APPENDIX A. General Explanation

TAKING THE CENSUS

Method of Enumeration

The 1978 Census of Agriculture was the first census to include a mailout/mailback enumeration supplemented by a thorough direct interview of all households in a sample of area segments. This combination list-direct enumeration sample approach was instituted to improve completeness of coverage for State level agriculture census statistics.

In censuses prior to 1969, enumerators were assigned to a specific area and called on all farms within the area. Beginning with the 1950 census, copies of the report form were mailed prior to the enumeration date to each boxholder served by post offices in predominantly rural areas and farmers were asked to complete the forms and have them ready for the enumerator to pick up. Enumerators going door-to-door in rural areas collected and reviewed all forms that had been completed; they also completed forms for those places with agricultural operations which did not have forms ready.

For the 1969 and 1974 censuses, data were collected primarily by a self-enumeration, mailout/mailback procedure. This procedure was made possible by the availability of specialty lists and several administrative lists, including records from the prior agriculture census, from which a list of agriculture-related names and addresses was constructed.

The mailout/mailback enumeration procedure was not used in taking the agriculture census in Puerto Rico, Guam, the Virgin Islands, and the Northern Mariana Islands. A discussion of the direct enumeration methods used appears in the reports for these outlying areas.

Mail List

The mail list for the 1978 census was comprised of all individuals, businesses, and organizations that could be readily identified as being associated with agriculture. The list was assembled from the records of the 1974 census and administrative records of various government agencies, primarily the Internal Revenue Service and the U.S. Department of Agriculture. The administrative lists used for 1978 were more accurate and extensive than those used for the 1974 and 1969 censuses. For 1978, most administrative lists were used in their entirety; whereas, for 1974 and 1969 some lists were sampled so that only selected records were included in the census mailing list.

Lists of large or specialized operations, such as nurseries, broiler growers, fish farms, and livestock range and feedlot operations, which might not be identified in other administrative records, were obtained from State and Federal agencies, trade associations, and similar organizations. Lists of multi-establishment companies having one or more establishments (or locations) producing agricultural products or providing agricultural services were obtained from the 1974 census and updated using results of the 1976 and 1977 Company Organization Surveys conducted by the Economic Surveys Division of the Census Bureau.

A preliminary census mail list was assembled using names and addresses from the 1974 census and administrative source lists available early in 1978. Those records identified as most likely not to be farms, since the name appeared on only one source list or on selected combinations of list sources which had yielded a low percentage of farm operators for the 1974 census, were then selected for inclusion in the 1978 Farm and Ranch Identification Survey. Slightly over 4 million of the short identification forms were mailed in May of 1978 to identify persons who were not active farm operators, to identify tenant and successor operators who were not on administrative source lists, and to update the name, address, and size information for the identified active farm operators. Approximately 1.9 million survey returns were classified as out-of-scope (nonfarms), and an additional 400,000 reports were returned by the Postal Service as being undeliverable, resulting in over 2.3 million names and addresses being deleted from the census mail list as a result of the 1978 Farm and Ranch Identification Survey. The final census mail list containing 4,241,000 names and addresses was developed using results of the 1978 Farm and Ranch Identification Survey, names and addresses from the unduplicated preliminary list that were retained without precensus verification, and new or updated source lists acquired after the preliminary unduplication.

The preliminary and final census mail lists were both constructed by merging and unduplicating the names and

addresses from the various source lists on the basis of Employer Identification numbers, Social Security numbers, and names and addresses. To facilitate processing, each name on the administrative source lists was assigned a geographic code indicating the State and county location of the operation and a size code indicating an estimated value of sales. Most duplicates were identified and resolved during computer processing; an additional group of possible duplicates identified during computer processing was resolved clerically. Other duplicate names not identified prior to mailing were either reported by respondents or located during office processing.

Direct Enumeration Area Sample

When the evaluation survey conducted for the 1974 census confirmed the results of the evaluation survey for 1969 (i.e., an unacceptable number of midsize and a larger number of smaller farms were not included in the mail list), the decision was made to incorporate into the 1978 data collection procedures a direct enumeration area sample to provide State level estimates of the number and statistical characteristics of farms found not to be included in the mail list. The effect of this combination mail list-direct enumeration sample approach has been to drastically reduce the number and effect of missed farms in State totals.

The direct enumeration sample consisted of approximately 6,400 segments in "rural" areas (areas outside places with 2,500 or more population in 1970) in all States, except Alaska and Hawaii. The segments were created and selected using enumeration district maps and data from the 1970 Census of Population and Housing. In October and November 1978, enumerators visited each household in these segments to determine if anyone in the household was associated with an agricultural operation. A 78-A1(A) report form was completed for each person with agricultural operations. This form was similar to the 78-A1(S) sample form but collected additional information on alternate names and addresses and other individuals associated with the operation for use in matching these cases to the census mail file. The front page of the 78-A1(A) report form is reproduced in appendix D. During the enumeration, each operator received an orange-colored sticker and was instructed that if he/she received a census form in the mail, the form should not be filled but returned with the sticker attached indicating that a report had already been completed.

During office processing, a concentrated effort was made to match the direct enumeration sample returns to names and addresses on the census mail list using the sticker returns, microfilm search of the mail file for all associated names, telephone calls to all cases that could be reached by phone, and any other available information. Direct enumeration sample returns not matched to the census mail list after this extensive research comprise the sample representing farms in the State not on the census mail list. Data from these unmatched direct enumeration sample returns were used to provide estimates at the State level for farms not on the census mail list. For each State, these data have been tabulated and published as a "pseudo" county and are an integral part of the State totals. The direct enumeration sample estimates have not been included in individual county totals.

Report Forms

The Census Bureau recognizes the need to minimize both respondent burden and census cost by limiting the number of items for which data are requested to those most needed by users as the basis for current understanding and future planning. In addition to limiting data items, the most recent eight censuses of agriculture have also used sampling techniques to further minimize reporting burden and census cost. For 1945, additional items were included in the enumeration of designated geographic segments, but were omitted from the report forms used for all other areas. For the 1950, 1954, 1959, and 1964 censuses, similar goals were met by instructing the enumerators to determine whether to ask or omit the items in designated sections of the report forms. For the 1969, 1974, and 1978 mailout/mailback censuses, two report forms were used again with the result of minimizing the reporting burden, particularly for smaller farms.

For 1978, the two report forms were a 5-page report form (78-A1(S)) containing all the items asked in the census, and a 4-page form (78-A1 (N)) omitting the sample items (sections 22 through 27). Form 78-A1(N) and the 78-A1(S) sample items are reproduced in appendix D. In all States except Alaska and Hawaii, the sample form (A1(S)) was mailed to all certainty addresses (large farms) and to 20 percent of the noncertainty addresses; the nonsample form (A1(N)) was mailed to the remaining noncertainty addresses. The sample form was mailed to all Alaska addresses. For Hawaii, a modified version of the sample form was used for all farms. The modifications were made principally in the crops section in order to cover the specialized agriculture on the islands. The Statistical Adjustments section of this appendix defines certainty farms and includes a discussion of the criteria used to determine whether the sample or nonsample form was to be mailed to noncertainty addresses.

Initial Mailing

The report forms were distributed by the U.S. Postal Service during the last week of December 1978 to all individuals, businesses, and organizations on the mail list. Approximately 4,241,000 forms were included in the initial mailing (3,140,000 nonsample forms and 1,101,000 sample forms).

From February through August 1979, additional initial mailings were sent primarily to new tenants and successors identified during report form processing. Thus, the total mailing list for the 1978 Census of Agriculture was 4,430,000.

An information sheet containing detailed instructions for completing the form was included with each report form (see appendix D). Additional special instructions were included with report forms sent to identifiable producers of poultry under contract, bees and honey, laboratory animals, feedlot operations, and nursery and greenhouse products.

In an effort to provide additional help in completing reports, approximately 60,000 copies of a Farm Census Guide booklet were sent to county agricultural agencies and related institutions or businesses to whom farmers might turn for help. Included were rural banks, accountants, vocational agriculture instructors, and the following U.S. Department of Agriculture county offices: Agricultural Stabilization and Conservation Service,

Farmers Home Administration, and Agricultural Extension Service. This guide contained descriptions and definitions for 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 if assistance was requested. In addition, the telephone number for the Jeffersonville, Ind. processing office was provided in the original mailing in case the respondent requested assistance or had additional questions which were not covered in the instructions.

Followup Procedures

The data collection effort included seven followup letters to nonrespondents, three of which were accompanied by a report form. To evenly distribute the workloads in mailing, receipts, and processing, the mail list was divided into three groups for followup purposes. In late January, the first followup letter was sent to all nonrespondents reminding them of the February 15 due date. The other reminders followed on a flow basis at 3- to 4-week intervals starting in late February and continuing into July.

In low response areas, additional efforts were made. State Commissioners of Agriculture were asked to issue supporting statements urging farmers to complete and return their reports. In early April 1979, nonrespondents in about 300 counties with the lowest response rates were mailed an additional letter using simpler language in large print suggesting that if they needed help in completing their report, they could call collect to the Jeffersonville, Ind. processing office.

From March to November 1979, telephone calls were made to nonrespondents who were large (for most States, those with expected sales of $80,000 or more) or were located in about 60 counties with low response. Data for large farms were obtained by telephone from secondary sources if the addressee could not be contacted or refused to provide information. Most of the nonresponse calls were made by the staff of the Jeffersonville, Ind. processing office. However, calls to the larger and more complex operations were made by the Agriculture Division staff. Upon completion of data collection, all counties had response rates exceeding 75 percent of the final mail list including additional addresses. The overall response rate for the 50 United States was 88 percent for all addresses and nearly 95 percent for addresses with a known history of farm operations. A significant proportion of the nonresponse cases was found not to have qualifying agricultural operations for 1978. For a description of the adjustment for nonresponse, see Statistical Adjustments.

DATA PROCESSING

All report forms were subjected to a clerical screening review, during which they were corrected to make them acceptable for keying onto magnetic tape. Farm operators completing a nonsample form who reported sales or acres above the certainty level were sent correspondence requesting the additional sample data. Reports for special list cases identified on the mail list as producing specific products such as broilers or cattle were checked to insure that the special item had been reported. Problem reports requiring special review or additional handling were referred to technical assistants, or if necessary, to statisticians for resolution. Report forms with sales or acreage above levels listed as State "must" were subjected to a more stringent precomputer review, including completeness checks for key basic data items. Reports from multiunit operations and institutional and government-operated farms were reviewed and edited by statisticans. All farms with expected or reported sales of $1,000,000 or more or 30,000 acres or more, all Alaska and Hawaii reports, selected multiunit operations, and other selected problem reports were reviewed by statisticians in the Agriculture Division. Omissions, inconsistencies, and other problems that could not be resolved by reference to other information on the report were resolved by contacting the respondents by telephone or correspondence.

All successors and the more significant tenant names and addresses reported in the census were researched on microfilm of the census mail file. Report forms were mailed to addresses not located on the mail file. Research was also conducted on reports from selected respondents claiming that they had previously completed a census form to eliminate possible duplication.

Data for each report form were subjected to a detailed item-by-item computer edit. The edit included comprehensive checks for consistency and reasonableness, corrected data found to be in error or inconsistent, supplied missing data based on similar size farms within the same county, and assigned farm classification codes which were necessary for tabulating the data. Entries of large magnitude and significant computer-generated changes to the data were manually verified. Obvious errors such as reports of cotton or citrus in the Northern States were also identified and corrected.

Many of the acceptability limits on data were necessarily wide making it impossible to identify and correct all errors or to always supply precise estimates for all the incompleteness in the reports. These factors and others may affect the reliability of data for some minor items, but they should not have a significant effect on major data items in any county.

In the computer edit, those farms with sales or acreage exceeding State "must" levels were tested for historical consistency. Key items such as acreage, number of livestock sold, crops, and sales were compared for significant changes between 1974 and 1978. Problems in historical consistency were resolved usually by telephone.

In order to reduce duplicate reporting because of more than one completed report being received for the same operation under different names, computer listings of reports with similar operator names and size of operation were produced and duplicate reports were deleted prior to tabulations.

After each report was screened, computer edited, and had all identified problems corrected, each data item on the report was added into the total for that item for the county. The result was a computer tabulation matrix for each county containing the sum of individual entries for each data item. This matrix enabled the easy and precise construction of the published tables.

Prior to publication of preliminary reports and volume 1 reports, tabulated totals were reviewed by statisticians to

identify remaining inconsistencies and potential coverage problems. Comparisons were made with historical census trends as well as current year State level estimates published by the U.S. Department of Agriculture and other agencies as part of the coverage review. Selected report forms were reviewed and problem entries were either verified as being correct or the data were corrected.

COMPARABILITY OF DATA

Significant changes were made to the data collection procedures to improve the coverage of the 1978 census, including a more complete mail list and the use of a direct enumeration area sample to supplement the mail list. The effect of these improvements has been to increase the 1978 State farm counts above what they would have been using previous methods. The 1978 State farm counts, consisting of totals from the mail list and the direct enumeration area sample, include farms that would have been missed in the 1974 and 1969 censuses.

The 1978 county farm counts do not include any totals from the direct enumeration sample. However, for some counties, the counts may have increased substantially because of the improved coverage of small farms in the 1978 mail list. County level data on acreages and inventories are generally comparable.

Estimates of the net proportion of farms missed in the 1974 census varied widely by State, from a low of 0.7 percent in Nebraska to a high of 33.0 percent in West Virginia. Appendix C shows adjusted farm counts by State. Because missed farms were typically small, the percent missed was generally higher in States having a relatively large proportion of small farms and urbanized areas having a sizable number of part-time farms. The proportion of the total farms in each State represented by the direct enumeration sample in 1978 can be expected to follow a pattern similar to that for missed farms in 1974.

Since most of the farms identified in the direct enumeration sample were small, these farms have a much greater effect on the State counts of farms and farms reporting than on measures of agricultural production such as land in farms, sales of agricultural products, acres and production of crops, and inventory and sales of livestock and poultry.

Changes in the farm definition also affect the comparability of data. In general, data for 1978 and 1974 would be directly comparable with data for 1969 and earlier censuses only for farms with sales of $2,500 or more because the data for these farms are not affected by changes in the farm definition. A difference in timing and the change from personal interview to mail enumeration affect comparability with data from censuses prior to 1969. The effect of the 1974 definition change for selected State and county totals is shown in appendix B.

Dollar figures shown for expenses and agricultural product sales have not been adjusted for changes in price levels between census years. Crop and livestock production and sales and expense data are for the calendar year 1978, except for a few crops (such as citrus) for which the production year overlaps the calendar year. Inventories of livestock, poultry, and other specified items are as of December 31, 1978. The reporting period and inventory date are the same as for the 1974 and 1969 censuses.

Censuses prior to 1969 were taken by enumerators, each assigned to a specific geographic area. Field work for the 1959 and 1964 censuses was completed mainly in October, November, and December of the reference year. Livestock and poultry inventories for these two censuses were as of the time of enumeration. Other variations in the time of enumeration occurred prior to 1959.

MAJOR CHANGES IN DATA COLLECTED

Unusually strong adverse reaction to the length and content of the 1974 census report form stimulated an intensive review and rejustification of all data inquiries accepted for collection on the 1978 census report form. Data users were requested to provide the Bureau with their data requirements, including the level of publication needed—county, State, or national. Each data item requested was reviewed to determine if it was needed at the county level and if so, whether on a complete or sample basis. Some data items needed only at the State or regional level were relegated to one or another of the follow-on surveys scheduled to be conducted in 1980 for calendar year 1979. By eliminating many items included on the 1974 report form, redesigning the form to accommodate two columns of items per page, and converting many more items to write-in status, especially in the crops sections, the report form was reduced from a 20-page booklet to a 4-page form for most farms and a 5-page form for certainty and sample farms. Data items on the 1974 report form which were eliminated on the 1978 report form were:

Type of rental arrangement
Sales of forest products
Commercial fertilizer used for specific crops
Irrigation methods and quantity of water used
Drainage
Grain storage facilities
Futures markets
Contracts
Injuries and illnesses
Other production expenses
Income and expenses from farm-related sources
Farm credit
Family income from off-farm sources

Much of the detailed data collected in 1974 for costs of materials for individual types of agricultural chemicals and for quantities and costs of several feed categories including roughages purchased were deleted from the report form. In addition, many of the redundant totals used on the 1974 report form for cross checking data, especially in the production expenses and value of agricultural products sold sections, were eliminated.

The following high priority new data items were added to the 1978 report form:

Set-aside acres in Federal Farm Program
Government Commodity Credit Corporation (CCC) loans for grain and cotton
Direct sales to consumers
Foreign ownership of farmland
Greater detail on expenses for energy

FOLLOW-ON SURVEYS AND THE CENSUS OF HORTICULTURAL SPECIALTIES

Integral to each census of agriculture program are the follow-on surveys conducted after the main census. The purpose of these specialized surveys is to collect additional, much needed agriculture-related information from highly specialized operations or from only a sample of farms without burdening all farm operators. Thus, allowing the use of a shorter report form for the general census. The follow-on surveys are limited to high priority data items that yield United States, regional, or State level estimates, which in and of themselves or in association with general census data, are used as the basis for current decisionmaking and future planning.

Data from the Farm Finance, the Farm and Ranch Irrigation, and the Farm Energy Surveys, conducted in 1980 covering calendar year 1979, are published in Volume 5, **Special Reports,** of the 1978 Census of Agriculture.

The Farm Finance Survey provides detailed farm financial data, including debts, expenses, taxes, credits, assets, and farm and off-farm incomes for farm operators. Many of these items as well as detailed data concerning land ownership and landlord characteristics are also being collected from the landlords of the farms involved in the survey.

The Farm and Ranch Irrigation Survey provides high priority data on water use by irrigated farms. Included in the data are: acreage irrigated, yields for irrigated and nonirrigated crops, quantity of water used, methods of distribution, types of pumps, and number of wells.

The Farm Energy Survey provides detailed data on energy purchased by type of energy source, storage capacity, and selected kinds of energy-consuming machinery and equipment.

The 1979 Census of Horticultural Specialties covers the operations of producers of nursery and greenhouse products, mushrooms, and sod in much greater detail than the main census of agriculture. This census has been conducted in 1890, 1930, 1950, and every 10 years since, in association with the census of agriculture. Data for this census are published in Volume 5, **Special Reports.**

DISCLOSURES

In many tables, data are suppressed and a (D) is used instead of a number. To ensure the confidentiality of information on a characteristic of an individual farm, it is necessary to suppress data when the value of an item for one or two farms can be definitely or approximately determined by mathematical manipulations.

Suppressions of data made within frequency distributions are accomplished in a way that will maintain maximum integrity of the frequency groups as suppressions are made whenever possible in adjacent frequency classes. This allows the user, by subtraction from the total, to have a farm count and total quantity reported for the combined suppressed frequencies. Although the published frequency data are not complete, the truncated frequency distribution is available for analysis purposes.

1974 DATA CORRECTIONS

Some 1974 data have been revised since the 1974 volume I publications were released. The major revisions were for:

Madera County, California—number of heavy breed turkeys sold and related data.
Maricopa County, Arizona—acreage of improved pecans and related data.

DEFINITIONS AND EXPLANATIONS

Definitions and explanations of terms in this section provide more detailed descriptions for selected items and terms than are available on the report form or in the tables. Differences in definitions between censuses, data deficiencies, and special processing performed for individual or related data items are also explained. For an exact wording of the questions on the sample and nonsample forms used in 1978 for the conterminous United States, and the information sheet which accompanied these forms, see appendix D.

For all tables, historical data are shown whenever individual items are comparable, otherwise an (NA) is used. Some historical data may differ slightly from totals included in prior census publications due to rounding of fractions and dollar values.

Farms or farms reporting—The term "farms" or "farms reporting" in the presentation of data denotes the number of farms reporting the item. For example, if there are 3,710 farms in a State and 842 of them had 28,594 cattle and calves, the data for those farms reporting cattle and calves would appear as:

Cattle and calves	farms	842
	number	28,594

Land in farms—The acreage designated in the tables as "land in farms" consists primarily of agricultural land used for crops, pasture, or grazing. It also includes woodland and wasteland not actually under cultivation or used for pasture or grazing, provided it was part of the farm operator's total operation. Large acreages of woodland or wasteland held for nonagricultural purposes were deleted from individual reports during the processing operations.

Land in farms is an operating unit concept and includes land owned and operated as well as land rented from others. Land used rent free was to be reported as land rented from others. Except for open range and grazing land used under government permits, all grazing land was included as "land in farms" provided it was part of a farm or ranch. Grazing land operated by grazing associations was to be reported by the person chiefly responsible for conducting the business of the association. All land in Indian reservations used for growing crops or grazing livestock was to be included as land in farms. Land in Indian reservations not reported by individual Indians or non-Indians was to be reported in the name of the cooperative group that used the land. In some instances, an entire Indian reservation was reported as one farm.

Land area—The approximate total land area of counties and States shown for 1978 represents the land area as determined by records and calculations updated as of January 1, 1979. These data are updated periodically; however, the acreage shown for 1978 are essentially the same as in 1974. Any differences between the land area in 1978 and 1974 are due to annexations, disincorporations, and other changes affecting county boundaries.

Land in two or more counties—With few exceptions, the land in each farm was tabulated as being in the operator's principal county. The principal county was defined as the one where the largest value of agricultural products were raised or produced. It was usually the county containing all or the largest proportion of the land in the farm. For a limited number of Western States, this procedure has resulted in the allocation of more land in farms to a county than the total land area of the county. To minimize this distortion, separate reports were required for large farms, identified from the 1974 census and prior special surveys as having more than one separately reportable farm unit. Other reports received showing land in more than one county were separated into two or more reports if the data would significantly affect the county totals. These reports were assigned to the appropriate counties during office processing.

Value of land and buildings—Farm operators receiving the sample form were asked to report their estimate of the current market value of land and buildings owned, rented or leased from others, and rented or leased to others. Market value refers to the respondent's estimate of what the land and buildings would sell for under current market conditions. For 1978, this information is estimated from the replies of a sample of farms; whereas for 1974, all farm operators were asked to provide these data. If the value of land and buildings was not reported, it was estimated during processing by using the average value of land and buildings from a similar farm in the same geographic area.

Other land—This category includes land in house lots, barn lots, ponds, roads, wasteland, etc. The definition of "other land" is the same in 1978 and 1974 only for farms with sales of $2,500 or more. In 1974, for farms with sales of less than $2,500, "other land" included pastureland and rangeland other than cropland and woodland pasture in addition to land in house lots, barn lots, ponds, roads, and wasteland.

Land set aside in the Federal Farm Program—The 1978 report form included a new inquiry on the number of acres set aside in 1978 under the provisions of the Federal Farm Program. These data are for acres of cropland taken out of production by growers of wheat, corn, grain sorghums, and barley, and instead planted in cover crops, soil-improvement grasses, etc. No information was obtained as to which grains would have been grown on the acres set aside.

Foreign ownership of agricultural land—An inquiry measuring the impact of foreign ownership of agricultural land was added to the 1978 report forms. All farm operators were asked to report the number of acres owned by individuals who are not U.S. citizens; or owned by foreign-held corporations, unincorporated associations, or foreign governments.

In some cases, operators using land owned by others may not know the beneficiary owner of the land or, if the owner is known, they may not know the citizenship of the landlord. Therefore, a "don't know" category was included on the report form. Corporations with 50 percent or more of the stock held by foreign investors were considered foreign owned. Any land owned and operated by such corporations was included as land held under foreign ownership.

County summary table 36 provides operators response to the foreign ownership inquiry. Counts are provided for those responding "yes", "no", "don't know", and "no response". No attempt was made to contact nonrespondents.

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, marketing, etc. The operator may be the owner, a member of the owner's household, a salaried manager, a tenant, a renter, or a sharecropper. If he/she rents land to others or has land worked on shares by others, he/she is considered the operator only of the land which he/she retains for his/her own operation. For partnerships, only one partner is counted as an operator. If there is no clear-cut partner in charge, then the senior or oldest active partner is considered to be 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 operations.

Operator characteristics—Data on characteristics such as residence, race, Spanish origin, age, sex, principal occupation, and off-farm work were collected from all operators in 1978. In the 1974 census, operator characteristics were collected only for all farms with sales of less than $2,500 and for farms with sales of $2,500 or more operated by individuals (sole proprietorships) and partnerships. If operator characteristics of race, age, sex, and principal occupation were not reported for 1978, they were derived based on reports with similar acreage size, tenure, and sales size. No adjustments were made for nonresponse to residence, Spanish origin, and off-farm work.

Extensive verification and recontacting were done for positive responses to Spanish origin, especially in Southern States. It was found that a number of these responses were in error, apparently the word American in "Mexican American" was mistaken as American origin.

Write-in entries of "other" race were clerically reviewed and recoded where necessary; entries without an accompanying write-in description were not verified by recontacting the respondent. Based on demographic classifications, "other" race is limited to native non-Spanish populations of Central and South American countries.

In the presentation of data on race of operator, the classification "Black and other races" includes Blacks, American Indians, Asian or Pacific Islanders, and any other separate racial group excluding White. For the 1978 census, operators of

Spanish origin are tabulated by reported race. Prior censuses included Spanish origin as "White" whenever separate data for the White race were shown.

The 1978 Census of Agriculture is the first census to collect data on the sex of the operator. For farm operations where both husband and wife participated, the response was determined by the parties involved.

Selected production expenses—Data on selected production expenses incurred in 1978 were requested from farm operators reporting on the sample form. Only selected production expenses were requested; thus, the expense data cannot be used in combination with gross sales to calculate net farm income. The 1974 census attempted to gather selected expenses plus a category "all other production expenses" to arrive at total expenses. This category was to include items such as depreciation, taxes, interest, rent, and insurance for the farm business. Because of the burden to respondents and inaccuracy in reporting, the "all other production expenses" inquiry was not included on the 1978 report form. The 1979 Farm Finance Survey provides estimates on net farm income.

For 1978, as with earlier censuses, expense data in some cases were not fully reported especially by operations producing crops, livestock, or poultry on a contract basis. Many such operators were unable or unwilling to estimate the value of production inputs furnished by the contractor. Estimates were made for individual expense items based on reported crop and livestock information, or on averages or ratios of expense items reported by similar farms in the same geographic area.

Commercial fertilizer—The expense for commercial fertilizer is the amount spent on fertilizer during 1978, excluding the cost of application. Some fertilizer purchased in 1978 may not have been applied during the year. If the fertilizer was applied by someone other than the operator, the cost of application is included as an expense for customwork, machine hire, and rental of machinery and equipment. Some operators may have included the cost of application with the amount spent on fertilizer.

Other agricultural chemicals, including lime—Expenses include the cost of all insecticides, herbicides, fungicides, other pesticides, lime, etc., excluding costs of application. Data exclude commercial fertilizer purchased.

Customwork, machine hire, and rental of machinery and equipment—This expense represents 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 labor used on rented or hired machinery is included as a hired farm and ranch labor expense.

Energy and petroleum products—More extensive data on energy usage for the farm business were collected in the 1978 census than in prior censuses. Data were collected on expenses, gallons purchased, and storage capacity for gasoline; diesel fuel; LP gas, butane, and propane; and fuel oil. In addition, data on expenses for natural gas; kerosene, motor oil, and grease; electricity; and all other energy sources were collected. Data for 1974 include only storage capacity and expenses for gasoline; diesel; LP gas, butane, and propane; and a combined total expense for motor oil, grease, piped gas, kerosene, and fuel oil. The 1978 energy data were collected from a sample of farms. Additional data on energy usage and storage capacity are available from the 1979 Farm Energy Survey.

Caution should be used in evaluating storage capacity. Farms not reporting storage capacity were not identifiable from farms with no storage capacity; therefore, the totals understate the actual storage capacity available.

Value of agricultural products sold—This item represents the gross market value before taxes and production expenses of all agricultural products sold or removed from the place in 1978 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, and others associated with the operation.

The value of agricultural products sold represents the sum of all crops including nursery products sold, and livestock and poultry and their products sold. It does not include income from farm-related sources such as customwork or agricultural services, or income from nonfarm sources. For 1974 and 1969, the value of agricultural products sold included sales of forest products from farms and ranches.

The value of crops sold in 1978 does not necessarily represent the sales from crops harvested in 1978. Data include sales from crops produced in earlier years and exclude some crops produced in 1978, but held in storage and not sold in 1978. For crops sold through a co-op which made payments in several installments, only the total value received in 1978 was to be reported.

The value of agricultural products sold was collected from all operators. Where the operator failed to report a value of sales, estimates were made based on the amount of crops harvested or the number of livestock or poultry sold. Extensive estimation was required for operators growing crops or livestock under contract.

Caution should be applied when comparing sales in 1978 with sales reported in earlier censuses due to the extreme fluctuations in per-unit prices between census years.

Income from machine work, customwork, and other agricultural services—This category consists of gross income received during 1978 by farm operators for providing machine work, customwork, and other agricultural services for others such as plowing, planting, harvesting, etc. Entries were deleted when duplicate information was reported in the 1978 Census of Agricultural Services, or when entries were large enough to consider the agricultural services activity separate from the farm or ranch. The agricultural services part of a farming operation was generally considered a separate operation when income from agricultural services was greater than $500,000, or when it was $10,000 or more and greater than the value of agricultural products sold. Data for establishments primarily engaged in agricultural services are published separately in volume 3.

Value of agricultural products sold directly to individuals for human consumption—This item represents the value of agricultural products produced and sold directly to individuals for human consumption from roadside stands, farmers' markets, pick-your-own sites, etc. By definition, it excludes nonedible products such as nursery products, cut flowers, wool, grains, etc. Sales of agricultural products by vertically integrated operations through their own processing and marketing operations were excluded where identified.

Fertilizer and lime—Detailed inquiries on acreage fertilized and tonnage of fertilizer applied by crop, which were included on the 1974 census form, were not collected in 1978. Data collected for 1978 are limited to total acres of cropland fertilized excluding cropland used only for pasture, and total acres of pastureland and rangeland fertilized. Data on lime use were requested in both 1978 and 1974. Land fertilized and limed data were collected from a sample of farms in 1978. Total acres of cropland fertilized in 1974 were obtained by adding the acres of individual crops fertilized and, therefore, may include duplication where two or more crops using the same acreage were each fertilized during the year.

Irrigation—The 1978 report forms included inquiries on acres irrigated for specific crops and total acres irrigated for harvested cropland, pastureland or rangeland, and any other land. Data on methods of irrigation and estimated quantity of irrigation water used by farms and ranches collected in the 1974 and 1969 censuses are available from the 1979 Farm and Ranch Irrigation Survey and are included in Volume 5, **Special Reports.** Irrigation data collected on the 1978 report form are summarized in more detail in volume 2, Part 9, **Irrigation on Farms** and in Volume 4, **Irrigation,** which also includes data from off-farm water suppliers covered in the 1978 Census of Irrigation Organizations.

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 the State average price. 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 Economics, Statistics, and Cooperatives Service of the U.S. Department of Agriculture. Prices applied to other livestock and poultry were census-derived averages based primarily on reported value of sales in the 1978 Census of Agriculture. The 1974 and 1969 data were developed in a similar manner.

Poultry hatched—The 1978 data include all poultry hatched during the year that were placed or sold; whereas for 1974, data include only poultry sold. For example, chickens hatched and raised for layer replacement on the same farm are included in 1978 data for poultry hatched, but excluded from 1974 totals. The value of hatchery sales is included in the category "Poultry and Poultry products."

Fish and other aquaculture products—The raising of fish and other aquaculture products in captivity was included as agricultural production by the 1972 Standard Industrial Classification, and data for such operations were included in the agriculture census for the first time in 1974. The value of fish and other aquaculture products sold is included in the category "Other livestock and livestock products." Production in salt water was considered not to be in captivity and was excluded.

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 for pollination of crops). The completeness and accuracy of these data are affected by the fact that some bee operations may not have been on the mail list and some operators on the mail list may not have considered beekeeping to be an agricultural operation, and therefore did not report.

Citrus enumeration—For the 1978 census, reports for selected citrus caretakers in Arizona, Florida, and Texas were obtained by direct enumeration. 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 report form. A citrus caretaker is an organization or person caring for or managing citrus groves for others. 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 number of acres of citrus. The names on the lists were matched to completed grove owners' reports to eliminate duplication. The caretaker was also 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 again. In the 1978 census, 8 caretakers in Arizona reported 250 grove owners having 12,000 acres of citrus; the 100 caretakers in Florida reported 6,600 grove owners having 240,000 acres of citrus; and 27 caretakers in Texas reported 1,500 grove owners having 30,000 acres of citrus.

More detailed information by State and county are included in volume 2, part 6.

Crop year or season covered—Acres and quantity harvested are for the calendar year 1978 except for citrus fruits, avocados, and olives; vegetables in Florida; sugarcane in Florida and Texas; and pineapples and coffee in Hawaii.

Citrus fruits—The data relate to the crops harvested from the bloom of 1977 for the 1977-78 marketing season.

Avocados—The data for California relate to the quantity harvested from November 1, 1977 through November 30, 1978; the data for Florida relate to the quantity harvested or to be harvested from April 1978 through March 1979.

Olives—The data relate to the quantity harvested from the bloom of 1977 for the October 1977 to March 1978 harvest season.

Vegetables—The data for Florida relate to the crop harvested for the September 1, 1977 through August 31, 1978, harvest season.

Sugarcane—The data for Florida and Texas relate to the reported cuttings from November 1977 through April 1978.

Pineapples and coffee—The data for Hawaii for pineapples relate to quantity harvested for the year ending May 31, 1978, and coffee for the 1977-78 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 products; in Hawaii, taro, ginger root, and lotus root. Totals for crops reported in tenths 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. The 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, cropland in cultivated summer fallow, or cropland idle.

For crops grown purposely for grazing, quantity harvested was not requested. Acres for these crops were to be reported as "cropland harvested" and not as "cropland used only for pasture or grazing." This procedure applies to the following crops:

Corn cut for dry fodder, hogged or grazed
Cowpeas hogged or grazed or cut for silage
Sorghums hogged or grazed
Soybeans hogged or grazed or cut for silage

Quantity harvested was not obtained for crops such as vegetables, nursery and greenhouse products, and soybeans plowed under.

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 or for the individual crop acreages.

Data for hay represent all hay crops, including grass silage and hay crops cut and fed green. 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.

Crop units of measure—For some crops, the operator could report quantity harvested in a unit of measure currently in use in the area. These crops were: Corn for grain or seed, in bushels shelled or hundredweight shelled; sorghums for grain or seed, in bushels or pounds; rice in 100-lb. bags, bushels, or 162-lb. barrels. Corn for grain and sorghums for grain are published in bushels and rice in 100-lb. bags. 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 are published in pounds.

Write-in crops—To reduce the length of the report form, only the major crops for the United States were prelisted (see sections 2 and 3 of the report form). For the 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 (see sections 4, 5, 6, 7, and 8 of the report form). 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. Crops not coded by the respondent were coded during processing before keying. 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 of the report, 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 unusual crops for the area were examined to minimize the possibility that they were in error.

Comparability of crop data—For the 1974 and 1969 censuses, data for all crops are available for farms with sales of $2,500 or more while only data for the major crops—corn, sorghums, soybeans, peanuts, wheat, cotton, tobacco, potatoes, hay, vegetables, land in orchards, and berries are available for all farms. For 1978, data for all crops are available for farms with sales of $2,500 or more and for all farms.

For a number of commodities, less detailed data were collected in 1978 than in 1974. In these instances, 1974 data have been combined to provide comparable figures wherever possible.

The "acres of vegetables harvested" in 1978 and 1969 was the summation of the acres of individual vegetables harvested,

but in 1974 it was the total land used for vegetable crops. For "land used for vegetable crops," the acres were to be reported only once even though two or more harvests of a vegetable or more than one vegetable were harvested from the same acres.

The "other crops" in the tables are not comparable from census to census as crops are added and deleted from the report form each census.

Value of crop production—This item represents the estimated value of all crops harvested during the 1978 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 in most part from publications of the Economic, Statistics, and Cooperative Service, U.S. Department of Agriculture (USDA). When USDA estimates were not available, Bureau of the Census statisticians made estimates using available sources such as data from adjacent States, respondents, report forms, county extension agents, and other persons knowledgeable about specific crops.

"See Text" References

Items in the tables which carry the note "See text" are explained or defined in this section. Also, additional definitions and explanations for some items are provided.

Data for 1978 are based on a sample of farms—Sections 22 through 27 of the census report form 78-A1(S), which include inquiries on commercial fertilizer and lime, chemicals, machinery and equipment, expenses for energy and petroleum products, selected production expenses, and value of land and buildings, were requested of all certainty (large) farms and approximately 20 percent of all other farms. As these data are subject to sampling error, estimates of the sampling reliability of county totals for selected items are shown in table D.

Farms operated by Black and other races—For 1974 and 1978, "other races" includes American Indians, Asian and Pacific Islanders, and all other racial groups other than White. The 1969 data are limited to farms operated by Blacks. Additional information on race of operator is provided under "operator characteristics".

All other races—This category is limited to native non-Spanish populations of Central and South American countries.

1974 data apply only to individual or family operations (sole proprietorships) and partnerships—For 1974, farm operator characteristics were not collected from corporations, co-operatives, prison farms, grazing associations, and Indian reservations. For 1978, characteristics and occupation of the senior partner or person in charge were collected from all farms, regardless of the type of organization.

Other type of organization—This category includes cooperatives, estates or trusts, prison farms, grazing associations, and Indian reservations.

Market value of agricultural products sold—This item represents the gross market value, before taxes and expenses, of all agricultural products sold in the census year including livestock and poultry and their products, and crops including nursery products and hay. The data include landlords' and contractors' shares. The 1974 and 1969 data include sales of forest products.

Farms with value of agricultural products sold less than $2,500—In 1978, this category includes all farms, except abnormal farms, with sales less than $2,500. In 1969 and 1974, farms reporting sales less than $2,500 but having the production potential for sales of $2,500 and over are included in the category farms with sales of $2,500 and over. In frequency distributions, the 1969 and 1974 farms with potential sales of $2,500 and over are included in the $2,500 to $4,999 sales group.

Other livestock and livestock products—Production of fish and laboratory animals is included in this category in 1974 and 1978; whereas, production of these items was excluded entirely from the 1969 census.

Poultry hatched—For 1978, this category includes all poultry hatched during the year that were placed or sold; whereas for 1974, it only included poultry sold. Incubator egg capacity on December 31, 1978, is tabulated under the column heading Inventory and the number of poultry hatched is under the heading Sales.

Worms—For 1978, the production of worms was separately identified; whereas for 1974, it was not. Inventory consists of the number of standard worm beds in production. A standard worm bed was considered to be 24 cubic feet measuring 8 feet by 3 feet by 1 foot. Sales of worms are shown in pounds. Worm casting sales are included in livestock products sold.

Hay crops (tons, dry)—Data shown for hay represent all hay crops, including grass silage and hay crops cut and fed green. 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.

Other tame dry hay—The 1974 categories clover-timothy hay, lespedeza hay, coastal Bermuda grass hay, and other hay have been combined into "other tame dry hay" in 1978.

All vegetables harvested for sale—In 1978 and 1969, the acres of vegetables harvested is the summation of the acres of individual vegetables harvested; while in 1974, it is the total land used for vegetable crops.

Land used for vegetables—Data are 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.

Grapes (pounds)—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 fresh weight.

All nursery and greenhouse products—Data are a summation of the individual items presented.

Excludes abnormal farms—Abnormal farms include institutional farms, experimental and research farms, and Indian reservations. Institutional farms include those operated by hospitals, penitentiaries, schools, grazing associations, government agencies, etc.

Farms by standard industrial classification—See explanation under Farm Classifications.

FARM CLASSIFICATIONS

State tables 29 through 35 present detailed 1978 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. In 1974, comparable detailed data were tabulated only for farms with sales of $2,500 or more. 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 a number of State and county tables, data are shown separately for all farms and for farms with sales of $2,500 or more, and for various value of agricultural products sold or value of sales size groups.

For 1978, all farms except abnormal farms have been tabulated by size based on reported sales. Thus, the category "farms with sales of $2,500 or more" includes only farms with actual sales of $2,500 or more. For 1969 and 1974, farms reporting sales of less than $2,500 but having the production potential for sales of $2,500 or more are included in most tables under the category farms with sales of $2,500 or more based on potential sales.

In 1969, 1974, and 1978, abnormal farms were not tabulated based on actual or potential sales. Detailed data for abnormal farms are included in all farm data shown in State table 34, but are excluded from totals for all farms shown in other State tables 29 through 35. Otherwise, data for abnormal farms are included in totals for all farms, but are excluded from totals for farms with sales of $2,500 or more.

In 1969 and earlier censuses, data were classified into nine groups referred to as "economic classes." For farms with sales of $2,500 or more, the value-of-products-sold classifications used in 1974 and 1978 are the same as the value ranges used for establishing economic classes 1 through 5. Data for farms with sales of less than $2,500, classified in 1969 and earlier censuses as class 6, part time and part retirement, are not directly comparable to the 1974 and 1978 value-of-product classes because of the change in farm definition and modifications in farm classification.

Farms by tenure of operator—The classifications of tenure used for both the 1978 and 1974 censuses are:

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.

Detailed 1978 data by tenure of operator are shown in State table 29 for all farms, excluding abnormal farms, and for farms with sales of $2,500 or more.

Farms by type of organization—The 1978 Census of Agriculture was the first census in which all farms were classified by type of organization. In the 1969 and 1974 censuses, these data were collected and tabulated only for farms with sales of $2,500 or more.

The classifications used were:

Individual or family operation (sole proprietorship), excluding partnership and corporation.
Partnership operation, including family partnership.
Corporation, including family corporation.
Other, such as cooperative, estate or trust, institutional farm, etc.

For 1978, corporations were subclassified by two additional characteristics into:

a. Family held.
   Other than family held.
b. More than 10 stockholders.
   10 or less stockholders

These subclassifications were not used in the 1974 Census of Agriculture. However, somewhat similar classifications were obtained in a follow-on survey of all corporations identified in the census, which were published in volume IV, part 5 of the 1974 Census of Agriculture. This survey collected detailed information on family and nonfamily corporations, number of shareholders, and other classifications and characteristics of corporations at both the firm (company) and farm levels. In the 1969 census, corporations were classified only by number of shareholders; those having more than 10 or those having 10 or fewer shareholders.

Caution should be exercised when comparing 1978 corporation data to those of the 1974 survey and the 1969 census. For the 1974 survey, respondents were given a choice of four kinds of corporations from which to select the one that best described their operation: Family corporation, independent corporation, parent corporation (with one or more subsidiaries), and subsidiary of another corporation. Classification rules used prevented an independent, parent, or subsidiary corporation from being classified as a family corporation. The two-way choice of family held or other than family held used in 1978 has resulted in a decrease in the number and proportion of nonfamily held corporations reported.

A followup study of the 1969 data indicated that a sizable number of farms were incorrectly reported as corporations, especially in the Southern States. The 1974 survey was used to identify and correct the misreporting of corporations in that

census. In the 1978 census, some reports incorrectly had both individual or family operation (sole proprietorship) and family held corporation indicated. These reports were reviewed during the processing phase and resolved based on whether or not the respondent operated under a corporate name, had reported as a corporation in the 1974 census, or was shown to be a corporation on one or more of the administrative records used in developing the census mail list.

Farms by age and principal occupation of operator—Data on age and principal occupation were obtained from all operators for 1978. In 1974, these data were collected only for all farms with sales of less than $2,500 and for farms with sales of $2,500 or more operated by individuals (sole proprietorships) and partnerships. Detailed characteristics are shown by six age-of-operator groups in combination with occupation information for all farms in State table 31 and for farms with sales of less than $20,000 in State table 32. The principal occupation classifications used for 1978 were:

Farming—The operator spent 50 percent or more of his worktime in 1978 in farming or ranching.

Other— The operator spent 50 percent or more of his worktime in 1978 in occupations other than farming. Some operators engaged in ranching marked "other" as their principal occupation. Most such obvious errors were corrected during processing.

Farms by size—All farms were classified by size according to the total land area in each operation. 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. Detailed characteristics of all farms by 12 size-of-farm groups are presented in State table 33.

Farms by standard industrial classification— As in the 1974 census, agricultural production establishments (farms, ranches, nurseries, greenhouses, etc.) are classified by the Standard Industrial Classification (SIC) system in the 1978 census. These classifications, found in the 1972 SIC Manual, are used to promote uniformity and comparability in the presentation of statistical data collected by various agencies.

An establishment primarily engaged in crop production (major group 01) or livestock production (major group 02) is classified in the 3- or 4-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 was less than 50 percent from a single 4-digit industry, but 50 percent or more from the products of two or more 4-digit industries within the same 3-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.

All farms in the 1978 census were classified by SIC. In the 1974 census, farms with sales of less than $2,500 were not classified by SIC. In 1978, those agricultural producers having no sales reported were retained as farms and classified as general livestock farms in industry 0291 if livestock or pasture were reported or as general crop farms in industry 0191. Characteristics of all farms by selected SIC groupings are shown in State tables 11 and 35. Additional and more complete 1978 data for various SIC classifications are published in volume 2, part 8.

UNPUBLISHED DATA

Additional data have been assembled in a series of unpublished tables. The unpublished State table "Summary by Standard Industrial Classification of Farms by Value of Sales: 1978" has a format similar to State table 34. The largest size group in the boxhead is $100,000 or more. Data are shown for the following SIC groupings:

Cash grain farms (011)
Field crop farms except cash grain farms (013)
Cotton farms (0131)
Tobacco farms (0132)
Sugar crop, Irish potato, hay, peanut, and other field crop farms (0133)
Vegetable and melon farms (016)
Fruit and tree nut farms (017)
Horticultural specialty farms (018)
General farms, primarily crop (019)
Livestock farms except dairy, poultry, and animal specialty (021)
Beef cattle farms, except feedlots (0212)
Dairy farms (024)
Poultry and egg farms (025)
Animal specialty farms (027)
General farms, primarily livestock (0291)

The following unpublished county summary tables include data tabulated by detailed size groupings:

Farms by Size of Farm: 1978 and 1974
Acreage and Value of Owned and Rented Land: 1978
Farms by Acres of Cropland Harvested: 1978 and 1974
Place of Residence of Operator by Occupation and Off-Farm Work: 1978
Hired Farm Labor by Number of Hired Workers: 1978
Farms by Expenses for Hired Farm or Contract Labor: 1978
Broilers Sales by Number Sold Per Farm: 1978
Cows and Heifers That Had Calved—Inventory by Number Per Farm: 1978
Beef Cows Inventory by Number Per Farm: 1978
Milk Cows Inventory by Number Per Farm: 1978
Cattle and Calves Inventory by Number Per Farm: 1978
Cattle and Calves Sales by Number Sold Per Farm: 1978
Fattened Cattle Sales by Number Sold Per Farm: 1978
Hogs and Pigs Inventory by Number Per Farm: 1978
Hogs and Pigs Sales by Number Sold Per Farm: 1978
Feeder Pigs Sales by Number Sold Per Farm: 1978
Other Hogs and Pigs Sales by Number Sold Per Farm: 1978
Sheep and Lambs Inventory by Number Per Farm: 1978
Sheep and Lambs Sales by Number Sold Per Farm: 1978

Data similar to that shown in State table 28 for the acreages of crops harvested and production by acreage size have been summarized at the county level, but have not been tabulated.

These summaries can be tabulated at a minimal cost depending on the detail of data requested.

For information on the availability and cost of unpublished tabulations, please write to the Chief, Agriculture Division, Bureau of the Census, Washington, D.C. 20233.

NONSAMPLING ERRORS

Every census or survey is subject to errors. In addition to sampling variability, errors may arise from such sources as incorrect or incomplete reporting, processing, and the inability to obtain a report from each eligible reporting unit. Sampling variability is discussed in Statistical Adjustments.

Reported data in the census may be incorrect as a result of the misunderstanding of questions or because of the use of estimates in reporting. During processing, adjustments were made to data items which appeared to be inconsistent with other items reported for the same farm.

Respondents may have failed to provide all of the information requested. In some cases, the respondent may have indicated the presence of an item but not the amount. Imputations were made for missing data on the quantities and sales of crops and livestock but no imputations were made for place of residence or foreign ownership of land.

Careful efforts were made to keep errors introduced during clerical and electronic processing to a controlled level through the use of quality control, verification, and check measures on specific operations.

Extreme values in the direct enumeration sample (those contributing a substantial proportion of the estimated total) were reviewed individually and sometimes reduced. This will result in a possible downward bias in estimated totals.

Inclusion of the direct enumeration sample in 1978 resulted in a matching operation to identify names and addresses included in both the direct enumeration sample and the mail list. This matching operation was subjected to critical review and verification, including telephone calls to most respondents in the direct enumeration sample who were not matched in normal processing. Duplicates which were not identified during the matching process will result in an upward bias in estimated totals.

An adjustment was made for nonrespondent operations on the mail list. This adjustment employed sampling of both nonrespondent and respondent cases and variation from the adjustment is measured in sampling error; however, any systematic bias is not measured.

An evaluation of coverage is being conducted to measure the extent of undercount or overcount of farms in the census. A description of this evaluation is included in Census Coverage.

CENSUS COVERAGE

Although a complete and fully accurate count of farms, farmland, and farm production is the aim of each nationwide census of agriculture, the complex structure of America's agriculture makes this aim difficult to achieve. Among the complexities are the many places to be included, the variety of arrangements under which farms are operated, the continuing changes in the relationship of operators to the farm operated, the expiration of leases and the initiation or renewal of leases, the problem of obtaining a complete list of agricultural operations, the difficulty of locating and identifying some types of farms, the operator's absence from the farm during the data collection period, and the operator's opinion that part or all of the operation does not qualify and should not be included in the census.

An evaluation of coverage has been conducted for each census of agriculture since 1945. Although the primary purpose of these evaluations is to identify problem areas and supply evidence as a basis for improvements, they also provide users of census data with estimates of the completeness of census counts. The results of the coverage evaluation study were published for the 1974 census in Volume IV, **Special Reports,** part 3. This report included estimates of the net percentage of all farms missed in the census. Farm counts for 1974, adjusted for this net undercount, are shown in appendix C.

The inclusion of a direct enumeration sample to supplement the mail list for the 1978 census partially eliminates the major source of undercoverage of farms, namely, incompleteness of the mail list. However, inaccurate counting may still occur because (1) by design, the sample omitted the selection of area segments in places that had 2,500 or more population in 1970; (2) direct enumeration sample interviewers may have under counted or over counted farms; and (3) respondents may have been misclassified as farms or nonfarms during processing.

The coverage evaluation for the 1978 census includes a re-enumeration of a subsample of the direct enumeration segments with matching and verification of differences, identification of operators not included on the mail list in places with 2,500 or more population in 1970 using supplemental questions on the Annual Housing Survey, and verification of the farm-nonfarm classification for a sample of respondents.

The changes in data collection procedures implemented for the 1978 census should substantially reduce undercoverage, and the proportion of farms not included in the census is expected to be between 2 and 3 percent for the United States. Results of the coverage evaluation and other evaluative material are included in volume 5.

STATISTICAL ADJUSTMENTS

Report forms were obtained and tabulated for all the identified larger farms (in general, those with expected sales of $80,000 or more). In the few instances where the operator did not supply the required information, data were obtained from secondary sources. By means of detailed, programed edit specifications, adjustments or corrections were made during the computer edit operation for internally incomplete or inconsistent data. The review procedures provided for computer printouts of edit changes that exceeded specified limits for the item. These changes were then reviewed for reasonableness by members of the processing staff and necessary corrections made.

Nonresponse

The statistics for each State and county were adjusted to account for nonrespondent smaller operations. The number of

farms for which adjustment was made was estimated on the basis of the results of a canvass of a random sample of mail list addressees who did not respond to the census during the regular followup period. The canvass, using an abbreviated form, was accomplished with the use of the mail and telephone. The sample for each State was designed to provide estimates of the number of nonrespondent farms with a relative standard error of approximately 6 percent. However, approximately one third of the sample could not be contacted resulting in a potential bias in the estimates. The sample estimate of the number of nonrespondent farms at the State level was allocated to strata at the county level using the number of nonrespondents and the proportion of census farms among respondents. A sample of respondent data records was selected by stratum and weighted to represent the nonrespondent farms.

Table A shows for selected items for the State the percent of the published total that the whole farm nonresponse adjustment represents. Adjustment for individual item nonresponse on respondent forms is not included in the percentages. These percentages indicate the potential for bias in published figures resulting from nonresponse, i.e., the extent to which the actual data for nonrespondents may not agree with the nonresponse adjustments. The probable range of difference is unknown. However, the degree of uncertainty regarding the accuracy of the data increases as the percentage of the total represented by the nonrespondent adjustment increases.

Direct Enumeration Sample

Because of undercoverage problems with the mail list for the 1969 and 1974 censuses, a direct enumeration area sample was included to supplement the mail list for the 1978 census. Enumeration district maps and data from the 1970 Census of Population and Housing were used to construct the sampling frame from which the direct enumeration sample was selected. The frame was stratified by State and by a farm density ratio (the ratio of farm households to total households). In this State, the selected sample consisted of 141 segments. The expected number of farms per segment varied by strata from none in residential areas to 12 in intensive farm areas and averaged about 10 farms. Farms enumerated in the direct enumeration sample were matched to the mail list and the data for the unmatched farms were weighted by the reciprocal of the probability of selection for the segment to make State estimates for farm operations not represented on the mail list.

Table A. **Percent of State Total Represented by Adjustment for Whole Farm Nonresponse: 1978**

Item	Percent of total
Farms	6.5
Land in farms	5.7
Value of agricultural products sold	3.6
Harvested cropland	5.5
Corn for grain or seed acres	5.1
Wheat for grain acres	4.9
Inventory:	
Cattle and calves	5.2
Hens and pullets of laying age	.9
Hogs and pigs	4.0

Mail List Sampling

To obtain county data for appropriate items without burdening all farm operators, data for Sections 22 through 27 of the report form 78-A1(S) were collected only from a sample of farms. The sample was selected from the mail list and consisted of all addresses in a certainty stratum and a random sample of addresses from the noncertainty stratum. The certainty stratum consisted of all addresses meeting specified size criteria in terms of indicated acreage and/or value of sales. Certainty size criteria varied by State from 1,000 to 5,000 indicated acres and from $40,000 to $200,000 indicated value of sales based on historic or mail list source data. All addresses in counties with less than 100 farms in 1974 were also selected as certainty. Noncertainty addresses in counties with 100 to 199 farms in 1974 were sampled at a rate of 1 in 2, and noncertainty addresses in counties with 200 farms or more in 1974 were sampled at a rate of 1 in 5.

Several elements of the sampling from the mail list and associated data collection may introduce substantial variation and a potential bias into the resulting data. First, the mail list from which the sample was selected contained about 50 percent nonfarm names and addresses which were not identifiable at the time of selection. Both farm and nonfarm names and addresses were selected into the sample. As a result, the farm data actually tabulated came only from part of the sample, specifically the names and addresses which represented farms. Secondly, the stratification was based on size information from several sources and of varying quality. Size information was not available for a substantial proportion of the names and addresses. In addition, sample and nonsample forms may have been returned at a different rate by respondents.

In order to improve the precision and minimize the bias of estimates from the sample, post-stratification was used to produce estimates. Basically, this consisted of classifying all farms into relatively homogenous strata and weighting sample farms within each stratum by the ratio of total farms to sample farms.

Farms meeting certainty size criteria during sample selection and those identified during processing as meeting similar criteria were assigned to a certainty stratum. All other farms were assigned to 64 strata. Farms with sales of less than $2,500 were classified into eight size-of-farm groups (less than 10 acres, 10 to 49 acres, 50 to 69 acres, 70 to 99 acres, 100 to 199 acres, 200 to 259 acres, 260 to 499 acres, and 500 acres or more); within each of two value-of-sales groups (less than $1,500 and $1,500 to $2,499); within each of two type-of-farm groups (crop or general farms and livestock or poultry farms). Farms with sales of $2,500 or more were classified into four size-of-farm groups (less than 50 acres, 50 to 99 acres, 100 to 259 acres, and 260 acres or more); within each of the four value-of-sales groups ($2,500 to $4,999, $5,000 to $9,999, $10,000 to $19,999, and $20,000 or more); within each of two type-of-farm groups (crop or general farms and livestock or poultry farms).

Each stratum was examined and collapsed into another stratum if (1) the stratum contained less than 20 sample farms; or (2) the calculated weight for the stratum was greater than 10 in counties sampled at a rate of 1 in 5 and greater than 4 in counties sampled at a rate of 1 in 2.

The post-stratification provided weights to be assigned to farms in each of the final collapsed strata such that the total of the weights for sample farms in the stratum would be equal to the total number of farms in the stratum.

Estimates were prepared for items in Sections 22 through 27 of the report form by multiplying the data for each item for each farm in the sample by the weight assigned to the farm. The weight for a certainty farm was 1.

Reliability of Census Estimates

Sampling variability in census data may arise from several sources, some affecting all data and others affecting only certain items or geographic levels of tabulation.

The sampling involved in the imputation for nonrespondents affects all data items at all geographic levels of tabulation. However, farms above specified size limits were not eligible for selection to represent nonrespondents. The size limits varied by State from $60,000 to $150,000 and from 1,000 to 2,000 acres. As a result of these limits, the sampling variability arises primarily from smaller farms. For computing the estimates of variability due to weighting for nonresponse, the farms selected for weighting were considered to be a random sample of all farms in the stratum from which they were selected.

Estimates from the direct enumeration sample are not included in county totals but contribute to sampling variability of State totals for all data items.

The sample selected from the mail list provides estimated data only for Sections 22 through 27 of the report form. It contributes to sampling variability only for the items in these sections. Including the certainty farms and sample farms, data for Sections 22 through 27 were collected on approximately 26 percent of the farms nationwide.

Table B includes estimates of sampling reliability of State totals for a selected set of items. The estimates of sampling reliability for total number of farms, land in farms, harvested cropland, irrigated land, crops harvested, livestock, and value of agricultural products sold include components of variation for nonresponse imputation and for the direct enumeration sample. The component of variation for nonresponse imputation is relatively small and the direct enumeration sample is the major source of variation for these items. Estimates of sampling reliability for fertilizer use, chemical use, value of machinery and equipment, and value of land and buildings contain components of variation for the direct enumeration sample and the mail list sample.

Table C contains estimates of sampling reliability for the estimated number of farms in a county reporting an item in table D. These estimates of sampling reliability contain components of variation arising from the mail list sample. The approximate standard error in percent may be read directly from the table based on the number of farms reporting the item. For a number of farms not shown in the table, a linear interpolation will provide a reasonable approximation. These estimates should not be applied to counties indicated to be certainty in table D.

Table D shows estimates of the sampling variability of selected items for each county and for the portion of the State total pertaining to farms not on the mail list. Estimates for county totals contain variation from the mail list sample and estimates for the portion not on the mail list contain variation from the direct enumeration sample. Items for counties indicated to be certainty in the table are subject to some sampling error but this is expected to be small and is not included. Items in county publications with data collected from all farms contain a component of variation from nonrespondent imputation. This component is usually small and is not shown in the sampling variability tables.

The sample estimates and the estimates of standard errors presented in tables B, C, and D permit the construction of interval estimates with prescribed confidence that the interval includes the average result of all possible samples.

If all possible samples were selected, each of these surveyed under essentially the same conditions, and an estimate and its estimated standard error were calculated from each sample, then:

a. 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.
b. Approximately 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the average value of all possible samples.

For example, suppose the estimated number of farms in a State is 50,000 with a relative standard error of 3.0 percent. Then the standard error is 1,500 (3.0 percent of 50,000) and the chances are 2 out of 3 (67 percent) that complete coverage using the same survey methods would yield between 48,500 and 51,500 farms.

As calculated, the standard error also partially measures the effect of nonsampling errors but does not measure the effect of any systematic biases in the data arising from incorrect reporting by respondents, adjustments for nonresponse, incomplete unduplication, or incomplete coverage of farms.

Table B. **Estimates of the Sampling Reliability of State Totals for Selected Items: 1978**

Item	All farms		Farms with sales of $2,500 or more	
	Quantity	Standard error (percent)	Quantity	Standard error (percent)
Farms.....number..	59,942	3.3	44,118	4.3
Land in farms.....acres..	8,747,279	.8	7,584,239	.8
Harvested cropland.....farms..	55,378	3.5	41,626	4.5
acres..	4,344,044	.8	4,059,541	.9
Irrigated land.....farms..	1,422	5.1	1,194	.6
acres..	14,971	1.8	14,013	.9
Agricultural products sold.....farms..	59,942	3.4	44,118	4.3
$1,000..	2,189,594	.5	2,163,060	.5
Crops.....farms..	39,543	2.6	31,804	3.1
$1,000..	644,530	.5	634,469	.5
Livestock, poultry, and their products.....farms..	44,489	4.3	35,169	5.3
$1,000..	1,545,064	.6	1,528,591	.6
Value of machinery and equipment.....farms..	59,870	3.3	44,068	4.3
$1,000..	1,768,054	1.1	1,623,632	1.2
Average value of land and buildings per farm.....dollars..	187,406	1.3	223,326	1.3
Corn for grain or seed.....farms..	34,751	5.4	28,990	6.4
acres..	1,207,874	2.6	1,166,084	2.6
bushels..	115,487,341	1.3	112,655,897	1.2
Wheat for grain.....farms,.	12,831	.7	11,668	.6
acres..	195,634	.5	188,901	.5
bushels..	6,351,417	.5	6,179,410	.5
Soybean for beans.....farms..	2,093	.5	1,990	.5
acres..	77,102	1.1	76,191	1.1
bushels..	2,345,762	1.1	2,325,826	1.1
Cattle and calves inventory.....farms..	40,860	4.7	31,004	6.0
number..	1,736,474	1.0	1,630,919	1.0
Cattle and calves sold.....farms..	37,514	5.0	30,744	6.0
number..	944,167	1.4	911,420	1.4
$1,000..	299,725	1.3	291,194	1.4
Hogs and pigs inventory.....farms..	12,742	7.4	9,681	9.3
number..	811,916	3.6	774,254	3.6
Hogs and pigs sold.....farms..	10,866	8.4	9,142	9.8
number..	1,294,806	3.0	1,262,129	3.1
$1,000..	111,236	5.0	109,152	5.0
Sheep and lambs inventory.....farms..	3,176	1.8	2,151	.5
number..	102,126	1.6	78,303	.9
Sheep and lambs sold.....farms..	2,711	1.7	1,872	.5
number..	62,784	.9	49,967	.9
Hens and pullets of laying age inventory.....farms..	9,929	9.3	6,602	13.0
number..	15,724,155	.8	15,585,693	.8
Hens and pullets of laying age sold.....farms..	2,823	2.7	2,467	.4
number..	12,652,099	.8	12,601,381	.8
Commercial fertilizer used.....farms..	42,405	2.5	34,405	2.9
acres..	2,964,661	1.3	2,858,040	1.3
Commercial fertilizer purchased.....farms..	45,628	2.3	36,783	2.7
$1,000..	104,038	1.5	100,950	1.5
Agricultural chemicals purchased.....farms..	42,257	2.4	35,030	2.8
$1,000..	37,565	1.3	36,265	1.3
Chemicals used on crops for insect control.....farms..	16,829	5.7	14,842	6.3
acres..	827,661	1.3	807,321	1.3
Chemicals used on crops for disease control.....farms..	4,589	3.0	3,513	2.9
acres..	167,626	2.9	160,717	2.9
Gasoline purchased.....farms..	57,142	3.5	42,088	4.5
1,000 gallons..	75,493	1.0	(NA)	(NA)
$1,000..	44,477	1.0	41,381	1.0
Diesel fuel purchased.....farms..	26,633	1.3	23,863	1.0
1,000 gallons..	37,871	1.2	(NA)	(NA)
$1,000..	18,410	1.2	17,978	1.2
Livestock and poultry purchased.....farms..	27,280	3.7	21,347	4.5
$1,000..	221,066	1.6	216,247	1.6
Feed purchased.....farms..	42,914	4.5	32,698	5.7
$1,000..	433,329	.9	425,088	.8
Hired farm labor.....farms..	21,170	1.1	19,110	1.0
$1,000..	177,497	.7	172,552	.7

Table C. **Estimates of the Sampling Reliability of Farms Reporting an Item in the County: 1978**

Farms reporting item	Standard error (percent)	Farms reporting item	Standard error (percent)
25 farms	30.0	1,000 farms	2.0
50 farms	20.0	1,500 farms	1.0
100 farms	14.0	2,000 farms	1.0
250 farms	9.0	3,000 farms	1.0
500 farms	5.0	4,000 farms	.5
750 farms	3.0	5,000 farms	.5

Table D. **Estimates of the Sampling Reliability of County Totals for Selected Items: 1978**

County	Average value of land and buildings per farm		Value of machinery and equipment		Acres fertilized		Chemicals used on crops for--			
							Insect control		Disease control	
	Value dollars	Standard error (percent)	Value ($1,000)	Standard error (percent)	Acres	Standard error (percent)	Acres	Standard error (percent)	Acres	Standard error (percent)
Adams	225,860	2.4	41,795	3.5	93,270	3.6	27,514	6.8	26,040	6.1
Allegheny	182,418	9.8	8,943	9.2	7,939	17.0	2,380	23.0	1,369	31.0
Armstrong	150,943	5.2	27,396	5.4	30,822	7.2	6,809	19.0	1,539	25.0
Beaver	131,903	5.6	12,818	7.8	14,501	16.0	3,204	27.0	1,718	31.0
Bedford	172,809	4.0	35,369	3.8	67,032	4.2	21,425	7.3	925	43.0
Berks	250,758	5.0	73,460	3.1	146,502	3.0	38,386	4.9	5,471	10.0
Blair	193,514	5.6	19,927	6.0	35,518	7.7	14,773	9.8	3,233	24.0
Bradford	151,721	3.0	53,756	3.2	74,962	4.3	8,871	11.0	635	17.0
Bucks	367,296	9.2	29,957	5.2	64,557	6.9	16,412	8.1	5,383	20.0
Butler	151,821	6.3	36,614	5.7	45,624	8.4	11,005	20.0	580	14.0
Cambria	110,090	6.7	18,527	8.5	26,745	9.8	5,917	20.0	3,691	35.0
Cameron	67,325	.1	474	.1	(D)	(D)	(D)	(D)	(D)	(D)
Carbon	184,934	7.4	4,359	5.2	6,994	7.6	1,820	14.0	162	34.0
Centre	237,851	4.5	29,420	5.1	62,698	4.5	24,416	8.0	4,857	19.0
Chester	417,403	3.2	76,952	2.4	114,131	3.5	35,927	5.3	6,144	14.0
Clarion	107,722	5.3	16,504	7.9	21,916	9.6	2,797	26.0	296	5.6
Clearfield	110,773	11.0	10,847	9.3	10,091	18.0	3,070	29.0	414	48.0
Clinton	157,984	6.4	10,092	7.0	18,168	6.9	5,674	9.8	1,102	19.0
Columbia	141,641	3.4	24,434	4.2	53,078	7.0	10,769	12.0	4,491	24.0
Crawford	127,576	6.1	46,492	4.5	62,351	5.0	11,705	19.0	3,245	28.0
Cumberland	212,103	3.2	39,520	4.4	79,938	3.6	27,993	7.6	1,382	8.3
Dauphin	205,095	4.9	28,861	6.1	56,116	5.4	13,684	7.3	717	26.0
Delaware	430,644	8.9	3,900	8.6	3,528	17.0	965	7.9	381	15.0
Elk	96,120	4.8	3,068	6.2	4,146	8.9	714	20.0	82	35.0
Erie	149,943	3.7	45,544	3.7	59,389	5.1	17,882	8.5	17,674	6.9
Fayette	107,869	5.6	19,035	6.0	20,077	9.9	6,153	19.0	329	46.0
Forest	107,907	.1	1,149	.1	1,404	.1	139	.1	(D)	(D)
Franklin	226,601	2.2	58,871	2.9	133,748	3.2	54,804	3.9	8,149	14.0
Fulton	143,168	6.1	18,878	8.7	29,453	7.3	7,697	13.0	-	.0
Greene	129,985	6.0	12,092	5.0	6,281	11.0	1,697	29.0	115	8.5
Huntingdon	138,206	5.7	20,851	6.6	37,103	6.4	14,519	10.0	708	39.0
Indiana	127,450	4.0	29,102	4.6	39,712	5.8	8,062	9.1	2,022	29.0
Jefferson	129,444	4.9	15,572	9.0	19,568	9.7	3,797	21.0	411	74.0
Juniata	144,669	4.9	19,547	6.3	33,691	5.2	8,611	13.0	1,715	13.0
Lackawanna	122,049	11.0	8,953	9.1	8,720	11.0	2,688	22.0	743	22.0
Lancaster	287,570	1.2	140,674	1.7	261,841	1.1	87,650	2.4	7,657	9.8
Lawrence	129,762	6.0	22,744	7.2	39,924	7.7	9,807	18.0	1,952	51.0
Lebanon	272,568	3.7	36,853	3.6	72,510	4.4	22,221	8.8	768	14.0
Lehigh	320,043	5.4	24,443	5.8	61,763	7.3	27,922	7.9	4,082	9.7
Luzerne	128,934	8.0	13,770	11.0	17,941	8.9	7,516	17.0	1,429	28.0
Lycoming	168,505	4.4	32,192	6.5	55,569	6.7	14,721	10.0	3,638	27.0
McKean	109,370	9.1	5,242	11.0	3,463	14.0	537	48.0	1,013	23.0
Mercer	114,435	3.9	41,892	5.6	57,619	5.8	7,357	12.0	1,351	30.0
Mifflin	127,040	5.2	18,178	6.6	33,605	6.8	12,974	9.5	673	54.0
Monroe	191,043	5.3	3,873	6.9	8,868	13.0	472	26.0	124	8.8
Montgomery	357,489	3.9	23,510	6.0	40,418	7.1	12,414	11.0	3,112	25.0
Montour	191,904	7.2	11,162	10.0	34,340	10.0	5,267	23.0	5	87.0
Northampton	293,836	3.5	24,150	4.7	67,293	4.6	23,512	5.0	5,973	4.5
Northumberland	178,703	4.8	25,982	4.7	62,304	4.7	17,988	6.8	2,512	15.0
Perry	167,952	3.7	21,141	4.6	44,361	6.2	10,247	14.0	170	50.0
Philadelphia	265,900	.1	42	.1	(D)	(D)	(D)	(D)	-	.0
Pike	214,778	.1	601	.1	1,291	.1	374	.1	4	.1
Potter	162,239	5.1	14,245	7.8	14,880	9.3	3,436	11.0	748	31.0
Schuylkill	150,751	4.5	27,134	4.9	48,247	5.9	15,449	7.9	3,768	16.0
Snyder	125,765	4.0	19,437	4.9	38,713	6.9	8,464	14.0	1,760	19.0
Somerset	150,143	4.3	38,124	4.4	63,159	6.2	11,699	11.0	1,076	16.0
Sullivan	153,593	3.8	5,240	5.2	7,372	6.3	806	16.0	71	55.0
Susquehanna	158,652	3.7	30,406	4.1	28,792	6.1	2,647	11.0	297	.0
Tioga	146,466	3.5	31,033	4.2	39,650	6.0	5,625	18.0	1,402	26.0
Union	210,466	4.5	19,897	9.1	42,079	5.5	14,629	14.0	929	52.0
Venango	95,329	5.6	10,660	7.5	14,243	8.4	2,165	28.0	679	6.5
Warren	115,404	13.0	9,337	7.1	11,265	8.3	1,575	12.0	928	16.0
Washington	157,197	5.4	39,984	3.8	24,845	7.8	7,623	12.0	1,382	27.0
Wayne	175,160	4.6	21,839	6.0	20,769	8.1	2,975	20.0	200	73.0
Westmoreland	149,933	4.6	37,760	5.6	38,325	6.3	10,565	13.0	172	35.0
Wyoming	131,602	8.1	11,182	7.9	13,392	10.0	1,656	15.0	104	64.0
York	232,808	2.8	65,380	2.6	166,626	2.6	49,981	4.7	12,546	13.0
Farms not on mail list	94,962	26.0	37,142	31.0	39,236	42.0	5,101	41.0	1,375	79.0

Table D. **Estimates of the Sampling Reliability of County Totals for Selected Items: 1978**—Con.

County	Farm production expenses									
	Gasoline		Diesel fuel		Livestock and poultry purchased		Feed		Hired farm labor	
	Expense ($1,000)	Standard error (percent)	Expense ($1,000)	Standard error (percent)	Expense ($1,000)	Standard error (percent)	Expense ($1,000)	Standard error (percent)	Expense ($1,000)	Standard error (percent)
Adams	1,229	3.1	543	5.2	9,442	2.9	15,549	3.1	7,930	3.4
Allegheny	261	6.9	60	19.0	409	20.0	1,447	21.0	2,381	8.7
Armstrong	606	6.2	244	7.9	964	21.0	1,291	7.6	11,827	1.5
Beaver	228	9.5	128	17.0	446	19.0	1,068	9.5	699	17.0
Bedford	889	3.9	391	7.1	2,370	12.0	5,647	5.0	1,992	7.2
Berks	1,829	3.3	871	4.4	10,179	3.5	17,921	2.7	11,211	2.4
Blair	479	7.3	216	9.3	1,456	27.0	3,578	7.7	1,747	14.0
Bradford	1,438	6.6	561	5.9	3,436	7.2	13,751	5.6	2,993	6.3
Bucks	1,055	5.0	380	8.3	1,856	6.3	3,549	5.8	5,295	4.3
Butler	833	4.7	304	7.2	1,544	6.7	3,224	6.4	7,319	1.2
Cambria	399	7.8	220	16.0	736	9.3	2,096	13.0	1,126	12.0
Cameron	9	.1	1	.1	9	.1	(D)	(D)	11	.1
Carbon	125	4.8	44	9.8	161	12.0	544	9.4	204	3.8
Centre	733	5.0	281	7.0	1,746	11.0	4,292	5.5	2,021	7.9
Chester	2,501	2.1	1,077	3.7	5,499	7.1	11,823	3.1	26,691	1.4
Clarion	376	7.1	153	8.1	872	16.0	1,314	10.0	636	12.0
Clearfield	273	11.0	60	18.0	175	32.0	686	16.0	402	12.0
Clinton	195	6.8	74	7.2	1,000	14.0	1,749	12.0	548	4.5
Columbia	673	4.9	253	9.1	796	8.8	2,457	9.4	1,843	5.7
Crawford	1,069	4.9	480	6.2	1,964	10.0	6,399	3.8	2,099	10.0
Cumberland	980	5.0	424	6.3	4,140	5.9	7,258	7.4	3,425	4.1
Dauphin	617	5.4	266	8.3	4,588	9.1	7,765	6.2	1,816	6.7
Delaware	134	6.5	32	17.0	194	5.6	331	8.0	1,641	4.7
Elk	76	6.2	69	12.0	188	6.9	822	4.4	268	12.0
Erie	1,171	5.2	456	7.2	1,987	8.0	5,954	5.9	6,362	3.3
Fayette	464	6.6	143	13.0	665	10.0	3,016	5.2	1,444	5.9
Forest	32	.1	5	.1	24	.1	94	.1	35	.1
Franklin	1,594	3.5	729	3.5	6,076	6.1	15,856	3.5	5,763	5.3
Fulton	363	6.1	147	9.7	640	9.2	1,572	14.0	915	16.0
Greene	307	5.1	75	12.0	430	12.0	1,221	7.1	403	17.0
Huntingdon	437	5.4	182	7.8	1,643	7.6	2,786	6.2	1,162	9.2
Indiana	656	6.0	308	13.0	2,861	5.3	3,569	3.6	2,025	9.1
Jefferson	355	6.3	141	14.0	549	33.0	1,373	9.9	800	14.0
Juniata	511	7.3	196	17.0	2,506	10.0	6,802	8.9	1,054	10.0
Lackawanna	241	8.3	67	9.4	659	25.0	2,523	10.0	492	9.0
Lancaster	3,256	2.4	1,648	2.9	79,085	1.4	118,147	.8	14,511	2.2
Lawrence	433	7.4	193	10.0	1,284	15.0	2,318	9.6	1,150	13.0
Lebanon	805	5.2	444	5.3	9,794	5.8	15,885	1.8	2,281	7.0
Lehigh	609	5.5	368	8.3	1,862	5.9	6,151	1.6	2,860	5.8
Luzerne	377	8.8	102	14.0	213	18.0	884	9.3	848	16.0
Lycoming	892	6.4	239	14.0	1,189	13.0	3,303	6.8	1,921	8.9
McKean	147	14.0	22	26.0	281	31.0	963	17.0	470	41.0
Mercer	899	5.0	412	8.1	2,181	19.0	3,462	7.7	1,865	7.7
Mifflin	408	8.3	207	11.0	1,592	8.9	6,658	6.7	1,463	11.0
Monroe	158	3.9	31	13.0	203	10.0	700	2.3	471	6.2
Montgomery	709	5.6	281	9.8	2,720	3.9	6,556	3.3	4,003	4.4
Montour	273	8.7	108	15.0	821	11.0	991	8.8	380	8.4
Northampton	640	4.0	326	7.3	1,666	7.1	2,831	4.8	3,075	3.0
Northumberland	717	4.0	286	8.8	3,717	6.8	6,580	4.7	1,610	6.6
Perry	594	4.9	191	7.9	2,508	10.0	6,797	2.5	871	13.0
Philadelphia	(D)	(D)	-	.0	-	.0	(D)	(D)	19	.1
Pike	(D)	(D)	2	.1	19	.1	54	.1	33	.1
Potter	335	6.3	91	9.3	407	11.0	2,526	9.0	732	7.9
Schuylkill	749	6.0	281	5.6	3,241	4.8	10,085	2.4	2,583	6.2
Snyder	479	5.5	120	9.6	4,694	3.9	7,285	3.9	1,517	6.1
Somerset	751	4.6	413	7.0	1,705	14.0	5,841	6.7	1,975	7.3
Sullivan	131	9.3	63	20.0	207	19.0	972	6.2	144	11.0
Susquehanna	996	5.2	305	11.0	1,796	8.4	10,145	4.0	1,500	7.2
Tioga	870	7.0	331	7.9	2,098	12.0	9,922	3.8	1,885	8.3
Union	358	7.8	165	9.9	2,649	12.0	4,347	4.4	890	13.0
Venango	201	7.5	92	17.0	278	22.0	935	12.0	363	15.0
Warren	314	6.1	100	14.0	662	19.0	2,556	11.0	462	16.0
Washington	809	5.2	341	7.2	1,173	19.0	4,086	6.1	1,610	11.0
Wayne	640	6.0	188	12.0	1,331	13.0	7,617	5.2	1,363	12.0
Westmoreland	690	4.0	328	8.5	1,402	11.0	4,087	4.9	2,025	9.1
Wyoming	299	8.9	121	16.0	650	9.2	2,626	10.0	925	12.0
York	1,714	2.7	746	3.2	11,522	3.6	14,202	2.5	5,019	3.0
Farms not on mail list	1,064	26.0	245	42.0	5,902	48.0	4,441	46.0	94	88.0

APPENDIX B. Farms by Current and Prior Definitions and Value of Agricultural Products Sold: 1978 and 1974

	Definition used for 1974 and 1978				Definition used for 1959, 1964, and 1969				Operations excluded by current definition but not by 1959 definition			
	Farms		Value of products sold ($1,000)		Farms		Value of products sold ($1,000)		Farms		Value of products sold ($1,000)	
	1978	1974	1978	1974	1978	1974	1978	1974	1978	1974	1978	1974
Pennsylvania	59 942	53 171	2 189 594	1 503 295	71 582	56 586	2 192 644	1 504 053	11 640	3 415	3 050	758
Adams	1 166	1 202	68 423	48 602	1 285	1 294	68 460	48 625	119	92	37	23
Allegheny	445	397	10 651	8 463	555	441	10 678	8 474	110	44	27	11
Armstrong	812	787	38 071	21 145	917	823	38 098	21 151	105	36	27	6
Beaver	588	503	7 713	5 545	660	550	7 731	5 555	72	47	18	10
Bedford	1 136	1 013	29 864	21 137	1 238	1 066	29 887	21 146	102	53	24	9
Berks	1 940	1 934	113 500	74 472	2 130	2 050	113 556	74 499	190	116	57	27
Blair	533	514	23 548	15 913	572	535	23 560	15 919	39	21	11	6
Bradford	1 609	1 504	58 345	42 009	1 765	1 565	58 385	42 022	156	61	40	13
Bucks	990	882	40 939	37 123	1 145	987	40 982	37 143	155	105	43	20
Butler	1 271	1 174	35 233	23 235	1 457	1 278	35 278	23 260	186	104	45	25
Cambria	600	533	11 964	10 373	709	582	11 988	10 380	109	49	23	7
Cameron	26	19	161	135	33	26	161	135	7	7	(Z)	(Z)
Carbon	190	173	2 606	2 153	228	189	2 613	2 154	38	16	7	1
Centre	823	746	26 485	18 026	906	773	26 510	18 033	83	27	26	7
Chester	1 769	1 649	172 582	94 495	1 999	1 783	172 643	94 523	230	134	60	28
Clarion	602	594	10 046	7 608	675	640	10 062	7 619	73	46	16	11
Clearfield	464	451	6 417	5 585	528	494	6 427	5 592	64	43	10	7
Clinton	288	263	9 353	5 267	328	292	9 366	5 268	40	29	13	1
Columbia	906	901	21 364	17 393	984	960	21 382	17 408	78	59	18	15
Crawford	1 540	1 402	35 252	24 457	1 786	1 541	35 298	24 488	246	139	46	31
Cumberland	1 138	1 100	43 879	31 374	1 247	1 142	43 920	31 384	109	42	41	10
Dauphin	801	709	30 670	20 524	908	781	30 693	20 542	107	72	23	18
Delaware	118	113	6 828	6 522	135	130	6 833	6 532	17	17	4	10
Elk	160	100	2 910	2 570	187	104	2 913	2 570	27	4	3	(Z)
Erie	1 529	1 494	51 261	36 636	1 720	1 587	51 312	36 661	191	93	51	25
Fayette	942	731	14 405	8 028	1 109	779	14 442	8 041	167	48	37	13
Forest	52	44	595	387	59	47	597	388	7	3	2	1
Franklin	1 514	1 511	83 121	57 715	1 623	1 593	83 148	57 736	109	82	27	21
Fulton	520	478	10 202	6 806	574	508	10 211	6 811	54	30	9	5
Greene	822	749	6 623	4 472	964	810	6 659	4 481	142	61	37	9
Huntingdon	659	608	18 465	13 531	702	640	18 478	13 536	43	32	13	5
Indiana	973	960	23 084	19 528	1 094	1 003	23 107	19 533	121	43	23	5
Jefferson	544	544	9 678	7 404	630	601	9 701	7 410	86	57	24	6
Juniata	619	632	24 290	16 616	686	661	24 312	16 625	67	29	22	9
Lackawanna	360	347	10 794	6 811	390	359	10 800	6 815	30	12	7	4
Lancaster	4 915	4 588	405 527	251 706	5 119	4 736	405 610	251 751	204	148	84	45
Lawrence	776	717	15 721	10 909	877	762	15 750	10 917	101	45	28	8
Lebanon	929	928	59 458	36 135	985	981	59 474	36 149	56	53	16	14
Lehigh	614	635	31 586	24 828	672	685	31 611	24 840	58	50	25	12
Luzerne	550	482	11 219	9 134	633	530	11 240	9 146	83	48	21	12
Lycoming	939	967	23 300	17 005	1 034	1 015	23 324	17 012	95	48	23	7
McKean	262	215	3 916	2 928	305	246	3 925	2 935	43	31	9	7
Mercer	1 459	1 326	25 245	19 934	1 615	1 438	25 286	19 957	156	112	41	23
Mifflin	641	627	26 683	20 802	685	658	26 695	20 812	44	31	12	10
Monroe	187	172	3 467	3 640	243	193	3 481	3 647	56	21	13	7
Montgomery	741	727	29 437	22 918	848	786	29 468	22 931	107	59	32	13
Montour	332	317	8 198	5 480	357	350	8 204	5 489	25	33	7	9
Northampton	636	611	28 384	22 794	711	673	28 409	22 811	75	62	24	17
Northumberland	793	872	29 071	22 046	849	916	29 090	22 056	56	44	19	10
Perry	733	767	23 851	17 261	832	828	23 873	17 267	99	61	22	6
Philadelphia	4	12	103	745	5	13	104	745	1	1	1	–
Pike	34	37	498	816	46	43	502	818	12	6	4	2
Potter	349	336	11 249	9 227	384	349	11 260	9 230	35	13	11	3
Schuylkill	772	758	34 985	25 268	843	793	35 003	25 273	71	35	19	5
Snyder	758	760	28 843	19 643	813	797	28 856	19 651	55	37	13	8
Somerset	1 130	1 074	33 634	26 692	1 242	1 125	33 657	26 701	112	51	23	9
Sullivan	196	171	4 588	3 242	220	179	4 591	3 245	24	8	4	3
Susquehanna	1 027	955	35 126	26 878	1 132	1 002	35 147	26 884	105	47	21	6
Tioga	970	900	32 973	23 802	1 057	938	32 997	23 810	87	38	24	8
Union	505	489	21 387	13 915	552	516	21 397	13 919	47	27	10	4
Venango	506	402	5 431	3 970	609	425	5 448	3 975	103	23	17	5
Warren	477	366	10 270	8 911	583	385	10 287	8 917	106	19	17	6
Washington	1 577	1 358	23 214	16 445	1 749	1 450	23 259	16 463	172	92	45	18
Wayne	804	783	23 877	20 109	887	815	23 899	20 114	83	32	22	5
Westmoreland	1 394	1 250	25 199	19 675	1 588	1 315	25 248	19 691	194	65	50	16
Wyoming	394	418	12 905	11 315	442	445	12 917	11 320	48	27	12	5
York	2 349	2 390	77 974	63 063	2 633	2 585	78 059	63 121	284	195	84	58
Farms not on mail list	3 740	(NA)	22 957	(NA)	9 104	(NA)	24 381	(NA)	5 364	(NA)	1 424	(NA)

APPENDIX C. Comparison of 1974 Farm Counts With 1978 Farm Counts

The 1978 Census of Agriculture preliminary reports show that there are 2,475,171 farms in the continental United States (excluding Alaska and Hawaii). In 1974 there were 2,310,702 farms reported. However, these figures are not directly comparable because improvements in methodology and coverage account significantly for the higher 1978 counts. If the improved 1978 procedures had been used in 1974, an estimated 2.6 million farms would have been included in the census. It should be noted that farms missed in the 1974 census were generally small and affected the farm count to a greater degree than other data. The missed farms accounted for about 5 percent of the land in farms and 3 percent of the total value of agricultural products sold. This appendix briefly describes census procedures and provides 1974 farm counts adjusted for net missed farms and compared with 1978 farm counts.

The State totals from the 1978 Census of Agriculture are based on two separate sources.

The primary source is the mail portion of the census. As in the 1974 and 1969 censuses, this part of the operation involved mailing out a report form to each name believed to be associated with agriculture. Mail and telephone followups were used to secure the highest possible rate of return of completed forms from the operators of the Nation's farms.

However, the evaluation studies conducted show that some farms were missed in the 1974 and 1969 censuses. Despite every effort to assemble a complete list, some operators did not get on the mail list.

To improve the coverage of the 1978 census, additional mail list sources were used. Also, recognizing the shortcomings of the mail method, especially in counting the number of small farms, it was decided to take another step to ensure a more complete count.

The second step involved conducting a complete enumeration of all households in approximately 6,400 sample segments in rural areas in all States, except Alaska and Hawaii. Farms enumerated in this sample were matched to the mail list. The sample farms not located on the mail list provided reliable estimates by State of the number and characteristics of the farms not represented in the mail portion of the census.

Estimates for such farms are an integral part of the State counts in 1978, but they are not a part of the county counts. The sample was not large enough to provide reliable estimates for each county.

Because of the procedures described above, the State counts for 1978 are not directly comparable with the counts for 1974 and 1969.

To bridge the gap between the 1974 and the 1978 farm counts, this appendix provides adjusted farm counts for 1974 which are approximately comparable with farm counts for 1978.

The adjustment factors are based on data from table 13 of 1974 Census of Agriculture volume IV, Part 3, Coverage Evaluation, which presented data showing the estimated percent of farms missed and overcounted by regions and States. The estimated net percent of farms missed was derived by subtracting overcounted farms from missed farms.

The 1974 coverage evaluation did not include Alaska and Hawaii; thus the 1978 and the 1974 data for these States are exclusively from farms on the mail list. Improvements in the 1978 mail list, especially for Hawaii, have contributed to the increased farm counts.

Table A presents adjusted 1974 farm counts by value of agricultural products sold categories. For each State, the adjusted farm counts for the two value-of-sales categories were derived using the 1974 published farm counts and the net percent missed. The adjusted counts for the two size categories were then added together to obtain the adjusted State count. The State counts were summed to obtain division, region, and U.S. level counts. As a result, adjusted counts derived by summation may not be exactly consistent with the indicated percent missed. The 1978 farm counts are from the preliminary reports and may differ slightly from final counts.

Table B shows 1974 reported and adjusted counts compared with 1978 counts for regions by farm size and tenure of operator categories. Adjusted counts in these tables were proportionally adjusted to regional counts from table A and summed to the U.S. level. As a result, the indicated percent missed will not always agree with adjusted data.

All data published in 1974 were based on reported numbers. The adjusted counts should be used only for comparison with 1978 counts and not for comparison with other 1974 data.

Both the 1974 and 1978 farm counts are subject to sampling variability. For 1974, the coefficient of variation for the adjusted farm counts is approximately 0.4 percent at the U.S. level and ranges from 1.0 percent to 6.0 percent for individual States. Measures of sampling variability for 1978 counts are presented in appendix A.

Table A. **Farms by Areas and Value of Agricultural Products Sold: 1978 and 1974**

	Farms, 1978[1]	Farms, 1974			Percent change, adjusted 1974 to 1978
		Published	Net percent missed	Adjusted	
United States[2]	2,475,171	2,310,702	10.7	2,622,416	-5.6
Farms with sales of--					
$100,000 or more	223,268	152,850	-2.0	149,471	+49.4
$40,000 to $99,999	364,010	324,417	1.1	327,834	+11.0
$20,000 to $39,999	306,483	321,733	2.0	327,438	-6.4
$10,000 to $19,999	309,250	309,876	5.8	326,852	-5.4
$5,000 to $9,999	330,464	296,043	8.1	322,002	+2.6
$2,500 to $4,999	331,329	289,511	11.4	326,432	+1.5
Less than $2,500	610,367	616,272	25.9	842,387	-27.5
Northeast	149,385	127,531	16.5	152,730	-2.2
Farms with sales of--					
$100,000 or more	12,699	8,003	1.9	8,282	+53.3
$40,000 to $99,999	25,835	22,358	4.7	23,812	+8.5
$20,000 to $39,999	15,820	20,543	9.8	21,019	-24.7
$10,000 to $19,999	14,194	14,900	9.5	14,680	-3.3
$5,000 to $9,999	16,734	13,173	3.1	13,797	+21.3
$2,500 to $4,999	19,609	13,148	16.7	16,019	+22.4
Less than $2,500	44,494	35,406	35.5	55,121	-19.3
North Central	1,027,319	1,017,367	6.3	1,096,353	-6.3
Farms with sales of--					
$100,000 or more	106,649	69,440	-3.1	67,123	+58.9
$40,000 to $99,999	215,707	192,962	.2	192,692	+11.9
$20,000 to $39,999	173,422	194,488	2.3	198,391	-12.6
$10,000 to $19,999	148,064	165,864	4.0	172,189	-14.0
$5,000 to $9,999	126,879	131,677	6.1	139,755	-9.2
$2,500 to $4,999	103,363	103,914	10.6	115,841	-10.8
Less than $2,500	153,235	159,022	23.0	210,362	-27.2
South	1,016,070	930,099	15.2	1,107,200	-8.2
Farms with sales of--					
$100,000 or more	67,430	45,765	-2.7	44,568	+51.3
$40,000 to $99,999	84,887	73,981	3.2	76,455	+11.0
$20,000 to $39,999	85,965	75,791	1.6	77,051	+11.6
$10,000 to $19,999	116,407	99,629	8.2	108,567	+7.2
$5,000 to $9,999	155,115	124,106	10.4	138,561	+11.9
$2,500 to $4,999	174,997	145,243	11.6	164,350	+6.5
Less than $2,500	331,269	365,584	25.5	497,648	-33.4
West[2]	282,397	235,705	9.5	266,133	+6.1
Farms with sales of--					
$100,000 or more	36,490	29,642	.2	29,498	+23.7
$40,000 to $99,999	37,581	35,116	.0	34,875	+7.8
$20,000 to $39,999	31,274	30,911	.9	30,977	+1.0
$10,000 to $19,999	30,587	29,483	6.8	31,416	-2.6
$5,000 to $9,999	31,736	27,087	10.0	29,889	+6.2
$2,500 to $4,999	33,360	27,206	10.6	30,222	+10.4
Less than $2,500	81,369	56,260	27.8	79,256	+2.7
New England[3]	30,157	23,269	17.8	28,548	+5.6
Farms with sales of $2,500 or more	18,844	16,667	5.2	17,517	+7.6
Farms with sales of less than $2,500	11,313	6,602	39.6	11,031	+2.6
Middle Atlantic	119,228	104,262	16.2	124,182	-4.0
Farms with sales of $2,500 or more	86,047	75,458	5.7	80,092	+7.4
Farms with sales of less than $2,500	33,181	28,804	34.6	44,090	-24.7
New York	49,323	43,682	14.2	50,847	-3.0
Farms with sales of $2,500 or more	35,095	32,230	4.3	33,678	+4.2
Farms with sales of less than $2,500	14,228	11,452	33.3	17,169	-17.1
New Jersey	9,932	7,409	14.5	8,760	+13.4
Farms with sales of $2,500 or more	6,742	5,530	4.5	5,791	+16.4
Farms with sales of less than $2,500	3,190	1,879	36.7	2,969	+7.4
Pennsylvania	59,973	53,171	18.3	64,575	-7.1
Farms with sales of $2,500 or more	44,210	37,698	7.2	40,623	+8.8
Farms with sales of less than $2,500	15,763	15,473	35.4	23,952	-34.2
East North Central	452,213	444,695	7.1	486,098	-7.0
Farms with sales of $2,500 or more	366,051	360,619	2.9	371,995	-1.6
Farms with sales of less than $2,500	86,162	84,076	24.1	114,103	-24.5
Ohio	95,821	92,158	4.9	96,899	-1.1
Farms with sales of $2,500 or more	73,841	70,338	2.1	71,847	+2.8
Farms with sales of less than $2,500	21,980	21,820	12.9	25,052	-12.3
Indiana	88,458	87,915	7.2	95,341	-7.2
Farms with sales of $2,500 or more	71,681	70,986	3.6	73,637	-2.7
Farms with sales of less than $2,500	16,777	16,929	22.0	21,704	-22.7
Illinois	109,770	111,049	9.1	126,295	-13.1
Farms with sales of $2,500 or more	96,389	97,738	3.8	101,599	-5.1
Farms with sales of less than $2,500	13,381	13,311	46.1	24,696	-45.8

See footnotes at end of table.

Table A. **Farms by Areas and Value of Agricultural Products Sold: 1978 and 1974** – Con.

	Farms, 1978[1]	Farms, 1974			Percent change, adjusted 1974 to 1978
		Published	Net percent missed	Adjusted	
East North Central--Con.					
Michigan	68,158	64,094	9.9	71,213	-4.3
Farms with sales of $2,500 or more	47,767	46,670	6.0	49,649	-3.8
Farms with sales of less than $2,500	20,391	17,424	19.2	21,564	-5.4
Wisconsin	90,006	89,479	5.3	96,350	-6.6
Farms with sales of $2,500 or more	76,373	74,887	.5	75,263	+1.5
Farms with sales of less than $2,500	13,633	14,592	30.8	21,087	-35.3
West North Central	575,106	572,672	5.6	610,255	-5.8
Farms with sales of $2,500 or more	508,033	497,726	3.2	513,996	-1.2
Farms with sales of less than $2,500	67,073	74,946	21.8	96,259	-30.3
Minnesota	102,984	98,537	9.0	108,614	-5.2
Farms with sales of $2,500 or more	87,753	85,926	5.5	90,927	-3.5
Farms with sales of less than $2,500	15,231	12,611	28.7	17,687	-13.9
Iowa	126,379	126,104	4.4	133,125	-5.1
Farms with sales of $2,500 or more	117,704	117,142	3.2	121,014	-2.7
Farms with sales of less than $2,500	8,675	8,962	26.0	12,111	-28.4
Missouri	121,826	115,711	9.6	128,948	-5.5
Farms with sales of $2,500 or more	97,848	82,421	4.7	86,486	+13.1
Farms with sales of less than $2,500	23,978	33,290	21.6	42,462	-43.5
North Dakota	41,172	42,710	4.4	45,649	-9.8
Farms with sales of $2,500 or more	38,914	40,681	3.2	42,026	-7.4
Farms with sales of less than $2,500	2,258	2,029	44.0	3,623	-37.7
South Dakota	39,667	42,825	1.5	43,420	-8.6
Farms with sales of $2,500 or more	36,927	39,849	1.6	40,497	-8.8
Farms with sales of less than $2,500	2,740	2,976	-1.8	2,923	-6.3
Nebraska	65,991	67,597	.7	68,480	-3.6
Farms with sales of $2,500 or more	61,507	62,594	.0	62,594	-1.7
Farms with sales of less than $2,500	4,484	5,003	15.0	5,886	-23.8
Kansas	77,087	79,188	3.7	82,019	-6.0
Farms with sales of $2,500 or more	67,380	69,113	1.9	70,452	-4.4
Farms with sales of less than $2,500	9,707	10,075	12.9	11,567	-16.1
South Atlantic	325,678	296,103	16.6	362,451	-10.1
Farms with sales of $2,500 or more	216,297	189,339	7.0	203,934	+6.1
Farms with sales of less than $2,500	109,381	106,764	30.3	158,517	-31.0
Delaware and Maryland[3]	22,600	18,563	7.1	19,952	+13.3
Farms with sales of $2,500 or more	17,287	14,592	3.0	15,043	+14.9
Farms with sales of less than $2,500	5,313	3,971	19.1	4,909	+8.2
Virginia	56,685	52,699	13.5	61,636	-8.0
Farms with sales of $2,500 or more	38,416	31,738	4.5	33,234	+15.6
Farms with sales of less than $2,500	18,269	20,961	26.2	28,402	-35.7
West Virginia	20,619	16,909	33.0	26,195	-21.3
Farms with sales of $2,500 or more	9,603	6,122	11.7	6,933	+38.5
Farms with sales of less than $2,500	11,016	10,787	44.0	19,262	-42.8
North Carolina	89,477	91,280	14.1	105,774	-15.4
Farms with sales of $2,500 or more	64,897	62,518	9.2	68,852	-5.7
Farms with sales of less than $2,500	24,580	28,762	22.1	36,922	-33.4
South Carolina	33,450	29,275	22.8	43,034	-22.3
Farms with sales of $2,500 or more	18,979	17,534	.8	17,675	+7.4
Farms with sales of less than $2,500	14,471	11,741	53.7	25,359	-42.9
Georgia	58,682	54,911	13.2	63,133	-7.1
Farms with sales of $2,500 or more	38,906	35,874	8.1	39,036	-.3
Farms with sales of less than $2,500	19,776	19,037	21.0	24,097	-17.9
Florida	44,165	32,466	22.6	42,727	+3.4
Farms with sales of $2,500 or more	28,209	20,961	9.5	23,161	+21.8
Farms with sales of less than $2,500	15,956	11,505	41.2	19,566	-18.5
East South Central	318,640	306,010	14.8	360,164	-11.5
Farms with sales of $2,500 or more	211,915	171,372	7.8	185,880	+14.0
Farms with sales of less than $2,500	106,725	134,638	22.3	174,284	-38.8
Kentucky	110,002	102,053	10.5	113,897	-3.4
Farms with sales of $2,500 or more	83,433	67,662	6.3	72,211	+15.5
Farms with sales of less than $2,500	26,569	34,391	17.5	41,686	-36.3
Tennessee	96,792	93,659	18.8	115,683	-15.3
Farms with sales of $2,500 or more	63,407	48,320	11.2	54,414	+16.3
Farms with sales of less than $2,500	33,385	45,339	26.0	61,269	-45.5

See footnotes at end of table.

Table A. **Farms by Areas and Value of Agricultural Products Sold: 1978 and 1974** – Con.

	Farms, 1978[1]	Farms, 1974			Percent change, adjusted 1974 to 1978
		Published	Net percent missed	Adjusted	
East South Central--Con.					
Alabama	57,540	56,678	13.3	64,821	-11.2
Farms with sales of $2,500 or more	34,665	29,303	7.5	31,679	+9.4
Farms with sales of less than $2,500	22,875	27,375	17.4	33,142	-31.0
Mississippi	54,306	53,620	17.2	65,763	-17.4
Farms with sales of $2,500 or more	30,410	26,087	5.4	27,576	+10.3
Farms with sales of less than $2,500	23,896	27,533	27.9	38,187	-37.4
West South Central	371,752	327,986	14.5	384,585	-3.3
Farms with sales of $2,500 or more	256,589	203,804	7.3	219,738	+16.8
Farms with sales of less than $2,500	115,163	124,182	25.0	164,847	-30.1
Arkansas	58,788	50,959	16.7	61,489	-4.4
Farms with sales of $2,500 or more	40,669	31,299	10.0	34,777	+17.0
Farms with sales of less than $2,500	18,119	19,660	26.4	26,712	-32.2
Louisiana	38,973	33,240	23.7	43,264	-9.9
Farms with sales of $2,500 or more	22,683	18,580	12.3	21,186	+7.1
Farms with sales of less than $2,500	16,290	14,660	33.6	22,078	-26.2
Oklahoma	79,530	69,719	11.7	79,243	+.4
Farms with sales of $2,500 or more	58,781	47,833	5.6	50,671	+16.0
Farms with sales of less than $2,500	20,749	21,886	23.4	28,572	-27.4
Texas	194,461	174,068	12.6	200,589	-3.1
Farms with sales of $2,500 or more	134,456	106,092	6.2	113,104	+18.9
Farms with sales of less than $2,500	60,005	67,976	22.3	87,485	-31.4
Mountain[3]	127,881	111,868	6.7	122,588	+4.3
Farms with sales of $2,500 or more	97,876	90,449	2.4	92,673	+5.6
Farms with sales of less than $2,500	30,005	21,419	28.4	29,915	+.3
Pacific[2]	154,516	123,837	11.6	143,545	+7.6
Farms with sales of $2,500 or more	103,152	88,996	5.6	94,204	+9.5
Farms with sales of less than $2,500	51,364	34,841	27.5	49,341	+4.1
Washington	37,778	29,410	10.8	32,999	+14.5
Farms with sales of $2,500 or more	24,737	21,079	6.4	22,520	+9.8
Farms with sales of less than $2,500	13,041	8,331	20.5	10,479	+24.5
Oregon	34,875	26,753	15.5	31,788	+9.7
Farms with sales of $2,500 or more	21,071	17,043	6.3	18,189	+15.8
Farms with sales of less than $2,500	13,804	9,710	28.6	13,599	+1.5
California	81,863	67,674	10.5	78,758	+3.9
Farms with sales of $2,500 or more	57,344	50,874	4.9	53,495	+7.2
Farms with sales of less than $2,500	24,519	16,800	33.5	25,263	-2.9

[1]Data are from preliminary reports and may differ slightly from final counts.
[2]Alaska and Hawaii not included.
[3]Data not compiled for individual States.

Table B. **Farms by Size of Farm and Tenure of Operator: 1978 and 1974**

	Farms, 1978[1]	Farms, 1974			Percent change, adjusted 1974 to 1978
		Published	Net percent missed	Adjusted	
UNITED STATES[2]					
Farms	2,475,171	2,310,702	10.7	2,622,416	-5.6
Farms by size:					
1 to 9 acres	213,110	126,604	26.1	174,773	+21.9
10 to 49 acres	474,535	378,631	22.9	494,024	-3.9
50 to 179 acres	813,944	827,506	11.0	936,797	-13.1
180 to 499 acres	596,268	615,913	3.9	646,957	-7.8
500 acres or more	377,314	362,048	1.5	369,865	+2.0
Tenure of operator:					
Full owner	1,450,414	1,422,367	13.0	1,650,942	-12.1
Part owner	712,844	627,648	5.2	667,402	+6.8
Tenant	311,913	260,687	12.6	304,072	+2.6
NORTHEAST					
Farms	149,385	127,531	16.5	152,730	-2.2
Farms by size:					
1 to 9 acres	13,534	7,689	16.8	9,301	+45.5
10 to 49 acres	28,098	19,416	31.2	28,403	-1.1
50 to 179 acres	61,017	54,901	17.1	66,655	-8.5
180 to 499 acres	38,288	37,864	6.0	40,542	-5.6
500 acres or more	8,448	7,661	1.5	7,829	+7.9
Tenure of operator:					
Full owner	93,880	83,389	19.5	103,110	-9.0
Part owner	43,680	36,112	4.9	37,797	+15.6
Tenant	11,825	8,030	32.4	11,823	.0
NORTH CENTRAL					
Farms	1,027,319	1,017,367	6.3	1,096,353	-6.3
Farms by size:					
1 to 9 acres	58,168	36,065	30.8	52,227	+11.4
10 to 49 acres	138,016	108,756	18.5	133,716	+3.2
50 to 179 acres	324,583	350,343	6.8	376,663	-13.8
180 to 499 acres	321,482	345,610	2.5	355,187	-9.5
500 acres or more	185,070	176,593	.9	178,560	+3.6
Tenure of operator:					
Full owner	542,504	568,866	7.5	620,166	-12.5
Part owner	334,287	313,364	4.0	329,173	+1.6
Tenant	150,528	135,137	7.3	147,014	+2.4
SOUTH					
Farms	1,016,070	930,099	15.2	1,107,200	-8.2
Farms by size:					
1 to 9 acres	95,711	55,659	31.1	81,428	+17.5
10 to 49 acres	232,908	194,050	24.2	258,033	-9.7
50 to 179 acres	370,928	369,648	4.0	433,227	-14.4
180 to 499 acres	197,023	196,395	7.8	214,701	-8.2
500 acres or more	119,500	114,347	3.8	119,811	-.3
Tenure of operator:					
Full owner	633,455	623,219	17.4	757,206	-16.3
Part owner	264,029	214,061	7.5	232,239	+13.7
Tenant	118,586	92,819	20.9	117,755	+.7
WEST[2]					
Farms	282,397	235,705	9.5	266,133	+6.1
Farms by size:					
1 to 9 acres	45,697	27,191	12.7	31,817	+43.6
10 to 49 acres	75,513	56,409	22.0	73,872	+2.2
50 to 179 acres	57,416	52,614	10.8	60,252	-4.7
180 to 499 acres	39,475	36,044	-.8	36,527	+8.1
500 acres or more	64,296	63,447	-1.8	63,665	+1.0
Tenure of operator:					
Full owner	180,575	146,893	12.1	170,460	+5.9
Part owner	70,848	64,111	4.1	68,193	+3.9
Tenant	30,974	24,701	8.3	27,480	+12.7

[1]Data are from the preliminary reports and may differ slightly from final counts.
[2]Alaska and Hawaii not included.

APPENDIX D. Report Forms

Form Approved: O.M.B. No. 41-S78025

DUE BY FEBRUARY 15, 1979

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 the 11-digit Census File Number (CFN)

(Please correct errors in name, address, and ZIP code.)

FORM 78-A1(N) (4-10-78)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

AGRICENSUS USA 78

1978 CENSUS OF AGRICULTURE

COMPLETE AND RETURN TO Bureau of the Census, 1201 East Tenth Street, Jeffersonville, Indiana 47132

Note Please read the Information Sheet before completing the form.

If book figures are not available, reasonable estimates may be used. If filing by Feb. 15 causes an undue burden, a time extension request may be sent to the above address. Include your 11-digit 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. ____ ____

CENSUS USE ONLY				
035	036	037	038
039	040	041	042

SECTION 1 ACREAGE IN 1978

If the acres you operated in 1978 changed during the year, refer to the INFORMATION SHEET, Section 1.

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.

	None	Number of acres
1. All land owned	☐	043
2. All land rented or leased FROM OTHERS, including land worked by you on shares, used rent free, in exchange for services, payment of taxes, etc. Include leased Federal, State, and railroad land. (DO NOT include land used on a per-head basis under a grazing permit.) Also complete item 5 below.	☐	044
3. All land rented or leased TO OTHERS, including land worked on shares by others and land subleased. Also complete item 6 below.	☐	045
4. **ACRES IN THIS PLACE** – ADD acres owned (item 1) and acres rented (item 2), then SUBTRACT acres rented TO OTHERS (item 3), and enter the result in this space. →		046

For this census report these are the "ACRES IN THIS PLACE."
If the entry is zero please refer to the INFORMATION SHEET, Section 1.

5. If you rented land FROM OTHERS (item 2) enter the following information for each landlord.

Name of landlord	Mailing address *(Include ZIP code)*	Number of acres
		047
		048
		049

List additional landlords on a separate sheet of paper.

6. If you rented land TO OTHERS (item 3), enter the following information for each renter.

Name of renter	Mailing address *(Include ZIP code)*	Number of acres
		050
		051
		052

List additional renters on a separate sheet of paper.

a. Of the land you rented or leased to others, how many acres did you own? None ☐ 053 _____ Acres

7. During 1978, did you have any Federal or State grazing permits on a per-head basis; such as Forest Service, Taylor Grazing, Indian Reservations, etc.? 054 1 ☐ Yes 2 ☐ No

8. How many set aside acres did you have in the Federal Farm Program in 1978? None ☐ 055 _____ Acres

9. LOCATION OF AGRICULTURAL ACTIVITY FOR THIS PLACE

		County name	State	Number of acres
a. In what county was the largest value of your agricultural products raised or produced?	Principal county →			056
b. If you also have agricultural operations in any other county(ies), enter the county name(s), etc.	Other counties			057
				058
				059

INSTRUCTIONS

Sections 2 through 8 provide space for reporting crops harvested during 1978. Please report your crops in the appropriate section. Do not include crops grown on land rented to others. Use section 8 to report ONLY those crops NOT listed in sections 2 through 7.

SECTION 2 Were any of the FOLLOWING CROPS harvested from this place in 1978?

	None	Acres harvested	Quantity harvested	Acres irrigated
1. Field corn for grain or seed *(Report quantity on a shelled-weight basis)*	☐	067	068 Bu. / 1 OR / Cwt.	069
2. Field corn for silage or green chop	☐	070	071 Tons, green	072
3. Wheat for grain	☐	073	074 Bu.	075
4. Oats for grain	☐	076	077 Bu.	078
5. Barley for grain	☐	079	080 Bu.	081
6. Sorghums for grain or seed (include milo)	☐	082	083 Bu. / 1 OR / Lbs.	084
7. Sorghums for silage or green chop (exclude sorghum-sudan crosses)	☐	085	086 Tons, green	087
8. Soybeans for beans	☐	088	089 Bu.	090
9. Cotton	☐	091	092 Bales	093
10. Tobacco – all types	☐	094 /10	095 Lbs.	096 /10
11. Irish potatoes	☐	097 /10	098 Cwt.	099 /10
12. Sweetpotatoes and yams	☐	100 /10	101 Bu.	102 /10

SECTION 3 Was any DRY HAY, GRASS SILAGE, HAYLAGE, or GREEN CHOP cut or harvested from this place in 1978? *(Include sorghum-sudan crosses and hay cut from pastures.)*

003 1 ☐ YES – *Complete this section*
2 ☐ NO – *Go to section 4*

If cuttings were made for both dry hay and grass silage, haylage, or green chop from the same fields, report the acreage in the appropriate items under DRY HAY and also under GRASS SILAGE, HAYLAGE, and GREEN CHOP.

	Acres harvested	Quantity harvested *(Report either dry or green weight as indicated)*	Acres irrigated
• DRY HAY *(If two or more cuttings of dry hay were made from the same acres, report acres only once, but report total tons from all cuttings.)*			
1. Alfalfa and alfalfa mixtures for hay or dehydrating	103	104 Tons, dry	105
2. Small grain hay – oats, wheat, barley, etc.	106	107 Tons, dry	108
3. Other tame dry hay, clover, lespedeza, timothy, Bermuda grass, Sudan grass, etc.	109	110 Tons, dry	111
4. Wild hay	112	113 Tons, dry	114
• GRASS SILAGE, HAYLAGE, AND GREEN CHOP *(If two or more cuttings of grass silage, haylage, or green chop were made from the same acres, report acres only once, but report total tons from all cuttings.)*			
5. Grass silage and haylage	115	116 Tons, green	117
6. Hay crops cut and fed green (green chop)	118	119 Tons, green	120

SECTION 4 **Was there a combined total of 20 or more FRUIT TREES, including GRAPEVINES, CITRUS and NUT TREES ON THIS PLACE in 1978?** (Do not include abandoned trees)

004 1 ☐ YES — *Complete this section*
2 ☐ NO — *Go to section 5*

	Total acres		Acres irrigated	
	Whole acres	Tenths	Whole acres	Tenths
1. **TOTAL ACRES** in bearing and nonbearing fruit orchards, citrus or other groves, vineyards, and nut trees on this place	121	/10	122	/10

2. From the list at the right, enter name and code for the fruit trees, grapevines, and nut trees on this place in 1978. Report the requested information for each crop even if not harvested because of low prices, damage from hail, frost, etc. For interplanted trees, estimate the area covered by each kind of fruit. If other crops were interplanted with trees, see Information Sheet.

Crop name	Code	NUMBER OF TREES OR VINES OF — Nonbearing age	NUMBER OF TREES OR VINES OF — Bearing age	Acres in trees and vines of all ages — Whole acres	Acres in trees and vines of all ages — Tenths	Quantity harvested	Unit of measure (Mark one) — Lbs.	Tons	Boxes	Lbs. per box
			1	2	/10	3	4 1☐	2☐	3☐	5
			1	2	/10	3	4 1☐	2☐	3☐	5
			1	2	/10	3	4 1☐	2☐	3☐	5
			1	2	/10	3	4 1☐	2☐	3☐	5
			1	2	/10	3	4 1☐	2☐	3☐	5

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

NONCITRUS CROPS	Code
Apples	123
Apricots	129
Avocados — *See Information Sheet*	135
Cherries	147
Grapes — dry weight	171
Grapes — fresh weight	177
Olives — *See Information Sheet*	207
Peaches	225
Pears	231
Plums and prunes — fresh weight	243
Prunes — dry weight	249
Other noncitrus — *Specify*	261

CITRUS CROPS (*Report quantity harvested in 1977—78 from bloom of 1977*)	Code
Grapefruit	267
Lemons	279
Oranges	297
Tangelos	303
Tangerines and mandarins	309
Other citrus — *Specify*	315

NUT CROP (*Report quantity in the shell*)	Code
Almonds	321
Filberts and hazelnuts	327
Pecans, improved	339
Pecans, wild and seedling	345
Walnuts (English or Persian)	357
Other nut trees — *Specify*	363

SECTION 5 **Were any VEGETABLES, SWEET CORN, MELONS, etc., harvested FOR SALE from this place in 1978?**

005 1 ☐ YES — *Complete this section*
2 ☐ NO — *Go to section 6*

For Florida, report for September 1, 1977 through August 31, 1978 harvest season; for all other States report for calendar year 1978.

	Acres		Acres irrigated	
	Whole acres	Tenths	Whole acres	Tenths
1. Land from which vegetables were harvested in 1978	375	/10	376	/10

2. From the list below, enter the crop name and code for each crop harvested in 1978. *If more than one vegetable crop was harvested from the same acres, report acres for each crop. Report crops grown under protection in section 6.*

Crop name	Code	Acres harvested — Whole acres	Acres harvested — Tenths	Acres irrigated — Whole acres	Acres irrigated — Tenths
			/10	1	/10
			/10	1	/10
			/10	1	/10
			/10	1	/10
			/10	1	/10
			/10	1	/10

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

Crop name	Code
Asparagus	379
Beans, snap (bush and pole)	381
Beets	383
Broccoli	385
Cabbage	391
Cantaloups and Persian melons	395
Carrots	397
Cauliflower	399
Celery	401
Collards	407
Cowpeas (blackeyed and other green cowpeas)	409
Cucumbers and pickles	411
Eggplant	415
Garlic	421
Honeydew melons	423
Lettuce and romaine	427
Lima beans, green	429
Mustard greens	431
Onions, dry	433
Onions, green	435
Okra	437
Peas, green, including English (exclude green cowpeas)	441
Peppers, sweet	443
Peppers, hot	445
Pumpkins	449
Radishes	451
Spinach	457
Squash	459
Sweet corn	461
Tomatoes	463
Turnips	465
Turnip greens	467
Watermelons	473
Other vegetables — *Specify*	475

SECTION 6 **Were any NURSERY and GREENHOUSE PRODUCTS, sod, bulbs, flowers, flower seeds, vegetable seeds and plants, vegetables under glass or other protection, or MUSHROOMS grown FOR SALE on this place in 1978?**

006 1 ☐ YES — *Complete this section*
2 ☐ NO — *Go to section 7*

	Area irrigated		
	None	Square feet	Acres — Tenths
1. Nursery and greenhouse products irrigated in 1978	☐	477	478 /10

2. From the list below, enter the product name and code for each product grown.

Product name	Code	Square feet under glass or other protection in 1978	Acres in the open in 1978 — Whole acres	Acres in the open in 1978 — Tenths	Sales in 1978 — Dollars	Sales in 1978 — Cents
			1	/10	2 $	
			1	/10	2 $	
			1	/10	2 $	

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

Product name	Code
Bedding plants (include vegetable plants)	479
Bulbs	482
Cut flowers and cut florist greens	485
Nursery products — environmentals, lining-out stock, fruit and nut trees, and vines	488
Foliage and flowering plants	491
Mushrooms	494
Sod harvested	497
Vegetable and flower seeds	500
Greenhouse vegetables	503
Other — *Specify*	506

SECTION 7 **Were any STRAWBERRIES, CRANBERRIES, or OTHER BERRIES harvested FOR SALE from this place in 1978?**

007 1 ☐ YES — *Complete this section*
2 ☐ NO — *Go to section 8*

From the list below, enter crop name and code. *Report quantity harvested in unit specified with crop name.*

Crop name	Code	Acres harvested — Whole acres	Acres harvested — Tenths	Quantity harvested	Acres irrigated — Whole acres	Acres irrigated — Tenths
			/10	1	2	/10
			/10	1	2	/10
			/10	1	2	/10

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

Crop name	Code
Blackberries and dewberries (pounds)	509
Blueberries, tame (pounds)	512
Blueberries, wild (pounds)	515
Cranberries (100-lb. barrels)	521
Raspberries (pounds)	533
Strawberries (pounds)	536
All other berries (pounds) — *Specify*	539

SECTION 8 **Were any OTHER CROPS harvested from this place in 1978 — rice, peanuts, field seeds, sugar crops, or other crops not previously reported?**

008 1 ☐ YES — *Complete this section*
2 ☐ NO — *Go to section 9*

From the list below, enter crop name and code. *Report quantity harvested in unit specified with crop name.*

Crop name	Code	Acres harvested	Quantity harvested	Acres irrigated
			1	2
			1	2
			1	2
			1	2
			1	2
			1	2
			1	2

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

Crop name	Code
Alfalfa seed (pounds)	542
Beans, dry field and seed (100-pound bags)	554
Beans, dry lima (100-pound bags)	557
Buckwheat (bushels)	575
Corn cut for dry fodder, hogged or grazed (report acres only)	581
Cowpeas for dry peas (bushels)	584
Emmer and spelt (bushels)	593
Fescue seed (pounds)	602
Flaxseed (bushels)	605
Grains, mixed (bushels)	614
Kentucky Bluegrass seed (pounds)	629
Lespedeza seed (pounds)	638
Mint for oil (pounds of oil)	644
Peanuts for nuts (pounds)	656
Peas, dry field and seed (pounds)	659
Popcorn (pounds, shelled)	662
Proso millet (bushels)	665
Red clover seed (pounds)	671
Rice (100-pound bags) or (bushels) or (barrels)	677 680 683
Rye for grain (bushels)	686
Ryegrass seed (pounds)	689
Safflower (pounds)	692
Sorghums cut for dry forage or hay (tons, dry weight)	698
Sorghums hogged or grazed	701
Sugar beets for sugar (tons)	719
Sugarcane for sugar (tons) — *See Information Sheet*	722
Sugarcane for seed (tons)	725
Sunflower seed (pounds)	734
Timothy seed (pounds)	746
Other crops (pounds) — *Specify*	773

SECTION 9 GROSS VALUE of CROPS SOLD from this place in 1978, 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 1978. 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 sold in 1978, including Government CCC loans – corn for grain, grain sorghums, rice, wheat and other small grains, soybeans, dry beans, dry peas and cowpeas, flaxseed, sunflower seed, popcorn, and safflower	☐	776 $	
a. Of the total, how much was received in 1978 from Government CCC loans?	☐	777 $	
2. Cotton and cottonseed, including Government CCC loans	☐	778 $	
a. Of the total, how much was received in 1978 from Government CCC loans?	☐	779 $	
3. Tobacco	☐	780 $	
4. Field seeds, grass seeds, hay, forage, and silage	☐	781 $	
5. Vegetables, sweet corn, and melons – *DO NOT include Irish potatoes or sweetpotatoes, report them in item 8 below.*	☐	782 $	
6. Fruits, nuts, berries – apples, peaches, grapes, citrus, pecans, strawberries, etc.	☐	783 $	
7. Nursery and greenhouse products	☐	784 $	
8. Other crops – peanuts, Irish potatoes, sweetpotatoes, sugar beets, sugarcane, mint for oil, hops, etc. – *Specify* _____	☐	785 $	

SECTION 10 LAND USE IN 1978

1. Copy ACRES IN THIS PLACE from section 1, item 4, page 1 _____ Acres

NOTE: If the same land had more than one use in 1978, REPORT THAT LAND ONLY ONCE – in the use first listed below that applies. For example, cropland harvested and also pastured is to be reported 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 products.*	☐	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. **Woodland** – *Include all woodlots and timber tracts and cutover and deforested land with young timber growth.* a. Woodland pastured	☐	794
b. Woodland not pastured	☐	795
4. **Other pastureland and rangeland** – *Include any pastureland other than cropland and woodland pasture*	☐	796
5. **All other land** – Land in house lots, ponds, roads, wasteland, etc. *Include any land not reported in items 2 through 4 above*	☐	797
6. **TOTAL ACRES** – *Add the acres reported in items 2 through 5 (Should be the same as item 1 above.)*		798

SECTION 11 Was any LAND in this place IRRIGATED at any time in 1978?

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.

011 1 ☐ YES – *Complete this section*
2 ☐ NO – *Go to section 12*

1. How many acres of each of the following classifications of land were irrigated in 1978?	None	Number of acres irrigated
a. HARVESTED LAND reported in section 10, item 2a – *Include land from which hay was cut and land in bearing and nonbearing fruit and nut crops.*	☐	799
b. PASTURELAND or RANGELAND reported in section 10, items 2b and 4 – *Include spring flooding if water diverted or spread by dams, spreader dikes, canals, ditches, pipes, or other works.*	☐	800
c. ANY OTHER LANDS – Such as land not harvested due to complete failure, idle land, land in cultivated summer fallow, or land in cover crops and soil-improvement grasses	☐	801
d. **TOTAL LAND IRRIGATED** *(Total of a, b, and c above.)*		802

SECTION 12 Did you or anyone else have any CATTLE or CALVES on this place in 1978?

012 1 ☐ YES – *Complete this section*
2 ☐ NO – *Go to section 13*

• DECEMBER 31, 1978 INVENTORY	None	INVENTORY Number on this place Dec. 31, 1978
1. CATTLE AND CALVES of all ages *(Total of a, b, c, and d below)*	☐	803 Total all ages
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 – *Exclude 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 1978 *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 1978	Gross value of sales Dollars	Gross value of sales Cents
2. Calves weighing less than 500 pounds	☐	808	809 $	
3. Cattle, including calves weighing 500 pounds or more	☐	810	811 $	
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 $	

• DAIRY PRODUCTS SOLD FROM THIS PLACE IN 1978	None	Gross value of sales Dollars	Gross value of sales Cents
4. Gross value of sales of DAIRY PRODUCTS from this place in 1978. *Report goat dairy products in section 15*	☐	814 $	

SECTION 13 Did you or anyone else have any HOGS or PIGS on this place in 1978?

013 1 ☐ YES – *Complete this section*
2 ☐ NO – *Go to section 14*

• DECEMBER 31, 1978 INVENTORY	None	INVENTORY Number on this place Dec. 31, 1978
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 – a. December 1, 1977 and May 31, 1978	☐	818
b. June 1, 1978 and November 30, 1978	☐	819

• HOGS AND PIGS SOLD	None	Number sold in 1978	Gross value of sales Dollars	Gross value of sales Cents
3. HOGS and PIGS SOLD from this place in 1978	☐	820	821 $	
4. Of the hogs and pigs sold, how many were sold as FEEDER PIGS for further feeding?	☐	822	823 $	

SECTION 14 Did you or anyone else have any SHEEP or LAMBS on this place in 1978?

014 1 ☐ YES – *Complete this section*
2 ☐ NO – *Go to section 15*

	None	INVENTORY Number on this place Dec. 31, 1978	SALES Number sold in 1978
1. SHEEP and LAMBS of all ages	☐	824	825
a. EWES 1 year old or older	☐	826	

	None	Number shorn	Pounds of wool shorn
2. SHEEP and LAMBS SHORN	☐	827	828

	None	Gross value of sales Dollars	Gross value of sales Cents
3. What was the gross value of sales of sheep, lambs, and wool from this place in 1978?	☐	829 $	

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SECTION 15 Did you or anyone else have any HORSES, BEES, FISH, OTHER LIVESTOCK, or ANIMAL SPECIALTIES in 1978?

015 1 ☐ YES – *Complete this section*
2 ☐ NO – *Go to section 16*

	None	INVENTORY Number on this place Dec. 31, 1978	Total number sold in 1978	Gross value of sales Dollars	Cents
1. Horses and ponies of all ages	☐	830	831	832 $	
2. Mules, burros, and donkeys	☐	833	834	835 $	
3. Mink and their pelts	☐	836	837	838 $	
a. Mink females used for breeding	☐	863			
4. Other livestock or animal specialties in captivity *(Enter name and code from "List A" below.)* Name _____ Code _____			1	2 $	

	Acres under water for aquaculture	Total quantity sold in 1978	Gross value of sales Dollars	Cents
5. Livestock or animal products *(Enter name and code from "List B" below.)* Name _____ Code _____	→	1 ____ OR 2 ____ Pounds / Gallons	1 $	
6. Fish and other aquaculture products *(Enter name and code from "List C" below.)* Name _____ Code _____	/10	1 3 ____ OR ____ Pounds / Number	2 $	

List A

Name	Code	Name	Code	Name	Code
Colonies of bees	839	Other goats	848	Worms	857
Angora goats	842	Rabbits and their pelts	851	All other livestock – *Specify*	860
Milk goats	845	Chinchillas and their pelts	854		

List B

Name	Code
Mohair sold	864
Goats milk sold	866
Honey sold	868
Other livestock products – *Specify*	870

List C

Name	Code	Name	Code
Catfish	872	Other fish – *Specify*	884
Trout	876	Other aquaculture products – *Specify*	888
Tropical and baitfish	880		

If more space is needed, use separate sheet of paper

SECTION 16 Did you or anyone else have any POULTRY such as CHICKENS, TURKEYS, DUCKS, etc., on this place in 1978? *(Include poultry grown for others on a contract basis.)*

016 1 ☐ YES – *Complete this section*
2 ☐ NO – *Go to section 17*

	None	INVENTORY Number on this place Dec. 31, 1978	Total number sold in 1978
1. HENS and PULLETS of laying age	☐	892	893
2. PULLETS 3 months old or older not yet of laying age	☐	894	895
3. PULLET CHICKS and PULLETS under 3 months old *(Exclude commercial broilers.)*	☐	896	897
4. BROILERS, fryers, and other meat type chickens, including capons and roasters	☐	898	899
5. TURKEYS a. Turkeys for slaughter *(Exclude breeders.)*	☐	900	901
b. Turkey HENS kept for breeding	☐	902	903
6. OTHER POULTRY raised in captivity – ducks, geese, pigeons or squab, pheasants, quail, etc. *(Enter poultry name and code from the list below.)* Poultry name _____ Code _____			1
Poultry name _____ Code _____			1

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

	None	Number
7. POULTRY HATCHED on this place in 1978 and placed or sold – chickens, turkeys, ducks, etc. – *Specify kind of poultry* _____	☐	916
8. Incubator egg capacity on December 31, 1978	☐	917

	None	Gross value of sales Dollars	Cents
9. What was the gross value of sales of poultry and poultry products (eggs, etc.) from this place in 1978? *Include estimated value of poultry and poultry products moved from this place by contractors and others.*	☐	918 $	

SECTION 17 Income from MACHINE WORK, CUSTOMWORK, and OTHER AGRICULTURAL SERVICES PROVIDED for others in 1978

	None	Dollars	Cents
Total amount received from machine work, customwork, and other agricultural services PROVIDED FOR OTHERS in 1978 – planting, plowing, spraying, harvesting, etc.	☐	919 $	

Specify kind of work done _____

SECTION 18 During 1978 did you SELL any crops, livestock, or livestock products DIRECTLY to individuals FOR HUMAN CONSUMPTION – roadside stands, farmers markets, pick your own, etc.?

018 1 ☐ YES – *Complete this section*
2 ☐ NO – *Go to section 19*

	Dollars	Cents
1. What was the gross value of these direct sales?	920 $	

Specify products sold – vegetables, eggs, etc. _____

SECTION 19 TYPE OF ORGANIZATION

Mark (X) the one item which best describes the type of organization for this place in 1978. *Refer to the INFORMATION SHEET, Section 19.*

- FAMILY or INDIVIDUAL operation (sole proprietorship), excluding partnership and corporation ..... 921 1 ☐
- PARTNERSHIP operation. Include family partnerships. 2 ☐ Total number of partners 922 _____
- INCORPORATED UNDER STATE LAW
  Answer BOTH a and b
  a. Is this a family held corporation? 3 ☐ Yes 4 ☐ No
  b. Are there more than 10 stockholders? 5 ☐ Yes 6 ☐ No
- OTHER, such as cooperative, estate or trust, prison farm, grazing association, Indian reservation, etc. 7 ☐ *Specify* _____

SECTION 20 CHARACTERISTICS AND OCCUPATION OF OPERATOR (Senior partner or person in charge) *Refer to the INFORMATION SHEET, Section 20.*

1. RESIDENCE – Does the operator (senior partner or person in charge) live on this place? 923 1 ☐ Yes 2 ☐ No
2. RACE of operator (senior partner or person in charge) 924 1 ☐ White 2 ☐ Negro or Black 3 ☐ American Indian 4 ☐ Asian or Pacific Islander 9 ☐ Other – *Specify*
3. AGE of operator (senior partner or person in charge) 925 _____ Years old
4. SEX of operator (senior partner or person in charge) 926 1 ☐ Male 2 ☐ Female
5. SPANISH ORIGIN – Is the operator (senior partner or person in charge) of Spanish origin or descent (Mexican, Mexican American, Cuban, or other Spanish)? 927 1 ☐ Yes 2 ☐ No
6. PRINCIPAL OCCUPATION – At which occupation did the operator spend the majority (50 percent or more) of his work time in 1978? *For partnerships consider all members of the partnership together* 928 1 ☐ Farming 2 ☐ Other
7. 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 1978? *Include work at a nonfarm job, business, or on someone else's farm. (Exclude exchange farm work.)* 929 1 ☐ None 2 ☐ 1–49 days 3 ☐ 50–99 days 4 ☐ 100–149 days 5 ☐ 150–199 days 6 ☐ 200 days or more

SECTION 21 Was any of the land in this place held under FOREIGN OWNERSHIP in 1978?

1 ☐ YES – *Complete this section*
2 ☐ NO
3 ☐ Don't know
→ *Go to section 28*

	None	Acres
Of the total acres in this place, how many were owned by – 1. Individuals who are NOT citizens of the United States?	☐	930
2. A foreign held corporation or unincorporated association, or a foreign government?	☐	931

SECTIONS 22 – 27 Not applicable to this form

SECTION 28 PERSON COMPLETING THIS REPORT – *Please print*

Name	999 Date
Telephone →	Area code / Number

When the data have been tabulated, do you want a summary sheet showing major census results for your county? 029 1 ☐ YES 2 ☐ NO

(Sections 22 through 27 were collected from only 20 percent of the farms; see text)

SECTION 22 Was any COMMERCIAL FERTILIZER, including ROCK PHOSPHATE, or LIME used on this place during 1978?

022
1 ☐ YES — *Complete this section*
2 ☐ NO — *Go to section 23*

	None	Acres fertilized
1. Acres of cropland fertilized in 1978, other than cropland used only for pastures reported in section 10, item 2b	☐	932
2. Acres of pastureland and rangeland fertilized in 1978 reported in section 10, items 2b and 4	☐	933

	None	Tons of lime	Acres limed
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 23 Were any INSECTICIDES, HERBICIDES, FUNGICIDES, NEMATICIDES, OTHER PESTICIDES, or OTHER CHEMICALS used on this place in 1978?

023
1 ☐ YES — *Complete this section*
2 ☐ NO — *Go to section 24*

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	Number of acres on which used
1. Sprays, dusts, granules, fumigants, etc., (fungicide, herbicide, insecticide, nematicide) to control —		
a. Insects on hay and other crops	☐	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	☐	939
2. Chemicals for defoliation or for growth control of crops or thinning of fruit	☐	940

3. Were any chemicals used for —
a. Insect control on livestock and poultry, including treatment of buildings? 941 1 ☐ Yes 2 ☐ No
b. Sanitation, rodent and bird control, etc.? *(Include lime for sanitation)* 942 1 ☐ Yes 2 ☐ No

SECTION 24 MACHINERY AND EQUIPMENT on this place on December 31, 1978

(Include only equipment used for agricultural operations in 1977 or 1978.)

•Value of ALL machinery and equipment on this place, December 31, 1978

	Estimated market value — Dollars	Cents
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.*	943 $	

•SELECTED machinery and equipment on this place, December 31, 1978. *(Report only if used in 1977 or 1978.)*	None	Total number on this place on December 31, 1978	Of the total, HOW MANY were manufactured in the last 5 years (1974–1978)? *(Number)*
2. Automobiles	☐	944	945
3. Motortrucks *(Include pickups)*	☐	946	947
4. Wheel tractors other than garden tractors and motor tillers	☐	948	949
5. Grain and bean combines, self-propelled only	☐	950	951
6. Corn heads for combines	☐	952	953
7. Other corn pickers and picker-shellers	☐	954	955
8. Cotton pickers *(Exclude cotton strippers)*	☐	956	957
9. Mower conditioners	☐	958	959
10. Pickup balers	☐	960	961
11. Field forage harvesters, shear bar or flywheel type	☐	962	963

SECTION 25 EXPENDITURES FOR ENERGY and petroleum products for the farm business during 1978

Include expenditures paid by you and others for production of crops, livestock, and other agricultural products from this place in 1978.	None	Expenditures — Dollars	Cents	Gallons purchased in 1978	Storage capacity on this place (in gallons)
1. Gasoline for farm business	☐	966 $		967	968
2. Diesel fuel for the farm business	☐	969 $		970	971
3. LP gas, butane, propane for the farm business (4.5 lbs.= 1 gallon)	☐	972 $		973	974
4. Fuel oil for the farm business	☐	975 $		976	977
5. Natural gas for the farm business	☐	978 $			
6. Kerosene, motor oil, grease, for the farm business	☐	979 $			
7. Electricity for the farm business	☐	980 $			
8. Other — coal, wood, coke, etc.	☐	981 $			

SECTION 26 SELECTED PRODUCTION EXPENSES paid by you and others for this place in 1978

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 1978. 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	Selected expenditures — Dollars	Cents
1. Livestock and poultry purchased — cattle, calves, hogs, pigs, sheep, lambs, goats, horses, chicks, poults, started pullets, etc.	☐	982 $	
2. Total feed purchased for livestock and poultry — grain, hay, silage, mixed feeds, concentrates, etc.	☐	983 $	
a. Commercially mixed formula feeds purchased — complete, supplement, concentrates. *(Do not include ingredients purchased seperately, such as soybean meal, cottonseed meal, and urea.)*	☐	Tons 984 / Tenths /10 — Dollars 985 $	
3. Animal health costs for livestock and poultry. *Include veterinarian services, serums, vaccines, medicines, etc.*	☐	986 $	
4. Seeds, bulbs, plants, and trees purchased	☐	987 $	
5. Commercial fertilizer purchased — all forms, including rock phosphate and gypsum. *Report custom application costs in item 9 below.*	☐	988 $	
6. Agricultural chemicals purchased — insecticides, herbicides, fungicides, other pesticides, lime, etc. *Report custom application costs in item 9 below.*	☐	989 $	
7. Hired farm or ranch labor *(See Information Sheet)*	☐	990 $	
a. Of the hired workers, including paid family workers, how many —	None	Number of workers	
(1) Worked 150 days or more?	☐	991	
(2) Worked less than 150 days?	☐	992	
8. Contract labor — *Include expenditures primarily for labor, such as harvesting of fruit, vegetables, berries, etc., performed on a contract basis by a contractor, crew leader, a cooperative, etc.*	☐	993 $	
9. 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. (Exclude cost of cotton ginning)*	☐	994 $	

SECTION 27 ESTIMATED MARKET VALUE OF LAND and BUILDINGS

Please give your best ESTIMATE of the CURRENT MARKET VALUE of land and buildings for the acres reported in section 1, items 1, 2, and 3, page 1.	None	Estimated current market value of land and buildings — Dollars	Cents
1. All land owned	☐	996 $	
2. All land rented or leased FROM OTHERS	☐	997 $	
3. All land rented or leased TO OTHERS	☐	998 $	

FORM 78-A1(S) (4-10-78)

FORM 78-A1(1)
(8-17-78)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

INFORMATION SHEET

1978 CENSUS OF AGRICULTURE

GENERAL INFORMATION

WE NEED A COMPLETED REPORT FORM FROM EVERYONE receiving this request. Please follow the instructions given below for completing section 1. You will then be able to determine what additional information is to be provided.

1. The enclosed census report form is being used by farms and ranches throughout the entire United States. Because it is meant for use in all parts of the country, it may contain sections and inquiries which do not apply to you. In this case, mark the "None" or "No" box and go on to the next item or section.

2. **If You Receive More Than One Report Form**
   If you have multiple farming operations, you should complete a report for EACH SEPARATE and DISTINCT production unit, that is, 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. Return any duplicate or extra report forms in the same envelope with the report(s) you complete so we can remove the extra addresses from our mail register. In the space provided to the right of the address label of the report form you complete, write the 11-digit number from the label of the extra form or forms.

3. **Partnership Operations**
   A partnership is an association of two or more persons who have agreed (informally or under legal contract) on the amount of their contributions and profit distributions.

   Complete only ONE report for the entire partnership farm and ranch operation, including all partners' shares on the same report. If two or more report forms were received for the partnership see 2 above.

   Partners who also have separate operations of their own should complete reports for those separate operations. For additional information on Partnerships see section 19 below.

4. **How To Enter Your Responses On The Report Form**
   Please enter your answers 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.

   Enter whole numbers unless the "Tenths" column is provided, such as reporting acres of Irish potatoes in section 2. If you have 1/2, 1/4, or 1/3 of an acre, convert to tenths. For example convert 1/2 to 5/10, 1/3 to 3/10, 1/4 to 2/10, etc.

   If you do not recall exact figures, please give your best estimate. You may indicate "Est." (for estimated) beside the answer, if you like. For all dollar items, we need only whole dollars, although a "Cents" column is provided for those who wish to report cents.

COMPLETING THE REPORT FORM

Section 1 — ACREAGE IN 1978

This section determines the land for which you should report agricultural activities. It also provides space for reporting landlords, renters, and location(s) of agricultural activities.

Changes in the Acres Operated in 1978 — Report all land that YOU USED during 1978, and the crops and livestock production on that land, even if some or all of it was no longer a part of your operation on December 31, 1978.

If you had agriculture operations at any time during 1978, but quit farming **before December 31, 1978**, report your 1978 crop and livestock production and sales from that land for the portion of the year that you operated the land. Please explain in the margin of the report form (or on a separate sheet of paper) that you quit farming or ranching during 1978 and give the approximate date and the name and address of the present operator, if known.

If you acquired land for agricultural operations, but did not use it for livestock or crop production in 1978, include the land in section 1. Please explain in the margin or on a separate sheet of paper.

Completing Items 1, 2, 3, and 4 of Section 1 — Use items 1, 2, and 3 to determine the acres of land that are your responsibility for the purpose of making the agriculture census report. Include all land that you were associated with in 1978, regardless of location or use, but do not include holdings of residential property not associated with agricultural operations. Report all land in whole acres in this section.

Item 1 — Land Owned — Report all land owned in 1978 whether held under title, purchase contract or mortgage, homestead law, or as heir or trustee of an undivided estate, by you and/or your spouse, or by the partnership, corporation, or organization for which you are reporting.

Item 2 — Land Rented or Leased FROM Others — Report all land rented by you, even though the landlord may have supplied equipment, fertilizer, or other materials and/or some supervision of the work.

INCLUDE in item 2 —

a. Land (for agricultural uses) that you rented FROM others for cash payments
b. Land worked on a share basis
c. Land (owned by someone else) which you used rent-free
d. Federal, State, Indian, 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 land used under section 3 of the Taylor Grazing Act, National Forest Land, or Indian Reservation Permit Land.

Item 3 — Land Rented TO OTHERS — Cash tenants, share tenants, and share croppers are farm operators for census purposes and are responsible for making the agriculture census report for the land they operate.

INCLUDE in item 3 —

a. Owned land rented TO others for cash or a share of the crops or livestock
b. Land which you rented from others and then subleased to others in 1978
c. Land rented out for residential or other nonfarm purposes, if it was part of the land reported in item 1 or 2
d. Land worked for you by someone else on a share-of-crop basis
e. Land which you allowed others to use rent-free

NOTE: Please enter the names and addresses of renters, tenants, and sharecroppers in item 6.

Item 4 — Acres in this Place — This is the sum of the land that you owned in 1978 (item 1), PLUS the land that you rented FROM others (item 2), MINUS the land that you rented TO others (item 3). It is very important that you report this figure correctly (even if "0" acres), since the remainder of your report should cover only those operations on "the Acres in This Place" reported in item 4.

"Zero Acres in Place" — Should you complete the rest of this form?

If you yourself had crop or livestock activities on the land for any portion of the year, you should complete the rest of the form. See "Changes in Acres Operated in 1978," above.

If all your land was operated by a renter or sharecropper for all of 1978, you do not have to complete the entire form. In this case, you should:

a. Complete item 6 for renter.
b. Skip to section 28 and complete Name, Address, Telephone number, etc.
c. Explain briefly in the margin or on separate paper that you did not operate a farm or ranch in 1978. For example, "All land rented out," "Sold Farm," "Retired," etc., and give the approximate date that you quit operating. If you sold your farm, please give the name and address of current owner or operator, if known.
d. Mail the form in the return envelope provided.

Item 7 — Grazing Permits — In some States, government lands and Indian lands are used for grazing livestock under permit or special license, with payments on a per-head or animal unit basis. This land should NOT be included as part of item 2, "Land rented or leased FROM others," or item 4, "Total Acres in This Place." But you should include in your report any livestock located on permit land in 1978.

Sections 2–8 — CROPS

Sections 2 through 8 provide space for reporting crops harvested during the 1978 crop year from the land shown in section 1, item 4, of your report. Please report your crops in the appropriate section. Do not include any crops grown on land rented, leased, or worked on shares by others during 1978.

Acres Harvested — Enter the acres harvested in 1978. Round fractions to whole acres except where tenths are requested, as for Irish potatoes.

Quantity Harvested — The units of measure on the report form are those most commonly used throughout the country. If you use a different unit of measure, please convert your figure for quantity harvested to the unit requested. If harvest is incomplete by December 31, 1978, please estimate the total quantity harvested.

Crop Irrigation — 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 preplant irrigation. For any crop not irrigated, leave "Acres irrigated" blank.

How to Report Crops Harvested

a. **Sections 2 and 3** — In these two sections, separate lines are provided for reporting each of several crops widely grown in the United States. Do not write in data for any other crops.

b. **Sections 4–8** — In each of these sections, report any of the crops listed in the same section. To report a crop in any of these sections, (1) find the crop name and the code number in 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 requested in the headings of the remaining columns.

Example: A farmer harvested 20 acres of alfalfa seed, yielding 6,000 pounds, and 30 acres of red clover seed, yielding 8,400 pounds. (He did not irrigate either crop.) He would enter the following in section 8:

SECTION 8 — Were any OTHER CROPS harvested from this place in 1978 — rice, peanuts, field seeds, sugar crops, or other crops not previously reported?
☒ YES - Complete this section
☐ NO - Go to section 9

From the list below, enter crop name and code. Report quantity harvested in unit specified with crop name.

Crop name	Code	Acres Harvested	Quantity Harvested	Acres Irrigated
Alfalfa seed	542	20	6,000	
Red clover seed	671	30	8,400	

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

Two or More Crops Harvested From The Same Land (Double-Cropping) — Report the total acres and production of each harvested crop in the appropriate section of the report form.

Example: A farmer harvested 1,230 bushels of wheat from 40 acres in 1978, then planted and harvested 1,550 bushels of soybeans from the same 40 acres before the end of the year. He irrigated the soybeans but not the wheat.

Correct entries		Acres	Bushels	Acres irrigated
Item 3	Wheat	40	1,230	—
Item 8	Soybeans	40	1,550	40

Sections 2–8 – CROPS – Continued

Interplanted Crops and "Skip Row" Planting – 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. Thirty acres of soybeans would be reported in section 2, item 8, and 30 acres of cotton in section 2, item 9.

Vegetables – Report acres of vegetables harvested FOR SALE. Do not report acres of vegetables for home use. Report the total acreage of each vegetable crop harvested.

Example: You harvested 10 acres of lettuce from a field in 1978, then replanted the field to lettuce and harvested the 10 acres again. Enter only 10 acres of land from which vegetables were harvested in item 1 of section 5, but write in 20 acres of lettuce harvested in item 2 of section 5.

Fruit 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 (exclude abandoned trees).

If crops other than fruit and nut trees and vines were interplanted with trees or vines, report the total acres for BOTH the orchard and the interplanted crops harvested.

Example: If 20 acres of cotton were grown in a 30 acre pecan orchard, you would report 20 acres of cotton in section 2, item 9, and 30 acres of pecans in section 4.

Avocados, Olives, Sugarcane

Avocados – For California report the quantity harvested from November 1, 1977 through November 30, 1978. For Florida report the quantity harvested from April 1978 through March 1979, estimating if necessary.

Olives – Report the quantity harvested from the bloom of 1977 for the October 1977 to March 1978 harvest season.

Sugarcane – For Florida and Texas report cuttings from November 1977 through April 1978. For Louisiana and Hawaii report for the 1978 crop year.

Section 9 – GROSS VALUE OF CROPS SOLD

Report the values received during 1978, regardless of the year in which the crops were harvested. Give gross values (before deducting taxes and expenses). If full payment was not received for a crop or crops sold in 1978, report only the amount actually received in 1978.

For value of grains and cotton, include as sold the value of government CCC loans received in 1978 but not loans obtained from any other government or private source.

Section 10 – LAND USE

The purpose of this section is to classify the acres you reported in section 1, item 4, by principal use in 1978. Do not include any acres you rented TO others (reported in section 1, item 3).

Land Used for Multiple Purposes – If part of your land was used for more than one purpose in 1978, report that land on the line for the use first listed, and NOT on the line for the second use. 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 NOT as "Cropland used for cover crop, legumes, . . etc." (item 2c).

Double Cropping – When more than one crop was harvested from the same land in 1978, report that land only ONCE as "Cropland Harvested," item 2a 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 item 2a.

Section 12–16 – LIVESTOCK AND POULTRY

Animals and Poultry to be Included in the Report – Report all animals and poultry on the place on December 31, 1978. Include all owned by you and any kept by you for others. Include animals on unfenced land, on National Forest land, on district land or cooperative grazing association land, or on rangeland administered by the Bureau of Land Management on a per-head or lease basis (such as on wheat pasture). Include poultry (broilers, layers, turkeys, etc.) fed under contract on "This Place." Include livestock and poultry kept on this place for home use, 4H projects, etc.

Number sold – Report all animals and poultry sold or removed from this place including those sold for a landlord or given to a landlord as his share or to others in trade or in payment for goods and services. Include animals of all ages without regard to ownership or who shared in the receipts if the animals were located on the place 30 days or more and were sold or removed from the place in 1978.

Sales from Contract and Custom Feeding Operations – Include animals and poultry (including poultry under contract) fed on this place on a contract or custom basis if they were removed from the place in 1978.

Value of Sales – Be sure to report the total gross value of sales of animals and poultry without deducting cost of feed, cost of livestock purchased, cost of hauling and selling, etc. If the sale price or value is not known, give your best estimate of their value when they left this place.

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

Animals to be Excluded from the Report – Do not report any animals or poultry kept under a share arrangement on land rented TO others in 1978.

Animals Sold from Another Place – Animals owned by you, but held and sold from someone else's place should NOT be included. For example, do not report cattle purchased elsewhere, fed in, and sold from a feedlot not part of this place.

Animals Bought and Sold – Do not include animals bought and resold within 30 days. Such purchases and sales are considered "dealer" transactions.

Fat Cattle Sales – Do not include with fattened cattle in item 3a of section 12:

a. Veal calves which were fattened primarily on milk, or
b. Dairy cows fed only the usual dairy ration before being sold, or
c. Cattle and calves that were sold for further feeding.

All Other Livestock – Specify the name of any other livestock, animal specialty, or livestock products on or sold from this place that have not been accounted for elsewhere on this form.

Example: Bees sold (colonies, packages, pounds); semen sales, animals bred and sold for laboratory use; birds, frogs, etc.

Section 19 – TYPE OF ORGANIZATION

Use the following definitions to assist you in determining the type of organization for your operation:

Individual or Family Operation (Sole Proprietorship) – Defined as a farm or business organization controlled and operated by an individual. Includes 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 the agreement to share contributions, decisionmaking, profits, and liabilities exists. Producing products under contract or under a share rental agreement does not constitute a partnership.

Corporation – 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.

Other – Such as cooperative (defined as an incorporated or unincorporated enterprise or association created and formed jointly by the members), estate or trust (defined as fund of money or property administered for the benefit of another individual or organization), prison farm, grazing association, Indian reservation, etc.

Section 20 – OPERATOR CHARACTERISTICS AND OCCUPATION

This section applies to the characteristics and occupation of the individual owner, operator, senior partner, or person in charge for the type of organization reported in section 19 of the form.

For Individual or Family Operation (Sole Proprietorship) – Complete this section for the operator.

For Partnership Operations – Complete items 1 through 5 and 7 (of this section) for the "Senior Partner." The "Senior Partner" is the individual who is mainly responsible for the agricultural operations on this place. Consider the oldest partner as the "Senior Partner" if each shares equally in the day-to-day management decisions. For item 6 (Principal Occupation) consider all members of the partnership together. Please include as "Farming" worktime at all types of agricultural enterprises, including specialties, such as greenhouses, nurseries, mushrooms, ranching, feed lots, broiler feeding, etc.

For Incorporated and Other Operations (Cooperatives, Estates, etc.) – Complete section 20 for the person in charge, such as hired manager, business manager, or other person primarily responsible for the on-site, day-to-day operation of the farm or ranch business.

Section 22 – COMMERCIAL FERTILIZER

Report acres on which commercial fertilizer was applied during 1978. If some acres where fertilized more than once, report acres ONLY ONCE.

Section 24 – MACHINERY AND EQUIPMENT

The estimated market value in item 1 refers to ALL machinery and equipment kept on this place and used for the farm business. The value should be an estimate of what the machinery and equipment would sell for in its present condition, not the replacement or depreciated value.

Section 26 – SELECTED PRODUCTION EXPENSES

Include expenses paid by you and by anyone else for the production of crops, poultry, livestock, and other agricultural products on this place. Also include expenses incurred even if payment was not made in 1978. Please give estimates if you do not know the exact figures. For example, if you grew broilers or fed cattle for others, include in item 1, as purchases, your best estimate of the value of the baby chicks or cattle at the time they were brought to this place. Also include in item 2, the value and amount of all feed purchased by you or someone else for use on this place.

Do not include expenses related to nonfarm activities (trading and speculation, or livestock dealer activities).

Hired Labor – Expenditures for hired labor should include gross wages or salaries, commissions, paid bonuses, and leave pay before deductions, plus the value of benefits paid by you – Social Security taxes, unemployment insurance, etc. Do not include room and board, house rent, or other items paid in kind.

Form Approved: O.M.B. No. 41-S78038

FORM 78-A1(A) (6-22-78)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

AGRICENSUS USA 78

1978 CENSUS OF AGRICULTURE AREA SAMPLE

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.

CENSUS USE ONLY

035	036	037	038
039	040	041	042

Key identification data

Part I – IDENTIFICATION

Items 1 through 6 – Copy from A3 Record Book

1. State	2. County	3. Segment number	4. A3 Line number

5. Name – *First, Middle initial, Last*

6. Mailing address
a. Route/Box/Street
b. Post Office | State | ZIP code

7. What is your (the person listed in item 5) telephone number? Area code | Number

8. In what year did you begin to operate any part of this place? Year 060

9. Do you have a Federal Employer Identification Number for this farm or ranch operation? ☐ YES – *Enter the EI number* ☐ NO

Part II – TYPE OF ORGANIZATION

Mark (X) type of organization as shown in column 8 of A3 Listing Sheet and ask questions for that type. Complete only one part of this page. Data reported for subsequent sections of questionnaire relate only to the specific operation reported here.

☐ 1 **Type A – INDIVIDUAL OR FAMILY OPERATION** *(Sole proprietorship)*

1. For business purposes, is this farm or ranch operated under any name other than your own? ☐ YES → ☐ NO

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

2. During the past two years, have you received mail at any address other than the one I have listed? ☐ YES → ☐ NO

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

3. Does this farm or ranch employ a hired manager who is primarily in charge of the farm or ranch operations? 1 ☐ YES – *Go to item 4* 2 ☐ NO – *SKIP to page 2*

4. Who is the hired manager?
☐ Person named in part 1, item 5 – *SKIP to page 2*
☐ Other – *Specify and SKIP to page 2*

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

☐ 2 **Type B – PARTNERSHIP OPERATIONS** *(Include family partnerships)*

1. For business purposes, what name and mailing address is used for this partnership?

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

2. How many partners are there? _____ Partners

3. What is the name and mailing address of each partner?
☐ Person named in part 1, item 5 – *Do not list*
☐ Other – *Specify (Use "Remarks" if more space is required.)*

a.	b.
Name	Name
Mailing address – *Route/Box/Street*	Mailing address – *Route/Box/Street*
Post Office | State | ZIP code	Post Office | State | ZIP code

4. Does this partnership employ a hired manager who is primarily in charge of the farm or ranch operations? 1 ☐ YES – *Go to item 5* 2 ☐ NO – *SKIP to item 6*

5. Who is the hired manager?
☐ Person named in part 1, item 5 – *SKIP to page 2*
☐ Other – *Specify and end interview* →

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

6. Which partner is primarily in charge of the farm or ranch operations?
☐ Person named in part 1, item 5 – *SKIP to page 2*
☐ Other partner – *Specify and end interview*
☐ None – *Go to item 7*

7. Who is the oldest partner?
☐ Person named in part 1, item 5 – *SKIP to page 2*
☐ Other – *Specify and end interview*

Name

Part II – TYPE OF ORGANIZATION – Continued

☐ 3 **Type C – INCORPORATED UNDER STATE LAW**

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

1. What is the current name and mailing address of this corporation?

2. Is this a family-held corporation? ☐ YES ☐ NO

3. Are there more than 10 stockholders? ☐ YES ☐ NO

4. Does this corporation have other separate and distinct farm and ranch operations?
☐ YES – *Enter location(s) and name(s) below* ☐ NO – *SKIP to item 5*

(1) Location *(State and county)*	Name
(2) Location *(State and county)*	Name

5. During the past two years, has this farm or ranch used any name or address other than the current corporation name and mailing address? ☐ YES → ☐ NO

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

6. Does this farm or ranch employ a hired manager who is primarily in charge of the farm or ranch operations? 1 ☐ YES – *Go to item 7* 2 ☐ NO – *SKIP to item 8*

7. Who is the hired manager?
☐ Person named in part 1, item 5 – *SKIP to page 2*
☐ Other – *Specify and end interview* →

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

8. Who is primarily in charge of the farm or ranch operations?
☐ Person named in part 1, item 5 – *SKIP to page 2*
☐ Other – *Specify and end interview*

☐ 4 **Type D – OTHER ORGANIZATIONS**

1. What type of organization operates or controls the operations of this farm or ranch unit? 995
1 ☐ Estate
2 ☐ Trust
3 ☐ Cooperative
4 ☐ State or Local Government
5 ☐ Federal Government
6 ☐ Other – *Specify*

2. What is the name and mailing address of this organization? →

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

3. What is the name and mailing address used for this farm or ranch operation? →

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

4. During the past two years, has this farm or ranch used any other name or mailing address? ☐ YES → ☐ NO

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

5. Does this organization employ a hired manager who is primarily in charge of the farm or ranch operations? 1 ☐ YES – *Go to item 6* 2 ☐ NO – *SKIP to item 7*

6. Who is the hired manager?
☐ Person named in part 1, item 5 – *SKIP to page 2*
☐ Other – *Specify and end interview*

7. Who is primarily in charge of the farm or ranch operations?
☐ Person named in part 1, item 5 – *Go to page 2*
☐ Other – *Specify and end interview*

Name / Mailing address – *Route/Box/Street* / Post Office | State | ZIP code

Page 1

Note: Remainder of form same as A1(S).