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# Appendix A.

## General Explanation

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### DATA COLLECTION

#### Method of Enumeration

All agriculture censuses beginning with the 1969 census have primarily used mailout/mailback data collection for each State. Direct enumeration methods were used for the agriculture censuses in Guam, U.S. Virgin Islands, and the Commonwealth of Northern Mariana Islands. Puerto Rico used mail as the primary contact method, but relied heavily on telephone and personal interviews and an area frame survey for followup activity. The report for each territory includes a discussion of its method of enumeration.

#### Mail List

The mail list for the 1997 census was comprised of individuals, businesses, and organizations that could be identified as associated with agriculture. The list was assembled from previous census records, U.S. Department of Agriculture (USDA) mail registers, and other authorized sources. In an attempt to maximize the coverage of active farm operators, names and addresses were obtained from State and Federal agencies, trade associations, and similar organizations. The variety of list sources utilized helped insure representation of specialized interests such as nurseries and greenhouses; poultry, fish, and livestock farms; cattle feedlot operations; maple syrup producers; and Christmas tree growers.

Lists of companies having one or more establishments/locations producing agricultural products were obtained from the 1992 census and updated using information from the Standard Statistical Establishment List maintained by the Bureau of the Census. Exhaustive record linkage, unduplication, and mathematical modeling yielded an initial mail list of 3.31 million names and addresses which had a substantial probability of being farm operations.

To refine these 3.31 million names even further, a screening operation was conducted prior to mailout which identified about 125,570 names as nonfarms. Finally, NASS's State Statistical Offices (SSOs) added approximately 13,000 names which brought the final mail list to approximately 3.2 million.

#### Report Forms

In 1997, two report forms were used—a sample form and a nonsample form (which helped minimize respondent burden). The sample form contained all questions asked on

the nonsample form plus additional questions on commercial fertilizer, chemicals, production expenses, machinery and equipment, value of land and buildings, income from farm-related sources, and hired workers. The additional information collected on the sample forms provided a good basis for making estimates of these items for all farms. There were 11 regional versions of the nonsample form and 13 regional versions of the sample form with the prelisted crops varying by region. Appendix D contains copies of the sample form and the information sheet.

The sample form was mailed to approximately 814,000 addresses on the mail list, including 1) all those expected to be large (based on expected sales or acreage), 2) all farms operated by multi-establishment companies or non-profit organizations, 3) all those in Alaska, Hawaii, and Rhode Island, 4) those in a county that had less than 100 farms in 1992, and 5) a sample of other addressees. The nonsample form was mailed to the remaining 2.37 million addressees. Further discussion of the criteria used to determine which form was mailed to an addressee is provided in the Census Sample Design section of appendix C.

#### Data Collection Outreach/Promotional Efforts

Promotional and outreach programs were primarily handled by the NASS State Statistical Offices (SSOs) rather than from the NASS headquarters; similar programs in past censuses were conducted from a central, national-level office. The Census Division of NASS coordinated the overall effort through the national headquarters of the various USDA agencies and prepared many materials that the SSOs could customize to meet their specific requirements.

Information kits containing a mixture of census materials such as brochures, report forms, fact sheets, press releases, answers to frequently asked questions, posters, print and radio/television advertisements, and various other items were distributed, as appropriate, to many public and private groups. Also included in these information kits was the 1997 Census of Agriculture Report Form Guide which described and defined various items in greater detail than was available in the instructions that accompanied each report form.

The most common recipients of the information kits were county service centers, extension offices, farm-supply retail stores and cooperatives, Farm Service Agency and Natural

Resources Conservation Service offices, State and local farmer organizations, commodity groups, State departments of agriculture, commissioners of agriculture, governors, and vocational agriculture instructors. Kits were distributed by mail and through personal visits by field enumerators and SSO staff.

SSOs worked with the commissioners of agriculture, governors, and other officials to obtain written proclamations and verbal support of the census in their speeches and public appearances. To improve the coverage of minorities, SSOs made special promotional efforts through direct contacts with 1890 land-grant universities, Native American tribal leaders, limited resource farm organizations, and women's associations.

## INITIAL MAILING

Most report forms were mailed in late December 1997 to individuals, businesses, and organizations on the mail list. Approximately 34,000 report forms were not mailed but given directly to the SSOs for data collection to ease respondent burden for operators selected to participate in other NASS surveys. The mail packages included a report form with a cover letter, an information sheet containing instructions for completing the form, and a postage-paid return envelope. Special instructions were included with report forms sent to grazing associations, American Indian reservations, Christmas tree growers, maple producers, and firms with multiple farm or ranch operations.

For the first time in 1997, the census counted the number of individual American Indian farmers or ranchers that operated within the boundaries of American Indian reservations. Each reservation was asked to complete an additional one-page report form (called an R1 form, see appendix D) that asked for the number of American Indians within their borders who had an agricultural operation that met the \$1,000 sales definition of a farm. It was not required that these operators be individually listed by name to be counted.

## Followup Procedures

A thank you/reminder card was mailed to everyone on the mail list in early January 1998. In mid-February and again in late March, a followup letter, census report form, and information sheet were sent to each nonrespondent.

Telephone calling began in the State offices in early February. Calls were made to 1992 census nonrespondents who had not yet responded to the 1997 Census of Agriculture. In early March, telephone calls were made to operators of large farms who had not responded. In addition, from early April until late May, telephone calls were made to all remaining nonrespondents to encourage them to respond to the census and to ensure a minimum 75 percent response rate in each county in the U.S. A nonresponse adjustment procedure was used to represent the final nonrespondent farms in the census results. A description of this procedure is included in the Census Estimation section of appendix C.

## A-2 APPENDIX A

## DATA CHANGES

Prior to each agriculture census, the content of the census report forms and publication tables is reviewed to eliminate items no longer needed, identify necessary new items, and modify existing items to better describe the agricultural situation in the Nation. Data requests are solicited from farm organizations, land-grant colleges and universities, State and Federal agencies, State departments of agriculture, agribusinesses, the Advisory Committee on Agriculture Statistics and others. Each user is asked to identify and justify its specific data needs. The following paragraphs explain the major changes made to the 1997 census data.

In 1992, farms that had all their acreage in the Conservation Reserve Program were not included in the data for all farms. For the 1997 census, these farms are included in the data for all farms.

For the 1997 census, data for land under federal acreage reduction programs and Commodity Credit Corporation loans for honey and rye were not included, because these items were eliminated by the 1996 Farm Bill.

The following data inquiries were added: 1) Cut Christmas trees harvested, 2) Short rotation woody crops, 3) Maple trees tapped, and 4) Number of American Indian operators on reservations (obtained by an additional form mailed to each reservation).

## DATA PROCESSING

Selected report forms, including those with attached correspondence, remarks, or no positive data on the front page, were reviewed prior to data keying.

The data from each report form were subjected to a detailed item-by-item computer edit. The edit performed comprehensive checks for consistency and reasonableness, corrected erroneous or inconsistent data, supplied missing data based on similar farms within the same county, and assigned farm classification codes necessary for tabulating the data. Substantial computer-generated changes to the data were clerically reviewed and verified.

In the computer edit, farms with sales, acreage, or commodities exceeding specified levels were tested for historical comparability. Key items, such as acreage and sales, were compared for substantial changes between 1992 and 1997. Sizeable historical differences were resolved or verified by telephone. Prior to publication, tabulated totals for each State were reviewed by State statisticians to identify inconsistencies and potential coverage problems. Comparisons were made with previous census data, official NASS Agricultural Statistics Board numbers, and other available check data.

## 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. For an exact wording of the questions on the 1997 census report forms and the information sheet which accompanied these forms, see appendix D. Most definitions of terms are the same as those used in earlier censuses. The more important exceptions are noted here.

**Abnormal farms.** This category includes institutional, experimental, and research farms. 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.

**Acres and quantity harvested.** Crops were reported in whole acres, except for the following crops which were reported in 10ths of acres: potatoes, sweetpotatoes, tobacco, fruit and nut crops including land in orchards, berries, vegetables, nursery and greenhouse crops in the open, and in Hawaii, taro, ginger root, and lotus root. Totals for crops reported in 10ths of acres were rounded to whole acres at the aggregate level during the tabulation process. Ginseng was reported in 10ths of acres for Wisconsin and Michigan, and it is published in 10ths of acres for all States. 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, 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 but the quantity harvested included all cuttings. Hay cut for both dry hay and green chop or silage was to be reported for each applicable crop. For interplanted crops or "skip-row" crops, acres were to be reported according to the portion of the field occupied by each crop.

If a crop was planted but not harvested, the acres were not to be reported as harvested. These acres were to be reported in the "land use" section under the appropriate cropland items—cropland used only for pasture or grazing, cropland used for cover crops, cropland on which all crops failed, cropland in cultivated summer fallow, or cropland idle.

Corn and sorghum, hogged or grazed, were to be reported as "cropland harvested" and not as "cropland used only for pasture or grazing." Crop residue left in fields and later hogged or grazed was not reported as cropland pasture.

Quantity harvested was not obtained for crops such as vegetables; nursery and greenhouse crops; corn cut for dry fodder, hogged or grazed; and sorghum, hogged or grazed.

Acres of land in bearing and nonbearing fruit orchards, citrus or other groves, vineyards, and nut trees were to be reported as harvested cropland regardless of whether the

crop was harvested or failed. However, abandoned orchards were to be reported as cropland idle, not as harvested cropland, and the individual abandoned orchard crop acres were not to be reported.

**Age of operator.** See Operator characteristics; Farms by age and principal occupation of operator.

**Agricultural chemicals used, including fertilizer.** For each type of agricultural chemical, the acres treated were to be reported only once even if the acres were fertilized or treated more than once. If multipurpose chemicals were used, the acres treated for each purpose were to be reported.

**American Indian farm operators, total.** This item, as it appears in appendix B, is new for the 1997 census. Data represent the number of American Indian farm operators reporting individually by replying to their own census report form and those who did not report individually but were counted on a supplemental report form. Agricultural production for these operators was collected on their respective reservation report. This "total" in appendix B is not the same as the "total" in county table 37. The "total" in county table 37 equals the number of operators in appendix B reported individually plus the number of reservations from State table 19.

**Bedding/garden plants.** In 1992, this category was called "bedding plants." Bedding plants are referred as "bedding/garden plants" for 1997. This is a wording change; all data are comparable.

**Black and other races.** This category includes Blacks, American Indians (Native Americans), Asian or Pacific Islanders, and all other racial groups other than White.

**Canola and other rapeseed.** Canola and other rapeseed is a total of canola (edible rapeseed) and industrial rapeseed.

**Chemicals.** See Agricultural chemicals used, including fertilizer; total farm production expenses-Agricultural chemicals.

**Cherries.** Cherries were reported as sweet cherries, tart cherries, or cherries depending on the regional form the respondent completed. On regional forms for States where cherries were an important fruit crop, sweet cherries and tart cherries were listed separately. On the other regional forms, cherries were prelisted or could be written in. For publication purposes, total cherries could be shown along with the individual breakdown of sweet cherries, tart cherries, or nonspecified cherries. Nonspecified cherries were used to account for cherries where the sweet and tart breakdown was not asked or where respondents wrote in cherries but did not specify or code the kind of cherry. All the individual cherry items may not be shown for a given State.



**Chickens 3 months old or older.** See Layers and pullets 13 weeks old and older.

**Citrus enumeration.** Census 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 used since 1969 because of the difficulty in identifying and enumerating absentee grove owners who often do not know the information that is needed to adequately complete the census report form.

Each citrus caretaker was enumerated as a farm operator and requested to complete one report form for all groves cared for and to furnish a list of grove owners' names, addresses, and acres of citrus. The names on the lists were matched to completed grove owners' report forms to eliminate duplication. The caretaker also was requested to inform the grove owner that he/she had already reported for the citrus under his/her care and that the grove owner was not to report the citrus again. In the 1997 census, 16 caretakers in Arizona reported 120 grove owners having 19,100 acres of citrus; 75 caretakers in Florida reported 1,950 grove owners having 142,000 acres of citrus; and 10 caretakers in Texas reported 330 grove owners having 13,000 acres of citrus.

**Coffee (parchment).** In Hawaii, coffee could be reported in pounds parchment or pounds cherry.

**Colonies of bees and honey.** Bee and honey production was enumerated and tabulated in the county in which the home farm was located even though hives are often moved from farm to farm over a wide geographic area.

**Commodity Credit Corporation loans.** This category includes loans for corn, wheat, soybeans, sorghum, barley, oats, cotton, sunflower seed, flaxseed, safflower, canola, other rapeseed, mustard seed, peanuts, rice, and tobacco. Honey and rye were removed for 1997 due to their exclusion from the 1996 farm bill.

**Conservation Reserve Programs or Wetlands Reserve Programs.** See Cropland in the Conservation Reserve Programs (CRP) or Wetlands Reserve Programs (WRP).

**Crop units of measure-field crops.** 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 units of measure-fruit crops.** For fruit, citrus, and nut crops the operator was given a choice of reporting the units of measure in pounds, tons, boxes or bins.

**Crop year or season covered.** Acres and quantity harvested are for the calendar year 1997 except for citrus fruits, avocados, vegetables, and sugarcane for sugar in Florida; sugarcane for sugar and citrus fruits in Texas; pineapples and coffee in Hawaii; and avocados and olives in California.

**Avocados.** The data for California relate to the quantity harvested in the November 1996 through November 1997 harvest season and for Florida the April 1997 through March 1998 harvest season.

**Citrus fruits.** The data for Florida relate to the quantity harvested in the September 1996 through July 1997 harvest season, except limes and avocados that were harvested in the April 1997 through March 1998 harvest season. The data for Texas relate to the quantity harvested in the September 1996 through May 1997 harvest season. The data for States other than Florida and Texas relate to the quantity harvested in the 1996-97 harvest season.

**Coffee.** The data for Hawaii relate to the 1996-97 crop.

**Olives.** The data for California relate to the quantity harvested in the September 1996 through March 1997 harvest season.

**Pineapples.** The data for Hawaii relate to the quantity harvested in the year ending May 31, 1997.

**Sugarcane for sugar.** The data for Florida relate to the cuttings from November 1996 through April 1997, and for Texas the cuttings from October 1996 through April 1997.

**Vegetables.** The data for Florida relate to the crop harvested from September 1996 through August 1997.

**Cropland, harvested.** See Harvested cropland.

**Cropland in the Conservation Reserve Programs (CRP) or Wetlands Reserve Programs (WRP).** These categories include acres of "highly erodible" cropland taken out of agricultural production and planted in protective cover crops or reforested. The Food, Agriculture, Conservation, and Trade Act of 1990 amended the Conservation Reserve Program (CRP) authorized by the Food Security Act of 1985. The 1990 Act continued the CRP and put greater emphasis on preserving and upgrading water quality by establishing a WRP that provides for annual rental payments and shared costs of conservation practices through a minimum ten-year contract with the USDA. For the 1997 census, places with land enrolled in the CRP or WRP 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.

**Cropland, irrigated.** See Irrigated land.

**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 which could have been used for crops without additional improvement. Also included was all cropland used for rotation pasture. However, cropland which was pastured before or after crops were harvested was to be included as harvested cropland rather than cropland for pasture or grazing.

**Customwork income.** See Farm-related income -Customwork and other agricultural services.

**Customwork, machine hire, and rental of machinery and equipment.** See Total farm production expenses-Customwork, machine hire, and rental of machinery and equipment.

**Cut Christmas trees harvested.** This item is new for 1997. Data are for acres of cut Christmas trees harvested and value of sales. Acres of uncut Christmas trees were reported as other nursery and greenhouse crops. Live Christmas trees sold were reported as nursery crops.

**Data are based on a sample of farms.** For censuses since 1978, selected data were collected from only a sample of farms. These data are subject to sampling error. For 1997, the sample form was mailed to approximately 25 percent of all farms, including all large and specialized farms (based on expected sales, acres, or standard industrial classification), and all farms in Alaska, Hawaii, and Rhode Island. Sections 21 through 27 of the 1997 sample form included questions on commercial fertilizer, chemicals, production expenses, machinery and equipment, value of land and buildings, income from farm-related sources. Estimates of the reliability of State totals for most items are shown in tables C and D of appendix C. Estimates of the reliability of county totals for selected items are shown in table F of appendix C.

**Direct sales to consumers.** See Value of agricultural products sold directly to individuals for human consumption.

**Expenses.** See Total farm production expenses.

**Farm-related income.** Income from farm-related sources consists of gross income received in 1997 before taxes and expenses from the sales of farm by-products 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 are separate from the farm business.

Changes in items comprising farm-related income occurred between 1992 and 1997. Cut Christmas tree sales and maple product sales were included as farm-related income in 1992. These items are included in the appropriate crop production sales for 1997.

*Customwork and other agricultural services.* This income includes gross receipts received by 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.

*Rental of farmland.* This income includes gross cash rent or share payments received from renting out farmland; payments received from the lease or sale of allotments for crops such as tobacco; and payments received for livestock pastured on a per-head, per-month, or per-pound basis. It excludes rental income from nonfarm property.

*Sales of forest products.* This income includes gross receipts from sales of standing timber, gum for naval stores, firewood, and other forest products from the farm business. It excludes income from nonfarm timber tracts, sawmill businesses, cut Christmas trees and maple products.

*Other farm-related income sources.* This income includes gross receipts from hunting leases, fishing fees, camping, other recreational services, patronage dividends from farm cooperatives, sales of farm by-products, and other sales and services closely related to the farm business. It excludes income from nonfarm businesses.

**Farms by age and principal occupation of operator.** Data on age and principal occupation were requested from all operators in 1997. The principal occupation classifications used were as follows:

*Farming.* The operator spent 50 percent or more of his/her worktime in 1997 at farming or ranching.

*Other.* The operator spent more than 50 percent of his/her worktime in 1997 at occupations other than farming or ranching.

**Farms by combined government payments and market value of agricultural products sold (State table 52).** This table can be compared to data by market value of agricultural products sold in State Table 50 to analyze the difference in economic size when government payments are added to value of sales. Combined sales and government payments may be a better measure of economic size of farm, because government payments coupled with sales represent all incoming resources of an operation.

**Farms by market value of agricultural products sold or value of sales.** All farms were tabulated by size based on reported sales. The category "farms with sales of less than \$1,000" included all farms with actual sales of less than \$1,000 but having the production potential for sales of \$1,000 or more, or receiving government payments of \$1,000 or more. These farms normally would be expected to sell \$1,000 or more of agricultural products.

The sales size categories used are consistent with the standard business size categories issued by the Office of Management and Budget (OMB) in 1982. In State table 50, data are presented for four sales size categories between \$10,000 and \$49,999. This provides users with bridge data under both the OMB and prior census classifications.

**Farms by North American Industry Classification System (NAICS).** For 1997, all agricultural production establishments (farms, ranches, nurseries, greenhouses, etc.) were classified by type of activity or activities using the North American Industry Classification System (NAICS) and the Standard Industrial Classification System (SIC). See appendix E for an explanation of the conversion from the SIC to the NAICS.

The NAICS classifies economic activities. It was jointly developed by Mexico, Canada, and the United States. The NAICS will make it possible to produce comparable industrial statistics for Mexico, Canada, and the United States. The NAICS is scheduled to go into effect for reference year 1997 in Canada and the United States and 1998 in Mexico.

NAICS was developed to provide a consistent framework for the collection, analysis, and dissemination of industrial statistics used by government policy analysts, academics and researchers, the business community, and the public. It is the first industry classification system that was 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 (ISIC, Revision 3) for some sixty high level groupings. Following are explanations of the major classifications used in the 1997 census.

*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.

*Vegetable and melon farming (1112).* Contains 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 or maturity and have annual and perennial life cycles. The nursery stock includes short rotation woody crops, such as Christmas trees, that have a growing and harvesting cycle of 10 years or less.

*Tobacco farming (11191).* Comprises establishments primarily engaged in growing tobacco.

*Cotton farming (11192).* Comprises establishments primarily engaged in growing cotton.

*Sugarcane farming (11193).* Comprises establishments primarily engaged in growing sugarcane.

*Hay farming (11194).* Comprises establishments primarily engaged in growing hay, alfalfa, clover, and/or mixed hay.

*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 (value of crops for market).

*Beef cattle ranching and farming (112111).* Comprises establishments primarily engaged in raising cattle (including cattle for dairy herd replacements).

*Cattle feedlots (112112).* Comprises establishments primarily engaged in feeding cattle for fattening.

*Dairy cattle and milk production (11212).* Comprises establishments primarily engaged in milking dairy cattle.

*Hog and pig farming (1122).* Comprises establishments primarily engaged in raising hogs and pigs. Activities may include breeding, farrowing, and the raising of weanling pigs, feeder pigs, or market size hogs.

*Poultry and egg production (1123).* Comprises establishments primarily engaged in breeding, hatching, and raising poultry for meat or egg production.

*Sheep and goat farming (1124).* 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, animal aquaculture) for sale or product production. These establishments are primarily engaged in one of the following: bees, horses and other equines, rabbits and other furbearing animals, and so forth, 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 (i.e., value of animals for market) are included in this industry group.

**Farms by size.** All farms were classified into selected 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 to be part of the tenant's farm and not part of the owner's.

**Farms by Standard Industrial Classification (SIC).** Data for farms by SIC are provided in a bridge table in appendix E. For future censuses, farms will be classified only by the North American Industrial Classification System (NAICS).

**Farms by tenure of operator.** All farms were classified by tenure of operator in 1997. The classifications used were as follows:

- 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 by type of organization.** All farms were classified by type of organization in the 1997 census. The classifications used were as follows:

- Individual or family (sole proprietorship), excluding partnership and corporation.
- Partnership, including family partnership.
- Corporation, including family corporation—further sub-classified into the following two categories:
  1. Family held or other than family held
  2. More than 10 stockholders or less than 10 stockholders
- Other, cooperative, estate or trust, institutional, etc.

**Farms by value of sales.** See Farms by market value of agricultural products sold or value of sales.

**Farms or farms reporting.** The terms "farms" and "farms reporting" in the presentation of data denote 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 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. 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--Commercial fertilizer .

**Fish and other aquaculture products.** The raising of fish and other aquaculture products in captivity is included in the agriculture census. Production in saltwater is considered not to be in captivity and is excluded from the census.

**Floriculture crops.** For 1997, data for floriculture crops are a total of bedding/garden plants, cut flowers and cut florist greens, foliage plants, and potted flowering plants.

**Government payments.** This category consists of direct cash payments received by the farm operator in 1997. It includes disaster payments; transition payments from prior participation; payments from Conservation Reserve Programs, the Wetlands Reserve Programs, and other conservation programs; and all other federal farm programs under which payments were made directly to farm operators.

**Grain sales.** Data are for the total market value of cash grains sold, including corn for grain or seed, wheat for grain, soybeans for beans, sorghum for grain or seed, oats for grain, and other grains.

**Grapes.** Farm operators were given the option of reporting the quantity of grapes harvested in dry weight or fresh weight. For publication purposes, all quantities of grapes harvested were converted to pounds fresh weight. The conversion used was 4.20 pounds fresh weight to 1 pound dry weight.

**Greenhouse produced vegetables.** In 1992, this item was referred to as "greenhouse vegetables." This is only a wording change; the data are comparable.

**Harvested cropland.** This category includes land from which crops were harvested or hay was cut, 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 is included in woodland not pastured.

**Hay-alfalfa, other tame, small grain, wild, grass silage, green chop, etc.** Data shown for hay represent all hay crops, including grass silage, haylage, and hay crops cut and fed green (green chop). In production data, dry tons

represents dry tonnage for the various hay categories and dry weight equivalents for grass silage and hay cut and fed green. The conversion used was 3 tons of green weight to 1 ton of dry weight.

**Hay—tame hay other than alfalfa, small grain, and wild hay.** Data shown represent dry tons of hay harvested from clover, lespedeza, timothy, Bermuda grass, Sudangrass, and other types of legume and tame grasses.

**Hens and pullets.** See Layers, pullets, and pullet chicks.

**Hens and pullets of laying age.** See Layers 20 weeks old and older.

**Herbs—total, fresh cut, and dried.** Total herbs is a total of fresh cut and dried herbs. Separate data are shown for fresh cut herbs as a vegetable crop and dried herbs as another crop.

**Hired farm labor.** Data are for total hired farm workers, including paid family members, by number of days worked.

**Income.** See Net cash return from agricultural sales for the farm unit.

**Injuries and deaths.** Data are for work-related injuries and deaths of the farm operator, family members, and hired workers.

**Irish potatoes.** See Potatoes, excluding sweetpotatoes.

**Irrigated land.** This category includes all land watered by any artificial or controlled means, such as sprinklers, flooding, furrows or ditches, and spreader dikes. Included are supplemental, partial, and preplant irrigation. Each acre was to be counted only once regardless of the number of times it was irrigated or harvested.

**Land area.** The approximate land area of counties and States represents the total land area as determined by records and calculations as of January 1, 1997. These data are updated periodically; however, the acreages shown for 1997 are the same as in 1992.

**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 processing operations. Land in farms includes acres in the Conservation Reserve and Wetlands Reserve Programs.

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 to be 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 to be reported by the grazing association and included as land in farms. All land in American Indian reservations used for growing crops or grazing livestock was to be included as land in farms. Land in reservations not reported by individual American Indians or non-Native Americans was to be 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 and nonbearing fruit trees, citrus or other groves, vineyards, and nut trees of all ages, including land on which all fruit crops failed. 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. For a limited number of Midwest and Western States, this procedure resulted in the allocation of more land in farms to a county than the total land area of the county. To minimize this distortion, separate reports were required for large farms identified in the 1992 census as having more than one farm unit. Other reports received showing land in more than one county were separated into two or more reports if the data would substantially affect the county totals.

**Land used for vegetables.** Data are for the total land used for vegetable crops. The acres were to be reported only once, even though two or more harvests of a vegetable or more than one vegetable were harvested from the same acres.

**Landlords.** Data show the number of landlords from whom the farm operator rented land, including those whose land may have been subleased by the farm operator to someone else.

**Layers 20 weeks old and older.** This category includes layer hens in molt and other layer hens and pullets 20 weeks old and older. In the 1992 census this category was referred to as “Hens and pullets of laying age.” This is only a wording change; the data are comparable to 1992.

**Layers and pullets 13 weeks old and older.** This category includes layer hens in molt and other layer hens and pullets 13 weeks old and older. In the 1992 census this category was referred to as “Chickens 3 months old or older.” This is only a wording change; the data are comparable to 1992.



**Layers, pullets, and pullet chicks.** This category includes layers, pullets, and pullet chicks of all ages. In the 1992 census, this category was referred to as "Hens and pullets." This is only a wording change; the data are comparable to 1992.

**Macadamia nuts.** In Hawaii, macadamia nuts could be reported in pounds husked, unshelled or pounds shelled.

**Maple trees tapped.** Data are for acres of tapped maple trees (sugar bush). Quantity harvested is for number of taps from which sap was gathered. Acres of tapped maple trees are included in woodland not pastured.

**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 1997 regardless of who received the payment. It includes sales by the operator as well as the value of any shares received by partners, landlords, contractors, or others associated with the operation. In addition, it includes receipts from placing commodities in the Commodity Credit Corporation (CCC) loan program in 1997. It does not include payments received for participation in other federal farm programs nor does it include income from farm-related sources such as customwork and other agricultural services, or income from nonfarm sources.

The value of crops sold in 1997 does not necessarily represent the sales from crops harvested in 1997. Data may include sales from crops produced in earlier years and may exclude some crops produced in 1997 but held in storage and not sold. For commodities such as sugar beets and wool sold through a co-op which made payments in several installments, respondents were requested to report the total value received in 1997.

The value of agricultural products sold was requested of all operators. If the operator failed to report this information, estimates were made based on the amount of crops harvested, livestock or poultry inventory, or number sold. Extensive estimation was required for operators growing crops or livestock under contract.

Caution should be used when comparing sales in 1997 with sales reported in earlier censuses. Sales figures are expressed in current dollars and have not been adjusted for inflation or deflation.

**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 small number of write-in crops. 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.

**Net cash return from agricultural sales for the farm unit.** Net cash return is derived by subtracting total operating expenditures from the gross market value of agricultural products sold. Both gross sales and production

expenditures include sales and expenses of the farm operator as well as those of partners, landlords, and contractors. Therefore, the net cash return is that of the farm unit rather than the net farm income of the operator. Consequently, while the net cash return of a contractee grower could be negative, the actual return could be positive, meaning the integrator/contractor was absorbing an even larger loss on the growout operation. Oftentimes, these losses are offset by later gains from further processing. Conversely, a very high net cash return is usually shared between an integrator/contractor and a contractee grower and should not be viewed totally as a return to the contractee grower.

Operating expenses used in calculating net cash return do not include depreciation or changes in inventory values. Expenses may have been understated on farms renting land from others because taxes paid by landlords are excluded, and insurance and other landlord expenses not readily known to renters may have been omitted or underestimated.

For publication purposes, farms are divided into two categories: 1) Farms with net gains and 2) Farms with net losses. Farms with net gains include those whose production expenses are equal to the market value of their agricultural products sold.

**Nursery and greenhouse crops grown for sale.** These data are summations of the individual items reported. All of the individual items may not be shown.

**Nursery, floriculture, vegetable and flower seed crops, sod, etc., grown in the open, irrigated.** Data refer to farms reporting irrigated nursery, floriculture, vegetable and flower seeds, sod, bedding/garden plants, etc., grown in the open.

**Occupation.** See Operator characteristics; Farms by age and principal 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. For partnerships, only one partner is counted as the operator. If it is not clear which partner is in charge, then the senior or oldest active partner is considered the operator.

For census purposes, the number of operators is customarily the same as the number of farms. The exception to this rule occurs in appendix B, table A. It shows the number of American Indian farm operators on reservations. Since reservations are counted as one farm in other tables, in this instance, the number of operators will exceed the number of farms. In some cases, the operator was not the

individual named on the address label of the report form, but another family member, a partner, or a hired manager who was actually in charge of the farm operation.

**Operator characteristics.** All operators were asked to report age, race, sex, place of residence, principal occupation, days worked off the farm, year in which his/her operation of the farm began, and Spanish, Hispanic, or Latino origin. If race, age, sex, and principal occupation were not reported, they were imputed based on information reported by farms with similar acreage, tenure, and value of sales. No imputations were made for nonresponse to place of residence, Spanish, Hispanic, or Latino origin, off-farm work, or year began operation. Operators of Spanish, Hispanic, or Latino origin were tabulated by reported race.

**Operators of Spanish, Hispanic, or Latino origin.** No imputation was made for those not responding to the question on 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. In 1992, this category was referred to as "Operators of Spanish origin."

**Other aquaculture products.** This category includes the production of aquaculture other than crawfish and finfish.

**Other crop sales.** Data are for the total market value of all crops not having fitted into one of the prelisted sales categories. It includes crops such as maple syrup, mint for oil, peanuts, potatoes, sugar beets, sugarcane, sweet-potatoes, etc.

**Other cropland.** This category includes cropland not harvested and not grazed which was used for cover crops or soil-improvement crops, land on which all crops failed, land in cultivated summer fallow, idle cropland, and land planted in crops which were to be harvested after the census year.

**Other fish.** This category includes production of fish other than catfish, trout, hybrid striped bass, and crawfish.

**Other fruits and nuts.** Data shown for other fruits and nuts relate to any fruits and nuts not having a specific code on the 1997 report form.

**Other grain sales.** These data are for the total market value of other grains sold including dry edible beans, dry lima beans, buckwheat, canola, dry southern peas (cow-peas), emmer and spelt, flaxseed, lentils, mustard seed, dry edible peas, popcorn, proso millet, industrial rapeseed, rice, rye for grain, safflower, sunflower seed, triticale, and wild rice.

**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.

**Other livestock and livestock products.** This category includes all livestock and livestock products not having specific codes on the 1997 report form.

**Other nursery and greenhouse crops.** Data for "Other nursery and greenhouse crops" include acres of uncut Christmas trees with minimum sales of \$1,000. Also included are acres and sales of short rotation woody crops.

**Other races.** This category is primarily limited to persons native to or of ancestry from Mexico, the Caribbean, and Central and South America.

**Plums and prunes.** Farm operators were given the option of reporting the quantity of plums and prunes harvested in dry weight or fresh weight. For publication purposes, all quantities of plums and prunes harvested have been converted to pounds of fresh weight. The conversion used was 3.00 pounds fresh weight to 1 pound dry weight.

**Potatoes, excluding sweetpotatoes.** In 1992, this item was referred to as Irish potatoes. This is only a wording change; all data are comparable.

**Poultry hatched.** This category includes all poultry hatched on the place during the year and placed or sold. Incubator egg capacity on December 31, 1997, is tabulated under the column heading "Inventory" and the number of poultry hatched and placed or sold is under the heading "Sales."

**Production expenses.** See Total farm production expenses.

**Pullet chicks and pullets less than 13 weeks old.** This category includes all pullets and pullet chicks less than 13 weeks old. In the 1992 census, this category was referred to as "Pullet chicks and pullets under 3 months old." This is only a wording change; the data are comparable to 1992.

**Race.** See Other races; Black and other races; Operator characteristics.

**Rental income.** See Farm-related income-Rental of farmland.

**Sales, total.** See total sales; Market value of agricultural products sold; Farms by market value of agricultural products sold or value of sales.

**Size of farm.** See Farms by size.

**Tame hay other than alfalfa, small grain, and wild hay (tons, dry).** See Hay-tame hay other than alfalfa, small grain, and wild hay.

**Tenure.** See Farms by tenure of operator.

**Total cropland.** This category includes land from which crops were harvested or hay was cut; land in orchards, citrus groves, vineyards, nurseries, and greenhouses; cropland used only for pasture or grazing; land in cover crops, legumes, and soil-improvement grasses; land on which all crops failed; land in cultivated summer fallow; and idle cropland.

**Total farm production expenses.** Includes the share of the expenditures provided by landlords, contractors, and partners in the operation of the farm business. Expenses were limited to those incurred in the operation of the farm business. Property taxes paid by landlords were excluded. Also excluded were expenditures for nonfarm activities; farm-related activities such as providing customwork for others, producing and harvesting forest products, and providing recreational services; and household expenses. In 1997, as in other recent censuses, operators producing crops, livestock, or poultry under contract often were unable or unwilling to estimate the cost of production inputs furnished by the contractors. As a consequence, extensive estimation for some expenditure items was required for contract producers. Explanations of selected production expenses are listed below.

*Agricultural chemicals.* These expenses include the cost of all insecticides, herbicides, fungicides, and other pesticides, including costs of custom application. Data exclude commercial fertilizer purchased.

*Commercial fertilizer.* The expense for commercial fertilizer is the amount spent on all forms of fertilizer including rock phosphate and gypsum. It also includes the cost of custom application.

*Customwork, machine hire, and rental of machinery and equipment.* 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. The cost of custom application of fertilizer and chemicals is included in expenditures for fertilizer and chemicals in 1997, 1992, and 1987. The cost of hired labor for operating rented or hired machinery is included as a hired farm and ranch labor expense.

*Feed for livestock and poultry.* These expenses include the cost of all feed for livestock and poultry including grain, hay, silage, mixed feeds, concentrates, etc.

*Hired farm and ranch labor.* These 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. It includes social security taxes, State taxes, unemployment tax, payment for sick leave or vacation pay, workman's compensation, insurance premiums, and pension plans.

*Interest.* Separate data are included for interest paid on debts secured by real estate and interest paid on debts not secured by real estate.

*Livestock and poultry purchased.* These expenses include the total amount spent by the operator, his/her landlord, and by others for all livestock and poultry bought during 1997 for production on the farm or ranch. The total includes amounts spent for cattle, calves, hogs, pigs, sheep, hatchery eggs, etc. Estimations of the value of livestock or poultry grown under contract or fed on a custom basis were to be made based on their value when they arrived on the farm or ranch.

*Repairs and maintenance.* These expenses include all costs for the repair and upkeep of buildings, motor vehicles, and farm equipment used for the farm business.

*Seed cost.* These expenses include the cost of all seeds, bulbs, plants and trees, or the estimated cost of these items if provided by contractors. Seed cost does not include the value of seed grown on this place.

**Total sales.** This item represents the gross market value of all agricultural products sold before taxes and expenses in the census year including livestock, poultry, and their products, and crops, including nursery and greenhouse crops, and hay. Respondents were asked to include landlords' and contractors' shares. The value of commodities placed in CCC loans is included as sold. All farms were tabulated by size based on reported sales.

**Tractors.** This item includes a new horsepower (PTO) category. In the 1992 census, respondents reported wheel tractors other than garden tractors and motor tillers as less than 40 horsepower (PTO) or 40 horsepower (PTO) or more. In the 1997 census, the 40 horsepower (PTO) category was broken into 40 to 99 horsepower (PTO) and 100 horsepower (PTO) or more.

**Type of farm.** See Farms by North American Industry Classification System (NAICS) and Farms by Standard Industrial Classification (SIC).

**Type of organization.** See Farms by type of organization.

**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 nonedible products such as nursery crops, cut flowers, wool, etc. Sales of agricultural products by vertically integrated operations through their own processing and marketing operations were excluded.



**Value of land and buildings.** Respondents were asked to report their estimate of the current market value of land and buildings owned, rented or leased from others, and rented or leased to others. Market value refers to the value the land and buildings would sell for under current market conditions. If the value of land and buildings was not reported, it was estimated using the average value of land and buildings from a similar farm in the same geographic area.

**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.

**Wheat for grain.** Wheat was listed on the report form separately or in combinations by type as listed below, depending on the regional report form completed by the respondent.

- Wheat for grain
- Winter wheat for grain
- Spring wheat for grain
- Durum wheat for grain
- Spring wheat, other than durum, for grain

For publication, wheat was shown separately or in combinations by type as listed below, depending on the State for which it was published.

- Wheat for grain, total
- Winter wheat for grain
- Spring wheat for grain
- Durum wheat for grain
- Other spring wheat for grain
- Non-specified wheat for grain

The wheat by type (winter, spring, durum, and other spring) breakdown was published for States where more than one type was commonly produced; however, all the

types may not be shown. Non-specified wheat was shown when a type not commonly produced in a State was reported on a report form not intended for use for that State or when reporting errors were suspected.

**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 to be reported as other pastureland and rangeland or other land. Land planted for Christmas tree production was to be reported in cropland harvested, and land in tapped maple trees 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. 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 into 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.

In some cases, the reviewers were unable to determine the specific crop reported by the respondent because of incomplete or generalized crop names. To ensure proper coding, most of these respondents were telephoned. Reports for those not telephoned were changed on the basis of other reports for the area.