
Appendix A.

General Explanation

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, 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 B 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.

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 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.

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

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.

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.

Alfalfa. See Hay-alfalfa, other tame, small grain, wild, grass silage, green chop, etc.-*Alfalfa hay harvested.*

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 inventory.

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.

Combined government payments and market value of agricultural products sold (Table 18). This table can be compared to data by market value of agricultural products sold in table 23 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.

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.

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.

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 10-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, total. See Total cropland.

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.

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

Expenses. See Total farm production expenses.

Expenses for hired farm labor. Data are for total hired farm workers, including paid family members.

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

Fertilizer. See Total farm production expenses-Commercial fertilizer.

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.

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.

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.

Alfalfa hay harvested. Data represent dry tons of alfalfa hay harvested.

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, Sudan grass, and other types of legume and tame grasses.

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

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

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 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.

Layers 20 weeks old and older inventory. 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 inventory. 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.

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.

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.

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.

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.

Production expenses. See Total farm production expenses.

Pullet chicks and pullets less than 20 weeks old sold. This category includes all pullets and pullet chicks less than 20 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.

Tame hay. See Hay-alfalfa, other tame, small grain, wild, grass silage, green chop, etc.--*Hay-tame hay other than alfalfa, small grain, and wild hay.*

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.

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 or 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. In 1997, 1992 and 1987, separate data were collected 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.

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.

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.

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.

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.

STATISTICAL METHODOLOGY

Two types of errors—sampling and nonsampling—were possible in the estimates resulting from the 1997 Census of Agriculture. Sampling errors in the census data resulted from the nonresponse sample and the census sample data collection. Nonsampling errors arose from many sources, including respondent or enumerator error; incorrect data keying; editing; imputing for missing data; mail list incompleteness and duplication; and misclassification of records

on the mail list. Extensive efforts were made to minimize both types of errors through efficient sample designs, quality control, verification, and clerical review of specific operations.

Since there were two sources of sampling error, as mentioned above, two types of statistical estimation procedures were used. These estimation procedures accounted for whole farm nonresponse and sample data collection. These procedures were necessary because some farm

operators never responded to the census despite numerous attempts to contact them, and because estimates for certain data items were based on a sample of farm operators rather than on a full enumeration. The statistics in this report are estimates derived from these procedures.

For a complete and detailed explanation of the statistical methodology, and the reliability of census estimates, see 1997 Census of Agriculture, Volume 1, State and County Data, Appendix C.