 Preparation for Field Work

Prior to collecting groundwater levels and before going to the field, sampling personnel shall clean, maintain, and test the water level sounder.

The sampling personnel will assemble the following equipment and supplies:

- Copies of Groundwater Level Form on waterproof paper
- Copies of well cards for wells being monitored
- Copy Monitoring Network Location map
- Electrical water level sounder
- Measuring Tape with gradations in tenths and hundredths of feet.
- Ballpoint pen (waterproof) and clipboard
- Paper towels
- Bleach
- Spray bottles
- Distilled water

During use of a water level sounder, it is possible for the cable to become stretched or shortened because of tangles and obstructions in wells. Before each monitoring event, the water level sounder shall be calibrated by laying it out and comparing it with a steel tape and the results documented. When calibration measurements show that the measurements are greater than 0.10 feet off in 100 feet, the cable shall be replaced.

Measurement locations will be identified and appropriate accommodations and permissions for site access will be made.

3.2 Monitoring Procedures

The following procedures shall be used to measure the depth to water at each designated monitoring well.

3.2.1 Verify the Reference Point

Distance above or below ground level to the reference point (RP) at which depth to water in the well is measured, i.e. TOC (Top of Casing). Make sure the measurement is equal to the one listed on the first well card for each well. If there is a difference in the distance, make a note in the remarks and correct the data on the front of the card.

3.2.2 Recording of Measurements

Each well has been assigned a unique identification number and a common name. The Groundwater Level Form will be used to record all groundwater level measurements and other information regarding well while in the field.

Groundwater level measurements will be measured to the nearest 0.01 foot. To obtain a depth to water measurement, the electric sounder cable will be lowered slowly into the well through the access port until the sounder indicates submergence by a beeping sound and/or light, depending on the type of sounder being used. At this point, the sampling personnel will note the depth to water from the reference point. The depth shall be confirmed by lifting the sounder above the water surface by about 2 to 3 feet and then re-measuring the depth to water. If the depth remains constant, the depth-to-water shall be recorded on the Groundwater Level Form, along with the time and date of the measurement. If the depth changes, the sampling personnel shall indicate that on the form, as well as the variable nature of the measurement and its possible cause (e.g., bouncing, recovering water levels, oil on water surface). The following measurements will be recorded:

- **Depth from Reference Point**: Total distance from the reference point to the top of the water.

- **Reference Point Distance**: Total distance from ground to reference point. If the reference point is above the ground surface, the reference point distance is a positive value. If the reference point is below the ground surface, the reference point distance is a negative value.

- **Depth to Water**: Total distance from the ground surface to the top of the water. It is calculated as the „Depth from Reference Point" less the „Reference Point Distance".

- **Obs. Init**.: Initials of sampling personnel

- **Remarks**: Any special remarks will go in this area.

3.2.3 Static Measurement Verification

The following procedure will be used to verify if a well has or has not been recently been pumping (for example, the difference it greater than 0.02 feet or there are other indicators of recent pumping). Once the depth of the water is measured, pull the end of the sounder up ½ inch and wait about 5 minutes to see if a signal is acquired. If it does re-acquire a signal, pull it up ½ inch again and wait to see if a signal is acquired. If it is reacquired, make a note in the remarks section "Well rebounding". If the pump is hot or the water pipe is cool, a note should be made in the remarks section.

If sampling personnel will be working in the area and it won"t be an inconvenience they may check at a later time to see if the well isn"t pumping. "Well Pumping" will be written on the data card.

3.2.4 Well Actively Pumping

If a well is actively pumping, unless it is stated on the well"s first page, the measurement will not be taken.

3.2.5 Maintenance and Cleaning of Equipment

Prior to obtaining the water level measurement at each well and between each well site, the bottom 10 feet of the electric sounder cable shall be rinsed in a solution of sodium hypochlorite (liquid bleach) and distilled water. The solution shall consist of bleach and distilled water in a one-tablespoon-to-one-quart ratio (a concentration of about 200 parts per million chlorine is desirable). The sounder shall then be rinsed thoroughly three times with distilled water and allowed to air-dry. Thorough cleaning of equipment is necessary to avoid any possibility of cross-contamination and transport of bacteria between wells.

3.2.6 Discontinuing Records

If there is a well that has not been monitored during the last three monitoring periods, i.e. could not find, no opening in top, removed, make a special note and this well will be considered for removal from the network.

3.3 Quality Assurance

In the field, the following general quality assurance/quality control (QA/QC) procedures apply:

1. All instrumentation must be operated in accordance with operating instructions as supplied by the manufacturer, unless otherwise specified.

2. Each well should be tested at least twice in order to compare results. If results do not agree to within 0.02 feet, a third measurement should be taken and the readings averaged. Notes about the inconsistent measurements and their possible cause should be made on the Groundwater Level Form.

3. Results should be compared to historical measurements while in the field and significant discrepancies noted and resolved if possible.

4. Wells for which no or questionable measurements are obtained need to be documented by the sampling personnel in the remarks section of the Groundwater Level Form.

After field personnel have completed their work, the data shall be entered into an electronic spreadsheet or database. The groundwater level measurements shall be proofed for accuracy by a second person within five days of obtaining the measurements. Should a measurement appear suspicious, a confirmation reading shall be obtained.

4 Recommendations for Improving the Groundwater Level Monitoring Network

This section identifies some of the activities related to maintaining and improving the groundwater level monitoring network. Several different factors may contribute to the improvements to the monitoring network, which may include the following:

- Recent groundwater monitoring legislation
- Improvements to the existing voluntary monitoring network
- Improvements to the data collected from wells in the existing monitoring network
- Development of a dedicated monitoring network to supplement the existing voluntary monitoring network
- Recommendations from the Resource Capacity Study regarding groundwater monitoring

Each of these are described below.

4.1 Complying with New Groundwater Monitoring Legislation

Future groundwater elevation monitoring and reporting will need to comply with the California Statewide Groundwater Elevations Monitoring Program (CASGEMs). This legislation, passed in 2009 is intended to establish a collaborative process between local monitoring parties and DWR to collect groundwater elevations statewide and make them available to the public.

To comply with CASGEMs:

- Local parties may assume responsibility for monitoring and reporting groundwater elevations.
- DWR will work cooperatively with local monitoring entities to achieve monitoring programs that demonstrate seasonal and long-term trends in groundwater elevations.
- A „Monitoring Entity" is identified for each basin to coordinate monitoring in the basin and the reporting to DWR.
- Where a Monitoring Entity is not established, DWR will perform the monitoring functions. If local parties do not volunteer to perform the groundwater monitoring functions, DWR will assume those functions, and those parties will become ineligible for water grants and loans from the State.

The major deadlines for this effort include:

- On or before January 1, 2011: parties seeking to assume groundwater level elevation monitoring functions must notify DWR.
- On or before January 1, 2012: Monitoring entities shall begin reporting seasonal groundwater elevation measurements.

To comply with CASGEMs Program requirements the District should consider the following actions:

- The San Luis Obispo County FCWCD should be identified with DWR as the groundwater monitoring lead in the Paso Robles Basin.
- Document the recent effort completed to evaluate the existing groundwater level monitoring network to determine the status of the existing wells and identify new wells to be included in network.
- Continue to coordinate data collection efforts among local agencies and data exchange with DWR.
- Submit a copy of the 2009/2010 Groundwater Level Monitoring Report to DWR to comply with their reporting requirements.

4.2 Improving the Existing Voluntary Monitoring Network

The District currently encourages well owners to consider adding their wells to the voluntary monitoring network. Figure 2-2 identifies areas where additional monitoring wells are needed to fill in gaps in the groundwater level monitoring network. The purpose of improving the voluntary monitoring network includes:

- Increasing the number of wells in groundwater level monitoring network
- Collecting available well construction data for existing wells included in monitoring network to improve understanding of aquifer being represented by each well
- Expanding the monitoring network to include areas experiencing changes in groundwater levels or changing land use conditions

Expanding the voluntary groundwater level monitoring network could be done by:

- Developing an outreach and education program to increase the understanding of the importance of the monitoring program
- Developing support for the program among responsible stakeholder groups to encourage participation among their membership
- Identifying specific locations needed for additional monitoring and identifying interested well owners

Interested well owners should contact the County Department of Public Works to inform them of their interest in making their well available to the District monitoring network. At that point the District will evaluate the candidate well for inclusion in the program. The

County Department of Public Works is currently developing a screening process to include additional wells into the monitoring network that includes the steps described below.

Step 1 – Contact District: Contact the District to confirm your interest in making your well available for inclusion in the voluntary monitoring network. Complete the Volunteer Application Form and provide the following information about your well to the District (Attachment A):

- **Well Location**: To determine if the well is located within a DWR designated groundwater basin, and identify if there are already three or more County monitored wells within a mile of the proposed well that tap the same aquifer.
- **Well Construction Information**: To determine the depth of the well and aquifers being tapped.
- **Existing Groundwater Level Data**: Includes past groundwater level data to determine the history of groundwater levels in the well to compare to other nearby wells.
- **Recent Well History**: To document any recent changes in the well, pumps, or changes in groundwater production or quality.

Step 2 - Initial Assessment: Applies screening criteria to determine the suitability for including the well in the monitoring network.

- **Well Location**: To determine if the well is located within a DWR designated groundwater basin, and identify if there are already three or more County monitored wells within a mile of the proposed well that tap the same aquifer.
- **Well Access**: To determine that there is safe, reliable and relatively easy access to the well.
- **Well Condition**: To confirm that well construction information is available, and if any changes have been made to the well (such as deepening the well).
- **Land Use**: To track historic changes in land use and corresponding groundwater levels, and monitor areas of future anticipated land use changes.
- **Water Levels**: An area experiencing historic water levels trends (rising or dropping) should have nearby County monitored wells to identify the extent of the area showing the trends.

Step 3 - Field Evaluation: Conducted to determine the well accessibility (in the field) and the conditions of the well.

- **Well Access**: To determine that the well:
  - Is free of hazardous conditions or obstacles, and there is safe parking and access to the wellhead.
  - Is accessible in all seasons and bad weather conditions.
  - Has an accessible sounding port that allows entry to the well with an electric sounder.

- **Well Condition**: To determine that the well:
  - Is free of down-hole obstructions that could interfere with water level measurements.
  - Does not have any down-hole problems such as oily conditions.
  - Does not produce any sand which may be an indication of a problem with the well construction.

Suitable wells that pass the 2-step screening process may be added to the Paso Robles Basin groundwater level monitoring network.

4.3 Improving Information on Existing Monitoring Wells

Well construction data may not be available for all wells currently included in the monitoring network. Downhole surveys of some of the existing wells currently being monitored could be conducted to obtain construction details and determine which aquifers are being monitored. These downhole surveys would improve the understanding of the groundwater levels and groundwater movement in the area of the well.

For wells without construction records, video logs could be performed during pump maintenance. Recent technology developments allow down-hole investigation of wells without having to remove their pumps and can provide a video survey to determine their screen intervals; estimate the amount of flow contributed by aquifer (allowing the aquifer characteristics to be estimated) and collect water quality samples by aquifer. These video surveys do have limitations due to the pump column being in the well during the survey. The well owner could notify the County and the well logging service to coordinate these efforts with their pump maintenance.

4.4 Adding Dedicated Monitoring Wells

The groundwater level monitoring network could be expanded by including dedicated monitoring wells to provide long-term continuity of the monitoring program, and fill existing gaps in the monitoring network. Dedicated monitoring wells are typically placed away from production wells so they will not be subject to the effect of pumping wells on their observations. Additionally, dedicated monitoring wells are not subject to removal from the monitoring network which may result if production wells change ownership. Dedicated monitoring wells should be outfitted with transducers to record water level data at selected time intervals. This allows a more detailed glimpse at the changes in groundwater levels over a short duration (hours, days, or weeks) compared to semi-annual monitoring. This can be especially important in the summer months when groundwater pumping is greatest but may not be captured in the spring and fall monitoring.

The dedicated monitoring well network could be expanded to include monitoring wells:

- In critical areas of concern where groundwater levels have declined or are experiencing groundwater level declines.

- In areas where there are data gaps because there are no wells in the existing monitoring well network.
- At the edges of the developed land use in the Basin. These areas may not be experience seasonal or long-term trends associated with localized pumping.

This could be done by:

- Developing a long-term strategy to develop and finance a dedicated monitoring network
- Prioritizing the areas of greatest concern to install dedicated monitoring wells
- Identifying specific locations (parcels) to site dedicated monitoring wells
- Pursue grant funding opportunities to implement the dedicated monitoring network

Figure 2-2 identifies areas that may be suitable for adding dedicated monitoring wells. These locations may be modified by the CASGEMs guidelines when they are released (expected in Fall 2010).

The dedicated monitoring network should be designed in such a fashion that it could eventually replace the use of production wells for the purpose of monitoring groundwater levels. When established, the dedicated monitoring well network may include between 20 to 40 wells. Initially, ten to fifteen wells could be added in those locations described previously. The actual location each well should be evaluated in the context of the large dedicated monitoring network so as to optimize the value of each well. Developing an effective and efficient dedicated monitoring network (with regard to the number of wells and their locations) could reduce the installation costs and future monitoring costs. The cost of the installation of dedicated monitoring wells ranges in the Paso Robles Basin is currently estimated at $30,000 to $40,000,

4.5 Relationship of Resource Capacity Study and Groundwater Level Monitoring Program

The Resource Capacity Study (RCS) addresses the state of the Paso Robles Groundwater Basin based on whether the Basin is being used at or beyond its dependable supply currently or will be within a certain period of time. The RCS uses available studies that calculated the perennial yield and water use by major water use sectors (agriculture, rural land uses, small commercial uses, municipal systems, and small community systems) in order to make this determination. The results of these studies show that groundwater use has increased during the 1980 to 2009 period to the point where the Basin outflows (including groundwater pumping) will soon be greater that Basin inflows (recharge). The RCS includes recommendations for land-use and monitoring actions based on the results of the studies.

The RCS recognizes that there are over-arching issues that complicate any action the County might wish to take, two of which are related to the Groundwater Level Monitoring Plan:

1. The major portion of Basin outflows are not measured, but are estimated. While municipal pumping is measured, agricultural, rural, and small community/commercial pumping is estimated. This adds to the uncertainty regarding actual groundwater use.

2. Identification of changing groundwater levels is based on limited data.

Because the County is the lead agency in coordinating the collection of groundwater level data, the Monitoring Plan should be regularly reviewed to ensure consistency with any monitoring actions ultimately implemented by the County.

4.6 Summary of Improvements

The following list summarizes the suggested improvements to the groundwater level monitoring network described in this section:

- The San Luis Obispo County FCWCD should be identified with DWR as the Monitoring Entity in the Paso Robles Basin.
- Document the recent effort completed to evaluate the existing groundwater level monitoring network to determine the status of the existing wells and identify new wells to be included in network
- Continue to coordinate data collection efforts among local agencies and data exchange with DWR
- Submit a copy of the 2009/2010 Groundwater Level Monitoring Report to DWR to comply with their reporting requirements.
- Develop an outreach and education program to increase the understanding of the importance of the monitoring program and foster support for the program among individuals and stakeholder groups to encourage participation among their membership
- Inform private wells owners about the 2-step process to add their well to the voluntary monitoring well network.
- Identify specific locations needed for additional wells in the voluntary monitoring network and interested well owners in those areas
- Develop a long-term strategy and finance plan to evaluate the development of a dedicated monitoring network
- Prioritize the areas of greatest concern to install dedicated monitoring wells and identify specific locations (parcels) to site dedicated monitoring wells
- Secure the right to access all new key wells together with retaining voluntary access to existing wells having useful histories to ensure that the County"s investment in these records is protected.
- Prioritize the areas of greatest concern to install dedicated monitoring wells and identify specific locations (parcels) to site dedicated monitoring wells

- Continue to conduct semi-annual groundwater measurements to chart the scope of groundwater level changes

Attachment A

PASO ROBLES GROUNDWATER BASIN
GROUNDWATER MANAGEMENT PLAN

Groundwater Level Monitoring Network
Well Interest Form

Well Location: _____

Subarea:_____

Address:_____

Well Construction Information (total depth/ depth of well screens/(gpm):

_____
_____

Existing Groundwater Level Data:

- What are the current trends in groundwater levels in your well?

_____
_____

Recent Well History:

- Have you had to take any actions related to maintain production in your well (deepen wells/ replace pump/ lower pumps)?

_____
_____

General Comments:

_____
_____
_____
_____

Volunteer Application Form

SAN LUIS OBISPO COUNTY
DEPARTMENT OF PUBLIC WORKS

County Government Center, Room 207 • San Luis Obispo CA 93408 • (805) 781-5252

(Please print or write legibly)

Name: _____ Date: _____

Address: _____ PO Box: _____

City: _____ State: _____ Zip: _____ County: _____

Home Phone: ( ) _____ Daytime Phone: ( ) _____

Email Address: _____ Daily Internet Access: Yes / No

Give a brief description of your location (Latitude/Longitude and assessor's parcel number if available):

_____

_____

Nearest Cross streets/roads:

_____

_____

Please use the box on the right to draw a map of your site and /or attach a picture.

Diagram of Site:

How did you find out about volunteering? _____

Please return this form to:

Kim Hubbs
County Government Center, Room 207
San Luis Obispo, CA 93408

Fax Number: (805) 788-2182
Phone Number: (805) 781-5272

For Staff Use Only

Station Name: _____
Station Number: _____
Latitude: _____ Longitude: _____
Date of Field Review: _____
Date Station Num Issued: _____
Date Received/Shipped Gauge: _____

Thank you for volunteering!

5 References

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Cleath & Associates, Paso Robles Groundwater Monitoring Program Evaluation, 2003.

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Valentine, D.W., et al. Use of InSAR to Identify Land-surface Displacements Caused by Aquifer-System Compaction in the Paso Robles Area, San Luis Obispo County, California. USGS Open File Report 00-447, 1997.

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Appendix F Annual Monitoring Report

Annual Monitoring Report for Calendar Year 2009

City of Paso Robles

Submitted to:
Paso Robles Groundwater Basin –
Groundwater Advisory Committee

Date: February 9, 2011

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1 Introduction

The purpose of this report is to summarize groundwater conditions in the Paso Robles Groundwater Basin for 2009. This report supports the implementation of the Paso Robles Groundwater Management Plan (Plan) completed in February 2011 by:

- Documenting annual changes in groundwater levels based on information collected from the existing monitoring network.
- Comparing changes in groundwater levels to the Basin Management Objectives (BMOs) identified in the Plan.
- Identifying Groundwater Management Activities (GMAs) undertaken during the development of the Groundwater Management Plan and identifying activities anticipated to be undertaken in 2011 in an attempt to meet the BMOs.

1.1 Paso Robles Groundwater Basin

The Paso Robles Groundwater Basin (Basin) is located in northern San Luis Obispo County (County) and southern Monterey County and was described in the 1958 California Department of Water Resources (DWR) Bulletin 118, San Luis Obispo County Investigation. As part of the efforts to map the groundwater basins in the State of California (State) presented in Bulletin 118, DWR identified the Paso Robles Area Groundwater Subbasin of the Salinas Valley Groundwater Basin and designated it as Basin Number 3-4.06. The Basin boundary was later updated in the Paso Robles Groundwater Basin Study (2002) and is shown on Figure 1-1.

The Basin was first formally defined by the California Department of Water Resources (DWR, 1958). In 1979, the DWR published a detailed investigation of the San Luis Obispo County portion of the Basin (DWR, 1979).

The Basin encompasses an area of approximately 505,000 acres (790 square miles). The Basin ranges from the Garden Farms area south of Atascadero to San Ardo in Monterey County, and from the Highway 101 corridor east to Shandon (Figure 1-1). Most of the Basin is hydraulically connected by thick sedimentary sections. The Basin is divided into smaller subareas based on water quality, source of recharge, groundwater movement, and the contours of the base of permeable sediments.

The Atascadero Subbasin is defined as that portion of the Basin west of the Rinconada fault. Between Atascadero and Creston, the Rinconada fault juxtaposes less permeable Monterey Formation rocks with the Paso Robles Formation basin sediments. South of the City of Paso Robles, the Paso Robles Formation is found on both sides of the Rinconada fault; however, the fault zone is believed to form a leaky barrier that restricts flow from the Atascadero Subbasin to the main part of the Basin. As a result of this, the Atascadero Subbasin is

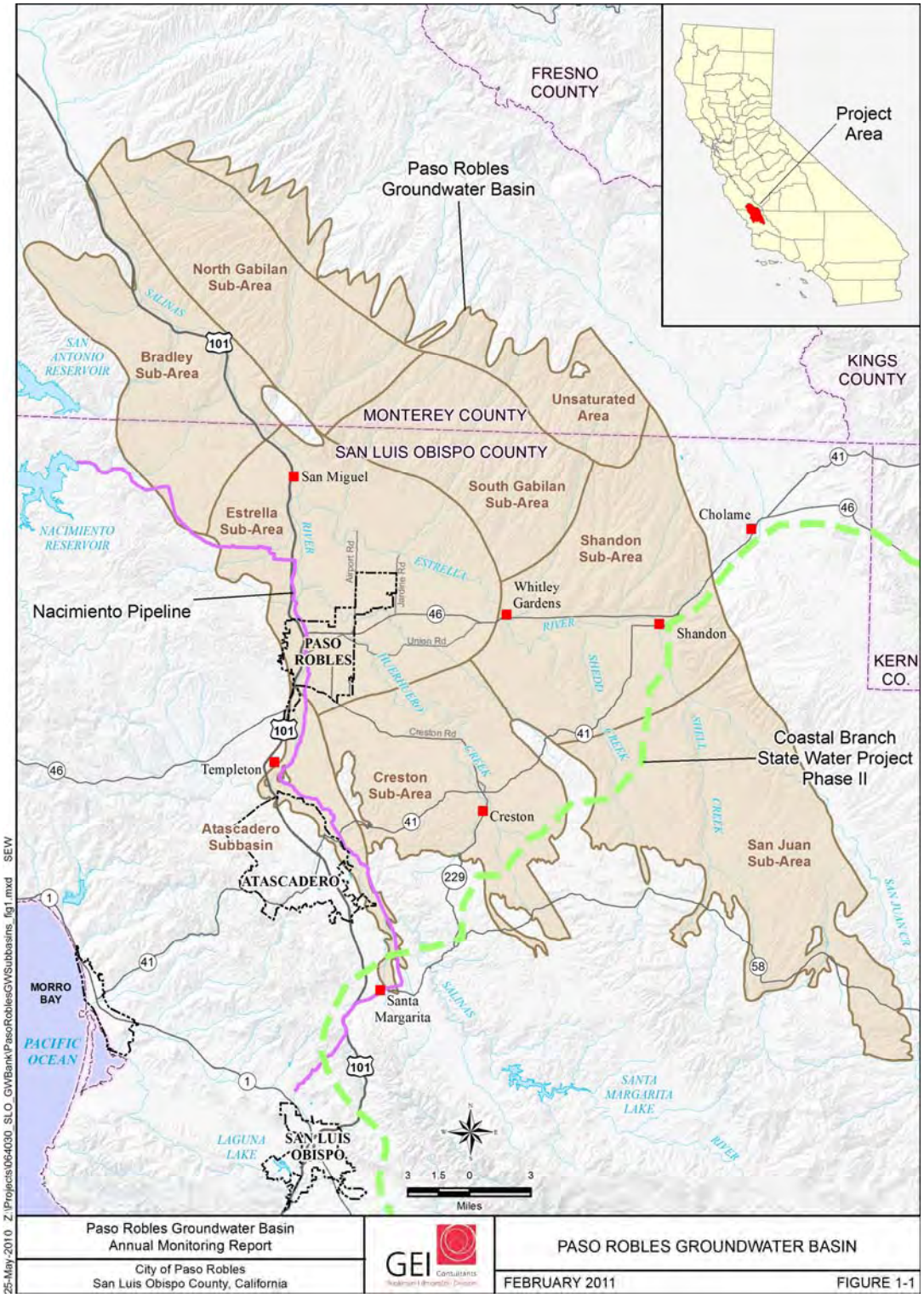
considered a hydrologically distinct subbasin within the Basin. The Rinconada Fault does not act as a hydraulic barrier to groundwater flow in the Salinas River Alluvium. As such, groundwater flow in the Alluvium is continuous along the stretch of the Salinas River that traverses the entire Basin. The Atascadero Subbasin encompasses the Salinas River corridor area south of Paso Robles and includes the communities of Garden Farms, Atascadero, and Templeton.

The western boundary of the Basin roughly follows Highway 101 from Santa Margarita northward to Hames Valley. The eastern boundary follows a rough line from Highway 58 in the San Juan Creek area northward to Shandon and Cholame. The Basin is downstream of and hydraulically connected by alluvial deposits to the Pozo Groundwater Basin south of the Basin, and to the Cholame Groundwater Basin north of the Basin. The Basin outlet is northwest and downstream of Bradley, where it is hydraulically connected with the Salinas Valley Groundwater Basin.

The Basin was subdivided into subareas in the Phase I Report (Fugro, 2002) as a practical approach to organize the 790 square mile Basin into smaller informal areas (see Figure 1-1) listed below:

1. Atascadero Subbasin
2. Creston Subarea
3. San Juan Subarea
4. Estrella Subarea
5. Shandon Subarea
6. North Gabilan Subarea
7. South Gabilan Subarea
8. Bradley Subarea

Figure 1-1. Paso Robles Groundwater Basin



1.2 Groundwater Level Monitoring Network

In the Basin, the County has been monitoring groundwater levels for more than 40 years. In 2003, an evaluation of the monitoring network was completed to evaluate the efficiency and effectiveness of the County's Monitoring Program for wells located in the Basin. Based on the final report, approximately 159 wells in the monitoring program (see Figure 1-2). Most wells are monitored by County Public Works employees and the remaining wells are monitored by local municipal water company employees (who forward the data to the County's Public Works department for inclusion in the monitoring program database). Additionally, three wells are located in Monterey County and are monitored by the Monterey County Water Resources Agency.

The County's Monitoring Program provides the best available groundwater elevation information to guide current groundwater management activities at current levels of implementation.

Figure 1-2. Monitoring Well Locations

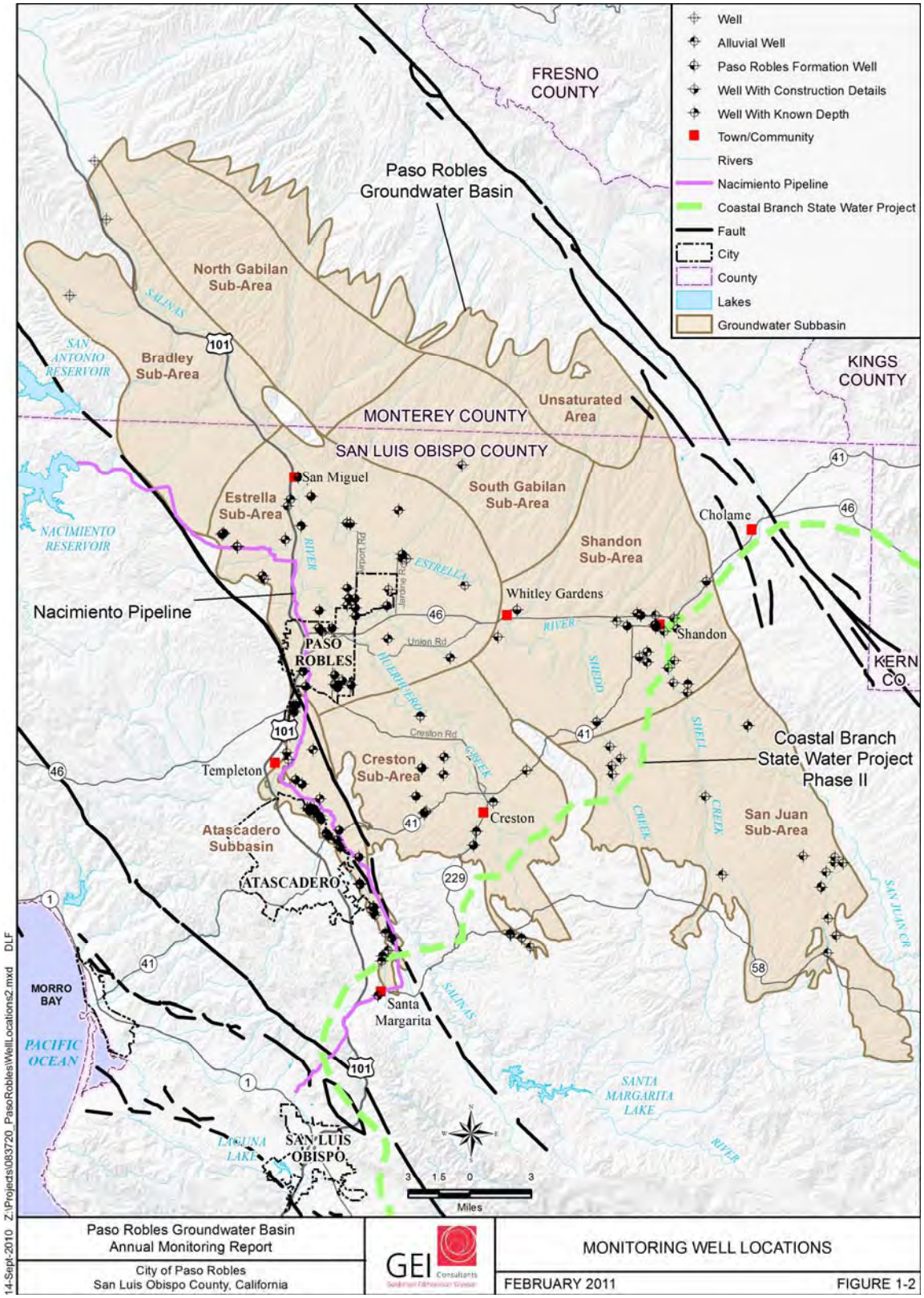


Table 1-1. Wells in the San Luis Obispo County Monitoring Network

Groundwater Subarea	Wells Currently in Program
Atascadero Subbasin	51
Bradley	0
Creston	17
Estrella	50
Gabilan (North and South)	1
San Juan	16
Shandon	24
TOTAL	**159**

2 Conditions for Calendar Year 2009

This section describes the conditions in the Paso Robles Groundwater Basin for calendar year 2009, including:

- Land and water use conditions
- Surface water imports
- Hydrologic conditions
- Groundwater elevations
- Groundwater quality data

2.1 Land and Water Use Conditions

The water demands and supplies for the Paso Robles Groundwater Basin are summarized from several of the documents as described in the Plan. Historically, all water demands in the Basin have been met with groundwater. This changed in early 2011 when Nacimiento Project Water began delivering water to some water users in the Basin.

Water demands in the Basin have generally been organized into five different "user sectors" including:

- **Agricultural** - Agricultural water demands are estimated using the crop acreage and water demands of different types of crops to determine the overall agricultural water demand. This method is used because records of agricultural pumping are not kept and reported.
- **Municipal** - Municipal pumping in the Basin includes four public water purveyors: 1) City of Paso Robles; 2) Atascadero Mutual Water Company; 3) Templeton Community Services District (CSD); and 4) San Miguel Community Services District. Pumping records were used to accurately calculate total municipal pumping.
- **Rural Residential** - Rural pumping includes domestic water use by development in rural areas. The estimate was derived by using parcel data and applying a water use factor, since records are not kept and reported.
- **Small Community Systems** - Small community systems include mutual water companies, county service areas, and mobile home parks. For systems that report groundwater pumping, well records were used to accurately determine their pumping. Using these reports, estimates were derived for the systems that do not report their water use.
- **Small Commercial Systems** - Small commercial pumping includes such users as wineries, golf courses, and schools. Water use estimates are based on factors from the Pacific Institute and information from consultation with winery operators.

The most recent Basin-wide water demand data is available for 2006 conditions, which are believed to represent approximate conditions for 2009. This information will be updated in the future as additional information is collected.

Table 2-1 shows the distribution of the demands by demand type and subarea for 2006. In 2006, agricultural demands were about 67 percent of the total demand in the Basin, with about one-third of the total agricultural demand occurring in the Estrella Subarea. Municipal demands were about 18 percent of the total demand and are concentrated in the Atascadero Subbasin and the Estrella Subarea. The small community demands are included as part of rural domestic demands. Rural domestic demands were about 13 percent of the total demand. Small commercial demands total about three percent of the total demand, and are concentrated in the Estrella Subarea.

Table 2-1. Distribution of 2006 Water Demands to Subareas

Subarea	Demand Type						
	Agriculture	Municipal	Small Community Systems	Small Commercial Systems	Rural Domestic	Total	Percentage
Atascadero Subbasin	1,348	11,735	0	430	2,032	15,545	17%
Bradley	6,933	0	0	184	109	7,226	8%
Creston	9,936	0	0	37	2,338	12,311	14%
Estrella	23,111	3,930	0	1,603	5,433	34,077	38%
North Gabilan	1,758	0	0	0	50	1,808	2%
San Juan	5,347	0	0	0	105	5,452	6%
Shandon	9,896	0	0	69	1,205	11,170	12%
South Gabilan	1,671	0	0	0	213	1,884	2%
Total	**60,000**	**15,665**	**0**	**2,323**	**11,485**	**89,473**	**100%**
Percent of Total	**67%**	**18%**	**0%**	**3%**	**13%**	**100%**	

2.2 Surface Water Imports

Several agencies and communities are participating in the Nacimiento Water Project to bring surface water into the Paso Robles Groundwater Basin. Table 2-2 lists the contract amounts and will track annual deliveries by year. Deliveries from the Nacimiento Project are expected to begin in early 2011.

Table 2-2 Imported Supplies from the Nacimiento Water Project

Entity	Contract Amount (Acre-Feet)	2010	2011	Total
City of Paso Robles	4,000	0		
Atascadero MWC	2,000	0		
Templeton CSD	250	0		
Total	6,250	0		

2.3 Hydrologic Conditions

The Paso Robles Groundwater Basin has a semi-arid Mediterranean climate, which is characterized by hot sunny summers and cool winters. Most of the precipitation occurs in the winter between November and April.

Rainfall is the primary source of recharge to the groundwater basin, and it is important to understand rainfall's relationship to groundwater management activities in the basin. The average rainfall over the basin ranges from about 18 inches in the west (at the Atascadero MWC Gage #34) to 11 inches in the east (at the Shandon #73) as shown on Table 2-3. Figure 2-1 shows the location of selected precipitation stations in the basin. The historical annual rainfall recorded is represented along the Salinas River at Paso Robles Gage (Gage #10) for the 1960 to 2009 period (50 years), shown on Figure 2-2. During this period, rainfall was highly variable, ranging from about 5 inches to over 30 inches per year, and averaging 14.88 inches per year.

Table 2-3. Precipitation Stations in the Paso Robles Groundwater Basin

Precipitation Station	Period of Record	Average Annual Precipitation (inches)			
		Period of Record	1960 to 2009	1981 to 2009	1997 to 2009
Paso Robles Gage #10	1901 to 2009	15.04	14.88	14.49	13.73
Atascadero Mutual WC #34	1931 to 2009	17.65	17.85	17.58	17.49
Erickson Ranch 52.1	1928 to 2009	11.89	12.81	12.85	13.15
Shandon # 73	1937 to 2009	10.69	10.76	11.10	11.06
Sinclair #125	1949 to 2009	11.69	12.02	12.21	11.67

Figure 2-1. Precipitation and Surface Water Gaging Stations in the Paso Robles Area

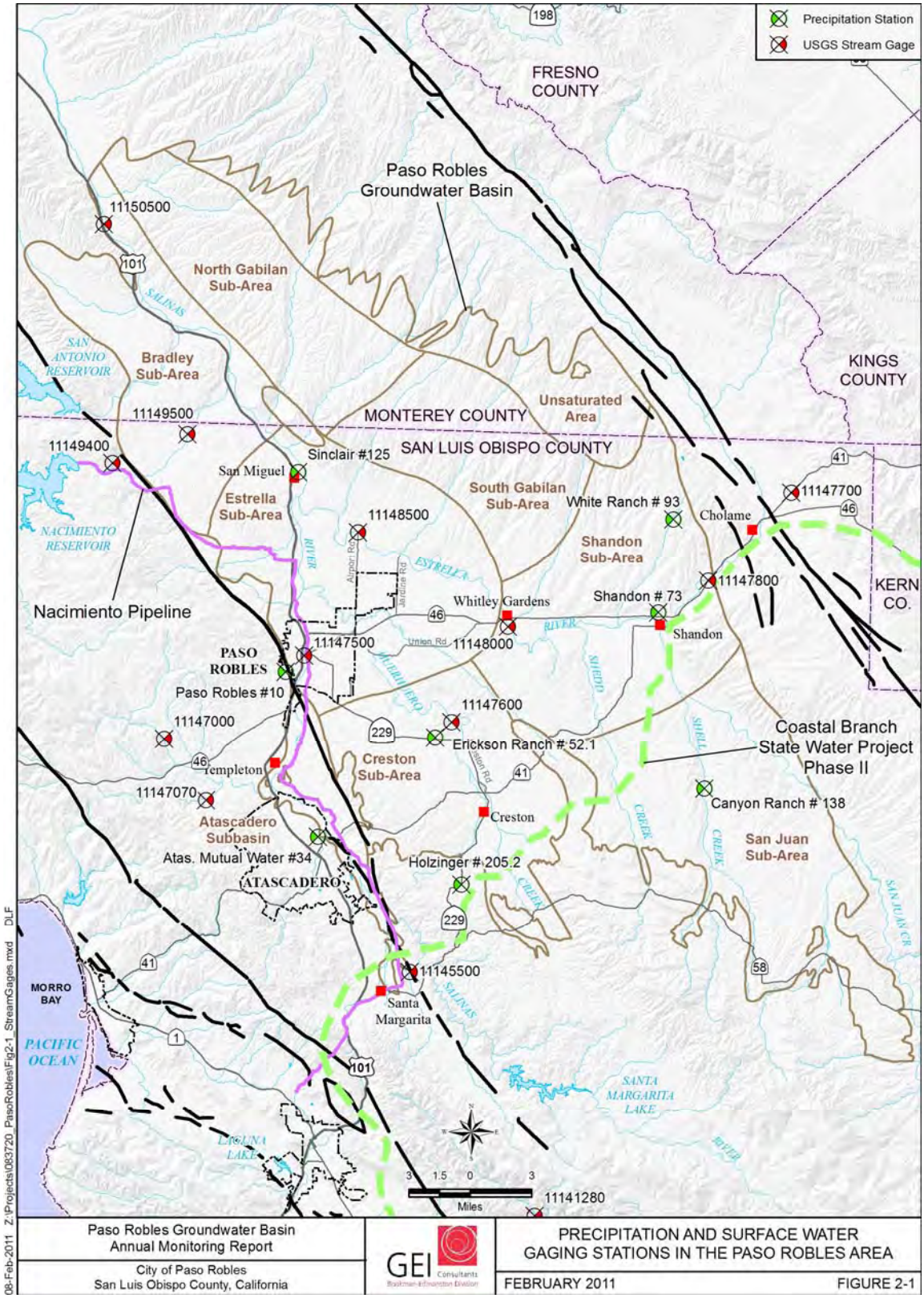
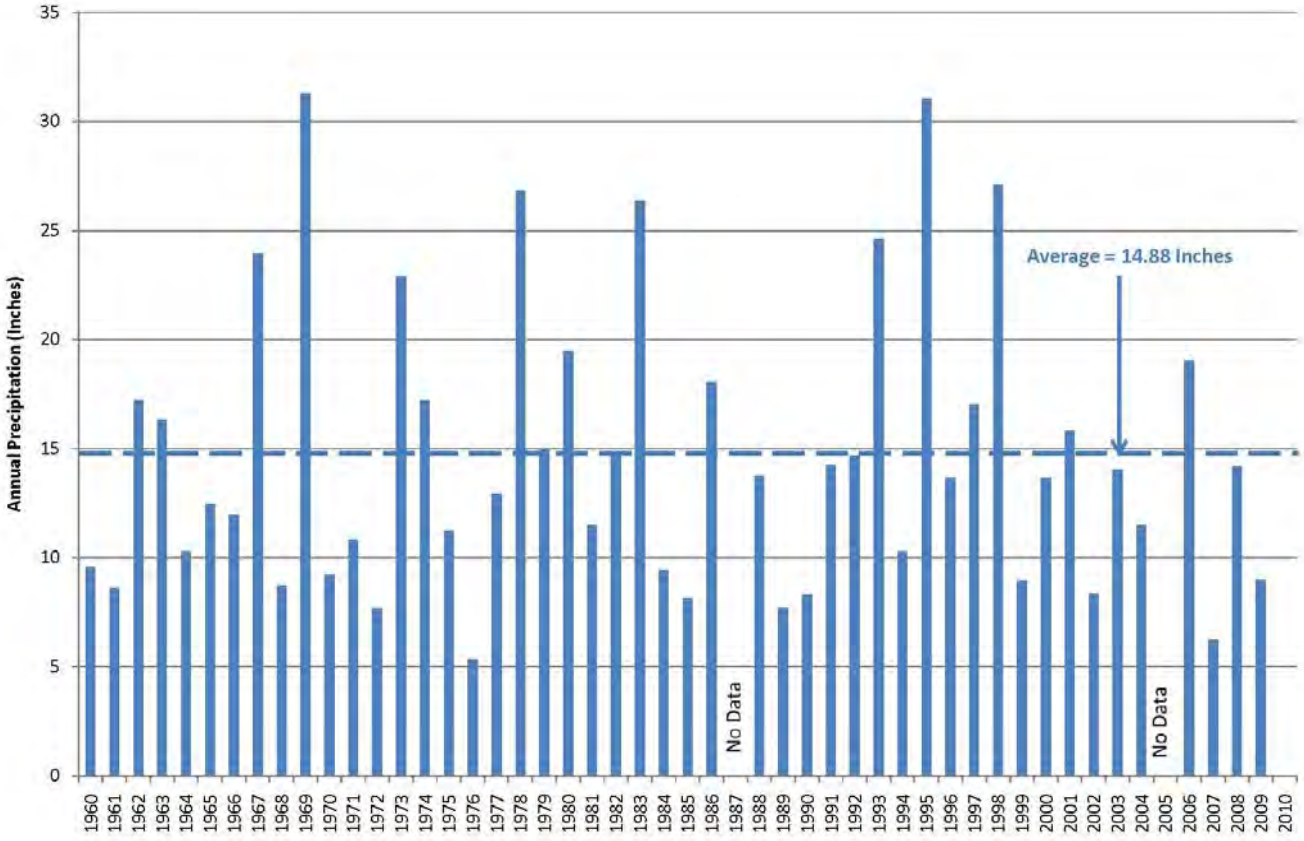


Figure 2-2. Annual Precipitation at the Paso Robles Gage for 1960-2009



2.4 Groundwater Levels

2.4.1 Current Groundwater Levels

Spring 2009 shows that groundwater levels in the Basin range from approximately 1,500 feet above mean sea level (msl) in upland areas to less than 600 feet msl in the northwestern Bradley area as shown on Figure 2-3. Groundwater moves generally northwesterly from the San Juan area into Shandon and then into the Estrella area. Groundwater flow from Creston is also northerly into the Estrella area. In the northern portion of the Basin, groundwater moves southwesterly toward Estrella and the Salinas River in the area near San Miguel.

2.4.2 Long-Term Change in Groundwater Levels

A groundwater elevation change map has been prepared that represents the changes in groundwater levels for the 1997 to 2009 period and is shown on Figure 2-4. This map shows that the greatest change in groundwater elevations has occurred in the Estrella Subarea, and to a lesser extent in the Creston and Shandon Subareas. Groundwater levels in the western portion of the Paso Robles Basin have declined in excess of 70 feet since 1997 during a period when precipitation was just slightly less than the long-term average annual precipitation.

2.4.3 Groundwater Quality

In general, the quality of groundwater in the Basin is relatively good, with few areas of poor quality or trends of ongoing water quality deterioration. Historical water quality trends were evaluated to identify areas of deteriorating water quality. Some areas are experiencing rising concentrations of total dissolved solids (TDS), chloride, and nitrate. The water quality data is collected by entities that deliver potable water. Table 2-4 provides a range of values for selected water quality constituents for agencies within the Paso Robles Basin.

The first dataset was provided by the San Luis Obispo County Department of Public Works Water Quality Database. Values from this dataset are measured in milligrams per liter (mg/L) or micrograms per liter (ug/L). These ranges were calculated from the provided dataset and cover a variety of wells under the jurisdiction of each listed entity.

The second dataset was gleaned from annual water quality reports provided by water agencies or cities. Values from this dataset are measured in parts per million (ppm) or parts per billion (ppb). Ranges were provided in each report and are unique to that agency's analysis set.

Table 2-4. Selected Groundwater Quality Data

Agency/Project	Analysis Full Name	Range	Units
SAN LUIS OBISPO CSA #16 - SHANDON	Chloride	61.7 - 114	mg/L
	Manganese	< 5	ug/L
	Nitrate and Nitrite Combined as Nitrogen	2420 - 4130	ug/L
	Nitrate as Nitrogen	2420 - 4140	ug/L
	Nitrate as NO3	10.7 - 18.3	mg/L
	Total Dissolved Solids	390 - 550	mg/L
SAN LUIS OBISPO CSA 23 - SANTA MARGARITA	Arsenic	< 1.0 - 6.2	ug/L
	Manganese	<5 - 12	ug/L
	Nitrate as Nitrogen	< 100 - 321	ug/L
	Nitrate as NO3	< 0.443 - 1.4	mg/L
SAN MIGUEL COMMUNITY SERVICES DISTRICT	Chloride	78.8 - 114	mg/L
	Manganese	< 5 -	ug/L
	Nitrate and Nitrite Combined as Nitrogen	3500 - 3600	ug/L
	Nitrate as Nitrogen	2340 - 11200	ug/L
	Nitrate as NO3	10.4 - 49.6	mg/L
	Total Dissolved Solids	580 - 770	mg/L
SANTA MARGARITA RECREATION AREA	Nitrate as Nitrogen	- <100	ug/L
	Nitrate as NO3	- < 0.443	mg/L
CITY OF PASO ROBLES	Arsenic	ND - 6.3	ppb
	Chloride	35 - 150	ppm
	Manganese	ND - 27	ppb
	Nitrate and Nitrite Combined as Nitrogen	ND - 3500	ppb
	Nitrate as Nitrogen	---	---
	Nitrate as NO3	ND - 28.5	ppb
	Total Dissolved Solids	370 - 740	ppm
ATASCADERO MUTUAL WATER COMPANY	Arsenic	---	---
	Chloride	11 - 220	ppm
	Manganese	ND - 0.046	ppb
	Nitrate and Nitrite Combined as Nitrogen	---	---
	Nitrate as Nitrogen	---	---
	Nitrate as NO3	ND - 16	ppb
	Total Dissolved Solids	350 - 990	ppm
TEMPLETON COMMUNITY SERVICES DISTRICT	Arsenic	0 - 12	ppb
	Chloride	57 - 165	ppm
	Manganese	0 - 7.8	ppb
	Nitrate and Nitrite Combined as Nitrogen	---	---
	Nitrate as Nitrogen	0 - .95	ppm
	Nitrate as NO3	0 - 43	ppb
	Total Dissolved Solids	560 - 1000	ppm

2.4.4 Land Subsidence

There has been no significant long-term land subsidence in the Basin so currently there are no plans to develop a formal program to monitor and measure the rate of inelastic land surface subsidence within the Basin. The need for land subsidence monitoring will continue to be considered on an annual basis.

Figure 2-3. Groundwater Elevations Spring 2009

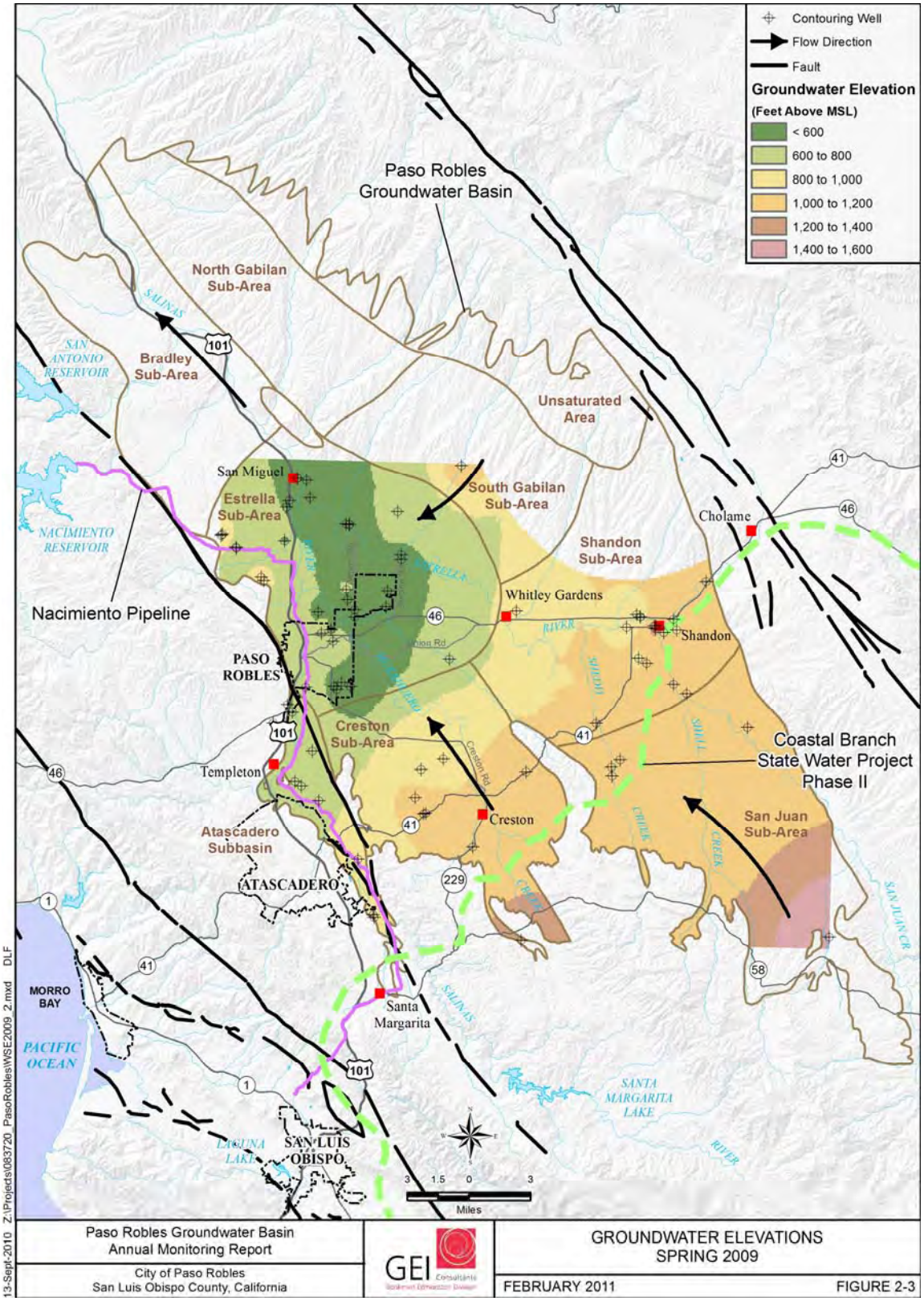
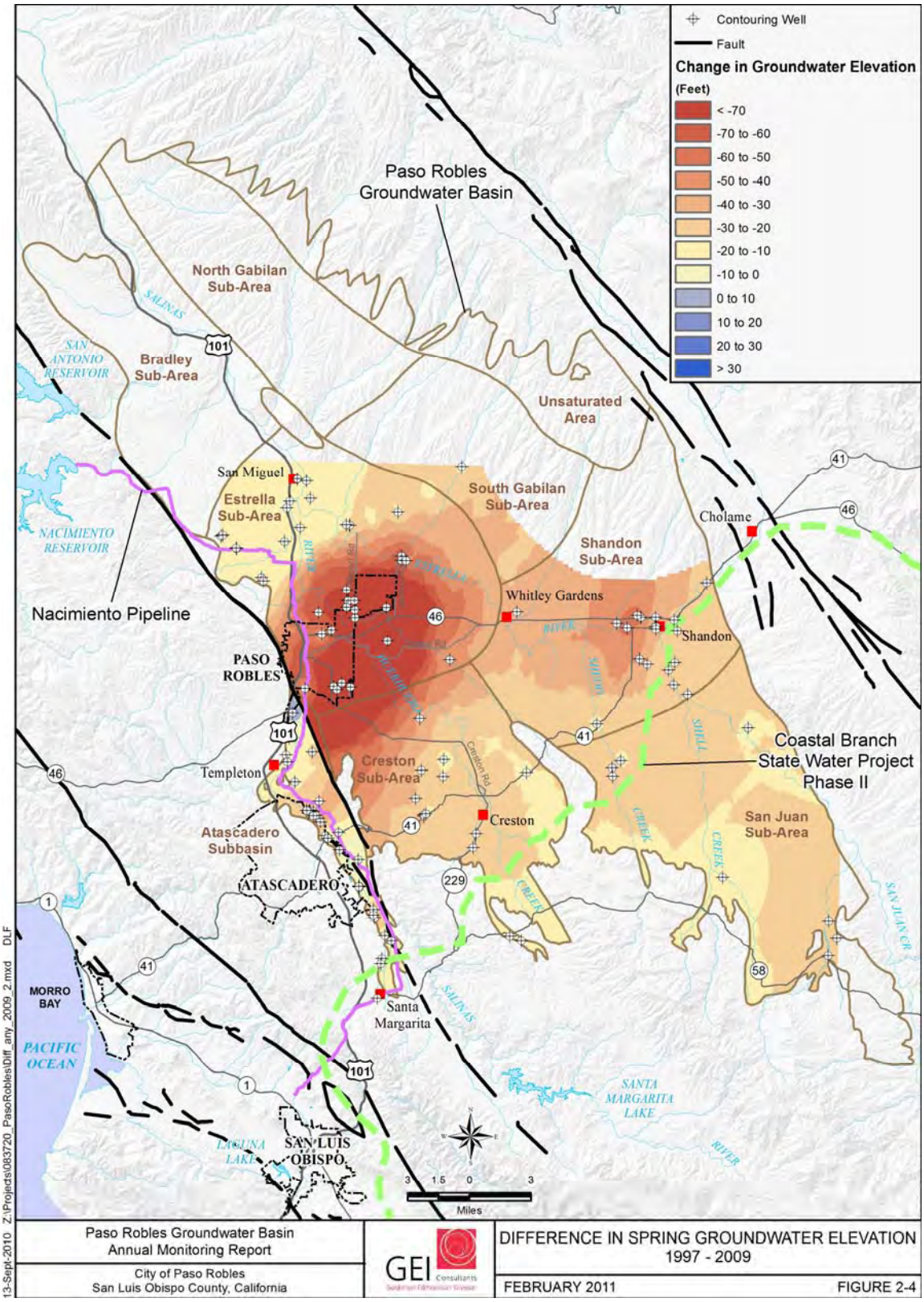


Figure 2-4. Difference in Spring Groundwater Elevations 1997 to 2009



3 Basin Management Objectives

During the development of the Groundwater Management Plan, the groundwater level BMOs established by the stakeholders for each subarea are listed in Table 3-1. The BMOs are used to establish a long-term management goal for groundwater levels. Each year, the measured groundwater levels will be compared to the groundwater level BMO to determine the condition of the Basin. This information will be reported by the Steering Committee to the Groundwater Advisory Committee and other interested parties and stakeholders to improve the understanding of the current conditions of the groundwater basin, and support future groundwater management decisions.

In general, the initial groundwater level BMO was selected by the subarea stakeholders to maintain or stabilize groundwater levels at or near current conditions. Several subareas identified this as the initial BMO with the expectation that stabilizing groundwater levels needed to be achieved before improving groundwater levels could be considered.

Table 3-1. Basin Management Objective by Subarea

Subarea/Subbasin	Basin Management Objective (BMO)
Atascadero	Stabilize groundwater levels at 2009 levels
Bradley	Maintain groundwater levels
Creston	Stop decline and stabilize levels at 2009 levels
Estrella	Stabilize groundwater levels
North Gabilan	Maintain groundwater levels
San Juan	Maintain groundwater levels
Shandon	Stabilize groundwater levels
South Gabilan	Maintain groundwater levels

A summary of groundwater level conditions is presented below for each subarea based on the BMO hydrographs prepared during the development of the Paso Robles Basin Groundwater Management Plan.

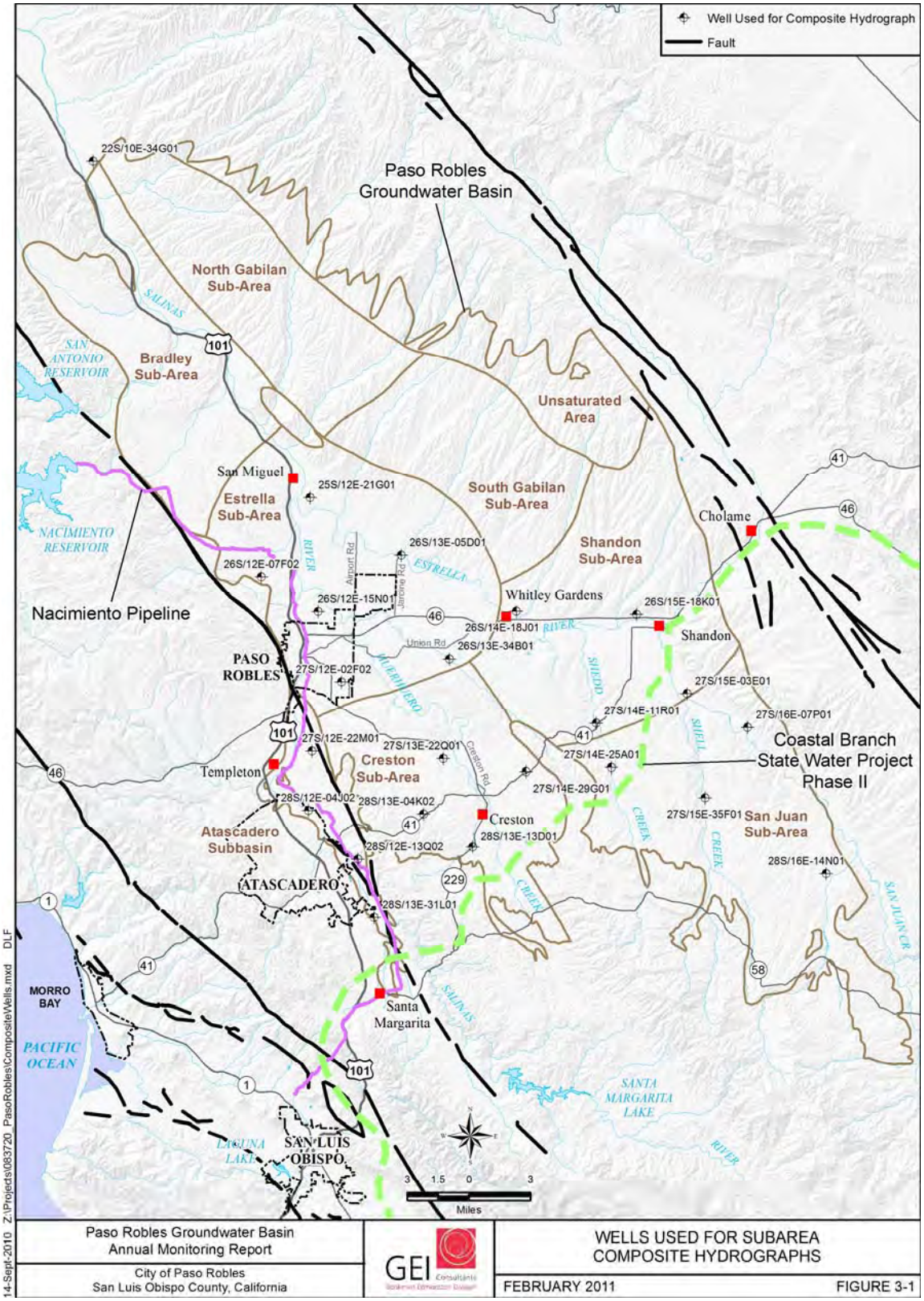
As part of the development of groundwater level BMOs, key wells were identified within each subarea to establish the representative groundwater levels that will be used to monitor the change in groundwater levels. Since the Paso Robles Basin groundwater monitoring network is voluntary, there is a limited amount of information that is available to identify key wells. The key wells were selected based on number of monitoring observations during the 1981 to 2009 period of record and the geographic location within the subarea. The wells meeting these two criteria were identified as key wells and used to develop the subarea hydrographs. The locations of these key wells used to create the subarea-specific BMO hydrographs are shown on Figure 3-1.

In addition to the BMO hydrograph that shows annual changes in groundwater levels for the 1981 to 2009 period, a summary table presenting the recent changes (since 2008) in groundwater levels is provided for each subarea. This table provides an annual comparison of the following:

- The annual change in the groundwater level associated with BMO hydrograph
- The cumulative change in groundwater levels since 1981
- A comparison of the current groundwater level to the established BMO groundwater level

This information can be used to determine the groundwater levels trends, determine the effectiveness of current groundwater management activities, and provide direction for future activities.

Figure 3-1. Wells Used for Subarea Hydrographs



3.1 Atascadero Subbasin

The location of the four wells identified to be representative of changes in groundwater level conditions in the Atascadero Subbasin is shown on Figure 3-1. The composite hydrograph showing the annual change and cumulative change in the average groundwater levels during the 1981 to 2009 period in the Atascadero Subbasin is included in Figure 3-2.

This figure shows that in a single year, the average groundwater level can increase or decrease by up to 15 feet. The overall trend of the average groundwater levels has remained relatively constant since the early 1980s with groundwater levels rising and falling primarily in response to changing hydrologic conditions and increasing demands.

Figure 3-2. Atascadero Subbasin Composite Hydrograph and Annual Precipitation

Sub-Area Information	
Sub-Area	Atascadero
Basin Name	Atascadero

Sub-Area Well Records	
Period of Record	1966-2009
Num. BMO Wells	4

Report Information	
Report Start Year	1981
Period of Record	1981-2009

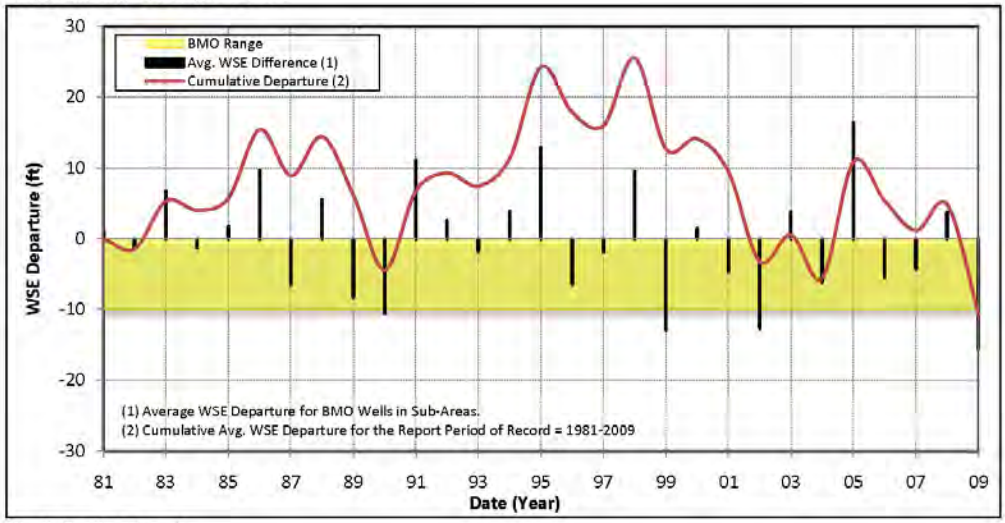
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1966-2009
Average Precip.	17.64 in

Trend Analysis Results	
BMO Departure[1)]	(10.00 ft)
2009 Departure	(10.75 ft)

NOTES: 1) BMO Cumulative Departure Since 1981

Water Surface Elevation Trends



Precipitation Trends

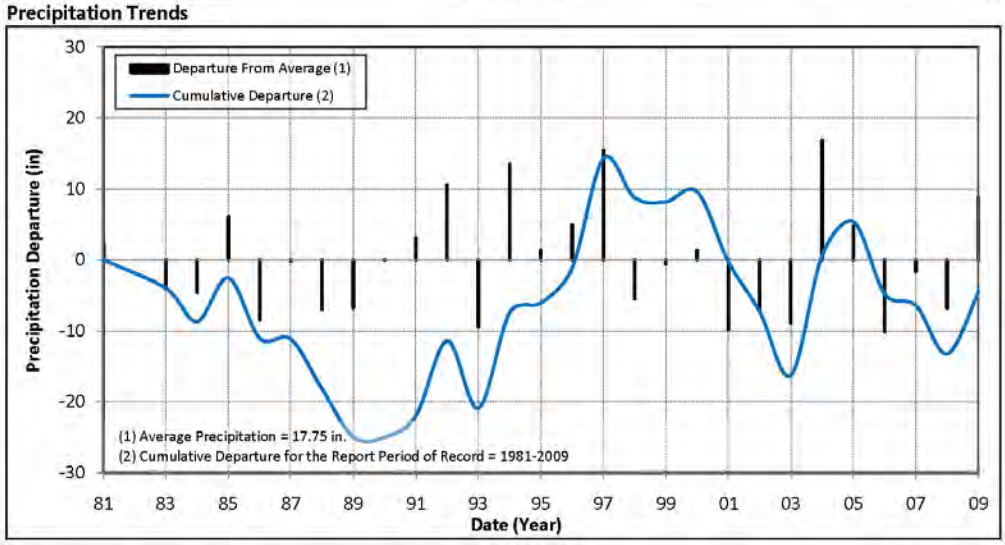


Table 3-2 presents the changes in BMO groundwater levels in the Atascadero Subbasin since 2008. In 2008, the composite BMO groundwater levels increased by 3.7 feet resulting in a cumulative groundwater level change since 1981 of +4.9 feet (14.8 feet above the BMO level). In 2009, the composite BMO groundwater levels decreased by 15.6 feet resulting in a cumulative groundwater level change of -10.8 feet (0.8 feet below the BMO level) since 1981.

At this time, groundwater levels in the Atascadero Subbasin are just below the established BMO level. This is the first time the observed BMO groundwater level has dropped below the established BMO level.

Table 3-2. Changes BMO Groundwater Levels in the Atascadero Subbasin

Period	Annual Change (feet)	Cumulative Change Since 1981 (feet)	Comparison of Cumulative Change to BMO Level (feet)
BMO Groundwater Level			**-10**
2008 Observed Level	3.7	+4.8	+14.8
2009 Observed Level	-15.6	-10.8	-0.8

3.2 Bradley Subarea

The changes in groundwater levels in the Bradley Subarea are currently recorded at one well that is included in the groundwater monitoring network of Monterey County Water Resources Agency (MCWRA). Construction details for this well are unknown and it may not be representative of groundwater levels throughout the Bradley Subarea. The lack of data prevents the development of groundwater level hydrographs or composite hydrographs as developed for other subareas. At this time, we are not aware of any reports or anecdotal information that suggests groundwater levels in the Bradley Subarea are declining to the point of causing problems for local groundwater users.

3.3 Creston Subarea

The location of the four wells identified to be representative of changes in groundwater level conditions in the Creston Subarea is shown of Figure 3-1. The composite hydrograph showing the annual change and cumulative change in the average groundwater levels during the 1981 to 2009 period in the Creston Subarea is included in Figure 3-3. This figure shows the average groundwater levels in the subarea appear to have peaked at about 1999. Since this time, groundwater levels have generally declined. This may be due to the increase in water demands between 1997 and 2006.

Figure 3-3. Creston Subarea Composite Hydrograph and Annual Precipitation

Sub-Area Information	
Sub-Area	Creston
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1960-2009
Num. BMO Wells	4

Report Information	
Report Start Year	1981
Period of Record	1981-2009

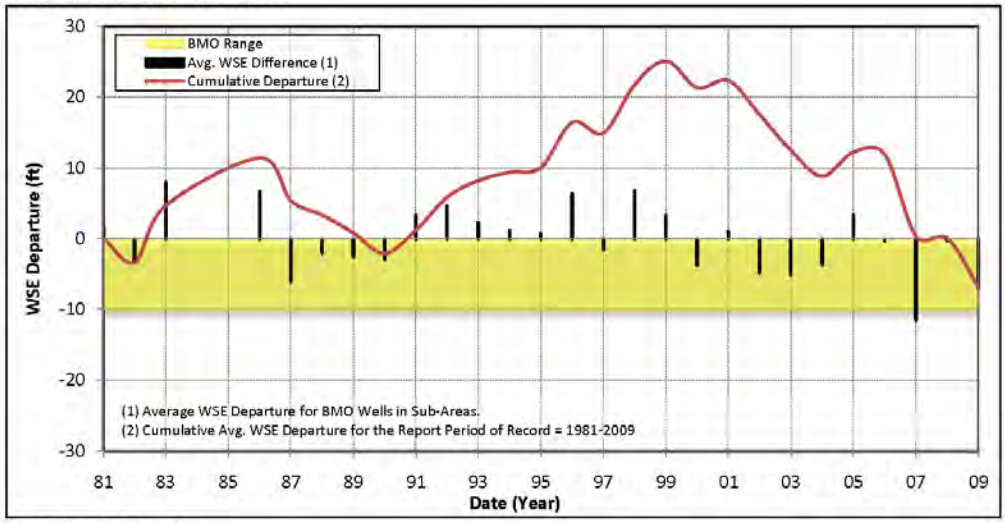
Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1960-2009
Average Precip.	17.64 in

Trend Analysis Results	
BMO Departure[1)]	(10.00 ft)
2009 Departure	(6.91 ft)

NOTES: 1) BMO Cumulative Departure Since 1981

Water Surface Elevation Trends



Precipitation Trends

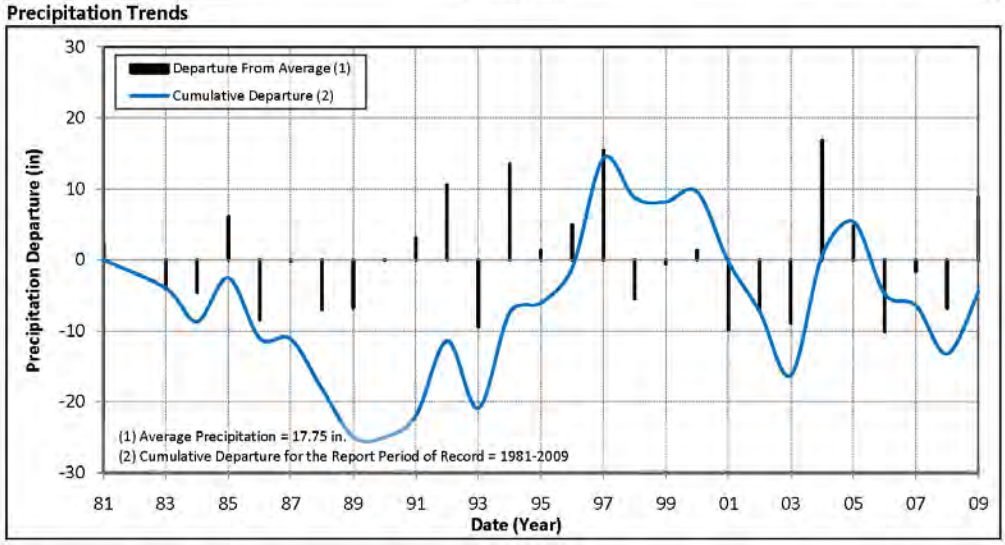


Table 3-3 presents the changes in BMO groundwater levels in the Creston Subbasin since 2008. In 2008, the composite BMO groundwater level decreased by 0.3 feet resulting in a cumulative groundwater level change of +0.1 feet since 1981 (10.1 feet above the BMO level). In 2009, the composite BMO groundwater level decreased by 7.0 feet resulting in a cumulative groundwater level change of -6.9 feet since 1981 (3.1 feet above the BMO level).

At this time, groundwater levels in the Creston Subarea are just within the established BMO level. It should be noted that the BMO wells selected from the Creston Subarea are not entirely representative of the entire subarea because no wells were available in the northwestern portion of the subarea. Based on the low and declining groundwater levels in the adjacent Estrella Subarea, groundwater levels in the northwestern portion of the Creston Subarea are anticipated to be lower than other parts of the subarea.

Table 3-3. Changes BMO Groundwater Levels in the Creston Subarea

Period	Annual Change (feet)	Cumulative Change Since 1981 (feet)	Comparison of Cumulative Change to BMO Level (feet)
BMO Groundwater Level			**-10**
2008 Observed Level	-0.3	+0.1	+10.1
2009 Observed Level	-7.0	-6.9	+3.1

3.4 Estrella Subarea

The location of the six wells identified to be representative of changes in groundwater level conditions in the Estrella Subarea is shown on Figure 3-1. The composite hydrograph showing the annual change and cumulative change in the average groundwater levels during the 1981 to 2009 period in the Estrella Subarea is included in Figure 3-4, which shows groundwater levels steadily declining during the period by over 70 feet. The Estrella Subarea recorded the largest decline in groundwater levels (about 50 feet) during the 1997 to 2009 period.

Figure 3-4. Estrella Subarea Composite Hydrograph and Annual Precipitation

Sub-Area Information	
Sub-Area	Estrella
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1967-2009
Num. BMO Wells	6

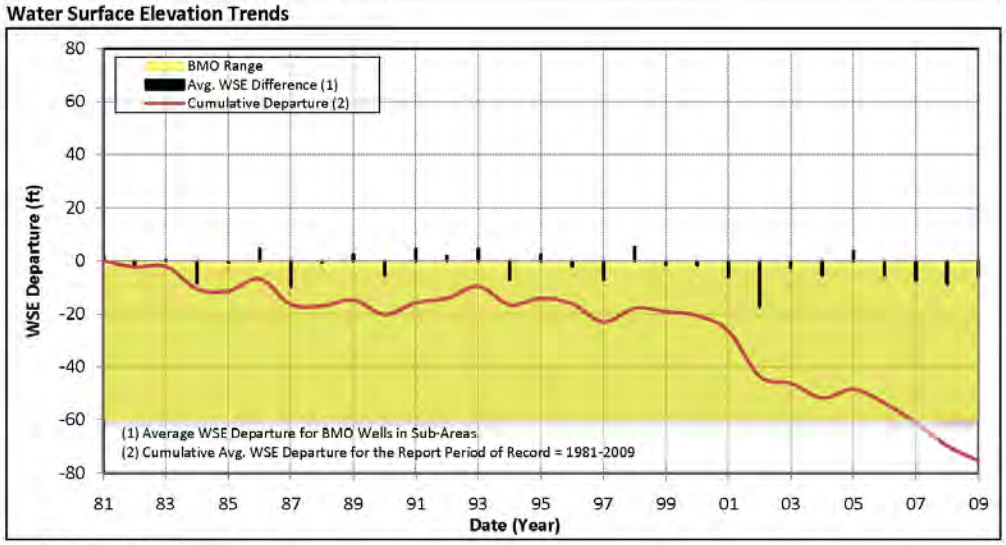
Report Information	
Report Start Year	1981
Period of Record	1981-2009

Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1967-2009
Average Precip.	17.64 in

Trend Analysis Results	
BMO Departure[1]	(60.00 ft)
2009 Departure	(75.43 ft)

NOTES: 1) BMO Cumulative Departure Since 1981



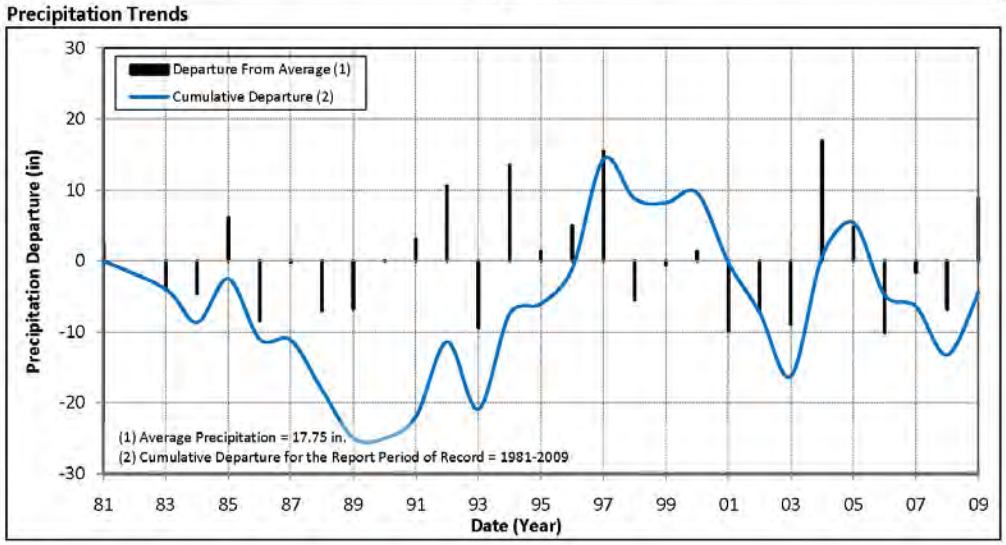


Table 3-4 presents the changes in BMO groundwater levels in the Estrella Subarea since 2008. In 2008, the composite BMO groundwater level decreased by 8.6 feet resulting in a cumulative groundwater level decline of 69.7 feet since 1981 (9.7 feet below the BMO level). In 2009, the composite BMO groundwater level decreased by 5.7 feet resulting in a cumulative groundwater level decline of 75.4 feet since 1981 (15.4 feet below the BMO level).

At this time, groundwater levels in the Estrella Subarea are below the established BMO level, and have dropped for the last two years.

Table 3-4. Changes BMO Groundwater Levels in the Estrella Subarea

Period	Annual Change (feet)	Cumulative Change Since 1981 (feet)	Comparison of Cumulative Change to BMO Level (feet)
BMO Groundwater Level			**-60**
2008 Observed Level	-8.6	-69.7	-9.7
2009 Observed Level	-5.7	-75.4	-15.4

3.5 North Gabilan Subarea

There is limited groundwater level data available, and no data that could be used to represent the average groundwater levels in the North Gabilan subarea. Additionally, there are no identified groundwater problems or issues that have been presented to the Groundwater Advisory Committee. Because of the limited available data and identification of groundwater issues in the subarea, it is not practical to identify BMOs that can be measured at this time.

3.6 San Juan Subarea

The location of the four wells identified to be representative of changes in groundwater level conditions in the San Juan Subarea is shown of Figure 3-1. The composite hydrograph showing the annual change and cumulative change in the average groundwater levels during the 1981 to 2009 period in the San Juan Subarea is included in Figure 3-5, which shows that the groundwater levels in the San Juan Subarea are highly variable on an annual basis. It appears that groundwater levels in the San Juan Subarea respond quickly to changes in hydrologic conditions, with average groundwater levels increasing or decreasing by as much as 35 feet in a single year. Overall, during the 1981 to 2009 period, average groundwater levels in the San Juan Subarea declined by about 25 feet.

Figure 3-5. San Juan Subarea Composite Hydrograph and Annual Precipitation

Sub-Area Information	
Sub-Area	San Juan
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1960-2009
Num. BMO Wells	4

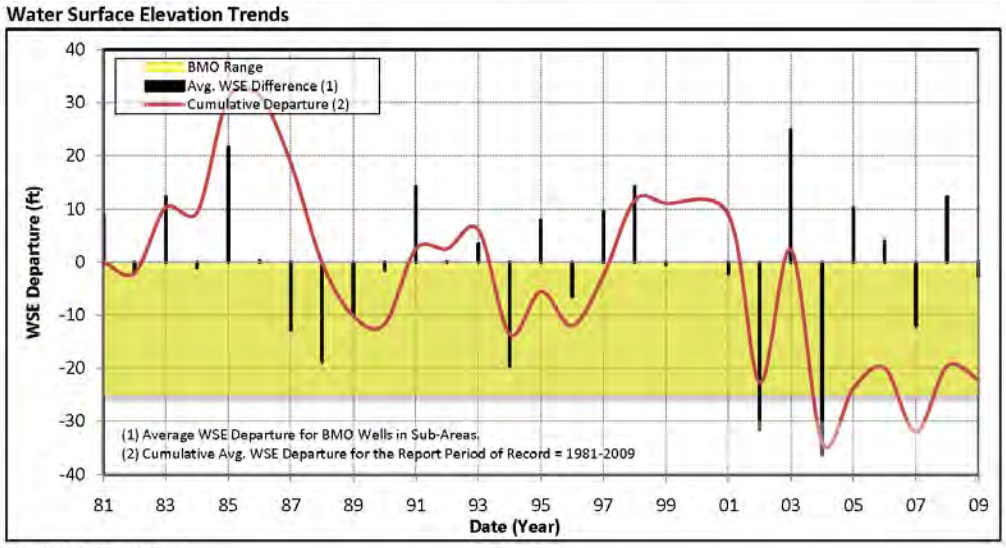
Report Information	
Report Start Year	1981
Period of Record	1981-2009

Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1960-2009
Average Precip.	17.64 in

Trend Analysis Results	
BMO Departure[1]	(25.00 ft)
2009 Departure	(22.24 ft)

NOTES: 1) BMO Cumulative Departure Since 1981



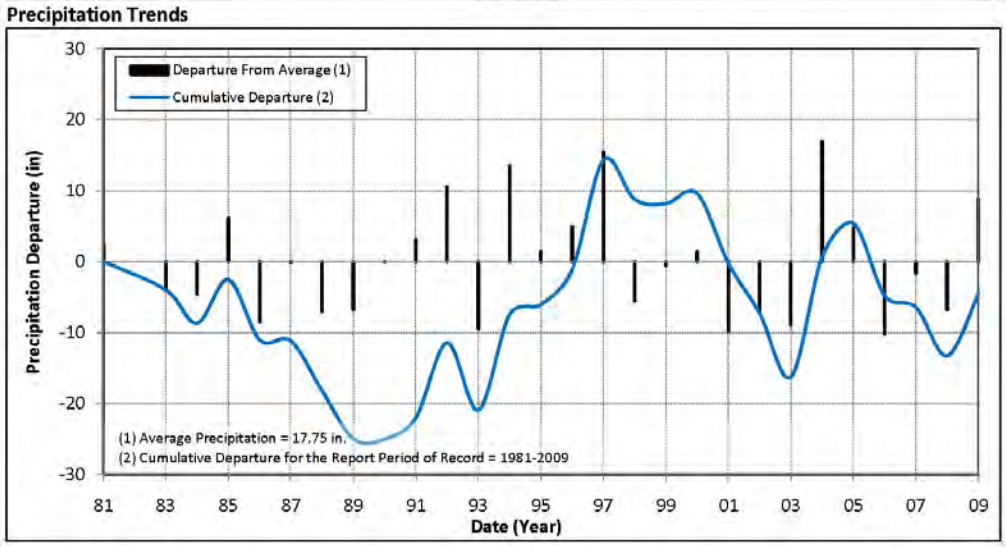


Table 3-5 presents the changes in BMO groundwater levels in the San Juan Subarea since 2008. In 2008, the composite BMO groundwater level decreased by 12.4 feet resulting in a cumulative groundwater level decline of 19.6 feet since 1981 (5.4 feet above the BMO level). In 2009, the composite BMO groundwater level decreased by 2.6 feet resulting in a cumulative groundwater level decline of 22.2 feet since 1981 (2.8 feet above the BMO level).

Since 2004, groundwater levels in the San Juan Subarea are near the established BMO level, but are not on a declining trend.

Table 3-5. Changes BMO Groundwater Levels for the San Juan Subarea

Period	Annual Change (feet)	Cumulative Change Since 1981 (feet)	Comparison of Cumulative Change to BMO Level (feet)
BMO Groundwater Level			**-25**
2008 Observed Level	12.4	-19.6	+5.4
2009 Observed Level	-2.6	-22.2	+2.8

3.7 Shandon Subarea

The location of the four wells identified to be representative of changes in groundwater level conditions in the Shandon Subarea is shown of Figure 3-1. The composite hydrograph showing the annual change and cumulative change in the average groundwater levels during the 1981 to 2009 period in the Shandon Subarea is included in Figure 3-6, which shows average groundwater levels in the Shandon Subarea declined by about 65 feet (about 2.3 feet per year), in response to a combination of increasing water demands that are met by groundwater.

Figure 3-6. Shandon Subarea Composite Hydrograph and Annual Precipitation

Sub-Area Information	
Sub-Area	Shandon
Basin Name	Paso Robles

Sub-Area Well Records	
Period of Record	1967-2009
Num. BMO Wells	4

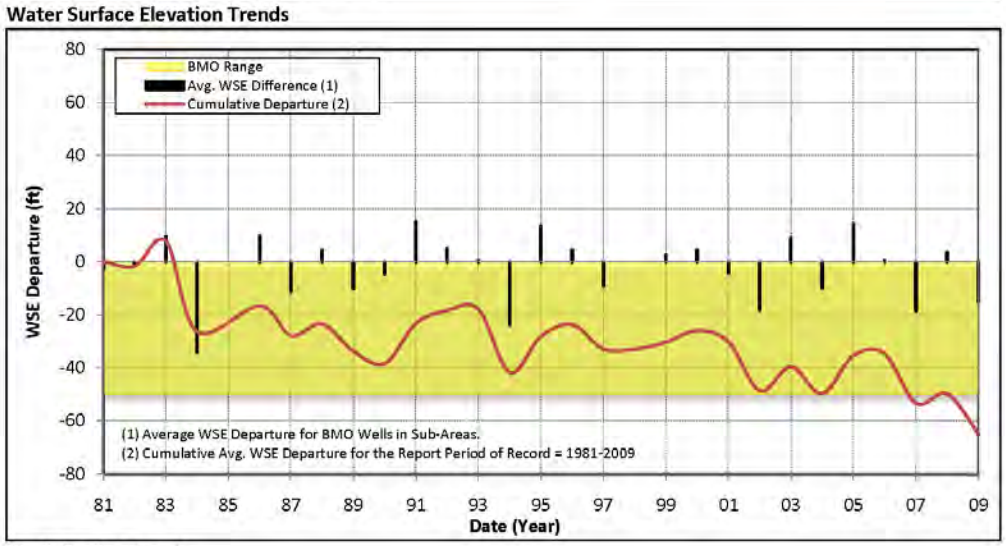
Report Information	
Report Start Year	1981
Period of Record	1981-2009

Raingage Information	
Raingage Name	Atas. Mutual Water # 34
Raingage Elev.	835.00 ft

Raingage Records	
Period of Record	1967-2009
Average Precip.	17.64 in

Trend Analysis Results	
BMO Departure[1]	(50.00 ft)
2009 Departure	(64.99 ft)

NOTES: 1) BMO Cumulative Departure Since 1981



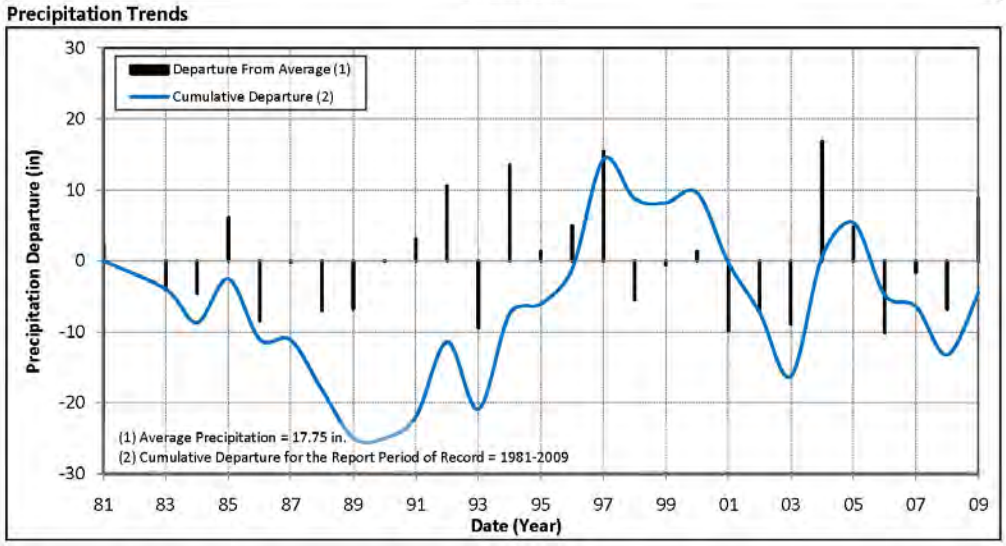


Table 3-6 presents the changes in BMO groundwater levels in the Shandon Subarea since 2008. In 2008, the composite BMO groundwater level increased by 3.6 feet resulting in a cumulative groundwater level decline of 49.7 feet since 1981 (0.3 feet above the BMO level). In 2009, the composite BMO groundwater level decreased by 15.2 feet resulting in a

cumulative groundwater level decline of 64.9 feet since 1981 (14.9 feet below the BMO level).

At this time, groundwater levels in the San Juan Subarea are below the established BMO level, and appear to be on a declining trend.

Table 3-6. Changes BMO Groundwater Levels in the Shandon Subarea

Period	Annual Change (feet)	Cumulative Change Since 1981 (feet)	Comparison of Cumulative Change to BMO Level (feet)
BMO Groundwater Level			**-50**
2008 Observed Level	3.6	-49.7	+0.3
2009 Observed Level	-15.2	-64.9	-14.9

3.8 South Gabilan Subarea

There is limited groundwater level data available, and no data that could be used to represent average groundwater levels in the subarea. Additionally, there are no identified groundwater problems or issues that have been presented to the Groundwater Advisory Committee.

Due to the limited available data and identification of groundwater issues in the subarea, it is not practical to identify BMOs that can be measured at present.

4 Status of Groundwater Management Activities

The Paso Robles Groundwater Management Plan identified over 70 Groundwater Management Activities (GMAs) that may be implemented over time to help meet the identified Basin Management Objectives. The complete list of GMAs is included in the Plan (see Table 7-1). Table 4-1 identifies the currently active GMAs. It includes the GMAs that were developed or active during the development of the Plan and identifies the activities that are anticipated to be undertaken in calendar year 2011.

The Plan included a variety of actions that are required by the Water Code, recommended by DWR Bulletin 118 California's Groundwater (DWR, 2003), and identified as optional programs under the Water Code. In the Plan, these actions are grouped into the following groundwater management components.

1. Stakeholder Involvement and Coordination
2. Groundwater Monitoring and Data Collection
3. Groundwater Resource Protection
4. Groundwater Sustainability
5. Water Management

The GMAs listed on Table 4-1 are identified by number corresponding to the groundwater management components identified in the Plan.

Table 4-1. Current Groundwater Management Activities

Groundwater Management Activity	Accomplishments during Development of Groundwater Management Plan	Anticipated Activities for Calendar Year 2011
1.2 - Formation of Implementation GAC	Formed Steering Committee to direct implementation of Groundwater Management Plan	Develop Steering Committee Meeting schedule for 2011 and Plan implementation
1.3 – Coordinate with Resource Capacity Study	Resource Capacity Study for Paso Robles Basin Certified by San Luis Obispo County Board of Supervisors in February 2011	• The San Luis Obispo County Planning Department is expected to develop schedule for implementing the land use actions identified in RCS
2.1 – Groundwater Elevation Monitoring	• San Luis Obispo County Flood Control and Water Conservation District was identified as monitoring entity for groundwater basins in County for the California Statewide Groundwater Elevation (CASGEMs) Program • Groundwater level data through 2009 used to support development of the Plan and the Basin Management Objectives	• Report 2011 groundwater levels to DWR as part of CASGEMs Program • Prepare Annual Monitoring Report for Calendar Year 2010 • Identify opportunities to expand groundwater level monitoring network • Identify opportunities to begin development of a dedicated groundwater level monitoring network • Identify new wells to become part of groundwater level monitoring program (as needed)
2.2– Groundwater Quality Monitoring	Groundwater quality data for the basin is provided to San Luis Obispo County Department of Public Works by water system operators within the County.	Continue to monitor water quality trends in the Basin.
2.4– Data Management System	• Develop tool to extract and present groundwater level data from County groundwater level database	
2.5– Project Reporting	• Prepare Annual Monitoring Report for Calendar Year 2009 • Establish annual reporting format	• Prepare Annual Monitoring Report for Calendar Year 2010
4.1 – Replenishment of Groundwater	• Continue efforts to deliver Nacimiento Project Water to the water users in the Paso Robles Groundwater Basin	• Continue efforts to deliver Nacimiento Project Water to the water users in the Paso Robles Groundwater Basin • Explore opportunities for unassigned Nacimiento Project Water

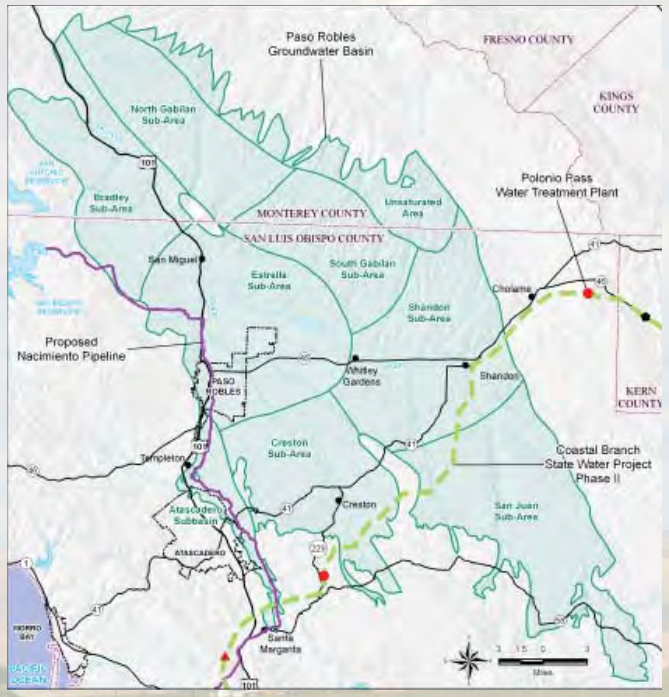
5.1 – Agricultural Water Management Practices	• Continuation of the UC Extension Study on vineyard irrigation practices • Paso Robles Wine Country Alliance (PRWCA) represents member vineyard during development of GMP, including serving on the Steering Committee for Plan implementation	• Continuation of the UC Extension Study on vineyard irrigation practices • Continue to encourage implementation of best management practices amount vineyard owners • Ensure new wineries use best management practices consist with BMP's identified in RCS
5.2 – Urban Water Management Practices	• Urban water purveyors continue to implement water conservation BMPs	• Continue to implement water conservation and demand management programs
5.3 – Rural Residential Water Management Practices	• Rural residential stakeholders participate in development of Groundwater Management Plan	• Revise Growth Management Ordinance to limit yearly non-agricultural development in rural areas of the Basin • County will develop a landscape ordinance to limit the amount of turf and other high-water use features on parcels.

Appendix G Stakeholder Involvement Documentation

Introducing

The Paso Robles Groundwater Basin Management Plan

San Luis Obispo County recently completed an Integrated Regional Water Management Plan. The plan contains groundwater monitoring and management objectives for the groundwater basins in the County, including the Paso Robles Groundwater Basin. In response to these objectives, The City of Paso Robles and San Luis Obispo County are leading the preparation of a groundwater management plan (GMP) for the Paso Robles Groundwater Basin. The GMP will address groundwater conditions, identify local and basin-wide groundwater issues, and outline measures to protect groundwater resources within the plan area (shown at right).



A Project Kickoff Meeting will be held:

Thursday, January 15, 2009
5 p.m. — 7 p.m
City of Paso Robles
Emergency Operations Center
900 Park Street

The meeting will include a review of the project purpose, approach, and schedule. Additionally, the formation of the Groundwater Advisory Committee will be discussed. The purpose of the Groundwater Advisory Committee is to assist in developing the GMP. The draft GMP is scheduled to be released in July 2009, with the final GMP due December 2009.

Parties interested in the GMP are encouraged to participate in the planning process by attending public meetings scheduled by the Groundwater Advisory Committee.

Paso Robles Groundwater Basin Management Plan

Groundwater Advisory Committee

Meeting No. 1 - January 15, 2009

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
John Neil	Atascadero Mutual Water Co.		yes	805 461 7217 x 21	jneil@amwc.us
JAY SHORT	TEMPLETON CSD		YES	805-434-4907	UTILITIES@TEMPLETONCSD.ORG
ROBERT JOHNSON	MONTEREY COUNTY WATER RESOURCES AGENCY		YES	831.755.4860	johnsonr@co.monterey.ca.us
Jeremy Howard				805.226.9984	jahoward@alumni.calpoly.edu
Duane Picanco	Paso Robles City		yes	805-227-7212	drpicanco@pncity.com
Joy Fitzhugh	SLO Co Farm Bureau		Yes	805-543-3654	joy@sloofarmbureau.org
RAY ALLEN	SLO Co CATTLEMEN	ESTRELLA	YES	805-239-2540	TAYANDMIKE@q-mail.com
Steve Sinta	PRIOR	San Juan	Yes	238-9495	sjsinta@earthlink.net
Paul Sorensen	Fugro	—	—	805-542-0797	psorensen@fugro.com
Shayna Bailey	HS-LT RCD			434-0396 x4	shaynarcd@hotmail.com
BLAIR ZAJAC	IGGPRA			226-9010	bZAJAC@TCSN.NET
Walt Hee				239-2228	
Bob Roos	North County Water Forum		Yes	466-6561	broos@fix.net
Mike Kelley	Green River MWC	Shandon	Yes	805 423 2026	mkelleyp@sbcglobal.net
Mike Steinbock	" "	"	"	805 434-3142	h2omike7158@hotmail.com
DENNIS BOWMAN	GREEN RIVER MWC	SHANDON	YES	805 670 8338	DLBOWMAN@TCSN.NET
Michael Stephens	AMWC		NO	805 461 7217 x 31	mstephens@amwc.us

Paso Robles Groundwater Basin Management Plan

Groundwater Advisory Committee

Meeting No. 1 - January 15, 2009

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
KATHY BARNETT	RESIDENT PASO ROBLES				
Sue Luft	WRAC	Creston	yes	227-4785	asluft@wildblue.net
Sheila Lyons	Creston Advisory Body (CAB)	Creston	—	—	salyons@airspeedwireless.net
David Lyons	CAB	Creston	—	—	delyon@airspeedwireless.net
Della Barrett	Private	South Atascadero	?	461-1420	mustang4della@aol.com
Kathy Sweet	Private	South Atascadero	—	466-2959	—
Dave + Debra Compton	Private	Estrella	Yes	467-3158	debraCompton@gmail.com
Steve Ela	"	"	?	226-8806	swela@calinet.com
JAIME LIEN	ATASCADERO MUTUAL WATER CO	ATASCADERO		461-7217x17	jlien@amwc.us
Eric Greening	WRAC	Atascadero		462-3434	elguadrillo@charter.net
Ed Steinbeck	City of Paso			227-7216	esteinbeck@prcity.com
John Hamon	City of PR				jhamon@prcity.com
Nick Gilman	" "			238-3432	NGILMAN@PRCITY.COM
Ken Bornholdt	KMTG			786-4302	kbornholdt@KMTG.com
Randy Diffenbaugh	Shandon A.C.	Shandon?	Y	748-6500	rdiffeyahoo.com
CREIGHTON MACDONALD	PRIVATE	ESTRELLA	NO	441-7133	mac@treana.com

Paso Robles Groundwater Basin Management Plan

Groundwater Advisory Committee

Meeting No. 1 - January 15, 2009

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
Willy Wahra	Sunview Shardon	San Juan	Yes	805-239-0555	willy c @ Sunview Vineyards.com
S. CRANOR	SLO CA	N/A	N/A	781 5252	SCRANOR@SLO.CO.CA.US

Paso Robles Groundw. r Basin Management Plan

Kickoff Meeting

Meeting No. 2 - November 12, 2009

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
Richard Laurel	IGC PRA	out of sub areas	yes	805-467-3778	Saurelline@Gmail.com
DAN O'GRADY	DIST 5 REP	ATASCADERO	YES	805-462-2734	dogrady@dishmail.net
DAN BLACKBURN				805.423.1203	DJBlackburn@charter.net
Duane Picanco	PR Council	Estrella	yes	238-2123	dwpicanco@msn.com
Willy Cunha	Sunview	San Juan ~~Shandon~~	Yes	239-0555 674-0730	willyc@sunviewshandon
DAVID BARTHOLOMEW		TEMPLETON	GAP	805-238-9817	DEBARBAR@AOL
ELNOR BARBAR		"		"	
MARK BATTANY	UNIV. CA	N.A.	No	781-5748	mcbattany@ucdavis.edu
Della Barrett	public	South Atascadero	yes	461-1420	mustang4della@aol.com
Bob Roos	Public	Atas. S.S. basin	yes	466.6561	broose fix.net
Steve Johns	SLO County Cattlemens Assoc	Estrella Shandon	yes	227-4686	bicky.johns@ATT.NET
Karl + Sue Luft	landowners Sue-WRAC	Creston	yes	227-4785	asluft@wildblue.net
Thomas A. Tinch	concerned citizen	Paso Robles	No	239-5779	tinch@gmail.com
Russ Thompson	City of Atascadero	Atascadero	yes	470-3180	rthompson@atascadero.org
Carrie Jones	—	Atascadero	yes	202-9937	x_viola@nym.hush.com

Paso Robles Groundw. .r Basin Management Plan

Kickoff Meeting

Meeting No. 2 - November 12, 2009

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
Kate Twisselman	Shandon advisory	Shandon	NO	805-238-2352	katetwisselman@yahoo.com
Raymond Twisselman	—	—	—	805-238-2352	none
Bob Hartzell	self	46 W	Yes	650 722 1186	Rhartzell@AOL.com
Kathryn Sweet	Public	South Atascadero	yes ~~no~~	2466-2959	—
ERIC TWISSELMAN	SELF	SHANDON	NO	238-7786	
Nick Gilman	PR	PR	No	238-3432	NGILMAN@PRCITY.com
Mike Steinbock	Green River Inc (Cathy Graham)	~~Green~~ Shandon?	~~No~~ Yes	712-7827	h2omike7143@hotmail.com
Jeremy Cook	Ecovine	SLO?	YES	543-4775 ~~215~~	jc@ecovinesolutions.com
Alex Villicana	PRWCA			239-9456	alexvillicana@earthlink.net
Steve El.	transition Paso	Paso	No	226-8806	swelne@calinet.com
Gordon Heady	SLO Coastkeeper			781 9992	coastkeeper@epicenterconline.org
Jim App	City of PR		~~No~~	237 3888	japp@prcity.com
Jerry Reaugh	PRWCA			239-4400	jerry@reaughj.com
~~JAIME~~ LIEN	AMWC	ATAS	MEMBER	461-7217 x17	jlien@amwc.us
Stacie Jacob	PRWCA			805-239-8463	Sjacob@pasowine.com

Paso Robles Groundw. .r Basin Management Plan

Kickoff Meeting

Meeting No. 2 - November 12, 2009

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
LARRY LYNCH	PASO Citizen	Paso Water	Estrella ?	237-0916	llynch2547@sbcglobal.net
DENNIS BOWMAN	GREEN RIVER MUTUAL WATER GRMW	WHITLEY GARDENS	YES	610 833 8	DLBOWMAN@TCSN.NET
ROBERT JOHNSON	MCWRA			831.755.4845	johnsonr@co.monterey.ca.us
CLAUDIA ENGEL	CAB	CRESTON		239-9626	Claudia@Thunderhead Ranch
Joy Sprague	I am also a County test well!	Estrella	also YES advisory	237-0369	
John BORST	Citizen	Paso Water	YES.	237-9979	paso218@mac.com

Paso Robles Groundw. r Basin Management Plan

Kickoff Meeting

Meeting No. 2 - November 12, 2009

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
Kim McDaniel	—	Cambria			sync@nym.hush.com
David Lyons	—	Creston	—	—	—
Sheila Lyons	Creston Advisory	Creston	yes	237-0917	salyons@airspeedwireless.net
Gary Eberle		Estrella	Yes	238-9607	gary@eberlewinery.com
Karen Reed				237-1155	karen@petersonlaws.com

Paso Robles Groundw. Basin Management Plan

Groundwater Advisory Committee

Meeting No. 3- February 25, 2010

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
JAMES W. Magill		ATASCADERO	yes	805-975-5949	jackiemagill@sbcglobal.net
Steve Johns	SLO Cattlemens Ass.	Estrella		805 440-1072	
JAMES W. BABCOCK	MALCOLM PIRNIE,	EAC	PASO RESIDENT	510-301-5063	jbabcock@pirnie.com
Della Barrett	—	South Atascadero	yes	805-461-1420	mustang4della@aol.com
Bob Roos		Nacimiento	yes	466.654	broos@fix.net
ROBERT JOHNSON	MCWRA	NORTH/SOUTH CAB BRADLEY	yes	831.755.4860	johnsonr@co.monterey.ca.us
Ed Steinbeck.	City Council			591.5250	ed@edsteinbeck.com
Sheila Lyons	CAB	Creston	yes	239-0917	salyons@airspeedwireless.net
David Lyons	—	Creston	no	—	delyons@airspeedwireless.net
Karl & Sue Luft	WRAC (Sue)	Creston	yes (Sue)	227-4785	asluft@wildblue.net
Raymond R. Zwiesselman		Shandon		238-2352	
Tim Boatman		PASO ROBLES	YES	238-1177	tboatman@farmsupplycompany.com
Joy Sprague		P. RESTRILLA	yes	2370369	Joy-sprague@hotmail.com
TIM MCRA	Alternative	RCSD Templeton	yes	—	—
NICK GELMAN	PASO	PASO	No	239-3432	

Paso Robles Groundw. . Basin Management Plan

Groundwater Advisory Committee

Meeting No. 3- February 25, 2010

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
Tom Zenner	Wallace Group	Estrella		544-4011	Tomzenner@wallacegroup.us
Dorothy Jennings	—	Templeton		434-5603	djennings@tcsn.net
Dennis Bowman	Green River			239 3110	dlbowman@tcsn.net
Steve Ek		Estrella ~~Paso Robles~~		226-8360	sweek@calwat.com
Jaime Lien	AMWC	Atascadero	Yes - sub	461-7217x17	jlien@amwc.us
Steve Sinton	PRIOR	S Juan	Yes	238-9495	
Lowell Zelinski	Precision Ag	Templeton	yes	286-6544	lowell@precisionaginc.com
Fritz Helzer	Mesa Vineyard	Creston, Shandon, Templeton	yes	434-4100	fhelzer@mesavineyard.com
John R Hollenbeck	—	Atascadero	yes	781-1288	JHollenbeck@co.slo.ca.us
Christina Halley	TJ Cross Eng			305-0159	cmhalley@tjcross.com
Iris Priestaf	Todd Engrs			510 747 6920	ipriestaf@toddengineers.com

Paso Robles Groundwater Basin Management Plan

BMO Workshop - May 10, 2010

North Gabilan Subarea

Name	Affiliation/ Group	Sub-area	Phone Number	Email
Robert Johnson	MCWRA	North Gabilan	831.755.4860	johnsonr@co.monterey.ca.us
Keith Larson	City of Paso		805 - 227-7238	Klarson@prcity.com
Christopher Adams	" "		(805)237-3861	Cadams@prcity.com

Paso Robles Groundwater Basin Management Plan

BMO Workshop - May 10, 2010

Bradley Subarea

Name	Affiliation/ Group	Sub-area	Phone Number	Email
ROBERT JOHNSON	MCWRA	BRADLEY	831.755.4860	johnsonr@co.monterey.ca.us
Keith Larson	City of Paso		805-237-7238	klarson@prcity.com
Christopher Adamek	" "		(805) 237-3861	Cadamek@prcity.com

Paso Robles Groundwater Basin Management Plan

BMO Workshop - May 10, 2010

San Juan Subarea

Name	Affiliation/ Group	Sub-area	Phone Number	Email
Amy Gilman	5th District Leg. Asst		781-4339	agilman@co.slo.ca.us
Steve Sinton	Shandon	San Juan	238-9495	sjsinton@earthlink.net
Randy Diffenbaugh	SLAC		239-3840	[illegible]
Susan Litten	NRCS		[illegible]	[illegible]
Doug Filipponi	SJV F&T		805-466-1271	doug@ftdrilling.com
Mary Russell	Shandon		805 441 0434	marylg@aol.com

Paso Robles Groundwater Basin Management Plan

BMO Workshop - May 10, 2010

Shandon Subarea

Name	Affiliation/ Group	Sub-area	Phone Number	Email
MIKE CLAY	RED CEDAR VINEYARD	SHANDON	805-423-335[illegible]	mclay@andersonmiddleton.com
DENNIS BOWMAN	GREEN RIVER MUTUAL WATER	Shandon	805 610 8338	dlbowman@tcsn.net
GREG JAEGER	—	SOUTH GABILAN	805.467.9366	gregj@NORTHCOAST ENGINEERING.com
SYDNEY WATTLES	Shandon home-owner	Shandon	805-239-[illegible]	
Keith Larson	City of Paso Robles		805-227-7238	klarson@prcity.com
FRANK MECHAM	SLO COUNTY		805 781-4491	

Paso Robles Groundwater Basin Management Plan

BMO Workshop - May 10, 2010

Shandon Subarea

Name	Affiliation/ Group	Sub-area	Phone Number	Email
Kate Twisselman	Shandon Advisory	Shandon	238-2352	katetwisselman@yahoo.com
Raymond Twisselman	Shandon Resident	"	"	NONE
Les Diffenbaugh	Shandon Resident	"	661-797-2515	—
Fritz Helzer	Shandon Hills Vineyard	Shandon	835-1442	fhelzer@thevineyard.com

Paso Robles Groundwater Basin Management Plan

BMO Workshop - April 19, 2010

Stakeholders

Name	Affiliation/ Group	Sub-area	Phone Number	Email
William C. Cunha		Shandon	239.0559	willyc@sunvineyards.com
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Walt Heer		Estrella	239 2258	waltherbeer@hotmail.com

Paso Robles Groundwater Basin Management Plan

BMO Workshop - April 19, 2010

Estrella Subarea

Name	Affiliation/ Group	Sub-area	Phone Number	Email
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Joe Plummer	PRWCA	Estrella	2018	Plummerwrand@yahoo.com
Pam Finley	TAAG		434-1683	
Joy Sprague		Estrella	237-0369	Joy-sprague@hotmail.com
Holly Naylor	—	—	543-4832	
Walt Heer		Estrella	239-2238	
Jerry Reaugh	PRWCA		239-4400	
Lisa Bodrogi	PRWCA	Estrella	937-8474	lbodrogi@pasowine.com
STEVE CARTER	GANDER	ESTRELLA	467-2977	Scarter@jlohr.com

Paso Robles Groundwater Basin Management Plan
Workshop on Basin Management Objectives and Management Activities
Stakeholder Participation Sheet
(April 19, 2010)

Sub-Area Workgroup: Estrella

Workshop Participants

Name	Organization	Phone	E-Mail
Joy Sprague	Stakeholder Citizen	237.0369	Joy-sprague@Hotmail.c
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CHRISTOPHER ANNEL	City of Paso Robles	237-3861	Calsket@Pacb.com
Chuck Pritchard	DISTRICT	237 9155	[illegible]
Jerry Reaugh	Grower / PRWCA	239 4400	jerry@reaughj.com
Lisa Bodrogi	PRWCA	931-8474	lbodrogi@pusowin.com
Joe Plummer	Grower/PRWCA	467 2018	[illegible]
Debra Compton	Grower	467-3158	debracompton@gmail.com
STEVE CARTER	Grower	467-2977	scarter@jlohr.com

Paso Robles Groundwater Basin Management Plan

BMO Workshop - April 19, 2010

Atascadero Subbasin

Name	Affiliation/ Group	Sub-area	Phone Number	Email
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Paso Robles Groundwater Basin Management Plan

BMO Workshop - April 19, 2010

Creston Subarea

Name	Affiliation/ Group	Sub-area	Phone Number	Email
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David Lyons	Creston	Creston	805-237-0917	dlyons6@speedwinless.net

Paso Robles Groundw . Basin Management Plan

Groundwater Advisory Committee

Meeting No. 4 - August 2, 2010

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
James Caruso	SLO County			781-5702	JCaruso@co.slo.ca.us
Fred Strong	PR City Council			238-5400	fstrong@prcity.com
FRANK MECHAM	SLO COUNTY			781-4491	fmecham@co.slo.ca.us
Tony Domingos	PRWCA Water Committee			391-3711	Tony@tdfarming.ca
Karl + Sue Luft	WRAC-Sue ag/rural	Creston	yes	227-4785	asluft@wildblue.net
Bob Ruos	Self	Nos.	yes	466-6561	broose@fix.net
Jim Patterson	SLO County	Creston Atascadero		781-5450	
Tim Cleath	Cleath-Harris Ld.			543-1413	tcleath@sbcglobal.net
John Wallace	SMCSD	Paso	yes	544-4011	johnw@wallacegroups.us
Sheila Lyons	CAB	Creston	yes	239-0917	salyons@airspeedwireless.net
David Lyons	Citizen	Creston	no	—	—
Iris Priestaf	Paso Robles	Estrella +	no	510 747 6920	ipriestaf@ toddengineers.com
Kate White	Todd Engrs	Atascadero "	no		
Courtney Howard	SLO County	NA			
Lisa Bodrogi	PRWCA	Estrella		937-8474	lbodrogi@pasowine.com

Paso Robles Groundw : Basin Management Plan

Groundwater Advisory Committee

Meeting No. 4 - August 2, 2010

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
Raymond D. Twisselman				238-2352	
Kate Twisselman	Shandon Advisory				
Rick Iser	GEI			661 303-6607	riser@geiconsultants.com
SYLAS CRANOR	SLO CO PWD			805 781 5252	SCRANOR @CO.SLO.CA.US.
BEN FINE	City of Pismo Beach			805 779 1201	bfine@pismobeach.org
Will & Lois-ele Olsen	PR			238-1861	Nolsenrealty@tcsw.net
John Neal	AMWC			466-2428	jneal@amwc.us
Lorraine Caglieri	AG groundwater			467-9733	Caglieri @TCSN.net
ROBERT JOHNSON	MCWRA			831.755.4860	
Kathleen Sweet	SO ATAS Resident			805 466-2959	
Russ Thompson	City of Atascadero			470-3180	
NICK GEILMANN	P.F.			239-5432	
Sylla Barrett	WRAC	Atascadero		461-1420	
[illegible]	SLO Cattlemans			227-4686	
DENNIS BOWMAN	GRMW	Shandon		2393110	dbowman@TCSN.NET
Steve Sutton	PRIOR	San Juan			

Paso Robles Groundw : Basin Management Plan

Groundwater Advisory Committee

Meeting No. 4 - August 2, 2010

Name	Affiliation/ Group	Sub-area	Interested as Sub-area Representative (yes/no)	Phone Number	Email
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Susan Litteral	NRCS	Atas	Yes	434-0396	susan.litteral@ca.usda.gov

Paso Robles Groundwater Basin Management Plan

Groundwater Advisory Committee

Meeting No. 5- December 2, 2010

Name	Affiliation/ Group	Sub-area	Phone Number	Email
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Joy Sprague	E	Estrella	805 237.0369	Joy-sprague@Hotmail.com
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Bob Roos		Atas	466-4561	broar@fix.net
Steve Ek		Estrella	226-3202	swek@cal.net.com
Duane Picanco	City Council		227-7215	
Kent Gilmore		Creston		K.Gilmore7@SBCglobal.net
~~Kathy Sweet~~				
Kathy Sweet		SoAtas	466-2959	
Bella Swett		So Atas	401-1420	mustangdella@aol.com
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Sue + Karl Luft	WRAC/Rural Res.	Creston	227-4785	asluft@wildblue.net
Dan Lloyd			995-1618	
Steve Lock			234 1805	steve-lock@yahoo.com
Kurt Almond	Wildhorse Winery	Templeton	805-~~866~~ 788-6340	Kurt.Almond@Charter.com

Paso Robles Groundwater Basin Management Plan

Groundwater Advisory Committee

Meeting No. 5- December 2, 2010

Name	Affiliation/ Group	Sub-area	Phone Number	Email
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[redacted]			[redacted]	
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Susan Litteral	Self/NRCS	Atas.	434-0396 x109	
Joe LARANETA				JLARANETA@AOL.com
Willy Guhr	Sunview	Shand/San J.	239-0555	you got
Carne Jones	—	Atascadero		shoppingpal07@nym.hush.com
Amy Gilman	BOS, Patterson		781-4339	agilman@co.slo.ca.us
DENNIS BOWMAN	GREEN RIVER W.C.	SHANDON	6108338	dlbowman@tcsn.net

Paso Robles Groundwater Basin Management Plan

Groundwater Advisory Committee

Meeting No. 5- December 2, 2010

Name	Affiliation/ Group	Sub-area	Phone Number	Email
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Robert Johnson	MCWRA			
Mabel Foster	—	—	—	gogreenslo@nym.hush.com
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Gary Eberle	PRWCA	Estrella	238-9607	gary@eberlewinery.com
Stacie Jacob	PRWCA		239-8463	S.jacob@pasowine.com
Greg Boyd	Windfall Farms		239-0711	GBMONUMENT@AOL.COM
Jay Short	Templeton CSD	Atascadero	434-4907	utilities@templetoncsd.org
Ed Steinbeck	City of Paso			ed@edsteinbeck.com
John R Hollenbeck	—	Atas	781-1288	JHollenbeck@co.slo.ca.us

Paso Robles Groundwater Basin Management Plan
Groundwater Advisory Committee
February 10, 2011

Name	Affiliation/Group	Sub-area	Intersted as Steering Committee Agency or at-Large Representative	Phone Number	Email
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Kurt Bollige	Cattlemen Assoc	P.R.		434-1808	
Dale TOZZI	CAB	CRESTON	?	610-0826	
ROBERT JOHNSON	MCWRA	BRADLEY / NG		831.755.4860	
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Kathy Sweet	Public	ATAS.			
~~Willy Cunha~~	~~Sunview~~	~~Shandon~~	—	464-3959	—
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Paso Robles Groundwater Basin Management Plan

Groundwater Advisory Committee

February 10, 2011

Name	Affiliation/Group	Sub-area	Intersted as Steering Committee Agency or at-Large Representative	Phone Number	Email
Allen Burnett		So Atascadero		461-1420	
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Bob Roos		Atascadero	Yes	466 5561	broose@fix.net
Ray Allen	SLO Cattlemen				
CLAUDIA ENGEL	CRESTON ADVISORY		Yes	239-9626	claudia@thunderhead ranch
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Joy Sprague	Resident	Estrella		237-0369	

WATER SUPPLY AGREEMENT BETWEEN SAN LUIS OBISPO COUNTY
FLOOD CONTROL AND WATER CONSERVATION DISTRICT AND
COUNTY OF SAN LUIS OBISPO
(County Service Area No. 16, Improvement District No. 1)

This agreement, made this 15th day of May, 1992 by and between the San Luis Obispo County Flood Control and Water Conservation District, hereinafter referred to as "District", and the County of San Luis Obispo, acting on behalf of County Service Area No. 16, Improvement District No. 1, a subdivision of the State of California, hereinafter referred to as the "Contractor".

WITNESSETH:

WHEREAS, the District and the State of California, on February 26, 1963, entered into an agreement entitled "Water Supply Contract Between the State of California Department of Water Resources and San Luis Obispo County Flood Control and Water Conservation District," which agreement has been amended from time to time, whereby the State of California will furnish a water supply to the District; and

WHEREAS, the lands and/or inhabitants of the Contractor are in need of additional water for municipal use and other beneficial uses; and

DELETED BY THE BOARD OF SUPERVISORS 4/24/92

~~WHEREAS, because certain communities within the County of San Luis Obispo who desire to contract with the District for a water supply are now subject to water resource constraints and could, on receipt of said water supply, experience an increased rate of population growth, and, because certain of said communities are presently overdrafting their groundwater basins, this agreement requires that the governing body of each water purveyor accepting SWP water shall adopt a water management plan or program, the goal of which shall be to demonstrate that its project water shall be used first to offset its proportionate share of groundwater basin overdraft, if any, and to improve water quality for its consumers, if appropriate, and to provide an appropriate reserve available for a period of reduced water supply before being made available for other purposes. Such commitment may be manifested by the adoption of an ordinance or by the adoption of a resolution or by the adoption of a water management plan or program which brings its proportionate share of groundwater supply and demand into balance; and~~

WHEREAS, the Contractor desires to contract with the District for a water supply to be for the use and benefit of the inhabitants and lands of the Contractor and for which the Contractor will make payment to the District upon the terms and conditions hereinafter set forth;

WHEREAS, the District desires to make water available to Contractor, and others, under terms and conditions which are fair and equitable to all such entities and persons and consistent with the said "Water Supply Contract Between the State of California Department of Water Resources and San Luis Obispo County Flood Control and Water Conservation District."

NOW, THEREFORE, IT IS HEREBY MUTUALLY AGREED by District and Contractor as follows:

Article 1. Definitions.

(a) "Master Contract" shall mean that agreement entitled "Water Supply Contract Between the State of California Department of Water Resources and the San Luis Obispo County Flood Control and Water Conservation District," dated February 26, 1963, and all amendments thereto.

(b) "Project Water" shall mean all water, including District's Entitlement Water and District's Surplus Water, made available to the District by the State of California pursuant to the Master Contract.

(c) "District's Entitlement Water" shall mean that part of the Project Water set forth in Table "A" of the Master Contract for San Luis Obispo County Flood Control and Water Conservation District.

(d) "District's Surplus Water" shall mean that Project Water made available to District pursuant to the provisions of Articles 21 and 46 of the Master Contract.

(e) "Contractor's Water Service Amount" shall mean that amount of District's Entitlement Water which District shall provide to Contractor during the term of this agreement and, specifically, in the amounts and at the times set forth in Article 6 and Article 8 of this agreement.

(f) "Year" shall have the same meaning as the word "year" in the Master Contract.

(g) "Year of initial water delivery" shall mean the year when District's Project Water is first available for delivery to the Contractor pursuant to the terms of this agreement.

(h) "Municipal use" shall mean all those uses of water usual to the municipal water supply of a city, town, or other similar population group, including uses for domestic purposes, uses for the purposes of commerce, trade or industry, and any other use incidental thereto for any beneficial purpose.

(i) "Repayment Reach" or "reach" shall mean reaches of the California Aqueduct designated by the Department of Water Resources for purposes of repayment of Project Transportation Facilities by District and other water contractors under the Master Contract.

(j) "Other agency" or "other subcontractor" shall mean any other public water distribution agency having the power to do so, which executes a contract with the District for the purchase of a water supply from District's Project Water.

(k) "District Administrative Costs" are the labor, equipment, materials and overhead costs of the District which are associated with the service of providing Project Water to Contractor under this agreement and to other agencies under similar agreements.

(l) "Central Coast Water Authority" shall mean and is a joint exercise of powers agency duly organized and validly existing under the Constitution and laws of the State of California.

Article 2. Term.

This agreement shall become effective on the date first above written and shall remain in effect throughout the term provided by Article 2 of the Master Contract; provided, that whenever the Master Contract is terminated or suspended in the manner and for a cause specified in the Master Contract, this contract shall also be terminated or suspended.

Article 3. Option for Continued Service.

By written notice delivered to District at least nine (9) months prior to the expiration of the term of this agreement, Contractor may elect to receive continued service after expiration of said term and under the conditions set forth in Article 4 of the Master Contract.

Article 4. Relationship to Master Contract.

Contractor acknowledges and agrees that this agreement is subject to the obligations and limitations imposed on District by the Master Contract and all existing and future amendments to the Master Contract and is intended to be in conformance and harmony with it. The Contractor hereby expressly agrees to the provisions of the Master Contract and all existing and future amendments thereto and further expressly agrees that nothing in this agreement shall be deemed to require the District to perform an obligation in conflict with the Master Contract. Contractor further agrees that District's rights to enter into amendments to the Master Contract is not, and shall not be restricted or impaired, in any way, by this agreement.

Article 5. Service Agreement.

Parties agree that this is an agreement for service, and only contractual rights are created by this agreement, and that it does not create an entitlement to, nor does it convey to the Contractor any property right or interest in District's Project Water.

Article 6. Contractor's Water Service Amount and Use of Project Water.

(a) Contractor's Water Service Amount

Commencing with the year that District first makes Project Water available for delivery to Contractor under this agreement, and subject to the shortage provisions of Article 10 of this agreement, District each year shall make available for delivery to the Contractor 100 acre feet of Project Water which amount is referred to in this agreement as the Contractor's Water Service Amount.

(b) Use of Project Water DELETED BY THE BOARD OF SUPERVISORS 4/24/92

Contractor shall adopt a water management plan or program, which shall demonstrate that its project water shall be used first to offset its proportionate share of groundwater basin overdraft, if any, and to improve water quality for its consumers, if appropriate, and to provide an appropriate reserve available for a period of reduced water supply before being made available for other purposes. Such commitment shall be manifested by the adoption of an ordinance or by the adoption of a resolution or by the adoption of a water management plan or program which brings its proportionate share of groundwater supply and demand into balance.

Article 7. Measuring Devices; Treatment Facilities.

(a) Measuring Devices.

The District shall be responsible for the measuring of the amounts of all Project Water delivered to the Contractor and shall keep or cause to be kept accurate records thereof. For this purpose, the District shall install, operate, and maintain at all turnouts for delivery of Project Water to the Contractor such measuring devices and equipment as are satisfactory and acceptable to both District and Contractor, except that where measuring devices and equipment to be installed, operated and maintained by the State of California pursuant to the Master Contract will be sufficient for the measurement of Project Water delivered to the Contractor, the District need not duplicate such facilities and the parties hereto agree to accept the measurements and records of the State of California in such cases. Any measuring devices and equipment installed, operated and maintained by the District shall be examined, tested and serviced regularly to insure their accuracy. At any time or times, the Contractor or any other subcontractor may inspect such measuring devices installed, operated and maintained by the District and the measurements and records taken therefrom. Contractor shall pay to District all of the costs incurred by District for those said measuring devices reasonably necessary for measuring the delivery of Project Water to Contractor

(b) Water Treatment.

The treatment of project water supplied to Contractor hereunder shall be accomplished by the Central Coast Water Authority and pursuant to and in accordance with the provisions of that certain agreement between the District and Contractor which agreement is entitled "Water Treatment and Local Facilities Agreement." Upon notice to the District by the Central Coast Water Authority that Contractor has failed to make any payment, which failure the Central Coast Water Authority certifies constitutes a default under the said "Water Treatment and Local Facilities Agreement", the District shall discontinue water service and the delivery of project water to Contractor hereunder and District shall not recommence water service or the delivery of project water to the Contractor until the Central Coast Water Authority gives written notice to District that such default has been cured.

Article 8. Location and Rate of Delivery of Contractor's Water Service Amount.

Contractor's Water Service Amount shall be made available for delivery to the Contractor at the locations and rates hereinafter specified:

(a) The location and maximum instantaneous flow capacity to be provided in each delivery structure shall be:

Location: Reach No. 33A

Maximum instantaneous flow capacity: 0.14 cubic feet per second

(b) The maximum amount of water to be delivered by District to Contractor in any one month through the State's transportation facilities shall not exceed - 8.33 acre-feet.

(c) Procedure for Determining Water Delivery Schedule.

The amounts, times, and rates of delivery of Contractor's Water Service Amount to the Contractor during any year shall be in accordance with a District water delivery schedule for that year, with such schedule to be determined in the following manner:

(1) On or before September 1 of each year, the Contractor shall submit in writing to the District a preliminary water delivery schedule, subject to the provisions of this Article, Article 6, and Article 9, indicating the amounts of Project Water desired by the Contractor during each month of the succeeding five years (5) years.

(2) Upon receipt of said preliminary schedule, the District shall review it and, after consultation with the Contractor, shall make such modifications in it as it deems necessary to insure that the amounts, times, and rates of delivery to the Contractor will be consistent with the District's receipt of Project Water from the State of California pursuant to the Master Contract, considering the then current delivery schedules of all subcontractors; provided that the District shall not make any such modification which would provide for the delivery of water to the Contractor in any month in excess of the Contractor's total water demand for that month, or 8.333 percent of the Contractor's Water Service Amount for that year, whichever is the lesser. On or before December 15 of each year, after the District has been furnished a water delivery schedule from the State of California, pursuant to the terms of Article 12 of the Master Contract, the District shall determine and furnish to the Contractor a water delivery schedule for the next succeeding year which shall show the amounts of Project Water to be delivered to the Contractor during each month of that year.

(3) The water delivery schedule may be amended by the District upon the District's initiative or upon the Contractor's written request. Proposed amendments shall be submitted by the

Contractor within a reasonable time before the desired change is to become effective, and shall be subject to review and modification by the District in like manner as the schedule itself. The District shall approve all requests for changes in delivery from one delivery structure to another when there is sufficient capacity available in the transportation facilities, considering the then current delivery schedules of all subcontractors; provided, that the Contractor agrees to pay all increased costs incurred by the District as a result of such change.

(4) In the event that the dates provided for in Article 12 of the Master Contract are changed by amendment to the Master Contract, the dates provided for in this agreement shall also be automatically changed so that they have the same relative time span as they now have with those in the Master Contract.

(d) Temporarily Exceeding Limit on Peak Deliveries of Water.

While District is not required to deliver to the Contractor in any one month of any year a total amount of Project Water greater than eight and one-third percent (8.333%) of the Contractor's Water Service Amount for that year; however, in the event deliveries required to be made by the District to other agencies permit a higher monthly rate of delivery to the Contractor without the District exceeding the limitations imposed on the District by the State of California in the Master Contract, then the District shall have the discretion to temporarily exceed the maximum monthly deliveries provided for herein.

(e) Limitation of Rate of Delivery to Contractor.

In no event shall the District be obligated to deliver water to the Contractor through all delivery structures at a total combined instantaneous rate of flow exceeding 0.14 cubic feet per second.

Article 9. Limitations on Obligation of District to Furnish Water.

(a) Notwithstanding any provisions of this agreement to the contrary, the obligation of the District to furnish water hereunder shall be limited to the times and to the extent that water and facilities necessary for furnishing the same are available to the District pursuant to the Master Contract. Further, District shall have no obligation to Contractor to deliver Project Water at any particular head or pressure.

(b) The District shall not be liable for the failure to perform any portion of this agreement to the extent that such failure is caused by the failure of the State of California to perform any obligation imposed on the State of California by the Master Contract; provided, that to the extent that the District's obligations to the State are reduced by such failure on the part of the State, the District shall make appropriate reductions in the obligations of the Contractor under this agreement; provided further, that the District shall diligently and promptly pursue all rights and remedies available to it to enforce the rights of the District against the State of California under the Master Contract relative to such failure to perform and, provided further, that the

costs and expenses incurred by District in the enforcement or attempted enforcement of said rights under the Master Contract shall be considered to be Administrative costs under this agreement.

Article 10. Water Shortages

(a) No Liability for shortages.

There may occur from time to time a shortage or shortages in the quantity of Project Water available to the District pursuant to the Master Contract and for furnishing to the Contractor pursuant to this agreement. In any such event no liability shall accrue against the District or any of its respective officers, agents or employees for any damage, direct or indirect, arising from such shortage or shortages.

(b) Temporary Shortages; Delivery Priorities.

In any year in which there may occur a shortage, due to any cause, in the supply of Project Water available to the District with the result that there is insufficient Project Water available to District for District to provide to Contractor the Contractor's Water Service Amount, then District shall reduce deliveries to each subcontractor in an amount which bears the same proportion to the total amount of such reduction that the subcontractor's Water Service Amount bears to the total of all of the Contractor Water Service Amounts of all subcontractors for that year, all as determined by the District; provided, that the District may apportion on some other basis if such is required to meet minimum demands of any Contractor(s) for domestic supply, fire protection, or sanitation during the year.

(c) Permanent Shortage.

In the event that because of a permanent shortage in the supply of Project Water available for delivery to the District there is an amendment of Table A of the Master Contract with the result that the annual supply of District's Entitlement Water is less than the total of Contractor's Water Service Amount plus the water service amounts of all other Contractors, then Contractor's Water Service Amount and the Water Service Amount of all other subcontractors shall be reduced proportionately by the District to the extent necessary so that the sum of the reduced Contractor's Water Service Amount plus the reduced Water Service Amount of all other subcontractors will then equal such reduced annual supply of District's Entitlement water to be made available to the District by the State of California.

(d) Reinstatement of Reductions in Water Service Amounts.

If after any reduction of annual supply of District's Entitlement Water, pursuant to subdivision (c) of this Article, there is an amendment to Table A of the Master Contract which increases the annual supply of District's Entitlement Water, then the District shall, with the consent of the Contractor and to the extent possible, increase the previously reduced Contractor's Water Service Amount, in proportion to the water service amounts of all other subcontractors,

up to an amount equal to, but not exceeding the amount provided for in Article 6 of this agreement.

(e) Advance Notice of Delivery Reduction.

The District shall give the Contractor written notice, as far in advance as District reasonably may, of any reduction in deliveries to Contractor under subdivision (b) or subdivision (c) of this Article.

Article 11. Curtailment of Delivery for Maintenance Purposes.

The State of California or the District may temporarily discontinue or reduce the amount of Project Water to be furnished to the Contractor during such time as the State or District are maintaining, repairing, replacing, investigating or inspecting, any of the facilities necessary for the furnishing of water to the Contractor. Insofar as it is feasible, the District shall give the Contractor notice in advance of any such temporary discontinuance or reduction, except in the case of emergency, in which case no notice need be given. In the event of such discontinuance or reduction, the District will upon resumption of service, deliver, as nearly as may be feasible, and to the extent water is furnished to it by the State of California, the quantity of Project Water which would have been furnished to the Contractor in the absence of such discontinuance or reduction.

Article 12. Responsibilities for Delivery and Distribution of Water.

Neither the District nor its officers, agents or employees shall be liable for the control, carriage, handling, use, disposal, or distribution of Project Water supplied to the Contractor after such water has passed into the Contractor's delivery structures, nor for claim of damages of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal or distribution of such water beyond said delivery structure; and the Contractor shall defend, indemnify and hold harmless the District and its officers, agents and employees from and against any such damages or claims of damages.

Article 13. Quality of Project Water Delivered.

Contractor acknowledges and agrees that inasmuch as District will neither operate nor control the sources, delivery facilities, or the water treatment facilities for the Project Water, the District shall not be responsible for the quality of the Project Water furnished to Contractor pursuant to this agreement.

Article 14. Payment for Water Service.

(a) Contractor's Annual Obligation.

In addition to the other payments to District by Contractor provided for herein, the Contractor shall pay to District each year during the term of this agreement a sum which shall consist of the total of the following, and which is referred to herein as Contractor's Annual Obligation:

(1) Delta Water Charge Reimbursement.

The Contractor shall reimburse District for a portion of the District's annual Delta Water Charge, as defined in the Master Contract. Contractor's reimbursement amount shall be the product of the Delta Water rate for the respective year times the amount of the Contractor's Water Service Amount specified in Article 6.

(2) Transportation Charge.

(i) Capital Cost Component Reimbursement.

The Contractor shall reimburse District for a portion of the District's annual Transportation Capital Charge, as defined in the Master Contract, for each repayment reach in which the Contractor has been provided capacity by the District, as determined by the District. The Contractor's percentage reimbursement shares of the District's Transportation Capital Charge, by repayment reach, are as follows:

Repayment Reach	Contractor' Reimbursement Share (%)
1 through 33A	1.25%
34	0.00%
35	0.00%

Subject to change in the event that the City of SLO or the Cayucos Water Organization do not participate

(ii) Transportation Minimum Operation Maintenance, Power and Replacement Component (Minimum OMP&R) Reimbursement.

The Contractor shall reimburse District for a portion of the District's annual Transportation Minimum OMP&R Charge (Minimum OMP&R), as defined in the Master Contract, for each repayment reach in which the Contractor has been provided capacity, as determined by the District. The Contractor's percentage reimbursement shares of the District's Minimum OMP&R Charge, by repayment reach, are as follows:

Repayment Reach	Contractor's Reimbursement Share (%)
1 through 33A	1.25%
34	0.00%
35	0.00%

Subject to change in the event that the City of SLO or the Cayucos Water Organizations do not participate

(iii) Variable Operation, Maintenance, Power and Replacement Charge (Variable OMP&R) Reimbursement.

The Contractor shall reimburse District for a portion of the District's Variable OMP&R charge, as defined in the Master Contract, which shall be the product of the acre-feet of Project Water scheduled to be delivered during the respective year to the Contractor from or through said reach multiplied by the District's estimate of the charge per acre-foot to be made by the State to the District for said year for the Variable OMP&R component of the Transportation Charge applicable to transporting water through said reach.

(iv) Off-Aqueduct Power Facilities Reimbursement.

The Contractor shall reimburse District for its portion of the annual Off-Aqueduct Power Facilities charge to be paid by the District to the State, as defined in the Master Contract. Contractor's reimbursement share shall bear the same proportion to the District's annual Off-Aqueduct Power Facilities charge as the estimated electrical energy (kilowatt-hours) required to pump through project transportation facilities the Contractor's Water Allocation for that year, [as submitted pursuant to Article 8(c)(1) and as may be modified by the District pursuant to Article 8(c)(2)] bears to the total estimated electrical energy (kilowatt-hours) required to pump all such amounts for all Contractors through project transportation facilities for that year, all as determined by the District.

(3) Revenue Bond Surcharge Reimbursement.

The Contractor shall pay to the District its proportionate share as calculated by the District, of the annual Revenue Bond Surcharge to be paid by the District to the State.

(4) Administrative Cost Reimbursement.

The Contractor shall reimburse District for a portion of the District's administrative costs

associated with delivery of State Project Water under this agreement. The Contractor's share of the administrative costs shall be based upon the percentage of the Transportation Capital Cost component that the Contractor pays. This percentage multiplied by the total administrative cost shall be the Contractor's share of the administrative costs.

(b) Time of Payment.

Commencing with the year 1991, the Contractor shall pay to the District, either within 10 days after receipt by it of an annual statement from the District setting forth the Contractor's annual obligation or on January 1 of each year, whichever is later, sixty percent (60%) of its annual obligation. The Contractor shall pay the remainder of such annual obligation on or before July 1 of that year.

(c) Adjustments in Contractor's Annual Obligation.

At the end of each year the Contractor's annual obligation shall be recalculated by substituting as soon as possible the actual charges made by the State Department of Water Resources to the District for the variable operation, maintenance, power, and replacement components of said Delta Water Charge and Transportation Charge and the Off-Aqueduct Power Facilities charge for the District's estimates of these charges and the actual quantities of water delivered for any scheduled quantities used in calculating the annual obligation pursuant to the provisions of subdivision (a) of this Article. Any adjustment in the Contractor's payments required to reflect this recalculation shall be made in the Contractor's first payment to District due after said recalculation. Interest rates used in the computation of these adjustments shall be the same as those used by the State Department of Water Resources in the adjustments made for the District's obligation for that year.

(d) Additional Deliveries.

In the event that the Contractor requests the delivery during any year of Project Water in addition to the quantities set forth in Article 6 hereof and to the extent that other Contractors have requested less than their total annual water allocations, District may provide such requested additional Project Water to the Contractor. For such additional Project Water, the Contractor shall pay in advance of the delivery of such additional Project Water an amount to be determined as follows:

(1) For any such additional Project Water delivered to the Contractor, the Contractor shall pay for each acre-foot the applicable unit charges for the Variable Operation, Maintenance, Power and Replacement component of the Transportation Charge, the Off-Aqueduct Facilities charge attributable to such water, and one-half of the Delta Water rate times the amount of additional Project Water.

(e) Reduced Deliveries.

Upon reasonable notice to the District that the Contractor will not take all of Contractor's Water Service Amount for any year, the District shall adjust the payment required by the Contractor for such water as provided in Article 14(c), above. To the extent that deliveries so reduced are delivered to other subcontractors pursuant to Article 14(d) above, the District may reduce the Delta Water Charge to the Contractor in the amount of one-half of the Delta water rate times the amount of water so reduced, as determined by the District; however, Contractor shall otherwise pay to District the Contractor's annual obligation.

Article 15. Default; Suspension of Service.

In the event of any default by the Contractor in the payment of any money required to be paid to the District hereunder, the District in its discretion may suspend delivery of Project Water during the period when the Contractor is delinquent in its payment for or obligations due to the District under the terms of this agreement; provided, that during any such period of delinquency or suspension the Contractor shall remain obligated to make all payments required under this agreement. Action taken pursuant to this Article shall not deprive the District of or limit any remedy provided by this agreement or by law for the recovery of money due or which may become due under this agreement.

Article 16. Interest on Overdue Payments.

Upon each charge to be paid by the Contractor to the District pursuant to this agreement which remains unpaid after the same shall have become due and payable, interest shall accrue at an annual rate equal to that earned by the District on its funds invested through the County of San Luis Obispo by the County Treasurer calculated monthly on the amount of such delinquent payment from and after the due date when the same becomes due until paid, and the Contractor hereby agrees to pay such interest; provided, that no interest shall be charged to or be paid by the Agency unless such delinquency continues for more than (30) days. In addition, Contractor shall reimburse District for all of District's costs, expenses, and personnel costs and other overhead incurred in the collection of any past due payments owed by Contractor to District.

Article 17. Obligation of Contractor to Make Payment

(a) Character of Obligation.

The obligation of the Contractor arising out of or pursuant or incidental to this agreement including, without limiting the generality of the foregoing, the obligations of the Contractor to pay to the District the sums becoming due the District for water furnished hereunder, shall constitute a general obligation of the Contractor and the Contractor shall use all the powers and resources available to it under the law to collect the funds necessary for and to pay its obligations to the District under this contract including levying and collecting all necessary taxes, assessments and charges. The Contractor as a whole is obligated to pay to the District the payments becoming due under this agreement, notwithstanding any individual default by its water users, constituents or others

in the payment to the Contractor of assessments, tolls, or other charges levied by the Contractor.

(b) Refusal of Water Does Not Affect Obligation.

The Contractor's failure or refusal to accept delivery of Project Water under this agreement shall in no way relieve the Contractor of its obligation to make payments to the District except to the extent provided under Article 14 (e) hereof.

Article 18. Area Served by Contractor

Project Water delivered to the Contractor pursuant to this agreement shall not be sold or otherwise disposed of by the Contractor for use outside the District.

Article 19. Remedies not Exclusive.

The use by either party of any remedy specified herein for the enforcement of this agreement is not exclusive and shall not deprive the party using such remedy of, or limit the application of, any other remedy provided by law.

Article 20. Amendments.

This agreement may be amended at any time by mutual agreement of the parties, except insofar as any proposed amendments are in any way contrary to applicable law or inconsistent with the provisions of the Master Contract. The District shall make available to the Contractor at all times during the normal hours of business at the District offices for the Contractor's inspection copies of all agreements now or hereafter executed by the District with all other subcontractors or the State of California and of any amendments thereof.

Article 21. Opinions and Determinations.

Where the terms of this agreement provide for action to be based upon opinion, judgment, approval, review, or determination of either party hereto, such terms are not intended to be and shall never be construed as permitting such opinion, judgment, approval, review or determination to be arbitrary, capricious, or unreasonable.

Article 22. Waiver of Rights.

Any waiver at any time by either party hereto of its rights with respect to a default or any other matter arising in connection with this agreement, shall not be deemed to be a waiver with respect to any other default or matter.

Article 23. Notices.

All notices that are required either expressly or by implication to be given by either party to the other under this agreement shall be signed for the District and for the Contractor by such officers as they may, from time to time, authorize in writing to so act. All such notices shall be deemed to have been

given and delivered if delivered personally or if enclosed in a properly addressed envelope and deposited in a United States Post Office for delivery by registered or certified mail. Unless and until formally notified otherwise, all notices shall be addressed to the parties at their addresses as shown on the signature page of this agreement.

Article 24. Assignment.

The provisions of this agreement shall apply to and bind the successors and assigns of the respective parties, but no assignment or transfer of this agreement, or any part hereof or interest herein, shall be valid until and unless approved by the District.

Article 25. Contractor to Keep Books, Records and Other Data.

The Contractor shall establish and maintain accounts and other books and records sufficient to enable the District to furnish to the State of California reports and statements, to such extent and in such manner and form as may be prescribed by the District and the State of California pursuant to the terms of this agreement and the Master Contract. Reports required to be furnished by the Contractor to the District pursuant to the terms of this agreement and the Master Contract shall be furnished to the District within the period of time specified therefor.

Article 26. District to Keep Books, Records and Other Data.

The District shall establish and maintain accounts and other books and records sufficient to enable Contractor to determine the use and disposition of all monies paid by Contractor to District pursuant to this agreement.

Article 27. Inspection of Books and Records.

The officers or agents of the Contractor shall have full and free access at all reasonable times to the account books and official records of the District insofar as the same pertain to the matters and things provided for in this agreement, with the right at any time during office hours to make copies thereof, and the representatives of the District and the State of California shall have the same rights in respect to the account books and records of the Contractor.

Article 28 Good Faith.

Contractor and District shall each act in good faith in performing their respective obligations as set forth in this agreement.

Article 29 Water Rights.

No provision of this agreement shall be considered to be in derogation of any existing water right(s) or claim(s) to water right(s) by or any agreements concerning water rights of any party hereto, including but not limited to overlying, prescriptive, appropriative, riparian, or pueblo rights, nor shall it be construed to result in any relinquishment or adjustment of any such water rights or claims thereto; and, in particular, no provision of this agreement shall be considered to diminish, reduce or affect, in any way, any party's rights pursuant to California Government Code Section 1005.1 and/or Section 1005.2.

(Exhibit __)

Article 30 Joint Powers Agreement and/or Authority.

No provision of this agreement is intended to prohibit the District and Contractor, in conjunction with other contractors, from entering into a joint powers agreement, or from forming a joint powers authority, concerning any subject matter contained in this agreement provided, however, that it is understood that this paragraph shall not be construed as requiring District or Contractor, or any other contractor, to enter into any such joint powers agreement or form such joint powers authority.

ARTICLE 31. Advisory Group.

District and Contractor shall use their best efforts to form, with other Contractors for Project Water, an advisory group, the membership of which shall be representatives of District and Contractor and of other Contractors. The purpose of the advisory group shall be to monitor all aspects of this agreement and related agreements and to advise the governing bodies of District and Contractor on the functioning of this agreement and related agreements, and to recommend to the governing bodies of District and Contractor any modifications to said agreements that may, from time to time, be appropriate.

Article 32. Agreements to be Uniform.

Agreements executed by the District with other agencies shall be substantially similar to this agreement with respect to basic terms and conditions, and shall differ primarily with respect to quantities and payment amounts; except that any such agreement(s) with San Luis Obispo County Waterworks District No. 8, Morro Rock Mutual Water Company and/or Paso Robles Beach Water Association may include provisions for exchange of water in lieu of participation in the construction of Local Facilities, and, also, conditions precedent concerning the construction of Local Facilities.

IN WITNESS WHEREOF, the parties hereto have executed this agreement on the date first above written.

ATTEST:

By

SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

By

ATTEST:

By FRANCIS M. COONEY

County Clerk and Ex-Officio Clerk, Board of Supervisors, County of San Luis Obispo, State of California

By: Vicki M. Shelley
Deputy Clerk

COUNTY OF SAN LUIS OBISPO acting on behalf of County Service Area No. 16, Improvement District No. 1

By

Chairman, Board of Supervisors, County of San Luis Obispo, State of California

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