

# APPENDIX A.

## General Explanation

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### DATA COLLECTION

#### Method of Enumeration

All agriculture censuses beginning with the 1969 census primarily have used mailout/mailback data collection. Direct enumeration methods, however, continue to be used for the agriculture census in Puerto Rico, Guam, the U.S. Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

#### Mail List

The mail list for the 1987 census was comprised of individuals, businesses, and organizations that could be readily identified as being associated with agriculture. The list was assembled from the records of the 1982 census, administrative records of the Internal Revenue Service (IRS), and the statistical records of the U.S. Department of Agriculture (USDA). In addition, lists of large or specialized operations, such as nurseries and greenhouses, specialty crop farms, poultry farms, fish farms, livestock farms, and cattle feedlot operations, were obtained from State and Federal agencies, trade associations, and similar organizations. Lists of companies having one or more establishments (or locations) producing agricultural products were obtained from the 1982 census and updated using the information from the Standard Statistical Establishment List maintained by the Census Bureau. Exhaustive record linkage, unduplication, and mathematical modeling yielded a final mail list of 4.1 million names and addresses that had a substantial probability of being a farm operation.

#### Report Forms

In 1987, three different report forms were used—a two-page, a four-page, and a six-page form to minimize the reporting burden, particularly for small farms and places less likely to be farms. The six-page sample form and the four-page nonsample form are the same, except sections 23 through 28 have been added to the sample form to obtain supplemental information from a sample of farms.

The information collected in these sections will give the Bureau of the Census a good basis for making estimates of these data for other farms included in the census. The two-page form does not have as many questions or as much detail as the four-page and six-page forms. The four-page form has 11 regional versions and the six-page form has 13 regional versions. Both forms have different crops prelisted. Appendix D contains copies of both the two-page and six-page forms.

The six-page form was mailed to 1,104,000 addressees on the mail list, including all those expected to be large (based on expected sales or acreage) or unique (farms operated by multiestablishment companies or nonprofit organizations), all those in Alaska and Hawaii, and a sample of other addressees. The two-page form was mailed to 906,000 addressees. These were expected to be small farms or less likely to be farms. The four-page form was mailed to the remaining 2,079,000 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.

#### Initial Mailing

The report forms were mailed in mid-December 1987 to the approximately 4,089,000 individuals, businesses, and organizations on the mail list. The mail packages included a report form, a cover letter with a description of the purposes and uses of the census on the reverse side, an information sheet containing instructions for completing the form, and a postage-paid return envelope. Additional special instructions were included with report forms sent to grazing associations; feedlot operations; institutional organizations; Indian reservations; firms with multiple farm or ranch operations; and producers of poultry under contract, bees and honey, fish, laboratory animals, and nursery and greenhouse crops.

To provide additional help to farmers in completing their reports, copies of an Agriculture Census Guide booklet were sent to vocational agriculture instructors, USDA county offices of the Agriculture Stabilization and Conservation Service, and the Cooperative Extension Service. The Guide contained descriptions and definitions of various items in more detail than the instructions included with each report form. Representatives of the above agencies graciously consented to assist farmers in completing their report forms.

## Followup Procedures

A thank you/reminder card was mailed to those on the mail list in mid-January 1988. Five followup letters, three of which were accompanied by a report form, were sent to nonrespondents at 4-week intervals starting in mid-February and continuing until early June 1988.

Telephone calls were made to all large farms who had not responded. In addition, telephone calls were made to a sample of other nonrespondents in counties that had a response rate of less than 75 percent. 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.

## DATA PROCESSING

Selected report forms were reviewed prior to keying the data. These included reports with attached correspondence and reports with remarks or no positive data on the front page.

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 1982 and 1987. Sizeable historical differences were resolved or verified by telephone, if necessary. Respondents who reported sales or acreage above specified levels on non-sample forms were sent correspondence requesting the additional sample data. Prior to publication, tabulated totals were reviewed by statisticians to identify inconsistencies and potential coverage problems. Comparisons were made with previous census data, estimates published by the USDA, and other available data.

## MAJOR DATA CHANGES

Prior to each agriculture census, the Census Bureau reviews the content of the census forms to eliminate questions no longer needed and to identify new items necessary to meet user needs and to better describe the agricultural situation in our Nation. Data requests are solicited from farmers, farm organizations, land grant colleges and universities, State and federal agencies, and members of the Census Advisory Committee on Agricultural Statistics. Each agency and organization is asked to identify and justify its specific data needs. The following data inquiries were added to the 1987 report form:

- Income from farm-related sources
- Acres under the Conservation Reserve Program
- Payments received for participation in federal farm programs
- Grazing permits by source

Additional data on production expenses were added in 1987:

- Repair and maintenance expenses
- Cash rent
- Property taxes paid
- All other production expenses

The following separate data inquiries were eliminated from the 1987 form:

- Storage capacity for petroleum products
- Number of hired farm and ranch workers
- Value of agricultural products sold directly to individuals for human consumption
- Source of irrigation water
- Tons of commercially mixed feed
- Expenditures for coal, wood, and coke
- Selected machinery items: automobiles, corn heads for combines, and field forage harvesters
- Chinchillas
- Worms
- Tropical and baitfish

## FOLLOW-ON SURVEYS, SPECIAL CENSUSES, AND RELATED PUBLICATIONS

In addition to the 1987 Census of Agriculture for the 50 States, Puerto Rico, Guam, the U.S. Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands, the census of agriculture program includes the 1988 Farm and Ranch Irrigation Survey, the 1988 Agricultural Economics and Land Ownership Survey, and the 1988 Census of Horticultural Specialties.

The 1988 Farm and Ranch Irrigation Survey provides data on water use by irrigated farms and ranches. Data include: the amount of water applied by crop, method of water distribution, source of water, and energy costs for pumping water. Data from this survey will be published as volume 3, part 1.

The 1988 Agricultural Economics and Land Ownership Survey provides detailed data on debts, expenses, taxes, credits, assets, land ownership, and farm and off-farm income for farm operators. Many of these items, as well as detailed data on landlord characteristics, are being collected from the landlords of the farms involved in the survey. Data from this survey will be published as volume 3, part 2.

The 1988 Census of Horticultural Specialties covers operations growing and selling \$2,000 or more of horticultural products such as greenhouse products, outdoor-grown floricultural products, nursery products, mushrooms, and sod. These data will be published as volume 4.

Additional publications of the 1987 Census of Agriculture data include the Agricultural Atlas of the United States (previously called the Graphic Summary), Coverage Evaluation, Ranking of States and Counties, and Government Payments and Market Value of Agricultural Products Sold.



**Harvested cropland**—This category includes land from which crops were harvested or hay was cut, and land in orchards, citrus groves, vineyards, nurseries, and greenhouses. Land from which two or more crops were harvested was counted only once, even though there was more than one use of the land.

**Cropland used only for pasture or grazing**—This category includes land used only for pasture or grazing that could have been used for crops without additional improvement. Included also was all cropland used for rotation pasture and land in government diversion programs that were pastured. However, cropland that was pastured before or after crops were harvested was to be included as harvested cropland rather than cropland for pasture or grazing.

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

**Total woodland**—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, land planted for Christmas tree production, and woodland pastured. Land covered by sagebrush or mesquite was to be reported as other pastureland and rangeland or other land.

**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.

**Cropland in annual commodity acreage adjustment programs**—This category includes land diverted or set aside under the provisions of the Federal Commodity Acreage Program. These data are for the acres of cropland taken out of production by growers of wheat, cotton, rice, corn, sorghum, barley, and oats, and devoted to conservation uses. Information was not obtained as to which crops would have been grown on the acres set aside.

**Cropland in the Conservation Reserve Program (CRP)**—This category includes acres of “highly erodible” cropland taken out of agricultural production and planted to protective cover crops or reforested. The CRP was established through the 1985 Food Security Act and provides for annual rental payments and shared costs of conservation practices through a 10-year contract with the USDA. Appendix B presents data on places with all their cropland enrolled in the Conservation Reserve Program and which were not counted as farms in the 1987 census.

**Irrigated land**—This category includes all land watered by any artificial or controlled means, such as sprinklers, 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.

**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 the same as 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 place of residence, principal occupation, days of off-farm work, year in which his/her operation of the farm began, age, race, sex, and Spanish 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 origin, off-farm work, or year began operation. Operators of Spanish origin were tabulated by reported race.

**Farm production expenses**—In 1987, additional specific expense items and a category for all other farm production expenses were added to the selected farm production expenses collected in 1982. Consequently, we are publishing total farm production expenses in 1987. The expenses are limited to those incurred in the operation of the farm business. Expenses include the share of the expenditures provided by landlords, contractors, and partners in the operation of the farm business. Property taxes paid by landlords are excluded. Expenditures for nonfarm activities; farm-related activities such as providing custom-work for others, the production and harvest of forest products, and recreational services; and household expenses are excluded. In 1987, 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 was required for contract producers.

**Commercial fertilizer**—The expense for commercial fertilizer is the amount spent on fertilizer during 1987

including the cost of custom application. The cost of custom application was excluded from the 1982 and 1978 data.

**Agricultural chemicals**—These expenses include the cost of all insecticides, herbicides, fungicides, and other pesticides, including the cost of custom application. Data exclude commercial fertilizer purchased. The cost of custom application was excluded from the 1982 and 1978 data. The cost of lime was excluded from the 1987 and 1982 data, but included in 1978.

**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 was included in the 1982 and 1978 customwork data, but is included in expenditures for these items in 1987. The cost of hired labor for operating rented or hired machinery is included as a hired farm and ranch labor expense.

**Interest**—In 1987, separate data were collected for interest paid on debts secured by real estate and interest paid on debts not secured by real estate. In 1982, only total interest expenses were collected.

**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 1987 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 1987. It does not include payments received for participation in 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 1987 does not necessarily represent the sales from crops harvested in 1987. Data may include sales from crops produced in earlier years and exclude some crops produced in 1987, 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 1987.

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 1987 with sales reported in earlier censuses. Sales figures are expressed in current dollars and have not been adjusted for inflation or deflation.

**Government payments**—This category is limited to direct cash or generic commodity certificate (PIK) payments received by the farm operator in 1987. It includes deficiency and diversion payments; wool payments; payments from the Dairy Termination Program, the Conservation Reserve Program, other conservation programs, and all other federal farm programs under which payments were made directly to farm operators.

**Other farm-related income**—The 1987 report form included a new inquiry on income from farm-related sources. These data consist of gross income in 1987 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. These data are for income producing activities that are primarily a by-product or supplemental to the farm operation. They exclude income from business activities that are separate from the farm business.

**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 constitutes a separate business or is 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 the sales of Christmas trees, standing timber, maple products, gum for naval stores, firewood, and other forest products from the farm business. It excludes income from nonfarm timber tracts and sawmill businesses.

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

**Commodity Credit Corporations loans**—This category includes loans for corn, wheat, soybeans, sorghum, barley, oats, cotton, peanuts, rye, rice, tobacco, and honey.

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

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

**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.

**Citrus enumeration**—In the 1987 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 in recent censuses 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. 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 had already reported for the citrus under his care and that the grove owner was not to report the citrus again. In the 1987 census, 7 caretakers in Arizona reported 175 grove owners having 12,000 acres of citrus; the 65 caretakers in Florida reported 3,000 grove owners having 170,000 acres of citrus; and 20 caretakers in Texas reported 800 grove owners having 14,500 acres of citrus.

**Crop year or season covered**—Acres and quantity harvested are for the calendar year 1987 except for citrus fruits, avocados, olives; vegetables in Florida; sugarcane in Florida and Texas; and pineapples and coffee in Hawaii.

**Citrus fruits**—The data for Florida relate to the quantity harvested in the September 1986 through July 1987 harvest season, except limes that were harvested in the April 1987 through March 1988 harvest season. The data for Texas relate to the quantity harvested in the September 1986 through May 1987 harvest season. The data for States, other than Florida and Texas, relate to the quantity harvested in the 1986-87 harvest season.

**Avocados**—The data for California relate to the quantity harvested in the November 1986 through November 1987 harvest season and for Florida the April 1987 through March 1988 harvest season.

**Olives**—The data for California relate to the quantity harvested in the September 1986 through March 1987 harvest season.

**Vegetables**—The data for Florida relate to the crop harvested in the September 1986 through August 1987 harvest season.

**Sugarcane for sugar**—The data for Florida relate to the cuttings from November 1986 through April 1987, and for Texas the cuttings from October 1986 through April 1987.

**Pineapples**—The data for Hawaii relate to the quantity harvested in the year ending May 31, 1987.

**Coffee**—The data for Hawaii relate to the 1986-87 crop.

**Acres and quantity harvested**—Crops were reported in whole acres, except for the following crops which were reported in 10ths of acres: Irish potatoes, sweetpotatoes, tobacco, fruit and nut crops including land in orchards, berries, vegetables, and nursery and greenhouse crops; 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.

If two or more crops were harvested from the same land during the year, the acres would be counted for each crop. Therefore, the total acres of all crops harvested generally exceeds the acres of cropland harvested. An exception to this procedure is hay crops. When more than one cutting of hay was taken from the same acres, the acres are counted only once but the quantity harvested includes all cuttings. However, hay cut for both dry hay and green chop or silage would 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, 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.

**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 less than 20 total fruit, citrus, or nut trees, or grapevines.

**Crop units of measure**—The regional report forms allowed the operator to report the quantity of field crops harvested in a unit of measure commonly used in the region. When the operator reported in a unit of measure different than the unit of measure published, the quantity harvested was converted to the published unit of measure.

Grapes could be reported in dry weight or fresh weight; plums and prunes in fresh weight, or prunes in dry weight; and in Hawaii, coffee in pounds parchment or pounds cherry, and macadamia nuts in pounds husked, unshelled or pounds shelled. For other fruit and nut crops and citrus, the operator was given a choice of units of measure of pounds, tons, or boxes. The quantity harvested for these crops is published in pounds.

**Write-in crops**—To reduce the length of the report form, only the major crops for the region were prelisted. For other crops, the respondent was requested 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 the crop 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.

**Misreported or miscoded crops**—In a few instances, tabulated data may be inaccurate because respondents misunderstood or misinterpreted questions on the report form. Data may have been reported on the wrong line or in the wrong section, or the wrong crop code may have been placed beside the name of a write-in crop. Some of these errors as well as some keying errors may not have been identified during processing and therefore, were not corrected. Reports with significant acres of unusual crops for the area were examined to minimize the possibility that they were in error.

## “See text” References

Items in the tables which carry the note “See text” are explained or defined in this section.

**Data are based on a sample of farms**—For 1987, 1982, and 1978, selected data were collected from only a sample of farms. These data are subject to sampling error. For 1987, the six-page sample form was mailed to all large and specialized farms (based on expected sales, acres, or standard industrial classification), all farms in Alaska and Hawaii, and approximately 17 percent of all other farms. Sample sections 23 through 28 of the 1987 census forms included inquiries on production expenses, commercial fertilizer and lime, chemicals, machinery and equipment, value of land and buildings, and income from farm-related sources. Estimates of the reliability of county totals for selected items are shown in table F of appendix C.

**Operators of Spanish origin**—No imputation was made for those not responding to the question on Spanish origin.

**Farms operated by Black and other races**—This category includes Blacks, American Indians, Asian and Pacific Islanders, and all other racial groups other than White.

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

**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 crops and hay. Respondents were asked to include landlords’ and contractors’ shares. The value of commodities placed in CCC loans are included as sold. In 1987, all farms including abnormal farms were tabulated by size based on reported sales. In 1982 and 1978, abnormal farms were included in the total sales figure, but excluded from the detailed size breakdowns. Abnormal farms include institutional farms, experimental and research farms, and Indian reservations.

**Farms with sales of less than \$1,000**—This category includes all farms with actual sales of less than \$1,000, but having the production potential for sales of \$1,000 or more. These farms normally could be expected to sell \$1,000 or more of agricultural products.

**Net cash return from agricultural sales for the farm unit**—This category is derived by subtracting total operating expenditures from the gross market value of agricultural products sold. Depreciation and the change in inventory values are excluded from expenditures. Production expenditures may be understated on part owner and tenant farms because property taxes paid by landlords are excluded. Other landlord expenditures, such as insurance or rent paid, which are not readily known to renters may also be omitted or understated. Gross sales include sales by the operator as well as the share of sales received by



partners, landlords, and contractors. Consequently, the net cash return is that of the farm unit rather than the net farm income of the operator.

**Other livestock and livestock products**—This category includes all livestock and livestock products not listed separately.

**Value of livestock and poultry on farms**—Data for the value of livestock and poultry on farms were obtained by multiplying the inventory of each major age and sex group by State average prices. The State average prices for cattle, hogs, sheep, Angora goats, hens and pullets of laying age, and turkeys were obtained primarily from data published by the National Agricultural Statistics Service, USDA. Prices applied to other livestock and poultry were census-derived averages based primarily on reported value of sales in the census.

**Poultry hatched**—This category includes all poultry hatched on the place during the year and placed or sold. Incubator egg capacity on December 31, 1987, is tabulated under the column heading "Inventory" and the number of poultry hatched and placed or sold is under the heading "Sales."

**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 represent 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.

**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.

**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 have been converted to pounds of fresh weight. The conversion used was 4 pounds fresh weight to 1 pound dry weight.

**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 pounds fresh weight to 1 pound dry weight.

**Cherries**—For 1987, 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 are an important fruit crop, "sweet cherries" and "tart cherries" were listed separately. On the other regional forms, either "cherries" were listed or could be written in. For publication purposes, "cherries, total" could be shown along with the individual breakdown of "sweet cherries," "tart cherries," or "cherries, not specified." "Cherries, not specified" is 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. Data for "sweet cherries," "tart cherries," and "cherries, not specified" are not available for 1982.

**Other fruits and nuts**—Data shown for other fruits and nuts relate to any fruits and nuts not having a specific code on the 1987 report form.

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

**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.

**Nursery and greenhouse crops grown for sale**—These data are a summation 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 plants, etc., grown in the open.

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

**Value of crop production**—This item represents the estimated value of all crops harvested during the 1987 crop year. Data for the value of crops harvested were obtained by multiplying the average estimated value per unit by the reported acres or quantity harvested. Generally, harvested units of production (pounds, bushels, bales, etc.) were multiplied by State estimates of prices per unit. If only acres harvested were reported, State estimates for value of production per acre were used. The State average production price and production value per acre used in these calculations were obtained usually from publications of the National Agricultural Statistics Service, USDA. When



USDA estimates were not available, Bureau of the Census statisticians made estimates using available sources such as data from adjacent States, respondent report forms, county extension agents, and other persons knowledgeable about specific crops.

## FARMS CLASSIFIED BY SPECIFIED CHARACTERISTICS

State tables 48 through 53 present detailed 1987 data for all farms classified by specified characteristics—tenure of operator, type of organization, age and principal occupation of operator, size of farm (acres), value of agricultural products sold, and standard industrial classification. Other tables include data classified by value of sales groups or other characteristics of the farm or the operator.

**Farms by value of agricultural products sold or value of sales**— In 1987, all farms were tabulated by size based on reported sales. In 1982 and earlier censuses, abnormal farms were not tabulated based on sales size. In the tables on market value of agricultural products sold, the sales of abnormal farms in 1982 and earlier censuses were included in the total sales figure, but excluded from the detailed size categories. Abnormal farms included institutional farms, experimental and research farms, and Indian reservations. 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. These farms normally could be expected to sell \$1,000 or more of agricultural products.

The sales size categories used in this report are consistent with the standard business size categories issued by Office of Management and Budget (OMB) in 1982. In State table 52, 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 the 1978 census classifications. For the 1992 census, data will be presented only for the OMB sales size categories of \$10,000 to \$24,999 and \$25,000 to \$49,999.

**Abnormal farms**—This category includes institutional farms, experimental and research farms, and Indian reservations. Institutional farms include those operated by hospitals, penitentiaries, churches, schools, grazing associations, and government agencies. In 1987 and 1982, nongovernmental units such as church farms and Future Farmers of America camps were classified as abnormal farms only when 50 percent or more of their products produced and intended for human consumption were utilized by the organization.

**Farms by tenure of operator**—The classifications of tenure used in the 1987 census were:

**Full owners**, who operate only land they own.

**Part owners**, who operate land they own and also land they rent from others.

**Tenants**, who operate only land they rent from others or work on shares for others.

**Farms by type of organization**—All farms were classified by type of organization in the 1987 census. The classifications used were:

**Individual or family (sole proprietorship)**, excluding partnership and corporation.

**Partnership**, including family partnership.

**Corporation**, including family corporation.

**Other, cooperative, estate or trust, institutional, etc.**

Corporations were subclassified by two additional characteristics into:

1. Family held  
Other than family held
2. More than 10 stockholders  
10 or less stockholders

**Farms by age and principal occupation of operator**—Data on age and principal occupation were requested from all operators in 1987. The principal occupation classifications used were:

**Farming**—The operator spent 50 percent or more of his/her worktime in 1987 in farming or ranching.

**Other**—The operator spent more than 50 percent of his/her worktime in 1987 in occupations other than farming or ranching.

**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 the tenant's farm and not the owner's.

**Farms by standard industrial classification**—In 1987, all agricultural production establishments (farms, ranches, nurseries, greenhouses, etc.) were classified by type of activity using the standard industrial classification (SIC) system. These classifications, found in the 1987 SIC Manual<sup>1</sup>, are used to promote uniformity and comparability in the presentation of statistical data collected by various agencies.

<sup>1</sup>Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-003-14-2.

An establishment primarily engaged in crop production (major group 01) or production of livestock and animal specialties (major group 02) is classified in the four-digit industry and three-digit industry group which accounts for 50 percent or more of the total value of sales of its agricultural products. If the total value of sales of agricultural products of an establishment is less than 50 percent from a single four-digit industry, but 50 percent or more from the products of two or more four-digit industries within the same three-digit industry group, the establishment is classified in the miscellaneous industry of that industry group. Otherwise, it is classified as a general crop farm in industry 0191 or a general livestock farm in industry 0291. Establishments that derive 50 percent or more of the value of sales from horticultural specialties of industry group 018 are classified in industry 0181 or 0182 according to their primary activity.

Characteristics of all farms by selected SIC groupings are shown in State tables 18 and 53. The SIC groupings shown in State table 53, together with the associated products (value of sales representing 50 percent or more of the value of agricultural products sold during the year) on which the classification is based, are as follows:

**Cash grains (011)**—Wheat, rice, corn, soybeans, barley, buckwheat, cowpeas, dry field and seed beans and peas, flaxseed, lentils, milo, mustard seed, oats, popcorn, rye, safflower, sorghum, sunflowers, and other small grains.

**Cotton (0131)**—Cotton and cottonseed.

**Tobacco (0132)**—Tobacco.

**Sugarcane, sugar beets, Irish potatoes, hay, peanuts, and other field crops (0133, 0134, 0139)**—Sugarcane, sugar beets, Irish potatoes, alfalfa, broomcorn, clover, grass seed, hay, hops, mint, peanuts, sweetpotatoes, timothy, and yams.

**Vegetables and melons (016)**—Vegetables and melons grown in the open.

**Fruits and tree nuts (017)**—Berries, grapes, tree nuts, citrus fruits, deciduous tree fruits, avocados, bananas, coffee, dates, figs, olives, pineapples, and tropical fruit.

**Horticultural specialties (018)**—Bedding plants, bulbs, florists' greens, flower and vegetable seeds, flowers, foliage, fruit stocks, nursery stock, ornamental plants, shrubberies, sod, mushrooms, and vegetables grown under cover.

**General farms, primarily crops (019)**—Crops, including horticultural specialties, but less than 50 percent of sales from any single three-digit industry group.

**Livestock, except dairy, poultry, and animal specialties (021)**—Cattle, calves, hogs, sheep, goats, goat's milk, mohair, and wool.

**Beef cattle, except feedlots (0212)**—Production or feeding of beef cattle, except feedlots.

**Dairy farms (024)**—Production of cows' milk and other dairy products and raising of dairy heifer replacements.

**Poultry and eggs (025)**—Chickens, chicken eggs, turkeys, ducks, geese, pheasants, pigeons, quail, and squab.

**Animal specialties (027)**—Fur-bearing animals, rabbits, horses, ponies, bees, fish in captivity except fish hatcheries, worms, and laboratory animals.

**General farms, primarily livestock and animal specialties (029)**—Livestock and animal specialties and their products, but less than 50 percent of sales from any single three-digit industry group.

The SIC manual was revised for 1987. Animal aquaculture (0273) was established as a new industry and horticultural specialties, not elsewhere classified (0189) was deleted.

# APPENDIX B.

## Places With All Cropland in the Conservation Reserve Program

The Food Security Act of 1985 established the Conservation Reserve Program (CRP). This program provides annual payments for highly erodible cropland enrolled in the program and meeting its conservation requirements. It also requires that the land be taken out of agricultural production for 10 years.

The 1987 Census of Agriculture includes Conservation Reserve acreage as land in farms on operations that meet the census farm definition. For census purposes, a farm is any place from which agricultural products of \$1,000 or more were produced and sold or normally would have been sold during the census year. Operations which placed all of their cropland in the CRP and did not otherwise meet the farm definition based upon sales, livestock inventories, planted crops, or other criteria for potential sales were not included as farms in the census tabulations.

The following table provides CRP data for places not meeting the census farm definition ("whole farm" CRP places). It also contains separate but corresponding CRP data for farms included in the census tabulations. In addition to State data, detailed county data are presented for counties with three or more "whole farm" CRP places reported. For counties with less than three "whole farm" CRP places reported, their data are combined and reported in "all other counties."

The data for "whole farm" CRP places are not complete for all counties. The census mail list was developed from sources which indicated the farm had agricultural production activity. It was not designed to cover all "whole farm" CRP places. Therefore, the data for these places are limited to what was reported in the census and have not been adjusted to account for nonresponse, incomplete coverage, and reporting errors.

### Land in Conservation Reserve Program: 1987

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Agricultural places excluded by farm definition with acres in the CRP			Farms with acres in the CRP		
	Number	Land in places (acres)	Land in CRP (acres)	Number	Land in farms (acres)	Land in CRP (acres)
<b>New Mexico</b> .....	<b>133</b>	<b>53 894</b>	<b>49 998</b>	<b>630</b>	<b>1 723 735</b>	<b>290 221</b>
Curry .....	40	18 993	17 412	155	318 423	93 107
Lea .....	9	3 515	3 128	32	91 269	12 540
Quay .....	21	8 408	7 953	122	416 586	68 426
Roosevelt .....	45	18 046	16 971	155	308 791	72 851
Torrance .....	5	795	608	22	40 024	(D)
Union .....	6	3 538	3 365	46	142 940	12 342
All other counties .....	7	599	561	98	405 702	(D)

# APPENDIX C.

## Statistical Methodology

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### MAIL LIST MODEL

A statistical discriminant model was developed to predict the probability that a mail list addressee operated a farm. The model was used to identify the 4.1 million records from the preliminary census mail list of 6.0 million records that would receive a census of agriculture report form. Records from the 1982 census mail list were used to build the model. Record characteristics such as the source of the mail list record (see appendix A for a description of record sources), number of source lists on which the record appeared, expected value of agricultural sales, and geographic location were used to separate mail list records into model groups. The proportion of 1982 census farm records in each group was calculated to provide an estimate of the probability that an addressee in the group operated a farm.

Using these same group definitions, the 1987 census mail list records were separated into groups, each with an associated estimate of farm probability from the model. The 4.1 million mail list records in groups with the largest estimate of farm probability were selected to receive the census report form. A large percentage of the 1.9 million records that were dropped from the 6.0 million preliminary census mail list were nonfarm records from the previous census. This procedure was used to obtain a more complete census enumeration without excessive respondent burden and data collection cost.

### CENSUS SAMPLE DESIGN

Each of the 4.1 million name and address records on the census mail list was designated to receive one of three different types of census report forms. The three forms were the nonsample census form (a four-page form), the sample form (a six-page form), and the short form (a two-page form). Sections 1 through 22 of the sample form were identical to sections on the nonsample census form. However, the sample form contained additional sections on farm production expenditures, usage of fertilizers and insecticides, value of machinery and equipment, value of land and buildings, and farm-related income. The short form contained abbreviated versions of the sections on the nonsample census form. These three different forms were used to reduce the response burden of the census, while providing quality information on a large number of data items at the county level.

The sample form was mailed to all mail list records in Alaska and Hawaii and to a sample of records in other States identified when the mail list was constructed. Addresses were selected into the sample with certainty if they were expected to have large total values of agricultural products sold or large acreage, if they were firms with two or more farms, or if they had other special characteristics. When a nonsample large farm was identified during processing, a supplemental form that contained the additional data inquiries was mailed. All farms in counties with less than 100 farms in 1982 were included in the sample with certainty; counties containing 100 to 199 farms in 1982 were systematically sampled at a rate of 1 in 2; and counties containing 200 or more farms in 1982 were systematically sampled at a rate of 1 in 6. This differential sample scheme was used to provide reliable data for sections 23 through 28 of the report form for all counties.

To determine which mail list records would receive the short form, all mail list records not designated for the sample were sorted into model groups according to farm probability as specified by the mail list model. The 906,000 mail list records in the model groups with the lowest probability of being farms and with an expected total value of agricultural product sales less than \$20,000 were designated to receive the short form. The remaining mail list records were selected to receive the nonsample census form.

### CENSUS ESTIMATION

The 1987 Census of Agriculture used two types of statistical estimation procedures. These estimation

procedures accounted both for nonresponse to the data collection and for the sample data collection. These procedures are used because some farm operators never respond to the census despite numerous attempts to contact them, and not all farm operators are requested to provide the sample data items.

### Whole Farm Nonresponse Estimation

A statistical estimation procedure was used to account for the census farms among mail list nonrespondents that were not designated for telephone followup. A stratified systematic sample of eligible census nonrespondents were mailed a simplified report form. Five sample strata were defined based on form type, expected value of sales, and previous census status. The report form was designed to provide sufficient information to determine farm status. Additional mail and telephone contacts were made to survey nonrespondents to obtain sufficient response for survey estimates.

Estimates of the proportion of census nonrespondents that operated farms were made for each stratum in the State using survey results and applied to the total number of census nonrespondents in that stratum. A synthetic estimation procedure was used to estimate the number of census nonrespondents that operated farms for each county by stratum. This estimation procedure is based on the assumption that the distribution of farms in a stratum by county is the same for census nonrespondents as for census respondents.

Within each stratum in a county, a noninteger nonresponse weight was calculated and assigned to each eligible respondent farm record. The procedure used for calculating the nonresponse weight assumed the eligible census respondents and the nonrespondent farm operations in a county had similar characteristics within each stratum. The noninteger nonresponse weight was the ratio of the sum of the estimated number of nonrespondent farms (using nonresponse survey results) and the number of eligible census respondent farms to the number of eligible census respondent farms. Stratum controls were established to ensure that this weight was never greater than 2.0. The noninteger nonresponse weight was used in the estimation of the final weight for the sample items. It was randomly rounded to an integer weight of either 1 or 2 for each record for tabulating the complete count items.

The procedure assumed that we obtain complete response from large and unique farm operations because these cases received intensive telephone followup during census processing. In situations where addressees could not be contacted by telephone or refused to cooperate, secondary sources such as Agricultural Stabilization and Conservation Service offices or county extension agents were asked to provide information as to whether or not the addressee had agricultural activities. Data from previous census reports for the specific addressee, in conjunction with other information, were used to complete the census report form.

Table A quantifies the effect of the nonresponse estimation procedure on selected census data items. The percentage of the census value contributed by nonresponse estimation as provided in this table indicates the potential for bias in published figures resulting from this procedure. The estimates provided in these tables do not reflect the effect of nonresponse to individual data items on respondents' census report forms. The effect of this item nonresponse is discussed further under Census Non-sampling Error.

Table A. **Percent of State Totals Contributed by Whole Farm Nonresponse Estimation: 1987**

Item	Percent of total
Farms -----number--	11.3
Land in farms -----acres--	.9
Value of land and buildings ------\$1,000--	2.8
Market value of agricultural products sold --\$1,000--	1.3
Harvested cropland -----acres--	4.0
Corn for grain or seed -----acres--	2.4
Wheat for grain-----acres--	3.4
Livestock and poultry inventory:	
Cattle and calves -----number--	1.9
Hogs and pigs -----number--	3.0
Hens and pullets of laying age -----number--	.4

### Sample Estimation

All respondent sample records received a sample weight. The sample data estimates the actual figures that would have resulted from a complete census of the items in sections 23 through 28 of the report form. The estimates were obtained from an iterative ratio estimation procedure that resulted in the assignment of a weight to each record containing sample items. For any given county, a sample item total was estimated by multiplying the data items for each farm in the county by the corresponding sample weight and summing overall sample records in the county.

Each sample farm was assigned one sample weight to be used to produce estimates for all sample items. For example, if the weight given to a sample farm had the value 5, all sample data items reported by that farm would be multiplied by 5. The weight assigned a certainty farm was 1. The estimation procedure used to assign weights was performed for each county.

Within a county, the ratio estimation procedure for farms was performed in three steps using three variables. The first variable contained eight 1987 total value of agricultural production (TVP) groups. Both the second and third variables, Standard Industrial Classification (SIC) code and farm acreage, contained two groups. The variable groups were as follows:

<b>TVP</b>	<b>SIC</b>	<b>Acres</b>
\$1 to \$999	01 All crops	0 to 69
\$1,000 to \$ 2,499	02 All livestock	70 or more
\$2,500 to \$ 4,999		
\$5,000 to \$ 9,999		
\$10,000 to \$24,999		
\$25,000 to \$49,999		
\$50,000 to \$99,999		
\$100,000 or more		

The first step in the estimation procedure was to partition the sample records into 32 mutually exclusive initial post strata formed by combining the three variable groups. This produced a three dimensional array where the cells of the array corresponded to the initial post strata groups. Each sample farm record was assigned an initial weight equal to the ratio of the total farm count to the sample farm count, expanded for nonresponse estimation, for the cell containing the sample farm. This weight was approximately equal to the inverse of the probability of selecting a farm for the census sample.

The second step in the estimation procedure was to combine, if necessary, the cells of the array (prior to the repeated ratio estimation) to increase the reliability of the ratio estimation procedure. Any cell within the array that either contained less than 10 sample farms or had a ratio of total farms to sample farms that was more than 2 times the mail sample rate was collapsed with another cell (in the same variable) according to a specified collapsing pattern. New total farm counts and sample farm counts were computed for each of the collapsed cells (final post strata) and were used in the ratio estimation procedure to calculate final sample weights.

In the third step in the ratio estimation procedure, complete counts for the three variables (TVP, SIC, acreage) were used to compute the marginals of the array defined by the final post strata. Factors were then applied to expanded sample totals in each cell of the array to obtain agreement with the row marginal (TVP) complete counts. The sample totals then had factors applied to obtain agreement with the column marginal (SIC) complete counts. Lastly, the sample totals had factors applied to obtain agreement with the depth marginal (acreage) complete counts. This procedure that requires the row totals, then the column totals, and then the depth totals to agree with the complete counts for the rows, columns, and depths, respectively, is continued iteratively until the process converges (the marginal totals agree with the complete count totals).

The ratio of the adjusted total farm count to the sample farm count obtained from the second iteration of the estimation procedure was the noninteger final post stratum sample weight assigned to the sample farm records in that post stratum. The noninteger sample weight, the product of the noninteger final post stratum sample weight and the nonresponse weight, was randomly rounded to an integer weight for tabulation. If, for example, the final weight for the

farms in a particular group was 7.2, then one-fifth of the sample farms in this group were randomly assigned a weight of 8 and the remaining four-fifths received a weight of 7.

## **CENSUS SAMPLING ERROR**

Sampling error in the census data results from the nonresponse sample and the census sample data collection. Census items were classified as either complete count or sample data items. The complete count items were asked of all farm operators. The complete count data items included land in farms, harvested cropland, livestock inventory and sales, crop acreages, quantities harvested and crop sales, land use, irrigation, government loans and payments, conservation acreage, type of organization, and operator characteristics (sections 1 through 22 of the census report form). Variability in the complete count data items is considerably smaller than in the sample items as the variation is due only to the nonresponse sample estimation procedure. The sample items were asked of approximately 25 percent of the total census farm operators. The sample data items included farm production expenditures, fertilizer and chemical usage, farm machinery and equipment, value of land and buildings, and farm-related income (sections 23 through 28 of the census report form). Variability in the estimates of sample items is due both to the census sample selection and estimation procedure and the nonresponse sample estimation procedure.

The sample for the 1987 Census of Agriculture is one of a large number of possible samples of the same size that could have been selected using the same sample design. Estimates derived from the different samples would differ from each other. The difference between a sample estimate and the average of all possible sample estimates is called the sampling deviation. The standard error or sampling error of a survey estimate is a measure of the variation among the estimates from all possible samples, and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The percent relative standard error of estimate is defined as the standard error of the estimate divided by the value being estimated multiplied by 100. If all possible samples were selected, each of the samples were surveyed under essentially the same conditions, and an estimate and its standard error were calculated from each sample, then:

1. Approximately 67 percent of the intervals from one standard error below the estimate to one standard error above the estimate would include the average value of all possible samples.
2. Approximately 90 percent of the intervals from 1.65 standard errors below the estimate to 1.65 standard errors above the estimate would include the average value of all possible samples.

The computations involved to define the above confidence statements are illustrated in the following example. Assume that the estimate of number of farms for the State is 94,382 and the relative standard error of the estimate (percent) is .1 percent (0.001). Multiplying 94,382 by 0.001 yields 94, the standard error. Therefore, a 67-percent confidence interval is 94,288 to 94,476 (i.e., 94,382 plus or minus 94). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 2 out of 3 (67 percent) of these intervals would contain the figure obtained from a complete enumeration. Similarly, a 90 percent confidence interval is 94,227 to 94,538 (i.e., 94,382 plus or minus 1.65 x 94).

Tables B and C provide the reliability estimates of the estimated number of farms in a county reporting complete count and sample items, respectively. Both tables show the percent relative standard errors for selected estimated number of farms in a county reporting an item. These are derived from a regression equation. The parameters of the regression equation were estimated using the estimated number of farms in a county reporting the complete count or sample item as the independent variable and the standard error of that estimate as the dependent variable for all counties in the State.

**Table B. Reliability Estimates for Number of Farms in a County Reporting a Complete Count Item: 1987**

Farms	Relative standard error of estimate (percent)
Number of farms reporting:	
25-----	6.7
50-----	4.6
75-----	3.6
100-----	3.0
150-----	2.2
200-----	1.7
300-----	.8
500-----	.7
750-----	.5
1,000-----	.5
1,500-----	.4
2,000-----	(NA)

Note: Complete count items are items in sections 1 to 22 of the report form.

To illustrate the use of these tables, assume that the estimate of the number of farms reporting hogs and pigs for a particular county, as given in county table 12, is 89. Since hogs and pigs is a complete count data item, refer to table B and select the estimated relative standard error of the estimate from the row whose value is equal to or just less than the estimated number of farms, 89. For this example, the relative standard error of the estimate comes from the row for 75 farms reporting. For sample data items, follow the same procedure using table C. In counties that had less than 100 farms in the 1982 Census of Agriculture, table C does not apply because the farms in these

counties were sampled with certainty (1 in 1), and thus, the reliability estimates for the number of farms in these counties are smaller than for counties that were sampled at lower rates (1 in 2 or 1 in 6).

**Table C. Reliability Estimates for Number of Farms in a County Reporting a Sample Item: 1987**

Farms	Relative standard error of estimate (percent)
Number of farms reporting:	
25-----	26.6
50-----	19.5
75-----	16.4
100-----	14.7
150-----	12.7
200-----	11.5
300-----	10.3
500-----	9.1
750-----	8.5
1,000-----	8.2
1,500-----	7.8
2,000-----	(NA)

Note: Sample items are items in sections 23 to 28 of the report form.

Table D presents the relative standard error of selected State data items for all farms and for all farms with sales of \$10,000 or more. The percent relative standard error of the estimate for complete count data measures the variation associated with the sample-based adjustment for whole farm nonresponse. The percent relative standard error of the estimate for sample items measures both the sampling error due to the nonresponse sample estimation procedure and the census sample selection and estimation procedure. The reliability of State estimates may vary substantially from State to State. Generally, State estimates for a given data item are less reliable than the corresponding U.S. estimate.

Table E presents the standard error (not relative standard error) for percent change in State totals from 1982 to 1987. The general purpose of the percent change estimate is to provide a relative measure of the difference in a characteristic between censuses. The relative change for a given characteristic is defined as the ratio of the difference of the 1987 and the 1982 estimate for that characteristic to the 1982 estimate. This ratio is multiplied by 100 to obtain the percent change. The percent standard error of a percent change estimate, then, is the standard error of the ratio multiplied by 100.

Table F presents the relative standard error for county totals for 10 major complete count items and 7 sample items. The relative standard error of the estimate (percent) for the same item differs among counties in a State. Reasons for this are differences among counties in (1) the total number of farms, (2) the number of large farms included with certainty, (3) the size classifications of the farms sampled, (4) the amount of nonresponse, (5) the general agricultural characteristics, and (6) the specific characteristic being measured.



## CENSUS NONSAMPLING ERROR

The accuracy of the census counts are affected by the joint effects of the sampling errors described in the previous section and nonsampling errors. Extensive efforts were made to compile a complete and accurate mail list for the census, to design an understandable report form and instructions, and to minimize processing errors through the use of quality control, verification, and check measures on specific operations. Nonsampling errors arise from incompleteness of the census mail list, duplication in the mail list, incorrect data reporting, errors in editing of reported data, and errors in imputation for missing data. These specific nonsampling errors are further discussed in this section. Evaluation studies will be conducted to measure the extent of certain nonsampling errors such as coverage error, classification error, and item imputation.

### Census Coverage

The main objective of the census of agriculture is to obtain a complete and accurate enumeration of U.S. farms with accurate data on all aspects of the agricultural operation. However, the cost and availability of resources for this enumeration place restrictions on operationally feasible data collection methodologies. The past five agriculture censuses have been conducted by mail enumeration with telephone contact for selected nonrespondents. The completeness of such an enumeration thus depends to a large extent on the coverage of farm operations by the census mail list.

Historically, the census of agriculture has included approximately 90 percent of the farms in the United States and over 96 percent of the agricultural production. Complete enumeration of agricultural operations satisfying the farm definition of \$1,000 or more in agricultural sales is complicated by fluctuations in agricultural operations qualifying for enumeration, the variety of arrangements under which farms are operated, the multiplicity of names used by an operation, the number of operations in which an operator participates, the accuracy of data reporting, etc. A new mail list is compiled for each census because no current single list of agricultural operations is comprehensive.

An evaluation of census coverage has been conducted for each census of agriculture since 1945. The evaluation provides estimates of the completeness of census farm count and major census data items. In addition, the evaluation helps to identify problems in the census enumeration and provide information that can form the basis for improvements. The results of the 1987 Coverage Evaluation program will be published in volume 2, part 2.

The evaluation of coverage conducted in 1987 was designed to measure errors in the census mail list and in farm classification. Mail list error includes a measurement of farms not on the census mail list (undercount), and a measurement of farms enumerated more than once in the

census (overcount). Classification error includes a measurement of farms classified as nonfarms in the census (undercount) and of nonfarms classified as farms in the census (overcount). Classification error arises from reporting and processing errors. Mail list undercount dominates all coverage errors. Net coverage error is defined as the difference of undercounted and overcounted farms. Measurements of these errors, as well as a description of the complete coverage program, will be available in the Coverage Evaluation report.

### Mail List Coverage

A major problem with the use of a mail list for the census of agriculture enumeration is the difficulties that are encountered in compiling a complete list. The percentage of farms on the census mail list varies considerably by State. Several reasons have contributed to farm operators' names not being included on the census mail list—the operation may have been started after the mail list was developed, the operation may be so small as not to appear in agricultural related source lists used in compiling the census list, or the operation may have been falsely classified as a nonfarm prior to mailout. A large proportion of the farms not included on the mail list were small in both acres and sales of agricultural products.

The 1987 Census of Agriculture Coverage Evaluation used the area segment sample of the 1987 June Enumerative Survey (JES) of the National Agricultural Statistical Service (NASS) to estimate farms not on the census mail list. The Census Bureau contracted with the NASS to augment the JES data collection and receive survey data under the confidentiality protection afforded by Title 13, U.S. Code, from all residents of area sample segments with agricultural activity. These survey records were matched to the census mail list. Records that did not match were mailed a census of agriculture report form to estimate mail list coverage. Estimates of farms not on the census mail list used the capture-recapture dual frame estimator that will be described in the Coverage Evaluation report.

Table G provides coverage evaluation estimates of the number of farms not on the mail list and selected characteristics of those farms with their percent relative standard error. The table also provides an estimate of characteristics of farms not on the mail list as a percentage of total farms in the State. The estimate of total farms in the State is based on census farm count and the estimated number of farms not on the census mail list. This estimate of total farms in the State was not adjusted for classification and list duplication errors. Estimates of these errors will be made at the regional rather than the State level and will be available in the Coverage Evaluation report. The table provides the standard error (not relative standard error) of this percent estimate.

### Respondent and Enumerator Error

Incorrect or incomplete responses to the mailed census report form or to the questions posed by a telephone

enumerator introduce error into the census data. Such incorrect information can lead, in some cases, to incorrect enumeration of farms. This type of reporting error is measured by the Classification Error Study discussed later in this section. To reduce all types of reporting error, questions were phrased as clearly as possible based on tests of the census report form, and detailed instructions for completing the report form were provided to each addressee. In addition, each respondent's answers were checked for completeness and consistency.

### **Item Nonresponse**

Nonresponse to particular questions on the census report that we would logically or statistically expect to be present may create a type of nonsampling error in both complete count and sample data. When information reported for another farm with similar characteristics is used to edit or impute for item nonresponse, the data may be biased because the characteristics of the nonrespondents have not been observed and may differ from those reported by respondents. Any attempt to correct the data for nonresponse may not completely reflect this difference either at the element level (individual farm operation) or on the average.

### **Processing Error**

The many steps of processing of each census report form are sources for the introduction of nonsampling error. The processing of the census report forms includes clerical screening for farm activity, computerized check-in of report forms and followup of nonrespondents, keying and transmittal of completed report forms, computerized editing of inconsistent and missing data, review and correction of individual records referred from the computer edit, review and correction of tabulated data, and electronic data processing. These operations undergo a number of quality control checks to ensure as accurate an application as possible, yet some errors are not detected and corrected.

### **Classification Error**

An evaluation study of classification errors was conducted in the 1987 Census of Agriculture as part of the census coverage evaluation program. A sample of mail list respondents was selected, and these addresses reenumerated to determine whether they were a farm or non-farm. A farm status determination was made based on the evaluation questionnaire and compared with the status based on the data reported on the census form. Differences in status were reconciled.

In past censuses, the proportion of farms undercounted due to classification errors was higher for farms with small values of sales. The classification error rate was higher for (1) livestock farms than crop farms, (2) farms with a small

number of acres than larger farms, or (3) tenant farms than full or part-owner farms. Results from the 1987 classification error study will be published in the Coverage Evaluation report.

## **EDITING DATA AND IMPUTATION FOR ITEM NONRESPONSE**

For the 1987 Census of Agriculture, as in previous censuses, all reported data were keyed and then edited by computer. The edits were used to determine whether the reports met the minimum criteria to be counted as farms in the census. Computer edits also performed a series of complex, logical checks of consistency and completeness of item responses. They provided the basis for deciding to accept, impute (supply), delete, or alter the reported value for each data record item.

Whenever possible, edit imputations, deletions, and changes were based on component or related data on the respondent's report form. For some items, such as operator characteristics, data from the previous census were used when available. Values for other missing or unacceptable reported data items were calculated based on reported quantities and known price parameters.

When these and similar methods were not available and values had to be supplied, the imputation process used information reported for another farm operation in a geographically adjacent area with characteristics similar to those of the farm operation with incomplete data. For example, a farm operation that reported acres of corn harvested, but did not report quantity of corn harvested, was assigned the same bushels of corn per acre harvested as that of the last nearby farm with similar characteristics that reported acceptable yields during that particular execution of the computer edit. The imputation for missing items in each section of the report form was conducted separately; thus, assigned values for one operation could come from more than one respondent.

Prior to the imputation operation, a set of default values and relationships were assigned to the possible imputation variables. The relationships and values varied depending on the item being imputed. For example, different default values were assigned for several standard industrial classification and total value of sales categories when imputing hired farm labor expenses. These values and item relationships for the possible imputation variables were stored in the computer in a series of matrices. The computer records were sorted by reported State and county, where the county sequence was based on similar types of farms and agricultural practices.

Each execution of the computer edit consisted of records from only one State. For a given execution of the edit, the stored entries in the various matrices were retained in the computer only until a succeeding record having acceptable characteristics for some sections of the report form was processed by the computer. Then the acceptable responses

of the succeeding operation replaced those previously stored. When a record processed through the edit had unreported or unacceptable data, the record was assigned the last acceptable ratio or response from an operation with a similar set of characteristics. Once each execution of the computer edit for a State was completed, the possible imputation variables were reset to the default values and relationships for subsequent executions.

After the initial computer edit, keyed reports not meeting the census farm definition were reviewed to ensure that

the data were keyed correctly. Edit referrals were generated for about 30 percent of the reports included as farms, and they were also reviewed for keying accuracy and to ensure that the computer edit actions were correct. If the results of the computer edit were not acceptable, corrections were made and the record was reedited. More extensive discussions of the edit and item imputation methodology with measures of the extent of imputation in the census estimates will be provided in a separate research report.

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Tables D through G follow.

**Table D. Reliability Estimates of State Totals: 1987**

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms		Farms with sales of \$10,000 or more	
	Total (number)	Relative standard error of estimate (percent)	Total (number)	Relative standard error of estimate (percent)
Farms.....	14 249	.1	5 643	.1
Land in farms.....	46 018 005	(Z)	41 298 718	(Z)
Average size of farm.....	3 230	.2	7 319	.3
Value of land and buildings <sup>1</sup> .....	\$1,000 8 291 340	1.3	6 656 511	1.4
Average per farm.....	dollars 582 012	1.5	1 192 709	1.4
Average per acre.....	dollars 180	1.7	162	1.9
Estimated market value of all machinery and equipment <sup>1</sup> .....	\$1,000 468 282	1.2	356 639	1.3
Average per farm.....	dollars 33 093	1.2	63 925	1.2
Farms by size:				
1 to 9 acres.....	farms 2 421	.7	288	2.0
	acres 9 572	1.0	643	3.1
10 to 49 acres.....	farms 2 710	.7	367	1.7
	acres 63 563	.8	10 162	1.9
50 to 179 acres.....	farms 2 164	.8	612	1.3
	acres 225 804	.9	64 525	1.4
180 to 499 acres.....	farms 1 846	.8	785	1.1
	acres 575 773	.9	250 412	1.1
500 to 999 acres.....	farms 1 341	1.0	677	1.2
	acres 961 076	1.0	489 816	1.2
1,000 to 1,999 acres.....	farms 1 126	1.0	676	1.1
	acres 1 578 879	1.0	967 015	1.1
2,000 acres or more.....	farms 2 641	(Z)	2 238	(Z)
	acres 42 603 336	(Z)	39 516 125	(Z)
Total cropland.....	farms 9 429	.2	3 533	.3
	acres 2 279 119	.3	1 788 231	.3
Harvested cropland.....	farms 7 269	.3	2 998	.3
	acres 989 214	.3	914 277	.3
Acres harvested:				
1 to 9 acres.....	farms 2 383	.7	153	2.1
	acres 10 474	.9	551	3.2
10 to 49 acres.....	farms 2 344	.8	606	1.3
	acres 52 029	.8	16 830	1.4
50 to 99 acres.....	farms 682	1.4	488	1.5
	acres 47 353	1.4	34 781	1.5
100 to 199 acres.....	farms 623	1.3	533	1.3
	acres 86 383	1.3	74 831	1.4
200 to 499 acres.....	farms 729	.9	713	.9
	acres 225 181	.9	221 204	.8
500 to 999 acres.....	farms 333	.9	330	.9
	acres 227 827	.9	226 113	.9
1,000 acres or more.....	farms 175	-	175	-
	acres 339 967	-	339 967	-
Cropland used only for pasture or grazing.....	farms 4 095	.5	1 349	.7
	acres 556 685	.9	271 912	.9
Other cropland.....	farms 3 065	.5	1 741	.5
	acres 733 220	.6	602 042	.5
Irrigated land.....	farms 7 022	.3	2 652	.4
	acres 718 449	.3	625 078	.3
Acres irrigated:				
1 to 9 acres.....	farms 2 330	.7	160	2.3
	acres 10 598	.9	633	3.1
10 to 49 acres.....	farms 2 430	.7	577	1.3
	acres 54 338	.8	15 547	1.5
50 to 99 acres.....	farms 702	1.4	467	1.5
	acres 47 929	1.4	32 574	1.6
100 to 199 acres.....	farms 832	1.4	542	1.4
	acres 87 259	1.4	75 933	1.4
200 to 499 acres.....	farms 617	.9	607	.9
	acres 189 851	.8	186 496	.8
500 to 999 acres.....	farms 230	.8	222	.6
	acres 155 511	.8	149 820	.6
1,000 acres or more.....	farms 81	.9	77	.8
	acres 172 963	.5	164 075	.5
Market value of agricultural products sold.....	\$1,000 1 060 112	.1	1 037 499	(Z)
Average per farm.....	dollars 74 389	.1	183 856	.2
Value of sales:				
Less than \$2,500.....	farms 5 104	.4	-	-
	\$1,000 4 272	.7	-	-
\$2,500 to \$4,999.....	farms 1 802	.9	-	-
	\$1,000 6 406	.9	-	-
\$5,000 to \$9,999.....	farms 1 700	.9	-	-
	\$1,000 11 934	.9	-	-
\$10,000 to \$24,999.....	farms 1 828	.6	1 828	.6
	\$1,000 29 382	.6	29 382	.6
\$25,000 to \$49,999.....	farms 1 234	.8	1 234	.8
	\$1,000 43 378	.8	43 378	.8
\$50,000 to \$99,999.....	farms 966	.8	966	.8
	\$1,000 69 103	.8	69 103	.8
\$100,000 or more.....	farms 1 615	(Z)	1 615	(Z)
	\$1,000 895 636	(Z)	895 636	(Z)
Sales by commodity or commodity group:				
Crops, including nursery and greenhouse crops.....	farms 5 088	.4	2 599	.4
	\$1,000 261 488	.2	255 375	.2
Grains.....	\$1,000 50 068	.5	49 332	.4
Corn for grain.....	\$1,000 10 589	.8	10 525	.8
Wheat.....	\$1,000 20 352	.5	19 934	.5
Soybeans.....	\$1,000 (D)	(D)	(D)	(D)
Sorghum for grain.....	\$1,000 15 613	.9	15 408	.8
Barley.....	\$1,000 743	.9	729	.8
Oats.....	\$1,000 (D)	(D)	(D)	(D)
Other grains.....	\$1,000 2 400	1.7	2 381	1.7

See footnotes at end of table.

Table D. Reliability Estimates of State Totals: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms		Farms with sales of \$10,000 or more	
	Total (number)	Relative standard error of estimate (percent)	Total (number)	Relative standard error of estimate (percent)
Sales by commodity or commodity group—Con.				
Crops, including nursery and greenhouse crops—Con.				
Cotton and cottonseed .....	\$1,000 40 746	.5	40 390	.5
Tobacco .....	\$1,000 -	-	-	-
Hay, silage, and field seeds .....	\$1,000 51 939	.4	48 856	.4
Vegetables, sweet corn, and melons .....	\$1,000 48 703	.3	48 317	.3
Fruits, nuts, and berries .....	\$1,000 29 208	.4	27 879	.4
Nursery and greenhouse crops .....	\$1,000 21 529	-	21 336	-
Other crops .....	\$1,000 19 297	.6	19 265	.5
Livestock, poultry, and their products .....				
farms .....	10 020	.2	4 559	.2
\$1,000 .....	798 624	.1	782 125	(Z)
Poultry and poultry products .....	\$1,000 (D)	(D)	(D)	(D)
Dairy products .....	\$1,000 117 357	(Z)	117 327	(Z)
Cattle and calves .....	\$1,000 624 399	.1	611 139	(Z)
Hogs and pigs .....	\$1,000 9 369	.8	9 041	.8
Sheep, lambs, and wool .....	\$1,000 20 943	.4	19 854	.4
Other livestock and livestock products (see text) .....	\$1,000 (D)	(D)	(D)	(D)
Farms by standard industrial classification:				
Cash grains (011) .....	farms 582	1.3	410	1.3
acres .....	825 608	.6	760 764	.6
Field crops, except cash grains (013) .....	farms 1 916	.8	838	.9
acres .....	1 687 537	.2	1 094 891	.3
Vegetables and melons (016) .....	farms 282	1.9	194	1.9
acres .....	246 235	.1	242 706	.1
Fruits and tree nuts (017) .....	farms 890	1.3	141	2.9
acres .....	133 467	1.4	78 878	1.5
Horticultural specialties (018) .....	farms 125	-	79	-
acres .....	7 885	-	7 425	-
General farms, primarily crop (019) .....	farms 436	1.9	150	1.9
acres .....	407 536	.6	330 078	.5
Livestock, except dairy, poultry, and animal specialties (021) .....	farms 8 213	.3	3 571	.3
acres .....	41 083 436	(Z)	38 580 703	(Z)
Dairy farms (024) .....	farms 130	1.4	120	1.2
acres .....	89 550	.5	66 392	.6
Poultry and eggs (025) .....	farms 64	5.3	6	-
acres .....	3 548	9.8	453	-
Animal specialties (027) .....	farms 1 313	1.1	124	3.4
acres .....	595 841	.7	129 987	1.3
General farms, primarily livestock and animal specialties (029) .....	farms 298	2.2	10	14.1
acres .....	937 362	.4	6 441	13.2
Farms by type of organization:				
Individual or family (sole proprietorship) .....	farms 11 929	.2	4 118	.2
acres .....	19 416 398	.1	16 477 086	.1
Partnership .....	farms 1 362	.9	839	.9
acres .....	8 749 233	.1	8 324 076	.1
Corporation .....	farms 753	.9	587	.7
acres .....	8 976 683	(Z)	8 678 544	(Z)
Other—cooperative, estate or trust, institutional, etc. ....	farms 205	1.9	99	1.4
acres .....	8 875 691	(Z)	7 819 012	(Z)
Tenure of operator:				
Full owners .....	farms 8 698	.3	2 365	.5
acres .....	16 089 586	.1	13 781 663	.1
Part owners .....	farms 4 148	.4	2 554	.4
acres .....	24 747 623	.1	23 042 930	(Z)
Tenants .....	farms 1 403	.9	724	1.0
acres .....	5 180 796	.1	4 474 125	.1
Operators by principal occupation:				
Farming .....	farms 7 243	.3	4 324	.2
acres .....	34 382 005	(Z)	31 753 011	(Z)
Other .....	farms 7 006	.3	1 319	.7
acres .....	11 636 000	.1	9 545 707	.1
Operators by sex:				
Male .....	farms 13 065	.1	5 288	.2
acres .....	43 420 771	(Z)	39 100 777	(Z)
Female .....	farms 1 184	1.1	355	1.5
acres .....	2 597 234	.3	2 197 941	.2
Average age of operator .....	years 53.7	.2	53.5	.2
Cropland under federal acreage reduction programs:				
Annual commodity acreage adjustment programs .....	farms 1 412	.7	1 265	.6
acres .....	183 854	.5	179 581	.5
Conservation reserve program .....	farms 630	1.1	391	1.1
acres .....	290 221	1.0	202 116	.9
Government payments:				
Amount received in cash .....	\$1,000 27 075	.4	25 848	.4
Value of certificates received .....	\$1,000 21 959	.6	18 862	.5
Net cash return from agricultural sales <sup>1</sup> :				
Net cash return from agricultural sales for the farm unit (see text) .....	farms 14 246	.2	5 581	.3
\$1,000 .....	165 007	1.9	181 058	1.6
Average per farm .....	dollars 11 583	2.0	32 442	1.8
Farms with net gains <sup>2</sup> .....	number 7 102	.3	4 104	.4
\$1,000 .....	219 931	1.1	214 389	1.1
Farms with net losses .....	number 7 144	.3	1 477	.7
\$1,000 .....	54 923	2.0	33 331	2.2
Total farm production expenses <sup>1</sup> .....				
farms .....	14 246	.2	5 581	.3
\$1,000 .....	892 641	.4	853 562	.4
Livestock and poultry purchased .....	farms 4 743	2.4	2 766	2.2
\$1,000 .....	268 175	.8	264 582	.8
Feed for livestock and poultry .....	farms 8 555	1.5	3 955	1.4
\$1,000 .....	163 870	.4	158 731	.4
Seeds, bulbs, plants, and trees .....	farms 3 566	2.7	2 240	2.6
\$1,000 .....	11 120	1.5	10 751	1.5
Commercial fertilizer .....	farms 3 927	2.7	2 108	2.8
\$1,000 .....	20 913	1.5	20 251	1.6

See footnotes at end of table.

**Table D. Reliability Estimates of State Totals: 1987—Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms		Farms with sales of \$10,000 or more	
	Total (number)	Relative standard error of estimate (percent)	Total (number)	Relative standard error of estimate (percent)
<b>Total farm production expenses—Con.</b>				
Agricultural chemicals	farms... 4 595	2.4	2 521	2.4
	\$1,000... 13 079	2.1	12 536	2.1
Petroleum products	farms... 12 917	.6	5 502	.4
	\$1,000... 41 585	1.0	36 581	1.0
Electricity	farms... 7 757	1.6	4 201	1.4
	\$1,000... 19 313	1.4	17 942	1.4
Hired farm labor	farms... 5 587	2.1	3 431	1.8
	\$1,000... 98 309	.8	96 594	.8
Contract labor	farms... 2 547	3.5	1 555	3.4
	\$1,000... 20 662	1.0	19 775	1.0
Repair and maintenance	farms... 10 606	1.1	5 017	.9
	\$1,000... 40 645	1.1	35 352	1.0
Customwork, machine hire, and rental of machinery and equipment	farms... 3 739	2.9	1 926	3.1
	\$1,000... 11 471	2.8	10 331	3.0
Interest	farms... 5 887	2.0	3 690	1.7
	\$1,000... 68 124	1.1	62 862	1.0
Cash rent	farms... 2 668	3.3	1 809	3.0
	\$1,000... 25 367	2.2	24 421	2.2
Property taxes	farms... 13 271	.5	5 142	.8
	\$1,000... 12 169	1.6	8 918	1.3
All other farm production expenses	farms... 12 421	.8	5 578	.3
	\$1,000... 77 839	.8	73 935	.8
<b>Livestock and poultry:</b>				
Cattle and calves inventory	farms... 8 926	.3	4 108	.3
	number... 1 445 062	.1	1 341 924	.1
Beef cows	farms... 6 939	.3	3 206	.3
	number... 572 828	.2	517 894	.1
Milk cows	farms... 848	1.1	446	1.0
	number... 58 606	.1	57 910	.1
Cattle and calves sold	farms... 8 517	.3	4 292	.2
	number... 1 298 570	.1	1 256 535	.1
Hogs and pigs inventory	farms... 592	1.6	189	2.3
	number... 44 248	1.1	41 117	1.2
Hogs and pigs sold	farms... 373	1.9	150	2.6
	number... 89 200	.8	85 696	.8
Sheep and lambs inventory	farms... 1 363	1.0	528	1.0
	number... 468 264	.3	438 130	.3
Sheep and lambs sold	farms... 1 267	1.0	521	1.0
	number... 279 351	.4	263 005	.4
Hens and pullets of laying age inventory	farms... 1 344	1.1	343	1.5
	number... (D)	(D)	(D)	(D)
Broilers and other meat-type chickens sold	farms... 19	7.8	6	7.5
	number... (D)	(D)	(D)	(D)
Horses and ponies inventory	farms... 6 708	.3	2 625	.4
	number... 51 868	.4	32 759	.4
<b>Selected crops harvested:</b>				
Corn for grain or seed	farms... 434	1.6	275	1.4
	acres... 37 540	.8	36 792	.9
	bushels... 5 300 378	.8	5 252 542	.8
Sorghum for grain or seed	farms... 776	1.0	698	.9
	acres... 156 979	.8	153 434	.8
	bushels... 8 680 130	.8	8 554 089	.8
Wheat for grain	farms... 1 229	.7	1 007	.6
	acres... 309 184	.5	296 764	.5
	bushels... 8 820 030	.5	8 619 597	.5
Cotton	farms... 697	1.0	603	1.0
	acres... 79 135	.7	78 142	.7
	bales... 113 013	.6	111 916	.6
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)	farms... 4 830	.4	1 843	.5
	acres... 276 861	.5	228 147	.5
	tons, dry... 960 735	.4	872 645	.4
Land in orchards	farms... 1 526	.9	385	1.4
	acres... 28 529	1.0	21 716	.9

<sup>1</sup>Data are based on a sample of farms.

<sup>2</sup>Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains.

**Table E. Reliability Estimates of Percent Change in State Totals: 1982 to 1987**

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms		Farms with sales of \$10,000 or more	
	Percent change	Standard error of estimate (percent)	Percent change	Standard error of estimate (percent)
Farms..... number..	5.7	.3	8.5	.4
Land in farms..... acres..	-2.3	.3	18.2	.2
Value of land and buildings <sup>1</sup> :				
Average per farm..... dollars..	-5.9	1.7	20.0	2.3
Total cropland..... farms..	2.5	.4	3.8	.4
acres..	2.0	.5	4.9	.5
Harvested cropland..... farms..	-1.7	.4	-2.1	.4
acres..	-23.7	.4	-19.1	.4
Irrigated land..... farms..	1.5	.4	5.3	.5
acres..	-11.0	.4	-2.3	.4
Market value of agricultural products sold..... farms..	5.7	.3	8.5	.4
\$1,000..	24.6	.1	29.3	.1
Crops, including nursery and greenhouse crops..... farms..	2.4	.5	-2.4	.5
\$1,000..	12.6	.3	20.5	.3
Livestock, poultry, and their products..... farms..	1.8	.4	11.0	.3
\$1,000..	29.2	.1	32.4	.1
Poultry and poultry products..... farms..	-33.4	1.5	-34.6	2.7
\$1,000..	(D)	(D)	(D)	(D)
Selected farm production expenses <sup>1</sup> :				
Livestock and poultry purchased..... farms..	-6.9	3.2	15.6	4.1
\$1,000..	18.0	1.8	20.4	1.8
Feed for livestock and poultry..... farms..	-5.0	1.9	8.8	2.5
\$1,000..	13.9	.8	17.4	.8
Seeds, bulbs, plants, and trees..... farms..	-6.3	3.7	3.8	4.0
\$1,000..	25.2	3.3	52.5	4.6
Commercial fertilizer <sup>2</sup> ..... farms..	3.8	4.1	13.4	4.8
\$1,000..	14.6	2.7	41.1	3.9
Agricultural chemicals <sup>2</sup> ..... farms..	59.4	6.6	48.3	6.4
\$1,000..	54.6	4.9	65.1	5.3
Hired farm labor..... farms..	3.9	3.2	6.9	3.0
\$1,000..	60.7	1.8	68.7	1.9
Interest <sup>3</sup> ..... farms..	4.6	3.1	11.3	3.1
\$1,000..	-10.5	1.7	-7.8	1.7
Livestock and poultry inventory:				
Cattle and calves..... farms..	-2.9	.4	8.5	.4
number..	-5.9	.2	1.5	.1
Hogs and pigs..... farms..	-35.2	1.1	-18.9	1.9
number..	12.1	1.3	21.4	1.4
Hens and pullets of laying age..... farms..	-25.1	.8	-17.3	1.3
number..	(D)	(D)	(D)	(D)
Selected crops harvested:				
Corn for grain or seed..... farms..	-9.4	1.5	16.0	1.7
acres..	-34.3	.6	-8.0	.8
Sorghum for grain or seed..... farms..	-24.1	.8	-23.9	.8
acres..	-39.5	.6	-39.0	.6
Wheat for grain..... farms..	-15.8	.7	-14.0	.7
acres..	-35.6	.5	-35.2	.5
Soybeans for beans..... farms..	-84.6	-	-83.3	-
acres..	(D)	(D)	(D)	(D)
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)..... farms..	-2	.5	7.3	.6
acres..	-6.5	.5	6.2	.6
Vegetables harvested for sale (see text)..... farms..	-4.4	1.4	30.4	1.9
acres..	30.5	.7	40.8	.7
Land in orchards..... farms..	14.8	1.1	32.3	1.9
acres..	28.1	1.4	34.8	1.3

<sup>1</sup>Data are based on a sample of farms.

<sup>2</sup>Data for 1987 include cost of custom applications.

<sup>3</sup>Data for 1982 do not include imputation for item nonresponse.



**Table F. Reliability Estimates of County Totals: 1987**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms		Land in farms		Average value of land and buildings per farm <sup>1</sup>		Estimated market value of all machinery and equipment <sup>1</sup>		Harvested cropland		Irrigated land	
	Total (number)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)
Bernalillo	434	.6	(D)	(D)	316 173	4.2	10 165	6.0	6 896	1.7	7 445	2.1
Catron	260	.5	1 670 382	.1	651 185	4.8	5 762	7.4	(D)	(D)	1 711	2.3
Chaves	622	.4	2 991 513	.2	612 777	6.0	26 232	4.3	57 766	.5	64 724	1.3
Cibola	210	1.0	2 087 815	.1	1 180 005	4.9	6 375	4.7	(D)	(D)	6 547	5.7
Colfax	303	.6	1 877 995	.1	1 027 376	3.2	8 512	6.0	17 383	4.1	21 438	3.5
Curry	659	.4	990 255	.4	522 009	8.3	47 143	3.3	220 912	.6	85 456	1.1
De Baca	191	.7	1 296 777	.1	772 297	5.1	6 633	11.4	6 405	2.0	7 176	2.0
Dona Ana	1 104	.3	572 747	.3	780 116	14.6	57 770	3.5	76 415	.6	78 078	.6
Eddy	503	.5	967 816	.2	450 676	6.3	23 793	5.3	45 300	1.0	46 934	1.0
Grant	282	.5	1 202 779	.2	597 613	2.7	6 714	16.0	826	3.9	3 732	11.1
Guadalupe	258	.7	1 559 972	.2	542 873	4.6	(D)	(D)	(D)	(D)	2 196	3.4
Harding	181	.7	1 129 548	.2	861 657	12.4	6 502	5.7	(D)	(D)	1 056	-
Hidalgo	157	.9	1 226 048	.2	(D)	(D)	7 218	7.0	9 246	2.3	9 814	2.2
Lea	561	.4	2 220 431	.1	505 441	10.0	15 609	8.9	26 737	1.4	26 049	1.6
Lincoln	349	.6	1 894 215	.1	795 578	15.5	8 033	5.6	1 089	6.4	5 336	1.2
Los Alamos	2	-	(D)	-	(D)	-	(D)	-	-	-	-	-
Luna	207	.7	930 471	.2	632 636	12.5	14 133	2.3	26 787	.9	26 675	.9
McKinley	240	1.1	2 958 812	.1	1 853 542	1.5	5 291	6.2	(D)	(D)	2 756	1.9
Mora	401	.7	950 958	.3	415 445	4.4	6 118	9.5	8 245	2.3	11 503	2.8
Otero	439	.5	1 131 045	.2	673 139	8.1	7 750	9.8	5 558	2.4	7 296	1.8
Quay	589	.5	1 635 787	.2	330 637	4.6	22 659	9.4	81 247	1.1	24 405	2.7
Rio Arriba	936	.5	1 490 672	.3	391 256	4.1	17 324	6.3	(D)	(D)	24 066	3.1
Roosevelt	810	.4	1 534 584	.3	379 395	4.8	42 767	5.3	200 175	.6	72 043	1.1
Sandoval	379	.7	788 473	.3	455 794	2.9	6 344	6.6	(D)	(D)	10 129	1.4
San Juan	650	.5	1 857 223	.1	942 243	1.6	25 573	4.4	55 327	.4	63 431	.6
San Miguel	634	.5	1 949 191	.2	518 314	9.9	9 064	7.6	5 378	2.4	9 072	3.9
Santa Fe	324	.8	509 708	.5	366 207	3.5	4 958	8.2	6 340	1.7	6 593	1.7
Sierra	192	.8	1 226 568	.2	726 563	26.6	4 642	4.6	(D)	(D)	6 626	9.8
Socorro	396	.6	1 964 748	.1	622 038	14.3	12 708	6.5	13 011	1.8	15 693	1.6
Taos	497	.7	290 874	.7	239 245	4.5	6 203	8.1	11 052	1.9	15 583	1.9
Torrance	460	.5	1 805 222	.2	480 865	6.0	10 468	7.5	(D)	(D)	10 858	3.2
Union	438	.5	2 603 803	.1	763 824	6.3	16 807	3.7	38 779	1.8	31 264	1.0
Valencia	581	.6	318 046	.4	246 418	3.8	14 333	12.1	10 983	2.4	12 764	2.2
Geographic area	Cattle and calves inventory		Hogs and pigs inventory		Corn for grain or seed		Wheat for grain		Soybeans for beans		Market value of agricultural products sold	
	Total (number)	Relative standard error of estimate (percent)	Total (number)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Bernalillo	14 838	.9	481	3.4	118	10.2	(D)	(D)	-	-	26 693	.2
Catron	52 308	.5	12	19.2	185	3.6	(D)	(D)	-	-	10 572	.5
Chaves	90 892	.3	174	11.6	592	.1	1 833	.9	-	-	85 499	.1
Cibola	30 251	.8	227	8.3	772	1.5	(D)	(D)	-	-	9 004	.8
Colfax	37 983	.6	120	13.4	82	7.9	942	4.9	-	-	24 857	.4
Curry	126 336	.4	877	20.6	14 722	.9	139 051	.7	(D)	(D)	153 459	.1
De Baca	32 838	.7	153	16.9	-	-	1 207	.9	-	-	14 616	.4
Dona Ana	46 214	.5	592	13.1	243	7.7	2 493	.8	-	-	156 214	.1
Eddy	44 473	.7	62	9.1	(D)	(D)	386	11.2	-	-	47 059	.3
Grant	37 673	.6	108	8.8	16	8.1	(D)	(D)	-	-	7 584	.5
Guadalupe	34 384	.3	10	28.5	59	5.3	(D)	(D)	-	-	16 686	.2
Harding	41 446	.3	46	2.1	-	-	2 512	1.3	-	-	12 152	.4
Hidalgo	34 580	.4	(D)	(D)	826	2.5	(D)	(D)	-	-	20 211	.4
Lea	61 236	.6	296	11.0	321	11.3	7 723	3.1	-	-	31 096	.4
Lincoln	31 754	.6	124	27.1	-	-	-	-	-	-	12 176	.5
Los Alamos	-	-	-	-	-	-	-	-	-	-	(D)	-
Luna	37 989	.2	(D)	(D)	471	1.3	1 447	.7	-	-	32 106	.2
McKinley	33 036	.8	33	17.9	340	6.6	(D)	(D)	-	-	9 084	.6
Mora	21 289	.6	26	15.6	7	36.9	(D)	(D)	-	-	9 763	.5
Otero	26 978	.9	(D)	(D)	(D)	(D)	(D)	(D)	-	-	10 328	.5
Quay	71 879	.7	721	16.7	922	17.5	55 896	1.2	-	-	28 905	.5
Rio Arriba	35 576	1.5	116	12.1	114	3.3	518	5.7	-	-	11 270	1.0
Roosevelt	91 682	.4	1 815	9.2	9 565	1.9	73 996	1.1	-	-	96 339	.3
Sandoval	17 788	1.0	336	1.8	29	17.1	(D)	(D)	-	-	11 677	.7
San Juan	24 821	.9	537	13.1	550	3.8	(D)	(D)	-	-	23 337	.3
San Miguel	43 738	.7	124	9.7	91	11.2	(D)	(D)	-	-	16 714	.4
Santa Fe	21 899	.9	172	15.5	700	2.4	551	6.5	-	-	7 302	.7
Sierra	24 666	1.1	(D)	(D)	(D)	(D)	(D)	(D)	-	-	12 062	.9
Socorro	49 895	.6	203	23.2	739	5.7	170	24.8	-	-	21 168	.5
Taos	9 127	2.2	226	12.7	40	11.9	(D)	(D)	-	-	(D)	(D)
Torrance	36 858	.7	545	18.1	1 369	9.5	1 827	9.8	-	-	21 502	.5
Union	163 173	.2	1 265	11.9	4 384	1.3	13 161	1.4	-	-	105 796	.1
Valencia	17 462	1.1	702	1.5	(D)	(D)	90	14.5	-	-	12 290	1.0

See footnotes at end of table.

**Table F. Reliability Estimates of County Totals: 1987—Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected farm production expenses <sup>1</sup>									
	Livestock and poultry purchased		Commercial fertilizer		Hired farm labor		Petroleum products		Electricity for the farm business	
	Total (\$1,000)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Bernalillo .....	2 453	2.3	125	9.9	3 844	1.1	1 005	3.4	330	3.9
Catron .....	2 792	13.4	15	52.4	878	13.9	769	13.1	103	6.7
Chaves .....	17 703	.7	1 277	3.0	8 921	2.5	2 831	2.6	2 723	3.7
Cibola .....	1 210	4.3	179	11.2	1 036	14.5	655	3.5	110	7.7
Colfax .....	10 347	7.0	85	45.8	2 242	5.2	802	6.3	165	8.1
Curry .....	73 677	.8	3 155	3.7	6 446	1.3	4 611	3.4	1 586	3.4
De Baca .....	5 048	6.7	207	24.3	842	7.7	605	4.8	145	6.2
Dona Ana .....	6 710	3.7	4 315	1.6	22 896	1.7	4 728	1.5	2 426	1.2
Eddy .....	12 264	4.9	690	8.3	5 164	6.0	2 054	5.7	1 340	9.8
Grant .....	1 517	33.7	4	84.0	1 120	23.7	580	13.9	170	20.4
Guadalupe .....	7 214	9.5	13	39.9	829	2.5	472	6.3	94	5.4
Harding .....	5 274	5.0	44	8.4	894	5.0	550	4.8	138	5.3
Hidalgo .....	4 675	.4	392	10.1	2 228	1.5	836	4.6	475	15.4
Lea .....	6 291	7.5	599	12.2	2 480	2.1	1 439	3.7	760	9.9
Lincoln .....	2 107	6.4	(D)	(D)	1 248	1.5	801	4.8	220	6.4
Los Alamos .....	-	-	-	-	-	-	(D)	-	(D)	-
Luna .....	5 772	.4	1 171	1.2	3 232	1.4	1 414	1.9	1 622	1.8
McKinley .....	1 509	7.4	(D)	(D)	516	1.7	(D)	(D)	(D)	(D)
Mora .....	2 839	1.5	25	49.8	993	7.1	552	9.0	138	14.8
Otero .....	1 389	7.3	131	8.4	1 073	8.8	729	11.4	243	8.7
Quay .....	7 589	6.6	549	19.2	1 505	17.8	1 541	5.2	300	7.4
Rio Arriba .....	1 257	12.5	88	11.1	1 075	7.1	936	8.1	171	18.5
Roosevelt .....	20 718	1.8	3 295	6.7	5 691	3.3	4 032	3.4	2 714	4.3
Sandoval .....	560	12.8	136	1.3	1 786	1.8	460	11.3	142	5.8
San Juan .....	1 748	5.3	(D)	(D)	5 242	1.6	1 326	4.3	204	6.0
San Miguel .....	5 030	6.4	50	23.8	1 732	2.8	1 097	4.1	242	5.7
Santa Fe .....	1 521	3.8	94	8.2	1 092	2.3	(D)	(D)	135	6.9
Sierra .....	722	2.8	147	10.7	1 115	5.2	448	3.1	240	4.1
Socorro .....	3 700	2.6	280	15.0	1 571	3.6	1 009	6.3	383	5.9
Taos .....	285	28.7	11	52.2	122	17.2	354	13.4	55	23.8
Torrance .....	7 127	8.5	333	11.5	1 681	4.3	1 260	5.3	559	17.1
Union .....	45 305	1.1	725	9.4	7 471	.5	2 463	5.6	1 042	1.2
Valencia .....	1 818	35.3	177	16.1	1 246	3.4	525	9.1	265	3.2

<sup>1</sup>Data are based on a sample of farms.

**Table G. State Coverage Evaluation Estimates of Farms Not on the Mail List: 1987**

[Data are based on a sample of farms; see text. For meaning of abbreviations and symbols, see introductory text]

Item	Not on mail list		Percent not on mail list	
	Total number	Relative standard error of estimate (percent)	Total percent	Standard error of percent
Farms ..... number .....	951	30.8	6.3	1.9
Land in farms ..... acres .....	29 225	50.4	.1	(Z)
Farms by size:				
Less than 50 acres ..... farms .....	678	30.7	11.7	3.6
50 acres or more ..... farms .....	273	51.1	2.9	1.5
Harvested cropland ..... farms .....	516	32.1	6.6	2.1
..... acres .....	7 681	48.4	.8	.4
Farms by value of sales:				
Less than \$2,500 ..... farms .....	768	33.6	13.1	4.4
\$2,500 or more ..... farms .....	183	30.1	2.0	.6
\$2,500 to \$9,999 ..... farms .....	183	30.1	5.0	1.5
\$10,000 or more ..... farms .....	-	-	-	-
Market value of agricultural products sold ..... \$1,000 .....	1 109	37.3	.1	(Z)
Farms by standard industrial classification:				
Crops (01) ..... farms .....	405	26.2	8.7	2.3
Livestock (02) ..... farms .....	545	40.6	5.2	2.1
Farms by tenure of operator:				
Full owners ..... farms .....	741	34.4	7.9	2.7
Part owners and tenants ..... farms .....	210	24.9	3.6	.9
Operators by principal occupation:				
Farming ..... farms .....	505	38.4	6.5	2.5
Other ..... farms .....	446	27.2	6.0	1.6
Average age of operator ..... years .....	52.0	(Z)	(X)	(X)

Note 1: Farms classified as nonfarms, nonfarms classified as farms, and farms appearing more than once in the census are not accounted for in these estimates, but will be provided in the 1987 Coverage Evaluation publication. See appendix C for further explanation.

Note 2: Detail may not add to total due to rounding.



**SECTION 4:** Were any **VEGETABLES, SWEET CORN, MELONS, etc.,** harvested FOR SALE from "THIS PLACE" in 1987? (Do not include those grown for home use.)

- 54 1  YES — Complete this section  
 2  NO — Go to section 5

1. Land from which vegetables were harvested in 1987
2. From the list below, enter the crop name and code for each crop harvested in 1987. If more than one vegetable crop was harvested from the same acres, report acres for each crop. Report crops grown under protection in section 5.

Acres		Acres irrigated	
Whole acres	Tenths	Whole acres	Tenths
375	/10	376	/10

Crop name	Code	Acres harvested	Acres irrigated
Sweet corn	461	/10	462 /10
		/10	1 /10
		/10	1 /10
		/10	1 /10
		/10	1 /10
		/10	1 /10

If more space is needed, use a separate sheet of paper.

Crop name	Code	Crop name	Code	Crop name	Code
Asparagus	379	Eggplant	415	Pumpkins	449
Beans, snap	381	Garlic	421	Radishes	451
Beets	383	Honeydew melons	423	Spinach	457
Cabbage, head	391	Lettuce and romaine	427	Squash	459
Cantaloups and muskmelons	395	Onions, dry	433	Tomatoes	463
Carrots	397	Onions, green	435	Turnips	465
Cauliflower	399	Okra	437	Watermelons	473
Celery	401	Peas, green	441	Other vegetables — Specify	475
Cucumbers and pickles	411	Peppers, sweet	443		
		Peppers, hot	445		

**SECTION 5:** Were any **NURSERY and GREENHOUSE CROPS, MUSHROOMS, sod, bulbs, flowers, flower seeds, vegetable seeds and plants, vegetables under glass or other protection, GROWN FOR SALE** on "THIS PLACE" in 1987?

- 55 1  YES — Complete this section  
 2  NO — Go to section 6

1. Nursery and greenhouse crops irrigated in 1987
2. From the list below, enter the crop name and code for each crop grown.

Area irrigated		
Square feet	Acres	Tenths
477	478	/10

Crop name	Code	Square feet under glass or other protection in 1987	Acres in the open in 1987		Sales in 1987	
			Whole acres	Tenths	Dollars	Cents
			1	/10	\$	00
			1	/10	\$	00
			1	/10	\$	00

If more space is needed, use a separate sheet of paper.

Crop name	Code	Crop name	Code
Bedding plants (Include vegetable plants)	479	Potted flowering plants	710
Bulbs (Exclude bulb flowering plants)	482	Mushrooms	494
Cut flowers and cut florist greens	485	Sod harvested	497
Nursery crops — ornamentals, fruit and nut trees, and vines	488	Vegetable and flower seeds	500
Foliage plants	707	Greenhouse vegetables	503
		Other — Specify	506

**SECTION 6:** Were any **STRAWBERRIES or OTHER BERRIES** harvested FOR SALE from "THIS PLACE" in 1987? (Do not include those grown for home use.)

- 56 1  YES — Complete this section  
 2  NO — Go to section 7

Crop name	Code	Acres harvested		Quantity harvested	Acres irrigated	
		Whole acres	Tenths		Whole acres	Tenths
Blackberries and dewberries	509		/10	510 Lbs.	511	/10
Raspberries	533		/10	534 Lbs.	535	/10
Strawberries	536		/10	537 Lbs.	538	/10
Other berries — Specify	539			540 Lbs.	541	
			/10			/10

If more space is needed, use a separate sheet of paper.

**SECTION 7:** Were any **OTHER CROPS** harvested from "THIS PLACE" in 1987 — small grains, field seeds, peanuts, dry peas, sunflower seed, or other crops not previously reported? (Report fruit in section 8.)

- 57 1  YES — Complete this section  
 2  NO — Go to section 8

For those crops not listed enter the crop name and code from the list below. Report quantity harvested in unit specified with crop name.

Crop name	Code	Acres harvested	Quantity harvested	Acres irrigated
Alfalfa seed	542		543 Lbs.	544
Peanuts for nuts	656		657 Lbs.	658
Proso millet	665		666 Bu.	667
Rye for grain	688		687 Bu.	688
Sorghum cut for dry forage or hay	698		699 Tons, dry	700
Sunflower seed	734		735 Lbs.	736
			1	2
			1	2
			1	2
			1	2
			1	2
			1	2

If more space is needed, use a separate sheet of paper.

Crop name	Code	Crop name	Code
Bromegrass seed (pounds)	589	Ryegrass seed (pounds)	689
Corn cut for dry fodder, hogged or grazed (report acres only)	581	Sorghum hogged or grazed (report acres only)	701
Dry edible peas (pounds)	659	Soybeans for beans (bushels)	088
Foxtail millet seed (pounds)	608	Triticale (bushels)	749
Grains, mixed (bushels)	614	Wheatgrass seed (pounds)	758
Mint for oil (pounds of oil)	644	Other crops (pounds) — Specify	752
Popcorn (pounds, shelled)	662		

**SECTION 8:** Was there a combined total of 20 or more **FRUIT TREES, including GRAPEVINES and NUT TREES,** on "THIS PLACE" in 1987?

- 58 1  YES — Complete this section  
 2  NO — Go to section 9

1. **TOTAL ACRES** in bearing and nonbearing fruit orchards, vineyards, and nut trees on this place. (Do not include abandoned acres.)
2. For those crops not listed below, enter the name and code from the list at the right for other fruit and nut trees on this place in 1987. Report the requested information for each crop even if not harvested because of low prices, damage from hail, frost, etc.

Total acres		Acres irrigated	
Whole acres	Tenths	Whole acres	Tenths
121	/10	122	/10

Crop name	Code	NUMBER OF TREES OR VINES OF —		Acres in trees and vines of all ages		Quantity harvested	Unit of measure Mark one			
		Nonbearing age	Bearing age	Whole acres	Tenths		Lbs.	Tons	Boxes	Lbs. per box
Apples	123	124	125	126	/10	127	128	129	130	
Sweet cherries	345	346	347	348	/10	349	350	351	352	
Tart cherries	587	588	589	590	/10	591	592	593	594	
Peaches	225	226	227	228	/10	229	230	231	232	
Pecans	339	340	341	342	/10	343	344	345	346	
		1	2	3	/10	4	5	6	7	
		1	2	3	/10	4	5	6	7	

Crop name	Code
Apricots	129
Grapes	177
Nectarines	201
Pears	231
Plums and prunes	243
Other fruit and nuts — Specify	369

If more space is needed, use a separate sheet of paper.

**SECTION 9: GROSS VALUE of CROPS SOLD from "THIS PLACE" in 1987, BEFORE taxes and expenses (Refer to the INFORMATION SHEET, section 9.)**

Report your best estimate of the value for each of the following groups of crops sold from this place in 1987. Include the value of the landlord's and/or contractor's share, estimating if necessary. Include value of Government CCC loans.

	None	Dollars		Cents
1. Grains, soybeans and other beans sold in 1987		773	\$	00
a. Corn for grain		774	\$	00
b. Wheat		775	\$	00
c. Soybeans		776	\$	00
d. Sorghum for grain		777	\$	00
e. Barley		778	\$	00
f. Oats		779	\$	00
g. Other — rye, dry beans, proso millet, popcorn, sunflower seed, etc.		780	\$	00
2. Cotton and cottonseed		782	\$	00
3. Hay, silage, field seeds, and grass seeds		783	\$	00
4. Vegetables, sweet corn, and melons — (Do not include Irish potatoes and sweet potatoes, report them in item 6 below.)		784	\$	00
5. Fruits, nuts, and berries — apples, cherries, peaches, pecans, raspberries, etc.		785	\$	00
6. Other crops — potatoes, sugar beets, peanuts, etc. (Do not include nursery and greenhouse crops.) — Specify			\$	00

**SECTION 10: How were the ACRES in this place USED in 1987?**

1. Copy acres in "THIS PLACE" from section 1, item 4, page 1 \_\_\_\_\_ Acres

NOTE: For items 2 to 5 below, if land was used for more than one purpose in 1987 report it in the FIRST land use listed below that applies. For example, report cropland harvested and also pastured, only as "Cropland harvested."

2. **CROPLAND**

	None	Number of acres
a. Cropland harvested — Include all land from which crops were harvested or hay was cut, and all land in orchards, citrus groves, vineyards, and nursery and greenhouse crops.		787
b. Cropland used only for pasture or grazing — Include rotation pasture and grazing land that could have been used for crops without additional improvements.		788
c. Cropland used for cover crops, legumes, and soil-improvement grasses, but NOT harvested and NOT pastured		789
d. Cropland on which all crops failed — (Exception: Do not report here land in orchards and vineyards on which the crop failed. Such acreage is to be reported in item 2a.)		790
e. Cropland in cultivated summer fallow		791
f. Cropland idle		793
3. <b>Woodland</b> — Include all woodlots and timber tracts and cutover and deforested land with young timber growth.		794
a. Woodland pastured		795
b. Woodland not pastured		796
4. <b>Other pastureland and rangeland</b> — Include any pastureland other than cropland and woodland pasture.		797
5. <b>All other land</b> — Land in house lots, ponds, roads, wasteland, etc. — Include any land not reported in items 2 through 4 above.		798
6. <b>TOTAL ACRES</b> — Add the acres reported in items 2 through 5 (Should be the same as item 1 above.)		

**SECTION 11: Was any LAND in this place IRRIGATED at any time in 1987?**

Irrigated land is all land watered by any artificial or controlled means — sprinklers, furrows or ditches, spreader dikes, etc. Include supplemental, partial, and preplant irrigation.

1  YES — Complete this section  
2  NO — Go to section 12

	None	Number of acres irrigated
1. How many acres of harvested land were irrigated? Include land from which hay was cut and land in bearing and nonbearing fruit and nut crops reported in section 10, item 2a.		800
2. How many acres of pastureland, rangeland, and any other lands not included in item 1 above were irrigated?		801

**SECTION 12: Were any ACRES in this place SET ASIDE, DIVERTED, OR IDLED under FEDERAL acreage reduction programs in 1987?**

1  YES — Complete this section  
2  NO — Go to section 13

	None	Number of acres
1. How many acres were set aside (or diverted) under ANNUAL commodity acreage adjustment programs?		802
2. How many acres were under the CONSERVATION RESERVE PROGRAM (10 year, CRP)?		803

**SECTION 13: Did you or anyone else have any CATTLE or CALVES on this place in 1987?**

S13  
1  YES — Complete this section  
2  NO — Go to section 14

• **DECEMBER 31, 1987 INVENTORY**

	None	INVENTORY Number on this place Dec. 31, 1987	
1. CATTLE AND CALVES of all ages (Total of a, b, c, and d below)		803	Total
a. BEEF COWS — Include beef heifers that had calved.		804	Beef cows
b. MILK COWS kept for production of milk or cream for sale or home use — Include dry milk cows and milk heifers that had calved.		805	Milk cows
c. HEIFERS AND HEIFER CALVES — (Do not include heifers that had calved.)		806	Heifers and heifer calves
d. STEERS, STEER CALVES, BULLS, AND BULL CALVES		807	Steers and bulls of all ages

• **CATTLE AND CALVES SOLD FROM THIS PLACE IN 1987**

Include those fed on this place on a contract or custom basis. Also report as sold cattle moved from this place to a feedlot for further feeding.

	None	Number sold in 1987	Gross value of sales	
			Dollars	Cents
2. Calves weighing less than 500 pounds		808	809	00
3. Cattle, including calves weighing 500 pounds or more		810	811	00
a. Of the total cattle sold, how many were FATTENED on this place on GRAIN or CONCENTRATES for 30 days or more and SOLD for SLAUGHTER?		812	813	00

• **DAIRY PRODUCTS SOLD FROM THIS PLACE IN 1987**

	None	DAIRY PRODUCTS Gross value of sales	
		Dollars	Cents
4. Gross value of sales of DAIRY PRODUCTS from this place in 1987 — Include milk, cream, butter, etc.		814	00

**SECTION 14: Did you or anyone else have any HOGS or PIGS on this place in 1987?**

S14  
1  YES — Complete this section  
2  NO — Go to section 15

• **DECEMBER 31, 1987 INVENTORY**

	None	INVENTORY Number on this place Dec. 31, 1987	
1. HOGS and PIGS of all ages (Total of a and b below)		815	Total
a. HOGS and PIGS used or to be used for BREEDING		816	Breeding
b. OTHER HOGS and PIGS		817	Other

• **LITTERS FARROWED**

	None	Number of litters
2. LITTERS FARROWED on this place between —		818
a. December 1, 1986 and May 31, 1987		819
b. June 1, 1987 and November 30, 1987		

• **HOGS AND PIGS SOLD**

	None	Number sold in 1987	Gross value of sales	
			Dollars	Cents
3. HOGS and PIGS SOLD from this place in 1987		820	821	00
4. Of the hogs and pigs sold, how many were sold as FEEDER PIGS for further feeding?		822	823	00

**SECTION 15: Did you or anyone else have any SHEEP or LAMBS on this place in 1987?**

S15  
1  YES — Complete this section  
2  NO — Go to section 16

	None	INVENTORY Number on this place Dec. 31, 1987		NUMBER SOLD in 1987
1. SHEEP and LAMBS of all ages		824	825	
a. EWES 1 year old or older		826		
2. SHEEP and LAMBS SHORN		827	828	
3. What was the gross value of sales of SHEEP, LAMBS, and WOOL from this place in 1987?		829		00

**SECTION 16: Did you or anyone else have any HORSES, BEES, FISH, GOATS, OTHER LIVESTOCK, or ANIMAL SPECIALTIES on this place in 1987?**

516  YES — Complete this section  NO — Go to section 17

	None	INVENTORY Number on this place Dec. 31, 1987	Total quantity sold in 1987	Gross value of sales	
				Dollars	Cents
1. Horses and ponies of all ages	<input type="checkbox"/>	830	831	832	00
			Number	\$	
2. Colonies of bees	<input type="checkbox"/>	839	840	842	00
			Number	\$	
			Pounds honey	\$	
3. Milk goats	<input type="checkbox"/>	843	844	846	00
			Number	\$	
			Gallons milk	\$	
4. Angora goats	<input type="checkbox"/>	847	848	850	00
			Number	\$	
			Pounds mohair	\$	
5. Other goats	<input type="checkbox"/>	851	852	853	00
			Number	\$	
6. Mules, burros, and donkeys	<input type="checkbox"/>	833	834	836	00
			Number	\$	
7. Mink and their pelts	<input type="checkbox"/>	836	837	838	00
			Number	\$	
8. Rabbits and their pelts	<input type="checkbox"/>	854	855	858	00
			Number	\$	
9. All other livestock and livestock products	<input type="checkbox"/>	857	858	859	00
			Number	\$	

10. Fish and other aquaculture products (Enter name and code from list below.)

Name	Code	Total quantity sold in 1987	Gross value of sales	
			Dollars	Cents
OR		Pounds	2	00
		Number	\$	

Name	Code	Name	Code
Catfish	860	Other fish — Specify	866
Trout	863	Other aquaculture products — Specify	869

If more space is needed, use a separate sheet of paper.

**SECTION 17: Did you or anyone else have any POULTRY, such as CHICKENS, TURKEYS, DUCKS, etc., on this place in 1987? — Include poultry grown for others on a contract basis.**

517  YES — Complete this section  NO — Go to section 18

	None	INVENTORY Number on this place Dec. 31, 1987	Total number sold in 1987
2. PULLETS for laying flock replacement	<input type="checkbox"/>	894	895
a. PULLETS 3 months old or older not yet of laying age	<input type="checkbox"/>	896	
b. PULLET CHICKS and PULLETS under 3 months old (Do not include commercial broilers.)	<input type="checkbox"/>	898	899
3. BROILERS, fryers, and other meat-type chickens including capons and roasters	<input type="checkbox"/>	900	901
4. TURKEYS	<input type="checkbox"/>	902	903
a. Turkeys for slaughter (Do not include breeders.)	<input type="checkbox"/>		
b. Turkey HENS kept for breeding	<input type="checkbox"/>		
5. OTHER POULTRY raised in captivity — ducks, geese, pigeons or squab, pheasants, quail, etc. (Enter poultry name and code from the list below.)	<input type="checkbox"/>		

Name	Code	Name	Code	Name	Code
Ducks	904	Pigeons or squab	908	Quail	912
Geese	906	Pheasants	910	All other poultry — Specify	914

6. POULTRY HATCHED on this place in 1987 and placed or sold — chickens, turkeys, ducks, etc. — Specify kind of poultry

7. Incubator egg capacity on December 31, 1987.

	None	Gross value of sales	
		Dollars	Cents
8. What was the gross value of sales of poultry and poultry products (eggs, etc.) from this place in 1987?	<input type="checkbox"/>	918	00
		\$	

**SECTION 18: GOVERNMENT CCC LOANS**

518

1. Amount received in 1987 from Government CCC loans for — Include regular and reserve loans, even if redeemed or forfeited.

	None	Dollars	Cents
a. Corn	<input type="checkbox"/>	886	00
b. Wheat	<input type="checkbox"/>	887	00
c. Soybeans	<input type="checkbox"/>	888	00
d. Sorghum, barley, and oats	<input type="checkbox"/>	889	00
e. Cotton	<input type="checkbox"/>	890	00
f. Peanuts, rye, and honey	<input type="checkbox"/>	891	00

**SECTION 19: Payments received for participation in FEDERAL FARM PROGRAMS in 1987 (DO NOT INCLUDE CCC loans.) Refer to INFORMATION SHEET, section 19.**

519

	None	Dollars	Cents
1. Amount received in cash	<input type="checkbox"/>	884	00
2. Value of certificates received — payment-in-kind (PIK) or commodity certificates	<input type="checkbox"/>	885	00

**SECTION 20: TYPE OF ORGANIZATION**

520

Mark (X) the one item which best describes the type of organization for this place in 1987. Refer to the INFORMATION SHEET, section 20.

- FAMILY or INDIVIDUAL operation — (Do not include partnership and corporation.)  921
- PARTNERSHIP operation — Include family partnerships.  922 } Go to section 22
- INCORPORATED UNDER STATE LAW  923 } Go to section 21
- OTHER, such as estate or trust, prison farm, grazing association, Indian reservation, etc.  924 } Specify below then go to section 22

**SECTION 21: CORPORATE STRUCTURE (for incorporated operations only)**

521

1. Is this a family-held corporation?  Yes  No 922

2. Are there more than 10 stockholders?  Yes  No 923

**SECTION 22: CHARACTERISTICS AND OCCUPATION OF OPERATOR (Senior partner or person in charge) Refer to the INFORMATION SHEET, section 22.**

522

1. RESIDENCE — Does the operator (senior partner or person in charge) live on this place?  Yes  No 924

2. PRINCIPAL OCCUPATION — At which occupation did the operator spend the majority (50 percent or more) of his/her worktime in 1987? For partnerships consider all members of the partnership together.  Farming  Other or ranching 925

3. OFF-FARM WORK — How many days did the operator (senior partner or person in charge) work at least 4 hours per day off this place in 1987? — Include work at a nonfarm job, business, or on someone else's farm for pay. (Do not include exchange farmwork.)  None  1-49 days  50-99 days  100-149 days  150-199 days  200 days or more 926

4. In what YEAR did the operator (or senior partner) begin to operate any part of this place? \_\_\_\_\_ Year 927

5. AGE of operator (senior partner or person in charge) \_\_\_\_\_ Years old 928

6. RACE of operator (senior partner or person in charge)  White  Negro or Black  American Indian  Asian or Pacific Islander  Other — Specify 929

7. SEX of operator (senior partner or person in charge)  Male  Female 930

8. SPANISH ORIGIN — Is the operator (senior partner or person in charge) of Spanish origin or descent (Mexican, Puerto Rican, Cuban, or other Spanish)?  Yes  No 931



**SECTION 23: PRODUCTION EXPENSES paid by you and others for this place in 1987**

S23

Include your best estimates of expenses paid by you, your landlord, contractors, buyers, and others for production of crops, livestock, and other agricultural products in 1987. (DO NOT INCLUDE expenses connected with performing customwork for others; operation of nonfarm activities, businesses, or services; or household expenses not related to the farm business.)

None	Dollars	Cents
1. Livestock and poultry purchased — cattle, calves, hogs, pigs, sheep, lambs, goats, horses, chicks, poult, started pullets, etc. . . . .	971	00
2. Feed purchased for livestock and poultry — grain, hay, silage, mixed feeds, concentrates, etc. . . . .	972	00
a. Commercially mixed formula feeds purchased — complete, supplement, concentrates, premixes. (Do not include ingredients purchased separately, such as soybean meal, cottonseed meal, and urea.) . . . . .	973	00
3. Seed cost — for corn, other grains, soybeans, tobacco, cotton, etc. — Include plants and trees purchased. . . . .	974	00
4. Commercial fertilizer purchased — all forms, including rock phosphate and gypsum. Include cost of custom applications. . . . .	975	00
5. Agricultural chemicals purchased — Insecticides, herbicides, fungicides, other pesticides, etc. — Include cost of custom applications. (Do not include lime.) . . . . .	976	00
6. Gasoline and other petroleum fuel and oil purchased for the farm business — a. Gasoline and gasohol . . . . .	977	00
b. Diesel fuel . . . . .	978	00
c. Natural gas . . . . .	979	00
d. LP gas, fuel oil, kerosene, motor oil, grease, etc. . . . .	980	00
7. Electricity for the farm business — (Do not include household expenses.) . . . . .	981	00
8. Hired farm and ranch labor — also include employer's cost for social security, workman's compensation, insurance premiums, pension plans, etc. (See INFORMATION SHEET) . . . . .	982	00
9. Contract labor — Include expenditures for labor, such as harvesting of fruit, vegetables, berries, etc., performed on a contract basis by a contractor, crew leader, a cooperative, etc. . . . .	983	00
10. Repair and maintenance expenses for the upkeep of buildings, motor vehicles, and farm equipment . . . . .	984	00
11. Customwork, machine hire and rental of machinery and equipment — Include expenditures for use of equipment and for customwork such as grinding and mixing feed, plowing, combining, corn picking, drying, silo filling, spraying, dusting, fertilizing, etc. (Do not include cost of cotton ginning and application of fertilizer and chemicals.) . . . . .	985	00
12. Interest paid on debts — (See INFORMATION SHEET) a. Secured by real estate . . . . .	986	00
b. Not secured by real estate . . . . .	987	00
13. Cash rent paid for land and buildings in 1987 — (Do not include grazing fees.) . . . . .	988	00
14. Property taxes paid — Include farm real estate, machinery, livestock, etc. for the farm business. (Do not include taxes paid by landlords.) . . . . .	989	00
15. All other production expenses — Include insurance, water, animal health costs, grazing fees, marketing charges, miscellaneous farm supplies, etc. (Do not include depreciation, household expenses, and expenses not associated with the farm business.) . . . . .	990	00

**SECTION 24: Was any COMMERCIAL FERTILIZER, including ROCK PHOSPHATE, or LIME used on this place during 1987?**

S24

1  YES — Complete this section 2  NO — Go to section 25

None	Acres fertilized
1. Acres of cropland fertilized in 1987 — (Do not include cropland for pastures reported in section 10, item 2b.) . . . . .	932
2. Acres of pastureland and rangeland fertilized in 1987 reported in section 10, items 2b and 4 . . . . .	933
3. LIME — tons of lime used and acres on which applied — (Do not include land plaster or gypsum or lime for sanitation.) . . . . .	934 935

**SECTION 25: Were any INSECTICIDES, HERBICIDES, FUNGICIDES, NEMATOCIDES, OTHER PESTICIDES, or OTHER CHEMICALS used on this place in 1987?**

S25

1  YES — Complete this section 2  NO — Go to section 26

Include any materials provided by you, your landlords, or contractors. For each item listed, report acres only once. If multipurpose chemicals were used, report acreage treated for each purpose.

None	Acres on which used
1. Sprays, dusts, granules, fumigants, etc., (fungicide, herbicide, insecticide, nematocide) to control — a. Insects on crops, including hay . . . . .	936
b. Nematodes in crops . . . . .	937
c. Diseases in crops and orchards (blights, smuts, rusts, etc.) . . . . .	938
d. Weeds, grass, or brush in crops and pasture — Include both pre-emergence and post-emergence . . . . .	939
2. Chemicals for defoliation or for growth control of crops or thinning of fruit . . . . .	940

**SECTION 26: MACHINERY AND EQUIPMENT on this place on December 31, 1987 — Include only equipment used for agricultural operations in 1986 or 1987.**

S26

• Value of ALL machinery and equipment on this place, December 31, 1987

1. What is the estimated market value of ALL machinery, equipment, and implements usually kept on this place and used for the farm or ranch business? — Include cars, trucks, tractors, combines, plows, disks, harrows, dryers, pumps, motors, irrigation equipment, dairy equipment including milkers and bulk tanks, livestock feeders, grinding and mixing equipment, etc. . . . .

Estimated market value	
Dollars	Cents
943	00

• SELECTED machinery and equipment on this place, December 31, 1987. (Report only if used in 1986 or 1987.)

None	Total number on this place on December 31, 1987	Of the total, HOW MANY were manufactured in the last 5 years (1983 - 1987)?
2. Motortrucks — Include pickups . . . . .	944	945
3. Wheel tractors other than garden tractors and motor tillers — a. Less than 40 horsepower (PTO) . . . . .	946	947
b. 40 horsepower (PTO) or more . . . . .	948	949
4. Grain and bean combines, all types . . . . .	950	951
5. Cotton pickers and strippers . . . . .	956	957
6. Mower conditioners . . . . .	958	959
7. Pickup balers — Include rectangle and round balers . . . . .	960	961

**SECTION 27: ESTIMATED CURRENT MARKET VALUE OF LAND and BUILDINGS**

S27

Please give your best ESTIMATE of the CURRENT MARKET VALUE of land and buildings for all acres reported in section 1, items 1, 2, and 3, page 1.

Estimated market value of land and buildings	
Dollars	Cents
1. All land owned . . . . .	996 00
2. All land rented or leased FROM OTHERS . . . . .	997 00
3. All land rented or leased TO OTHERS . . . . .	998 00

**SECTION 28: INCOME FROM FARM - RELATED SOURCES in 1987**

S28

Report amount received before taxes and expenses.

Farm-related income	
Dollars	Cents
1. Customwork and other agricultural services provided for farmers and others — plowing, planting, spraying, harvesting, preparation of products for market, etc. (If customwork is a separate business, refer to INFORMATION SHEET, section 28) . . . . .	992 00
2. Gross cash rent or share payments received from renting out farmland or payments received from lease or sale of allotments — Include payments for livestock pastured on a per-head basis, per-month basis, per-pound basis, etc. . . . .	993 00
3. Sales of forest products and Christmas trees — Include maple products, naval stores, firewood, etc. . . . .	994 00
4. Recreational services, patronage dividends of cooperatives, and other income which is CLOSELY RELATED to the agricultural operation on this place — Specify . . . . .	995 00

**SECTION 29: PERSON COMPLETING THIS REPORT — Please print**

Name \_\_\_\_\_ Date \_\_\_\_\_

Telephone number \_\_\_\_\_ Area Code \_\_\_\_\_ Number \_\_\_\_\_

**INFORMATION SHEET****1987 UNITED STATES CENSUS OF AGRICULTURE****Special Reporting Instructions****1. Who Should Report**

WE NEED A REPLY FROM EVERYONE RECEIVING A REPORT FORM, INCLUDING individuals, landlords, tenants, partnerships, corporations, institutions, and THOSE NOT CONDUCTING AGRICULTURAL OPERATIONS. Each case included in the census has a unique Census File Number (CFN). In order to make the census results as complete and accurate as possible, we need to obtain information about every CFN.

**2. If You Received More Than One Report Form for an Operation**

Complete only ONE report form for an operation. Write "Duplicate" near the address label of each extra report form. Also, write the 11-digit census file number(s) of the DUPLICATE report(s) ON THE COMPLETED REPORT in the space provided to the left of the address label. Return the extra report(s) in the same envelope with your completed report form so that we can correct our records.

**3. If You No Longer Farm**

If you had agricultural operations at any time during 1987, please report all agricultural activity during the year. Report all land on your census form that you owned or rented. Also, report your 1987 crop and livestock production and 1987 sales.

Explain on the first page of the report form (or on a separate sheet of paper) that you quit farming or ranching and give the approximate date and the name and address of the present operator, if known.

**4. If You Never Farmed or Have No Association With Agriculture**

Please write a note on the report form near the address label explaining this and return the form so that we can correct our records. In our efforts to make the census as complete as possible, we obtained lists from various sources. We tried to eliminate duplicate and nonfarm addresses, however, it was not always possible to do so.

**5. If You Have More Than One Agricultural Operation**

Complete a report form for EACH SEPARATE and DISTINCT production unit, i.e., each individual farm, ranch, feedlot, greenhouse, etc., or combination of farms, etc., for which you maintain SEPARATE records of operating expenses and sales, livestock and other inventories, crop acreages, and production.

**6. If You Have a Partnership Operation**

Complete only ONE report for the entire partnership's agricultural operation and include all partners' shares on the one report. If members of the partnership also operate separate farms or ranches in addition to the partnership farming operation, separate report forms should be completed for each individual operation.

If two or more report forms were received for the same operation, mark each additional form as a "Duplicate." Return the duplicate report(s) in the same envelope with the completed partnership report, where possible, or write a note on the duplicate report, such as, "(Name of partner) has completed a report for the partnership (provide name and CFN of partnership.)"

**7. Landlord's or Contractor's Share**

If you rented or leased land from others or had a contract for the production of agricultural products, include both your share and the landlord's or contractor's share of the production, sales, and expenses so your census report form will be complete for "THIS PLACE."

If you do not know the landlord's or contractor's share, include your BEST ESTIMATE. If you do not have records available for all data items, use your best estimate.

**How to Enter Your Response**

Enter your replies in the proper spaces, on the correct lines, and in the units requested, i.e., dollars, bushels, tons, etc. Write any explanation outside the answer spaces or on a separate sheet of paper.

All dollar figures may be entered in whole dollars. CENTS ARE NOT REQUIRED.

Enter whole numbers except where tenths are requested, such as acres of potatoes harvested. If you have 1/2, 1/3, or 1/4 of an acre, convert to tenths. For example, convert 1/2 to 5/10, 1/3 to 3/10, 1/4 to 2/10.

The census report form will contain sections and questions which do not apply to you. When this occurs, mark the "None" or "No" box and go on to the next item or section.

**Instructions For Specified Sections****► Section 1 — ACREAGE IN 1987**

Your answers to this section will determine the land (Acres in "THIS PLACE") referred to in the rest of the report form.

When answering the acreage questions, include the land associated with your agricultural operations in 1987 whether in production or not. Include all land that you owned or rented during 1987 even if only for part of the year. Do not include any unrelated residential or commercial land.

**IF YOU QUIT FARMING DURING 1987** — Complete the report form for the portion of the year that you did farm. Explain on the report form in the space to the left of the address label (or on another sheet of paper) when you stopped farming and include the name and address of the person now using the land.

Report all land in section 1 in whole acres.

**Item 1 — All Land Owned** — Report all land owned in 1987 whether held under title, purchase contract or mortgage, homestead law, or as heir or trustee of an undivided estate. Include all land owned by you and/or your spouse, or by the partnership, corporation, or organization for which you are reporting.

**Item 2 — All Land Rented or Leased FROM OTHERS** — Report all land rented by you or your operation even though the landlord may have supplied materials or supervision.

INCLUDE in item 2:

- a. Land for agricultural use that you rented from others for cash
- b. Land you worked on a share basis (crop or livestock)
- c. Land owned by someone else that you used rent-free
- d. Federal, State, Indian reservation, or railroad land rented or leased by the acre

DO NOT INCLUDE in item 2:

Land used on a per-head or animal unit license or permit basis, such as section 3 of the Taylor Grazing Act, National Forest, or Indian reservation permit land. If you had any of these permits, mark "yes" to item 7.

**Item 3 — All Land Rented or Leased TO OTHERS** — Include all land rented out for any purpose if it was part of the acreage reported in items 1 and 2. A report form will be obtained from each of your tenants to cover the operations on that land.

INCLUDE in item 3:

- a. Owned land rented to others for cash or a share of crops or livestock
- b. Land you rented from someone and then subleased to someone else
- c. Land worked for you by someone for a share of crops or livestock
- d. Land which you allowed others to use rent-free

**Item 4 — Acres in "THIS PLACE"** — This figure will show the total of all land you operated at any time in 1987.

**If item 4, Acres in "THIS PLACE" is "0" and:**

- a. You raised any crops or had any livestock or poultry on "THIS PLACE" in 1987, complete the report.
- b. All your land was operated by a renter or sharecropper, complete item 6 (name and address of renters), skip to and complete section 29, and explain briefly, "all land rented out," etc. Mail form in return envelope.
- c. You did not have any agricultural activity on owned or rented land in 1987, complete section 29 and explain briefly, such as "retired," "sold farm," and date. Give name and address of current operator if known and return form.

**► Sections 2 through 8 — CROPS**

Sections 2 through 8 provide space for reporting crops harvested during the 1987 crop year from the land shown in section 1, item 4 (Acres in "THIS PLACE") of your report. Please report your crops in the appropriate sections. Do NOT include any crops grown on land rented or leased TO OTHERS, or worked by others on shares during 1987.

**Acres harvested** — Enter the acres harvested in 1987. Round fractions to whole acres except where tenths are requested by "/10" in the reporting box, such as for potatoes.

**Quantity harvested** — If your unit of measure is different than the unit on the report form, please convert your figure for the quantity harvested to the unit requested. If the harvest was incomplete by December 31, 1987, please report the quantity harvested and estimated quantity to be harvested.

**Acres irrigated** — For each crop irrigated, report number of acres irrigated. Irrigation is defined as land watered by artificial or controlled means — sprinklers, furrows or ditches, spreader dikes, purposeful flooding, etc. Include acres that received supplemental, partial, and/or preplant irrigation. Do not report water applied in transplanting tobacco plants, trees, or vegetables as irrigation. Leave "Acres irrigated" blank for crops that are not irrigated.

**How to Report Crops Harvested**

- ▶ **Sections 2 and 3** — Report only for the listed crops.
- ▶ **Sections 4 through 8** — To report: (1) find the crop name and the code number from the list in the section; (2) enter crop name and code in the first two columns of the first available answer line in the section; (3) enter the information that is requested in the remaining columns. If you harvested a crop not listed in sections 4 through 8, use the "Other" code in the appropriate section and specify the crop name.

**Double Cropping** — If two or more crops were harvested from the same land (double cropping) report the total acres and production of each harvested crop in the appropriate section(s) of the report form.

*Example:* In 1987 you harvested 1,230 bushels of wheat from 40 acres, then on the same 40 acres planted soybeans, from which you harvested 1,550 bushels. You irrigated the soybeans but not the wheat.

Section 2 <sup>x</sup> Were any of the following CROPS harvested from "THIS PLACE" in 1987?				
52				
	None	Acres harvested	Quantity harvested	Acres irrigated
1. Cotton . . . . .	<input type="checkbox"/>	091	092	093
2. Soybeans for beans	<input type="checkbox"/>	088 40	089 1,550 Bu.	090 40
3. Wheat for grain . . . . .	<input type="checkbox"/>	073 40	074 1,230 Bu.	075
4. Oats for grain . . . . .	<input type="checkbox"/>	076	077	078

**Interplanted Crops** — If two crops were grown at the same time in alternating strips in the same field, report the portion of the field used for each crop.

*Example:* A 60 acre field was planted in cotton and soybeans, with two rows of cotton followed by an area of the same width planted in soybeans. No irrigation was used. Thirty acres of soybeans and 30 acres of cotton would be reported in the appropriate section(s).

**Skip Row Planting** — If a crop is planted in an alternating pattern of planted and non-planted rows, such as two rows planted and two rows skipped (2 X 2), report the portion of the field occupied by the crop in the appropriate section for that crop, and report the skipped portion as "Cropland idle" in section 10, item 2f.

- ▶ **Section 4 — VEGETABLES** — Report acres of vegetables harvested FOR SALE or commercial processing. Do not include vegetables grown for home use. Report the total acreage of each vegetable crop harvested.

*Example:* In 1987 you harvested 10 acres of lettuce from a field, then replanted the field in lettuce and harvested the 10 acres again. Both crops of lettuce were irrigated. Enter only 10 acres of land from which vegetables were harvested and 10 acres irrigated in item 1 of section 4, but write in 20 acres of lettuce harvested and 20 acres of lettuce irrigated in item 2 of section 4.

- ▶ **Section 8 — FRUITS and NUTS** — In counting the combined total of 20 or more trees and vines, include those for home use as well as those maintained for sale of the production. Acres in trees or vines that have been abandoned should not be included; these acres should be included in section 10, item 2f "Cropland idle."

If crops other than fruit and nut trees and vines were interplanted with trees or vines, report the total acres for the orchard crop in section 8 and the total acres of the interplanted crop in the appropriate section.

- ▶ **Section 9 — GROSS VALUE OF CROPS SOLD**

Report the value of all crops sold from "THIS PLACE" in 1987, regardless of the year they were harvested or who owned the land. Be sure to report gross values before deducting expenses and taxes. Include Government CCC loans received for "THIS PLACE" in 1987. Include payments received in 1987 from cooperatives or marketing organizations for crops produced on "THIS PLACE" regardless of the year in which the crops were harvested.

Also include as sales, your estimate of the value of any crop removed from "THIS PLACE" in trade for services, such as hay cut in exchange for fence repair, clearing, or other services. If the sale price or market value is not known, give your best estimate of the crop's market value when removed from "THIS PLACE."

DO NOT INCLUDE crops or crop products purchased from others and later sold.

▶ **Section 10 — USE OF ACRES IN "THIS PLACE"**

This section is used to classify the acres in "THIS PLACE" reported in section 1, item 4. (Do not include any acres you rented to others reported in section 1, item 3). The sum of the acres entered in various categories should equal total acres in "THIS PLACE."

**Land Used for More Than One Purpose** — Do not report the same acreage for more than one of the listed purposes. If part or all of your land was used for more than one listed purpose in 1987, report that land only in the first category listed. For example, if you plowed under a cover crop, and planted and harvested a grain crop, report the land in item 2a, "Cropland harvested," but do NOT report as "Cropland used for cover crops, legumes, etc." (item 2c).

**Double Cropping** — When more than one crop was harvested from the same land in 1987, report that land only ONCE as "Cropland harvested," in item 2a.

**Interplanted Crops** — If you interplanted crops, such as cotton in an orchard, report the total land used for both crops only ONCE, as "Cropland harvested," in item 2a.

**Skip Row Planted Crops** — Report the acres that represent the total nonplanted or skipped rows as "Cropland idle," item 2f. The acres that represent the planted rows should be reported as "Cropland harvested," in item 2a.

▶ **Section 12 — ACRES SET ASIDE, DIVERTED, OR IDLED UNDER FEDERAL ACREAGE REDUCTION PROGRAMS IN 1987**

Include in item 2 all acres in "THIS PLACE" retired from production and placed, by long-term contract, into the Conservation Reserve Program. Acres placed into the program during and prior to 1987 should be included.

▶ **Sections 13 through 17 — LIVESTOCK, POULTRY, OTHER LIVESTOCK, OR ANIMAL SPECIALTIES**

**Animals and Poultry to Include in the Report** — Report all animals, poultry, and animal specialties on "this place" (section 1, item 4) on December 31, 1987. Include all owned by you and any kept by you for others. Include animals on unfenced lands, National Forest land, district land, cooperative grazing association land, or rangeland administered by the Bureau of Land Management on a per-head or lease basis. Animals in transit on December 31, 1987, or animals on a short-term pasture (such as wheat pasture or crop residue) on a per-head or lease basis should be reported by the person who had control of the animals.

**Animals and Poultry to Exclude from the Report** — Do not report animals or poultry kept on land rented to others or kept under a share arrangement on land rented to others. Do not include animals quartered in feedlots which are not a part of "this place." Animals kept on a place not operated by you are to be included on the report for that place.

**Animals Bought and Sold** — DO NOT REPORT ANY ANIMALS BOUGHT AND THEN RESOLD WITHIN 30 DAYS. Such purchases and sales are considered "dealer" transactions, and are not included in this census.

**Number Sold** — Report all animals and poultry sold or removed from "this place" in 1987, without regard to ownership or who shared in the receipts. Include animals sold for a landlord or given to a landlord or others in trade or in payment for goods or services. Do NOT report number sold for any livestock or poultry kept on another place.

**Dairy Termination Program or "Whole-Herd Dairy Buy-Out Program"** — The amount received in 1987 from the Government under the dairy termination program should be included in section 19, item 1. Dairy animals and products sold in 1987 should be reported in section 13.

**Animals Moved to Another Place** — For animals moved from "this place" to another place, such as for further feeding, report animals as "sold" and give your best estimate of their market value when they left "this place."

**Fat Cattle Sold** — Cattle fattened on grain or concentrates for 30 days or more and sold for slaughter are reported in section 13, item 3a.

DO NOT INCLUDE WITH FATTENED CATTLE SOLD:

- a. Cattle and calves sold for further feeding
- b. Veal calves, or any calves weighing less than 500 pounds
- c. Dairy cows fed only the usual dairy ration before being sold

**Value of Sales** — Report the total gross value of animals and poultry sold or removed from "this place" in 1987 without deducting production or marketing expenses (cost of feed, cost of livestock purchased, cost of hauling and selling, etc.). If the sale price or market value is not known, give your best estimate of their market value when they left "this place." Do NOT report the value of sales of any livestock and poultry owned by you but kept and sold from a place you did not operate.

**Contract and Custom Feeding Operations** — Livestock or poultry kept by you on "this place" on a contract or custom basis should be included on this report REGARDLESS OF OWNERSHIP. Report as "INVENTORY" numbers of animals or poultry on the place on December 31, 1987. Report as "SOLD" animals and poultry kept on a contract or custom basis and removed or sold from the place in 1987. If the sale price or market value is not known, give your best estimate of the market value of the animals or poultry when they left the place.

► **Section 16 — HORSES, BEES, FISH, GOATS, OTHER LIVESTOCK, OR ANIMAL SPECIALTIES**

**Item 2 — If you owned BEES** — Report all colonies or hives of bees and honey operations conducted by you, regardless of where the hives were kept most of the year. Report hives or colonies, pounds of honey sold, and value of sales.

**Items 7 and 8** — Mink pelts and rabbit pelts should be included in number sold and value of sales, but not in inventory.

**Item 9 — Other Livestock and Livestock Products** — Include in all other livestock and livestock products manure, beeswax, and any other animal products sold from "this place" in 1987. Please indicate units used in reporting.

**Item 10 — Fish and Other Aquaculture Products** — Report number of pounds sold and gross value of sales for each. Enter name and code from list.

► **Section 17 — POULTRY**

The person who furnished the housing and labor should report the poultry operation on his/her report form regardless of who owns the birds. Report as sold poultry that were taken or moved from the place in 1987.

► **Section 18 — AMOUNT RECEIVED FROM GOVERNMENT CCC LOANS**

**Item 1** — Report the amount received under the regular or reserve program for commodities placed under CCC loan during 1987. Include amount received even if commodity was redeemed or forfeited prior to December 31, 1987.

Do not include CCC loans received to build crop storage facilities or amount received for storage payments in the reserve program.

► **Section 19 — FEDERAL PAYMENTS RECEIVED**

Report all payments received from Federal Farm Programs in 1987 regardless of whether payment was made in cash or commodity certificates. Include cash payments in item 1. In item 2, include the value of any certificates held or the value received from sale or redemption of any certificates in 1987.

Federal payments include receipts from Federal programs such as deficiency payments, "Whole-herd dairy buy-out," support price payments, indemnity programs, disaster payments, paid land diversion, inventory reduction payments, payments received for approved soil and water conservation projects, etc.

► **Section 20 — TYPE OF ORGANIZATION**

Use the following definitions to determine the type of organization for your operation:

**Family or Individual Operation** — Defined as farm or business organization controlled and operated by an individual (sole proprietor). Include family operations that are not incorporated and not operated under a partnership agreement.

**Partnership Operation** — Defined as two or more persons who have agreed on the amount of their contribution (capital and effort) and the distribution of profits. Co-ownership of land by husband and wife or joint filing of income tax forms by husband and wife DOES NOT constitute a partnership, unless a specific agreement to share contributions, decisionmaking, profits, and liabilities exists. Production under contract or under a share rental agreement DOES NOT constitute a partnership.

**Incorporated Under State Law** — A corporation is defined as a legal entity or artificial person created under the laws of a State to carry on a business. This definition does not include cooperatives. Information on type of corporation should be reported in section 21.

**Other** — Such as cooperatives (defined as an incorporated or unincorporated enterprise or an association created and formed jointly by the members), estate or trust (defined as a fund of money or property administered for the benefit of another individual or organization), prison farm, grazing association, Indian reservation, institution run by a government or religious entity, etc.

► **Section 21 — CORPORATE STRUCTURE**

This section is to be answered by corporations only. Answer both items. A family-held corporation has more than 50 percent of its stock owned by persons related by blood or marriage.

► **Section 22 — CHARACTERISTICS AND OCCUPATION OF OPERATOR**

This section collects information about the operator of "this place" defined as the individual owner, the operator, the senior partner, or person in charge for the type of organization reported in section 20.

**For Family or Individual Operation** — Complete this section for the operator.

**For Partnership Operations** — Answer all items, except item 2, for the "Senior Partner." The "Senior Partner" is the individual who is mainly responsible for the agricultural operations on "this place," not necessarily the person senior in age. If each partner shares equally in the day-to-day management decisions, consider the oldest as the "Senior Partner." For item 2 (Principal Occupation) consider all members of the partnership together. Please include as "farming" worktime at all types of agricultural enterprises, including work at greenhouses, nurseries, mushroom production, ranching, feedlots, broiler feeding, etc.

**For Corporations and Other Operations (Cooperatives, Estates, etc.)** — Complete section 22 for the person in charge, such as a hired manager, business manager, or other person primarily responsible for the on-site, day-to-day operation of the farm or ranch business.

**Item 4 — Year Began Operation** — Report the first year the operator or senior partner began to operate any part of "this place" on a continuous basis. If the operator returned to a place previously operated, report the year operations were resumed.

► **Section 23 — PRODUCTION EXPENSES paid by you and others for "this place" in 1987**

Include farm production expenses paid by you, your landlord, contractors, or anyone else for crops, livestock, or poultry produced on "this place." Include expenses incurred in 1987 even if they were not paid for in 1987. Please estimate if exact figures are not known. Refer to the individual expenditure items below for further explanations.

**Livestock and Poultry Purchased** — Report the cost of cattle, calves, hogs, pigs, sheep, lambs, horses, goats, chicks, pullets, poults, etc., including breeding stock and dairy cows. Contract growers or custom feeders who did not own or purchase the livestock or poultry themselves should estimate the value of the cattle, calves, pigs, baby chicks, pullets, etc. at the time they came onto the place.

**Feed Purchased for Livestock and Poultry** — Report the purchase cost of corn, sorghum, oats, barley, other grains, silage, hay, mixed feed, concentrates, etc., fed to livestock and poultry on "this place." Contract livestock and poultry growers should estimate the value of feed provided by the contracting company. Custom feedyards should include feed costs for all cattle fed even if the owners of the cattle were billed for the feed. Feed raised on "this place" should not be reported as purchased.

**Cost of Hired Farm and Ranch Labor** — Include gross salaries and wages, commissions, dismissal pay, vacation pay, and paid bonuses paid to hired workers, family members, hired managers, administrative and clerical employees, and salaried corporate officers. Also, include supplemental cost for benefits such as employer's social security contributions, unemployment compensation, workmen's compensation insurance, life and medical insurance, pension plans, etc.

**Contract Labor** — Includes the labor costs of workers furnished on a contract basis by a labor contractor, crew leader, or cooperative for harvesting vegetables or fruit, shearing sheep, or similar farm activities. Do not include costs for building or repair work done by a construction contractor. Include the cost of customwork or machine hire in item 11.

**Repair and Maintenance Expenses for the Upkeep of Buildings, Motor Vehicles, and Farm Equipment** — Include the cost of repairs and upkeep of farm machinery, vehicles, buildings, fences, and other equipment used in the farm business. Do not include repairs to vehicles not used in the farm business or for equipment used only for performing customwork for others. Do not include expenditures for the construction of new buildings or the cost of additions to existing buildings.

**Interest Expense Paid on Debts** — Report all interest expenses paid in 1987 for the farm business. Include interest on loans secured by land and buildings (real estate) in item 12a. Include all loans not secured by real estate such as for fertilizer, feed, and seed in item 12b. Include interest paid on CCC loans. Do not include interest associated with activities not related to production of crops or livestock on "this place" such as land or buildings rented to others, packing sheds, or feed mills that provide services to others. Do not include interest on owner/operator dwelling where amount is separated from interest on other land and buildings on "this place."

**Cash Rent Paid for Land and Buildings in 1987** — Report rent paid in cash during 1987 for land and buildings in "this place." Do not include rent paid for operator dwelling or other nonfarm property. Do not include the value of shares of crops or livestock paid to landlords.

**Property Taxes Paid** — Include real estate property taxes you paid on the acres and buildings you operated and used in the farm business.

Do not include:

- a. Property taxes on land or buildings rented to someone else
- b. Taxes paid by landlords
- c. Property taxes paid on other property not associated with the farm business
- d. Income and excise taxes

**All Other Production Expenses** — Farm production costs not previously listed should be reported here. In addition to items listed on the report form, include bookkeeping charges, tax preparation fees, postage, advertising, commission for sale of cattle, and fees paid for farm-related advice or for farm consultants. Do not include depreciation or expenditures for the purchase of land and buildings or new or used machinery.

► **Section 24 — COMMERCIAL FERTILIZER AND LIME**

Report acres on which commercial fertilizer (items 1 and 2) or lime (item 3) was applied during 1987. If any acreage was fertilized or limed more than once, report acres ONLY ONCE in each item. Report expense for commercial fertilizer purchased, excluding lime, in section 23, item 4.

► **Section 26 — MACHINERY AND EQUIPMENT**

The estimated market value in item 1 refers to ALL machinery and equipment kept primarily on "this place" and used for the farm business. Report the value in its present condition, not the replacement or depreciated value. Specialized equipment, which is an integral part of a building, should be included as a part of the value of land and buildings.

► **Section 27 — ESTIMATED CURRENT MARKET VALUE OF LAND AND BUILDINGS**

The value for each of the three listed categories should be your estimate of the value of the land and buildings if they were sold in the current market. The real estate tax assessment value should not be used unless that value represents a full market value assessment and the land and buildings could reasonably be assumed to be sold at that price. Do not deduct real estate marketing charges from your estimate. Report the total value, not the value on a per acre basis.

► **Section 28 — INCOME FROM FARM—RELATED SOURCES IN 1987**

Item 1 through 4 refer only to those income producing activities for which you use part of the land, machinery, equipment, labor, or capital normally used on "this place," and which you do not consider as entirely separate from your farming activities. Report gross amounts received before taxes and expenses.

**Item 1 — Customwork** — Do not report income for customwork or agricultural services provided to others if operated as an entirely separate business from your agricultural operations.

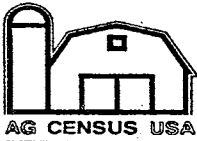
**Item 2 — Rental Income** — Do not include rental income from nonfarm property.

**Item 3 — Forest Products** — Include only those forest products or Christmas trees cut from "this place," not items cut from other nonfarm timber acreage. Do not include income from saw mill business.

**Item 4 — Other Farm-Related Income** — Include income from hunting leases, fishing fees, and other recreational services, sales of farm by-products, and other business or income closely related to the agricultural operation on "this place." Include dividends for business done with farmer-owned cooperatives. Do not enter previously reported farm sales or income from investments not associated with the farm. Do not include retirement pensions or social security benefits received.

Form 87-A0400 (2-13-87)

U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS



UNITED STATES CENSUS OF AGRICULTURE

NOTICE - Response to this inquiry is required by law (title 13, U.S. Code). By the same law YOUR REPORT TO THE CENSUS BUREAU IS CONFIDENTIAL. It may be seen only by sworn Census employees and may be used only for statistical purposes. Your report CANNOT be used for purposes of taxation, investigation, or regulation. The law also provides that copies retained in your files are immune from legal process.

In correspondence pertaining to this report, please refer to your Census File Number (CFN)

87-A0400

Please complete this form and RETURN TO

BUREAU OF THE CENSUS 1201 East Tenth Street Jeffersonville, IN 47133

Note - If your records are not available, reasonable estimates may be used. If you cannot file by February 1, a time extension request may be sent to the above address. Include your 12-character Census File Number (CFN) as shown in your address label in all correspondence to us.

If you received more than one report form, enter extra Census File Number(s) here and return extra copies with your completed report.

Table with columns for CENSUS USE ONLY (035-038) and CENSUS FILE NUMBER (039-042)

Please correct errors in name, address, and ZIP Code. ENTER street and number if not shown.

SECTION 1

- 1. At any time during 1987, did you plant, grow, or have any: Hay or tobacco? Corn, wheat, or other grains? Other crops? Fruit, nut, or citrus trees; grapevines? Vegetables, melons, or berries? Greenhouse or nursery crops?
2. At any time during 1987, did you raise, sell, or keep any: Cattle, hogs, sheep, or goats? Chickens or other poultry? Bees? Horses or ponies? Fish in captivity? Other animal specialties?

SECTION 2: ACREAGE IN 1987 Report land owned, rented, or used by you, your spouse, or by the partnership, corporation, or organization for which you are reporting. Include ALL LAND, REGARDLESS OF LOCATION OR USE - cropland, pastureland, rangeland, woodland, idle land, house lots, etc.

Form for Section 2 with questions 1-6 regarding land ownership, acreage, and county information.

SECTION 3: LAND USE and IRRIGATION

Form for Section 3 with Part A (Land Use) and Part B (Irrigation) questions.

PENALTY FOR FAILURE TO REPORT

SECTION 4

PART A - CROPS HARVESTED from "THIS PLACE" in 1987. (Do not include crops grown on land rented to others.)

Table for Part A listing crops like Hay, Corn, Soybeans, Tobacco, and Potatoes with columns for Acres harvested, Quantity harvested, and Gross value of crops sold.

Table for Part B listing fruit and nut orchards, vineyards, and berries with columns for Total acres, Quantity harvested, and Dollars/Cents.

9. Other crops - For additional crops, enter the crop name and code from the list below. Report quantity harvested in the unit specified with crop name.

Table for other crops with columns for Crop name, Code, Acres harvested, Quantity harvested, and Gross value of crops sold.

If more space is needed, use a separate sheet of paper. Crop name Code Crop name Code

PART B - NURSERY and GREENHOUSE CROPS GROWN FOR SALE on "THIS PLACE" in 1987

Table for Part B with columns for Crop name, Code, Square feet under glass or other protection, Acres in the open in 1987, and Sales in 1987.

If more space is needed, use a separate sheet of paper. Crop name Code Crop name Code

CONTINUE ON REVERSE SIDE

**SECTION 56 LIVESTOCK and POULTRY**

**PART A - CATTLE and CALVES**

None  INVENTORY Number on this place Dec. 31, 1987

803	Total
804	Beef cows
805	Milk cows

1. CATTLE and CALVES of all ages

a. BEEF COWS - Include beef heifers that had calved.

b. MILK COWS kept for production of milk or cream for sale or home use - Include dry milk cows and milk heifers that had calved.

2. Value of DAIRY PRODUCTS sold in 1987 - Include milk, cream, butter, etc.

Gross value of sales	
Dollars	Cents
\$	00

None

**CATTLE and CALVES SOLD FROM THIS PLACE IN 1987**  
Include as sold cattle moved from this place to a feedlot for further feeding.

Number sold in 1987	Gross value of sales	
	Dollars	Cents
808	\$	00
810	\$	00
812	\$	00

3. Calves less than 500 pounds

4. Cattle - Include calves 500 pounds or more

a. Of ALL cattle sold, how many were FATTENED on this place on GRAIN or CONCENTRATES for 30 days or more and SOLD for SLAUGHTER?

**PART B - HOGS and PIGS**

None  INVENTORY Number on this place Dec. 31, 1987

815	Total
816	Breeding

1. HOGS and PIGS of all ages

a. HOGS and PIGS used or to be used for breeding

Number sold in 1987	Gross value of sales	
	Dollars	Cents
820	\$	00
822	\$	00

2. HOGS and PIGS SOLD from this place in 1987

3. Of the hogs and pigs sold, how many were sold as FEEDER PIGS for further feeding?

**PART C - SHEEP and LAMBS**

None  INVENTORY Number on this place Dec. 31, 1987

824	825
826	

1. SHEEP and LAMBS of all ages

a. EWES 1 year old or older.

2. SHEEP and LAMBS SHORN in 1987

Number	Pounds wool
827	828

3. What was the gross value of sales of SHEEP, LAMBS, and WOOL from this place in 1987?

Gross value of sales	
Dollars	Cents
\$	00

**PART D - POULTRY**

None  INVENTORY Number on this place Dec. 31, 1987

892	893
894	895
896	
898	899
900	901

1. HENS and PULLETS

a. HENS and PULLETS of laying age

b. PULLETS 3 months old or older not yet of laying age for layer replacement

c. PULLETS under 3 months old for layer replacement

2. BROILERS, fryers, other meat-type chickens

3. TURKEYS for slaughter (Do not include breeders.)

4. OTHER POULTRY (Enter name/code from below.)

Poultry name \_\_\_\_\_ Code \_\_\_\_\_

Name/code	Name/code	Name/code
Turkey hens kept for breeding 902	Geese 906	Quail 912
Ducks 904	Pigeons or squab 908	All other poultry - Specify 914

5. Value of POULTRY and POULTRY PRODUCTS (eggs, etc.) sold from this place in 1987

Gross value of sales	
Dollars	Cents
\$	00

**PART E - HORSES, OTHER LIVESTOCK, ANIMAL SPECIALTIES, and FISH**

None

INVENTORY Number on this place Dec. 31, 1987	Total quantity sold in 1987	Gross value of sales	
		Dollars	Cents
830	831	\$	00
839	840	\$	00
	841	\$	00
843	844	\$	00
	845	\$	00
847	848	\$	00
	849	\$	00

1. Horses and ponies of all ages

2. Colonies of bees

3. Milk goats

4. Angora goats

5. Other livestock, fish, animal products. (Enter name/code from below.)

Name \_\_\_\_\_ Code \_\_\_\_\_

Name/code	Name/code	Name/code
Mules, burros, donkeys 833	Rabbits and their pelts 854	Other livestock, fish, and their products 857
Mink and their pelts 836	Other goats 851	

**SECTION 6 GOVERNMENT CCC LOANS**

Amount received in 1987 from Government CCC loans. Include regular and reserve loans, even if redeemed or forfeited.

None

Dollars	Cents
\$	00

Specify crop(s) \_\_\_\_\_

**SECTION 7 Payments received for participation in FEDERAL FARM PROGRAMS in 1987 (DO NOT INCLUDE CCC loans.)**

None

Dollars	Cents
\$	00

1. Amount received in cash

2. Value of certificates received - payment-in-kind (PIK) or commodity certificates

**SECTION 8 Acres in this place SET ASIDE, DIVERTED, or IDLED under FEDERAL acreage reduction programs in 1987**

None  Number of acres

1. How many acres were set aside (or diverted) under ANNUAL commodity acreage adjustment programs?  882

2. How many acres were under the CONSERVATION RESERVE PROGRAM (10 year, CRP)?  883

**SECTION 9 CHARACTERISTICS and OCCUPATION OF OPERATOR (Senior partner or person in charge)**

1. RESIDENCE - Does the operator live on this place?  Yes  No 923

2. PRINCIPAL OCCUPATION - At which occupation did the operator spend the majority (50 percent or more) of his/her worktime in 1987? For partnerships consider all members of the partnership together.  Farming  Other or ranching 928

3. OFF-FARM WORK - How many days did the operator work at least 4 hours per day off this place in 1987? - Include work at a nonfarm job, business, or on someone else's farm for pay. (Do not include exchange farmwork.)  None  1-49 days  50-99 days  100-149 days  150-199 days  200 days or more 929

4. In what YEAR did the operator begin to operate any part of this place? \_\_\_\_\_ Year 930

5. AGE of operator \_\_\_\_\_ Years old 925

6. RACE of operator  White  Negro or Black  American Indian  Asian or Pacific Islander  Other - Specify 924

7. SEX of operator  Male  Female 926

8. SPANISH ORIGIN - Is the operator of Spanish origin or descent (Mexican, Puerto Rican, Cuban, or other Spanish)?  Yes  No 927

**SECTION 10 PERSON COMPLETING THIS REPORT - Please print**

Name \_\_\_\_\_ 999 Date \_\_\_\_\_

Telephone number \_\_\_\_\_ Area code \_\_\_\_\_ Number \_\_\_\_\_



# INFORMATION SHEET

## 1987 UNITED STATES CENSUS OF AGRICULTURE

### Special Reporting Instructions

#### 1. Who Should Report

WE NEED A REPLY FROM EVERYONE RECEIVING A REPORT FORM, INCLUDING individuals, landlords, tenants, partnerships, corporations, institutions, and THOSE NOT CONDUCTING AGRICULTURAL OPERATIONS. Each case included in the census has a unique Census File Number (CFN). In order to make the census results as complete and accurate as possible, we need to obtain information about every CFN.

#### 2. If You Received More Than One Report Form for an Operation

Complete only ONE report form for an operation. Write "Duplicate" near the address label of each extra report form. Also, write the 11-digit census file number(s) of the DUPLICATE report(s) ON THE COMPLETED REPORT in the space provided to the left of the address label. Return the extra report(s) in the same envelope with your completed report form so that we can correct our records.

#### 3. If You No Longer Farm

If you had agricultural operations at any time during 1987, please report all agricultural activity during the year. Report all land on your census form that you owned or rented. Also, report your 1987 crop and livestock production and 1987 sales.

Explain on the first page of the report form (or on a separate sheet of paper) that you quit farming or ranching and give the approximate date and the name and address of the present operator, if known.

#### 4. If You Never Farmed or Have No Association With Agriculture

Please write a note on the report form near the address label explaining this and return the form so that we can correct our records. In our efforts to make the census as complete as possible, we obtained lists from various sources. We tried to eliminate duplicate and nonfarm addresses, however, it was not always possible to do so.

#### 5. If You Have More Than One Agricultural Operation

Complete a report form for EACH SEPARATE and DISTINCT production unit, i.e., each individual farm, ranch, feedlot, greenhouse, etc., or combination of farms, etc., for which you maintain SEPARATE records of operating expenses and sales, livestock and other inventories, crop acreages, and production.

#### 6. If You Have a Partnership Operation

Complete only ONE report for the entire partnership's agricultural operation and include all partners' shares on the one report. If members of the partnership also operate separate farms or ranches in addition to the partnership farming operation, separate report forms should be completed for each individual operation.

If two or more report forms were received for the same operation, mark each additional form as a "Duplicate." Return the duplicate report(s) in the same envelope with the completed partnership report, where possible, or write a note on the duplicate report, such as, "(Name of partner) has completed a report for the partnership (provide name and CFN of partnership)."

#### 7. Landlord's or Contractor's Share

If you rented or leased land from others or had a contract for the production of agricultural products, include both your share and the landlord's or contractor's share of the production, sales, and expenses so your census report form will be complete for "THIS PLACE."

If you do not know the landlord's or contractor's share, include your BEST ESTIMATE. If you do not have records available for all data items, use your best estimate.

#### 8. How to Enter Your Response

Enter your replies in the proper spaces, on the correct lines, and in the units requested, i.e., dollars, bushels, tons, etc. Write any explanation outside the answer spaces or on a separate sheet of paper. All dollar figures may be entered in whole dollars. CENTS ARE NOT REQUIRED.

Enter whole numbers except where tenths are requested, such as acres of potatoes harvested. If you have 1/2, 1/3, or 1/4 of an acre, convert to tenths. For example, convert 1/2 to 5/10, 1/3 to 3/10, 1/4 to 2/10.

The census report form will contain sections and questions which do not apply to you. When this occurs, mark the "None" or "No" box and go on to the next item or section.

### Instructions For Specified Sections

#### ► Section 2 — ACREAGE IN 1987

Your answers to this section will determine the land (Acres in "THIS PLACE") referred to in the rest of the report form.

When answering the acreage questions, include the land associated with your agricultural operations in 1987 whether in production or not. Include all land that you owned or rented during 1987 even if only for part of the year. Do not include any unrelated residential or commercial land.

Report all land in section 2 in whole acres.

**Item 1 — All Land Owned** — Report all land owned in 1987 whether held under title, purchased contract or mortgage, homestead law, or as heir or trustee of an undivided estate. Include all land owned by you and/or your spouse, or by the partnership, corporation, or organization for which you are reporting.

**Item 2 — All Land Rented or Leased FROM OTHERS** — Report all land rented by you or your operation even though the landlord may have supplied materials or supervision.

INCLUDE in item 2:

- Land for agricultural use that you rented from others for cash
- Land you worked on a share basis (crop or livestock)
- Land owned by someone else that you used rent-free
- Federal, State, Indian reservation, or railroad land rented or leased by the acre

DO NOT INCLUDE in item 2:

Land used on a per-head or animal unit license or permit basis, such as section 2 of the Taylor Grazing Act, National Forest, or Indian reservation permit land.

**Item 3 — All Land Rented or Leased TO OTHERS** — Include all land rented out for any purpose if it was part of the acreage reported in items 1 and 2. A report form will be obtained from each of your tenants to cover the operations on that land.

INCLUDE in item 3:

- Owned land rented to others for cash or a share of crops or livestock
- Land you rented from someone and then subleased to someone else
- Land worked for you by someone for a share of crops or livestock
- Land which you allowed others to use rent-free

**Item 4 — Acres in "THIS PLACE"** — This figure will show the total of all land you operated at any time in 1987.

If item 4, Acres in "THIS PLACE" is "0" and:

- You raised any crops or had any livestock or poultry on "THIS PLACE" in 1987, complete the report.
- All your land was operated by a renter or sharecropper, skip to and complete section 10, and explain briefly, "All land rented out," etc. Mail form in return envelope.
- You did not have any agricultural activity on owned or rented land in 1987, complete section 10 and explain briefly, such as "retired," "sold farm," and date. Give name and address of current operator if known and return form.

#### ► Section 3 — LAND USE AND IRRIGATION

This section is used to classify the acres in "THIS PLACE" reported in section 2, item 4. Do not include any acres you rented to others reported in section 2, item 3. The sum of the acres entered in various categories should equal total acres in "THIS PLACE."

**Land Used for More Than One Purpose** — Do not report the same acreage for more than one of the listed purposes. If part or all of your land was used for more than one listed purpose in 1987, report that land only in the first category listed. For example, if you harvested a crop and later used the same land for pasture, report the land in part A, item 1, "Cropland harvested."

**Double Cropping** — When more than one crop was harvested from the same land in 1987, report that land only ONCE as "Cropland harvested," in part A, item 1 of this section.

**Interplanted Crops** — If you interplanted crops, such as cotton in an orchard, report the total land used for both crops only ONCE, as "Cropland harvested," in part A, item 1.

**Skip Row Planted Crops** — Report the acres that represent the total nonplanted or skipped rows as "Cropland idle," part A, item 3, the acres that represent the planted rows should be reported as "Cropland harvested," part A, item 1.

**Irrigation is defined as land watered by artificial or controlled means** — sprinklers, furrows or ditches, spreader dikes, purposeful flooding, etc. Include acres that receive supplemental, partial, and/or preplant irrigation. Do not report water applied in transplanting tobacco plants, trees, or vegetables as irrigation.

#### ► Section 4 — CROPS

This section provides space for reporting crops harvested during the 1987 crop year from the land shown in section 2, item 4 (Acres in "THIS PLACE") of your report. A few crops are already listed on the form. For these crops, just report acres harvested, quantity harvested, and value of sales. If you produced crops not listed, write the name of the crop and code from the list provided and report the acres harvested, quantity harvested, and the value of sales.

**DO NOT INCLUDE:**

- a. Any crops grown on land rented or leased TO OTHERS, or worked by others on shares during 1987.
- b. Crops or crop products purchased from others and later sold.

**Acres Harvested** — Enter the acres harvested in 1987. Round fractions to whole acres except where tenths are requested by "/10" in the reporting box, such as potatoes.

**Quantity Harvested** — If your unit of measure is different than the unit on the report form, please convert your figure for the quantity harvested to the unit requested. If the harvest was incomplete by December 31, 1987, please report the quantity harvested and the estimated quantity to be harvested.

**Gross Value of Crops Sold** — Report the value of all crops sold from "THIS PLACE" in 1987, regardless of the year they were harvested or who owned the land. Be sure to report gross value before deducting expenses and taxes. Include Government CCC loans received for "THIS PLACE" in 1987. Include payments received in 1987 from cooperatives or marketing organizations for crops produced on "THIS PLACE."

**Item 7 — Vegetables** — Report acres of vegetables harvested FOR SALE or commercial processing. Do not include vegetables grown for home use. Report the total acreage of each vegetable crop harvested.

**Item 8 — Fruit Orchards, Citrus, Vineyards, and Nut Trees** — Report only if total of 20 or more trees and vines, include those for home use as well as those maintained for sale of their production. Acres in trees and vines that have been abandoned should not be included, these acres should be included in section 3, part A, item 3 "Cropland idle."

If crops other than fruit and nut trees and vines were interplanted with trees or vines, report the total acres for the orchard crop in item 8 and the total acres of the interplanted crop in the appropriate item.

**Item 9 — Other Crops** — To report: (1) find the crop name and the code number from the list under item 9; (2) enter crop name and code in the first two columns of the first available answer line under item 9; (3) enter the information that is requested in the remaining columns. If you harvested a crop not listed, use the "OTHER" code and specify the crop name. If you need additional space, use a separate sheet of paper to write the crop name(s), acres and quantity harvested, and gross value of crop(s) sold.

▶ **Section 5 — LIVESTOCK, POULTRY, OTHER LIVESTOCK, OR ANIMAL SPECIALTIES**

**Parts A, B, C, and D — LIVESTOCK AND POULTRY**

**Animals and Poultry to Include in the Report** — Report all animals, poultry, and animal specialties on "this place" (section 2, item 4) on December 31, 1987. Include all owned by you and any kept by you for others. Include animals on unfenced lands, National Forest land, district land, cooperative grazing association land, or rangeland administered by the Bureau of Land Management on a per-head or lease basis. Animals in transit on December 31, 1987, or animals on a short-term pasture (such as wheat pasture or crop residue) on a per-head or lease basis should be reported by the person who had control of the animals.

**Animals and Poultry to Exclude from the Report** — Do not report animals or poultry kept on land rented to others or kept under a share arrangement on land rented to others. Do not include animals quartered in feedlots which are not a part of "this place." Animals kept on a place not operated by you are to be included on the report for that place.

**Animals Bought and Sold** — DO NOT REPORT ANY ANIMALS BOUGHT AND THEN RESOLD WITHIN 30 DAYS. Such purchases and sales are considered "dealer" transactions, and are not included in this census.

**Number Sold** — Report all animals and poultry sold or removed from "this place" in 1987, without regard to ownership or who shared in the receipts. Include animals sold for a landlord or given to a landlord or others in trade or in payment for goods or services. Do NOT report number sold for any livestock or poultry kept on another place.

**Dairy Termination Program or "Whole-Herd Dairy Buy-Out Program"** — The amount received in 1987 from the Government under the dairy termination program should be included in section 7, item 1. Dairy cattle and calves sold should be reported in section 5, part A.

**Animals Moved to Another Place** — For animals moved from "this place" to another place, such as for further feeding, report animals as "sold" and give your best estimate of their market value when they left "this place."

**Fat Cattle Sold** — Cattle fattened on grain or concentrates for 30 days or more and sold for slaughter are reported in section 5, part A, item 4a.

**DO NOT INCLUDE WITH FATTENED CATTLE SOLD:**

- a. Cattle and calves sold for further feeding
- b. Dairy cows fed only the usual dairy ration before being sold
- c. Veal calves, or any calves weighing less than 500 pounds

**Value of Sales** — Report the total gross value of animals and poultry sold or removed from "this place" in 1987 without deducting production or marketing expenses (cost of feed, cost of livestock purchase, cost of hauling and selling, etc.). If the sale price or market value is not known, give your best estimate of their market value when they left "this place." Do NOT report the value of sales of any livestock and poultry owned by you but kept and sold from a place you did not operate.

**Contract and Custom Feeding Operations** — Livestock or poultry kept by you on "this place" on a contract or custom basis should be included on this report REGARDLESS OF OWNERSHIP. Report as "INVENTORY" numbers of animals or poultry on the place on December 31, 1987. Report as "SOLD" animals and poultry kept on a contract or custom basis and removed or sold from the place in 1987. If the sale price or market value is not known, give your best estimate of the market value of the animals or poultry when they left the place.

The person who furnished the housing and labor should report the poultry operation on his/her report form regardless of who owned the birds. Report as sold the number of poultry that were taken or moved from the place in 1987.

**Part E — HORSES, OTHER LIVESTOCK, ANIMAL SPECIALTIES, AND FISH**

**If you owned BEES** — Report all colonies or hives of bees and honey operations conducted by you, regardless of where the hives were kept most of the year. Report hives or colonies, pounds of honey sold, and value of sales.

**Other Livestock and Livestock Products** — Include in all other livestock and livestock products manure, beeswax, and any other animal products sold from "this place" in 1987. Mink pelts and rabbit pelts should be included in number sold and value of sales, but not in inventory.

**Fish and Other Aquaculture Products** — Report quantity sold and gross value of sales for each.

▶ **Section 6 — AMOUNT RECEIVED FROM GOVERNMENT CCC LOANS**

**Item 1** — Report the amount received under the regular or reserve program for commodities placed under CCC loan during 1987. Include amount received even if commodity was redeemed or forfeited prior to December 31, 1987.

Do not include CCC loans received to build crop storage facilities or amount received for storage payments in the reserve program.

▶ **Section 7 — FEDERAL PAYMENTS RECEIVED**

Report all payments received from Federal Farm Programs in 1987 regardless of whether payment was made in cash or commodity certificates. Include cash payments in item 1. In item 2, include the value of any certificates held or the value received from sale or redemption of any certificates in 1987.

Federal payments include receipts from Federal programs such as deficiency payments, "Whole-Herd Dairy Buy-Out," support price payments, indemnity programs, disaster payments, paid land diversion, inventory reduction payments, payments received for approved soil and water conservation projects, etc.

▶ **Section 8 — ACRES SET ASIDE, DIVERTED, OR IDLED UNDER FEDERAL ACREAGE REDUCTION PROGRAMS IN 1987**

Include in item 2 all acres in "this place" retired from production and placed, by long-term contract, into the Conservation Reserve Program. Acres placed into the program during and prior to 1987 should be included.

▶ **Section 9 — CHARACTERISTICS AND OCCUPATION OF OPERATOR**

This section collects information about the operator of "this place" defined as the individual owner, the operator, the senior partner, or person in charge.

**For Family or Individual Operation** — Complete this section for the operator.

**For Partnership Operations** — Answer all items, except item 2, for the "Senior Partner." The "Senior Partner" is the individual who is mainly responsible for the agricultural operations on "this place," not necessarily the person senior in age. If each partner shares equally in the day-to-day management decisions, consider the oldest as the "Senior Partner." For item 2 (Principal Occupation) consider all members of the partnership together. Please include as "farming or ranching" worktime at all types of agricultural enterprises, including work at greenhouses, nurseries, mushroom production, ranching, feedlots, broiler feeding, etc.

**For Corporation and Other Operations (Cooperatives, Estates, etc.)** — Complete section 9 for the person in charge, such as a hired manager, business manager, or other person primarily responsible for the on-site, day-to-day operation of the farm or ranch business.

**Item 4 — Year Began Operation** — Report the first year the operator or senior partner began to operate any part of "this place" on a continuous basis. If the operator returned to a place previously operated, report the year operations were resumed.