

Volume 5

Special Reports

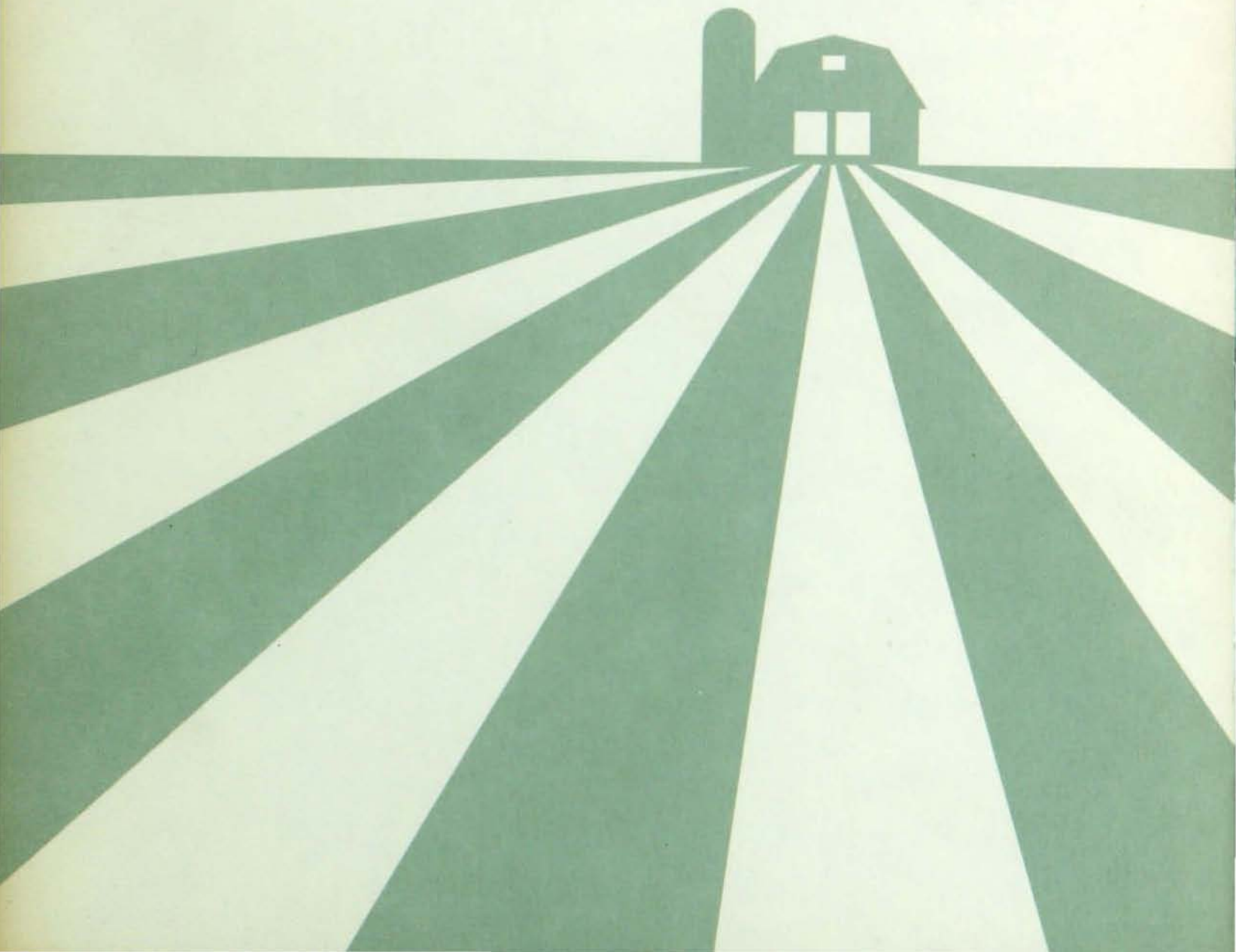
Part 1

Graphic Summary

AC78-SR-1

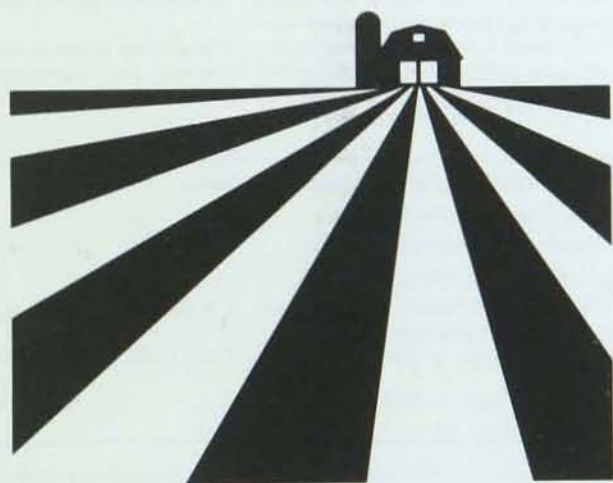
1978 CENSUS OF AGRICULTURE

U.S. Department of Commerce
BUREAU OF THE CENSUS



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Part 1
Graphic Summary

AC78-SR-1

Issued January 1982



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AUTHORITY, AREA COVERED, AND HISTORY

The 1978 Census of Agriculture was taken in accordance with the provisions of title 13, United States Code (Public Law 93-86). Sections 142(a) and 191 of title 13 provide for a census of agriculture every 5 years in each State, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands. The 1978 census is the 21st nationwide census of agriculture and the third conducted primarily by mail.

SOURCES OF INFORMATION

The data used in preparing the charts and maps shown in this graphic summary were obtained from the 1978 Census of Agriculture. Detailed statistics for States and counties may be found in volume 1 of the 1978 census reports.

FARM DEFINITION

The current farm definition used for statistics was announced on August 12, 1975, and defines a farm as any place from which \$1,000 or more of agricultural products were sold or normally would have been sold during the census year. The previous definition counted a farm as any place with less than 10 acres from which \$250 or more of agricultural products were sold or normally would have been sold during the census year, or any place of 10 acres or more from which \$50 or more of agricultural products were sold or normally would have been sold during the census year.

METHOD OF ENUMERATION

The 1978 Census of Agriculture was conducted primarily by mail for maximum economy, supplemented by a personal canvass of a statistical area segment sample for maximum completeness of coverage. The area segment sample, which consists of selected geographic areas completely canvassed by direct enumeration, provides reliable estimates for States of the number and characteristics of any farms not represented in the mail portion of the census. Estimates for such farms are an integral part of the State totals published for the 1978 census, however, these estimates are statistically reliable only for State

totals and have not been allocated to counties. Therefore, the data collected from the area sample enumeration were not plotted. It should be noted that the statistical totals shown on the maps represent the U.S. total including the area sample data. Appendix A of Volume 1, State and County Data, provides a more detailed description of how the 1978 census was taken.

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 goal difficult to achieve. Among the complexities are the many places to be enumerated, the variety of arrangements under which farms are operated, the continuing changes in the relationship of farm operators to the land operated, the expiration of leases and the initiation or renewal of leases, the problem of obtaining a complete listing of all agricultural operators, the difficulty of locating and identifying some farms, the operator's absence from his/her farm during mail efforts and followup procedures, and the operator's opinion that some or all of his/her agricultural operations should not be included in the census.

LIMITATIONS OF DATA

Every census or survey has some errors. These can arise from such sources as incorrect or incomplete reporting, incorrect processing, and the inability to obtain a response from all farmers.

Reported data may be incorrect because of misunderstanding of questions or the use of estimates in reporting. During processing, adjustments are made to data items which appear to be inconsistent with other items. Some respondents failed to provide all of the information requested. In some cases, the respondent may indicate the presence of an item but not the amount. Imputations were made for missing data on the quantities and sales values of crops and livestock, but not for such items as direct sales, foreign ownership, and the gross value of agricultural services provided others.

For a detailed description of coverage and data limitations, see volume 5, Part 3, Coverage Evaluation, of the 1978 Census of Agriculture.

USE OF SAMPLING

Two types of sampling were used for data collection for the 1978 census. In addition to the State estimates from the direct

enumeration sample discussed previously, some data items of the census report form were collected from only a sample of farms. Data based on a sample are subject to sampling error. Detailed discussions of the census report forms, the use of sampling, and estimates of sampling error are included in appendix A, Volume 1, State and County Data.

LIMITATIONS OF MAPPED DATA

The series of increase and decrease maps included in this publication show the amount of change for various items for the United States.

Estimates from the area sample enumeration are included in the U.S. totals shown on the maps. However, the maps were plotted using county data which have not been adjusted to include estimates from the sample enumeration. Thus, the dots on these maps do not fully represent the total change that has taken place for the United States.

As most of the farms represented in the area sample estimates are small, the increase/decrease patterns for most items shown on the maps are not significantly affected. The impact of the area sample estimates can be seen in the statistical summary of mapped data. It should be noted that more complete mail lists for the 1978 census also affect comparability for some items between 1974 and 1978; although the patterns of change should not be affected significantly.

EXPLANATION OF MAPPED DATA

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SUMMARY OF MAPPED DATA

Except for those showing increase or decrease, the maps in this report show only data for 1978. The 1978 total for each item mapped is shown in the table with the comparable 1974 total.

Dramatic changes in rates of farm expenditures and unit prices of products sold between the 1974 and 1978 censuses affect the comparability of some data. During the period between the two censuses, prices paid by farmers greatly increased while prices received for the various commodities changed to a lesser extent.

FARMS

All farms—All places on which agricultural operations were conducted at any time in the census year under the day-to-day control of an individual management and from which \$1,000 or more of agricultural products were sold or would normally have been sold in 1978.

Farms with sales of \$2,500 or more—Farms with sales of agricultural products amounting to at least \$2,500, excluding abnormal farms such as prison farms, hospital farms, church farms, school farms, experimental farms, Indian reservations, and grazing associations.

VALUE OF LAND AND BUILDINGS

The value of land and buildings reported for the census was to represent market value, i.e., the price for which the land and buildings would sell at the time the census was taken. If the value of land and buildings was not reported or was incompletely reported, an estimate was supplied during office processing by

using the average value per acre of land and buildings for farms of approximately the same size having similar characteristics in the same area.

The total value of land and buildings for all farms in the United States was \$650 billion. The average value per farm was \$262,252 and the average value per acre was \$628.

For many groups of counties in the West, the maps exhibiting value of land and buildings per farm show reverse patterns as compared with maps showing value of land and buildings per acre; i.e., many counties in high value-per-farm categories appear in low value-per-acre categories. This reverse relationship between the two pattern maps happens because a large proportion of land in farms is comprised of low value-per-acre rangeland, and the extremely large average size of the farms and ranches offsets the low average-per-acre value, resulting in high average-per-farm values. This item was asked on a sample basis. Further explanation and sample reliability can be found in appendix A in Volume I, State and County Data.

SIZE OF FARMS

Although the number of farms in the United States has dropped drastically in the last 35 years, the acreage of land in farms has changed only moderately; as a result, the average size of farm is now nearly two and one-half times what it was in 1945.

The trend since 1945 until this census has been a decrease in number of farms for each of the size groups under 500 acres and an increase in the number of farms in size groups over 500 acres. However, the results of better coverage for 1978 along with growth in part-time farms in many areas show an increase in farms of less than 100 acres in size. Part of this is because of the inflationary effect on prices and the result of more places being classified as farms. The other part is because of the census techniques used in determining the farms missing from the mail list which are included at the State, regional, and national levels.

Size of farm measured only by acres operated is often not a complete measure of the size of the farm business due to large variations in the productivity of land or in the intensity of activity. For example, average value of farm products sold per acre of farmland can vary from such extremes as \$1,488 per acre in Suffolk County, N.Y., to less than \$11 per acre in Elko County, Nev.

STANDARD INDUSTRIAL CLASSIFICATION OF FARMS

For the 1978 census, all agricultural establishments (farms, ranches, nurseries, greenhouses, etc.) were classified by type of principal activity or activities using the Standard Industrial Classification system. A similar classification system was used

for the 1974 census but only farms with sales of \$2,500 or more were classified. It should be noted that changes in commodity prices and production levels will affect comparability between censuses.

In order for a farm to be classified within a particular industry, the value of sales in 1978 from a product or group of products had to represent 50 percent or more of the total value of sales of agricultural products sold. The 1972 Standard Industrial Classification which was used for the 1974 and 1978 censuses is generally comparable for the major groupings to the type of farm classification used in 1969 and earlier censuses.

Cash Grain Farms

Cash grain farms (011)—These farms receive 50 percent of their total sales from wheat, rice, corn, sorghums, soybeans, other small grains, cowpeas, dry field and seed beans and peas, popcorn, lentils, and mustard and safflower seed.

Cash grain farms increased in number from 580,000 in 1974 to 594,000 in 1978. This increase was partly due to the significantly higher prices received for cash grain crops in relation to prices received for livestock and poultry products in 1978. Cash grain farms comprised 24.0 percent of all farms. They average 439 acres in size and \$41,419 in value of products sold. The greatest concentration of cash grain farms is in the corn belt, where corn and soybeans are the principal crops sold.

Wheat farms (0111)—Wheat farms are cash grain farms which receive 50 percent or more of the total sales of farm products from wheat. They account for 12.7 percent of the total cash grain farms and average 985 acres in size and \$33,555 in value of farm products sold. The largest concentration of wheat farms are in the Dakotas, Nebraska, Kansas, Oklahoma, Montana, Washington, and Oregon.

Rice farms (0112)—Rice farms are cash grain farms which receive 50 percent or more of the total value of farm products sold from rice. They are primarily located in Arkansas, Mississippi, Louisiana, California, and on the gulf coast of Texas.

Corn farms (0115)—Corn farms, which receive 50 percent or more of their total sales from corn, comprise 26.4 percent of the cash grain farms. These farms are most concentrated in the East North Central States.

Soybean farms (0116)—Soybean farms are cash grain farms which receive 50 percent or more of their total sales from soybeans. Soybean farms account for 32.8 percent of the cash grain farms and 7.9 percent of all farms. They are primarily located in the North Central States, east of the Mississippi River, and along the Mississippi River in Missouri, Arkansas, Tennessee, Mississippi, and Louisiana.

Field Crop Farms, Except Cash Grain (013)

Cotton Farms (0131)—Cotton farms are a part of the farms classified in the industry group field crops, except cash grains. About 1.3 percent of all farms were classified as cotton farms,

and average 719 acres in size and \$94,672 in value of farm products sold. They are located almost entirely in the South and in irrigated areas of the Southwest. About 76 percent of the bales of cotton harvested came from cotton farms.

Tobacco farms (0132)—Tobacco farms are a part of the farms classified as field crops, except cash grains. These farms comprise 5.8 percent of all farms. Tobacco farms are the smallest, both in terms of size of farm (99 acres) and value of sales from farm products sold (\$16,679). Nearly all tobacco farms are in six Southern States: North Carolina, South Carolina, Virginia, Kentucky, Tennessee, and Maryland. Nearly 79 percent of all tobacco harvested on farms comes from tobacco farms.

Sugar crop farms (0133)—Sugar crop farms are those which receive 50 percent or more of the total sales of farm products from the sale of sugar beets or sugarcane. These farms are located in the irrigated areas of the Western States (sugar beets) and in Florida, Louisiana, and Hawaii (sugarcane).

Irish potato farms (0134)—These farms receive 50 percent or more of their total sales from the sale of Irish potatoes. Most of them are located in Maine, Idaho, and North Dakota.

Vegetable and Melon Farms (016)

Farms were classified in this group if 50 percent of their total farm sales was from the sale of vegetables or melons. Vegetable and melon farms are widely scattered, with significant concentrations in California, Michigan, Wisconsin, New Jersey, New York, Florida, and Texas. The production of vegetables and melons is concentrated on a relatively small number of large and highly specialized farms.

Fruit and Tree Nut Farms (017)

Fruit and tree nut farms receive 50 percent or more of their total value of farm sales from berry crops, grapes, tree nuts, citrus fruits, deciduous tree fruits (apples, peaches, pears, etc.), and other fruits and nuts (pineapples, olives, dates, etc.). These farms are highly specialized in that they accounted for 94.0 percent of the value of all fruits, nuts, and berries sold and 85.5 percent of all land in orchards on all farms.

Horticultural Specialty Farms (018)

For a farm to be classified as a horticultural specialty farm, it must receive 50 percent or more of its total sales from the sale of ornamental plants, nursery products, and food crops grown under cover. This type of farm tends to be located close to large urban areas.

General Farms, Primarily Crop (019)

Any farm deriving 50 percent or more of its total value of sales of farm products from crops, but less than 50 percent from products of any other single crop group, is classified as a general farm, primarily crop.

Livestock Farms, Except Dairy, Poultry, and Animal Specialty (021)

These farms derive 50 percent or more of their total value of farm products from the sale of beef cattle, hogs, sheep, and goats.

Beef cattle feedlots (0211)—Beef cattle feedlots are farms which receive 50 percent or more of their total sales of farm products from the sale of beef cattle fattened for a period of at least 30 days. This group includes beef cattle which were fed on a contract or fee basis.

Beef cattle farms, except feedlots (0212)—Beef cattle farms, except feedlots, which derive 50 percent or more of their total value of farm products sold from the sale of nonfattened beef cattle. Feedlots are excluded from this group.

Hog farms (0213)—Hog farms derive 50 percent or more of their total value of farm products sold from the sale of hogs and pigs. These farms are most concentrated in the corn belt States.

Sheep and goat farms (0214)—Sheep and goat farms receive 50 percent or more of their total value of farm products sold from the sale of sheep, goats, goat's milk, wool, and mohair. These farms are primarily located in Texas, California, and other Western States.

Dairy Farms (024)

Dairy farms receive 50 percent or more of their total value of farm products sold from the sale of milk and cream. Dairy farms average 294 acres in size and \$74,492 in value of farm products sold. Dairy farms account for 91.8 percent of the value of all dairy products sold. Dairy farms are concentrated in the North Central and Middle Atlantic States. Wisconsin, Minnesota, New York, Pennsylvania, Ohio, and Michigan account for 62 percent of all dairy farms. California does not rank among the top States in number of dairy farms even though it ranks second in value of dairy products sold. This is a result of the large size dairy operations in California.

Poultry and Egg Farms (025)

Poultry farms are those which receive 50 percent or more of their value of sales of farm products from chickens, chicken eggs, broilers, turkeys, turkey eggs, hatched chicks, and other poultry and their products. Poultry farms account for 97.7 percent of the value of sales of all poultry and poultry products, 98.9 percent of broilers sold, and 98.0 percent of turkeys sold. Although poultry farms are found throughout the country, their greatest concentration is in the broiler producing areas of Georgia, Alabama, Mississippi, Arkansas, Delaware, and Maryland.

Animal Specialty Farms (027)

Animal specialty farms are those which derive 50 percent or more of their total value of farm sales from the sale of fur-bearing animals, rabbits, horses, mules, donkeys, ponies, honey, fish, worms, and other animal specialties.

General Farms, Primarily Livestock (029)

These are farms deriving 50 percent or more of their value of farm products sold from the sale of livestock and livestock products, including animal specialties, but less than 50 percent from any single livestock or livestock product group.

VALUE OF SALES CLASSIFICATION OF FARMS

The value of sales represents the gross market value before taxes and production expenditures of all agricultural products sold or removed from the place in 1978 regardless of who received or shared in the payment. It includes receipts by the operator as well as the value of any shares received by partners, landlords, contractors, and others associated with the place.

This report shows number of farms for the following value of sales classifications:

\$200,000 or more,
\$100,000 to \$199,999,
\$40,000 to \$99,999,
\$20,000 to \$39,999,
\$10,000 to \$19,999,
\$5,000 to \$9,999,
\$2,500 to \$4,999,
\$1,000 to \$2,499.

Places having less than the minimum \$1,000 sales in the census year were counted as farms if they could normally be expected to produce agricultural products in sufficient quantity to meet the requirements of the definition.

TENURE AND CHARACTERISTICS OF FARM OPERATORS

Tenure

Tenure classifications used are:

Full owners— Operators who operate only the land they own.

Part owners— Operators who operate land they own and also land they rent from others.

Tenants— Operators who operate only the land they rent from others (or work on shares) for others.

Foreign Ownership of Agricultural Land

An inquiry measuring the importance of foreign ownership of agricultural land was asked for the first time in 1978. 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. Corporations with 50 percent or more of the stock held by foreign investors were considered foreign owned. Any land owned or operated by such corporations was included as land held under foreign ownership.

In some cases, operators using land owned by others did not know the beneficiary owner of the land or, if the owner was known, they did not know the citizenship of the landlord.

Therefore, a "don't know" category was included on the report form. Summary table 37, in Volume 1, State and County Data, provides operators response to the foreign ownership inquiry. Counts are provided for those responding "yes," "no," "don't know," and "no response." Only those farms responding "yes" are represented on the map.

Occupation of Farm Operator

The 1978 census is the second in which information was collected on the operator's principal occupation. Each farm operator to whom the inquiry applied was asked to classify his or her principal occupation as "Farming" or "Other" according to which occupation accounted for the majority (50 percent or more) of the operator's work time in 1978. For partnerships, the work time of all of the members of the partnership together was considered in determining principal occupation.

TYPE OF FARM ORGANIZATION

The 1978 census is the third in which farm operators were asked to indicate the type of organization under which their farm was operated. The four classifications used for type of organization are:

1. Individual or family operation (sole proprietorship), excluding partnership and corporation.
2. Partnership operation, including family partnerships.
3. Corporation, including family corporations.
4. Other, including farms operated as cooperatives, estates and trusts, and abnormal farms such as institutional farms, Indian reservations, grazing associations, and experimental farms.

LAND IN FARMS AND LAND USES

Land in farms—Each farm operator determined acres of land in farm by adding any acreage owned to any acreage rented from others then subtracting any acreage rented to others. Land in farms consists primarily of agricultural land, i.e., land used for crops and pasture or grazing. It also includes areas of woodland and wasteland and some cropland not actually under cultivation nor used for pasture or grazing. In general, all grazing lands were to be included as land in farms except lands used for grazing livestock under permit or special license on a per head or animal unit basis.

Total cropland—This includes the sum of acreage for cropland harvested, cropland used for pasture or grazing, cropland used for cover crops, cropland on which all crops failed, cropland in cultivated summer fallow, and idle cropland.

Harvested cropland—This includes all land from which crops were harvested, including hay cut, and all land in orchards, citrus groves, and nursery and greenhouse products.

Pastureland—This is the sum of all types of pastureland. It includes cropland used only for pasture or grazing, woodland pastured, and other pastureland and rangeland.

Irrigated land—This consists of land in farms watered for agricultural purposes by artificial means.

Drained land—This consists of land in farms benefited to some extent by artificial drainage facilities including ditches, underground drains, grading or leveling for drainage, dikes, and pumping to remove water. These data were collected by the Soil Conservation Service of the U.S. Department of Agriculture.

MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD

Farm operators were asked to report market value of all agricultural products sold from the place in 1978. All sales of agricultural products during the year were to be reported regardless of when the crop was harvested or when livestock or their products were raised or produced.

Data for the sales of farm products represent total sales for the entire farm regardless of who shared the receipts. For tenant-operated farms, the landlord's share of the agricultural products was considered as sold provided the products were moved off the tenant farm. Contract producers were to report estimates of the market value of the commodities produced rather than the amount received from the contractor.

DIRECT SALES OF AGRICULTURAL PRODUCTS

Operators were asked to report the value of agricultural products produced and sold directly to individuals for human consumption. This value includes the sales of any crops, such as vegetables and fruit, cattle, hogs, sheep, chickens, turkeys, milk, cream, eggs, etc. Sales from roadside stands, farmers' markets, pick your own activities, etc., were to be included.

CUSTOMWORK AND OTHER AGRICULTURAL SERVICES

Includes any customwork such as plowing, planting, spraying, harvesting, preparing products for market, etc., for which the farm operator was paid. Instructions were to report gross amounts received before taxes and expenses.

FARM PRODUCTION EXPENSES

Farm production expenses include expenses paid by anyone for the production on the farm of crops, poultry, livestock, and other agricultural products. Tenant farmers were instructed to report expenditures by landlords for agricultural operations on the farm as well as their own expenditures. Farm operators who rent part of their land to others were to report only those expenses applicable to the land they actually operated. Contract producers who produced crops, poultry, or livestock for others under contract were to report the estimated cost of all items furnished by the contractor. These items were asked on a sample basis. Further explanation and sample reliability can be found in appendix A in Volume 1, State and County Data.

HIRED FARM LABOR

The number of hired farm workers includes all persons hired to do farm or ranch labor for cash payments. This labor may include everything from regular farm work to the keeping of records necessary to the agricultural operation. Members of the farm operators' families were included if they received cash payments. Workers working for contractors under contract to the farm operator, salaried corporation officers, unpaid family members, and persons employed by a labor contractor were excluded. Operators of hired machines were excluded if their pay was included in the cost of the customwork.

Considerable duplication exists in the count of hired workers reported working 149 days or less. Many are seasonal workers in vegetable and fruit producing areas. In the census statistics, the same workers may be counted several times as they move from farm to farm. These items were asked on a sample basis. Further explanation and sample reliability can be found in appendix A in Volume 1, State and County Data.

MACHINERY AND EQUIPMENT ON PLACE

Farm operators were asked to estimate the market value of all machinery and equipment usually kept on the farm and used for the farm business. The reported value represents an estimate of how much the machinery and equipment would sell for in its present condition, not the replacement cost or the depreciated value.

For the inventory of selected items of farm equipment, the operator was to report only the equipment owned, leased, or rented or temporarily borrowed from others that was on any part of the farm on December 31, 1978, and that was used for the farm business in 1977 or 1978. These items were asked on a sample basis. Further explanation and sample reliability can be found in appendix A in Volume 1, State and County Data.

AGRICULTURAL CHEMICALS USED

Fertilizer—Data on acreage fertilized were collected for harvested cropland, cropland used for pasture, and other pastureland. When the same crop was fertilized two or more times, the acreage was to be reported only once. If two different crops or two different plantings of the same crop were harvested in 1978 from the same acreage, the acreage of each crop or planting fertilized was to be reported only once.

Lime—Acreage limed and tonnage of lime and liming materials applied to the soil in 1978 were to be reported. Gypsum, land-plaster, and lime used for spraying or sanitation purposes were not to be reported.

Other agricultural chemicals—The cost of insecticides, herbicides, fungicides, and other pesticides and chemicals used on the farm in 1978 was to include the cost of the materials only, not the cost of application.

When reporting number of acres on which chemicals were used, the farm operator was instructed to report only once the acres treated more than one time with the same chemical. However, the cost of all the materials applied was to be reported.

When multipurpose chemicals were used, the acreage treated for each purpose was to be reported.

These items were asked on a sample basis. Further explanation can be found in appendix A in Volume 1, State and County Data.

ENERGY EXPENSES

The cost of energy and petroleum products was asked for by the major types used for the farm business. This was the first census where electricity expenses were obtained as a separate item. These items were asked on a sample basis. Further explanation and sample reliability can be found in appendix A in Volume 1, State and County Data.

LIVESTOCK AND POULTRY

Inventory—Farm operators were instructed to report livestock and poultry inventories as of December 31, 1978. All animals kept on the place were to be reported regardless of ownership, including livestock or poultry being custom fed or fed on contract for others.

Sales—Livestock and poultry sold include all animals sold or removed from the place during the year regardless of ownership. Those sold for a landlord or given to others in trade or in payment for goods and services as well as those custom fed for others were to be included. Animals bought and sold within a 30-day period were to be excluded.

The value of livestock and poultry sold represents the gross sales value before deducting any marketing or production costs. For livestock or poultry fed under contract for others, the farm operator was asked to estimate the market value at the time they were taken from the place.

CROPS

In 1978 sales of crops including nursery products and hay amounted to \$48.6 billion which accounted for 45 percent of the value of all farm products sold in 1978.

Crops harvested—Nearly all of the acres reported for individual crops in 1978 represent area harvested, except for a small part of the acreage of corn, sorghum, peanuts, soybeans, and cowpeas counted as harvested but hogged or grazed when the crop was mature or almost mature. Since more than one crop may have been harvested from the same land during the same crop year, the sum of acres of all crops harvested exceeds the acreage of land from which crops were harvested.

Acreages of corn, soybeans, and hay increased significantly between 1974 and 1978. This increased acreage is reflected in decreases in other crops, especially wheat and other small grains.

Vegetables harvested for sale—The individual acres of each kind of vegetable harvested were reported as well as the acreage of land from which vegetables were harvested.

Berries, fruits, and nuts—In 1978, data for individual berries, fruits, and nuts were collected. The total land in bearing and

nonbearing fruit orchards, citrus or other groves, vineyards, and nut trees also was reported.

HOW THE MAPS WERE MADE

Computer graphics techniques and technology were used in producing the maps in this report. The resultant mapping system was developed to meet an increasing demand for the rapid and economic production of maps of publication quality.

Both the multicolor choropleth maps and the dot maps are products of the automated statistical mapping system developed at the Bureau of the Census. This mapping system generates a computer tape of commands directing a plotting device to draw maps on 310mm film at publication size. The plotting device is an extremely fast Computer Output on Microfilm (COM) unit capable of plotting a map in a few minutes. The production of maps on film at publication size reduces much effort and costs.

The text on the maps were entirely computer generated. The interactive map design programs, acting as a computerized cartographer's templet, was used to move the text into positions for each map. The text positions were transmitted on a computer tape also containing the commands used to plot the maps. The COM unit used these text commands to plot the text onto the map. The text fonts, sizes, and placement were all under program control. This was a significant advancement over the previous manual methods for placing text on the maps.

Choropleth Maps

The choropleth maps showing county classifications were prepared by a computer mapping program which automatically creates color separation map images on film. The frames of map imagery correspond to the counties of the United States. Each frame shows one of the class intervals designated for the map, except for the frame for the State boundary outline, and the text frame. Thus a map showing data in five classes will have seven frames of map imagery. This procedure is directly analogous to manual procedures employed by cartographers when preparing color choropleth maps. The maps produced by this system have the quality of hand-crafted choropleth maps at the low cost and rapid production time typical of automated cartography.

The choropleth map subsystem required two input computer files. One file (provided by the Bureau's Agriculture Division) contained the agricultural data by county. This file contains a State and county identification code for each of the data items. The second input file was the Bureau's DIMECO file containing the latitude-longitude and Alber's Equal-area (in inches) coordinates describing the boundaries for all counties in the United States. This boundary file was used to produce a third file containing a set of contiguous horizontal lines corresponding to

lines which the COM unit must plot to cover completely a county's area on the final map. These lines are known as "scan" lines and make up this intermediate file called the SCAN file. The sets of scan lines for the counties were also associated with their particular State and county identification codes.

The boundary-coordinate file and the SCAN file were processed in conjunction with the agricultural data file. By matching the State and county identification codes in the files, the class intervals for data were associated correctly with the appropriate set of scan lines for a county. Then all the counties for each class interval are transferred to a plot tape which was used to direct the movements of the COM's electron beam in the Census Bureau's COM unit. The COM unit then outputs the class separations on 310mm film at publication size.

The class separations were screened, and composited into the final films. The printer was given the three final publication negatives for each map corresponding to the red, yellow, and black ink which are used in the printing of the maps.

Dot Maps

The dot maps in this report were prepared directly on film by a COM unit from the output of the Bureau's new dot mapping program. The program controlled the placement of dots within the counties in the United States as determined by a 15-level land-use filter. The computer program is based upon a totally new approach to dot placement. The new program took advantage of the scan-line technique developed by the Bureau for color choropleth maps.

The Census dot mapping program utilized two features of a previous dot mapping program developed for the Bureau by the Cartographic Laboratory at the University of Wisconsin in Madison: A land-use filter and the distribution of dots by a weighting factor. The land-use filter is a file of approximately one-half million cells covering the entire United States. To this file, the Bureau added land use for Alaska and Hawaii. The land-use file was prepared from the land-use map which appeared in the 1970 National Atlas on pages 158 and 159. Each of the land-use categories shown in the land-use map was converted into numeric values by digitizing. The placement of dots within specific land-use categories in a county was controlled by probabilities based on a weighting algorithm using the data as input.

The Bureau's new dot mapping program converted the land-use filter into a scan-line land-use file by county. The program for dot placement rapidly computed the number of dots to be placed in a county, selected the land use, and then placed the dots. The algorithms ensure that all the dots fall within the county. The output of the program was a plot tape which directed the COM unit in plotting dot maps on 310mm film at publication size. These dot maps required minimal cartographic touch up.

1978 Summary of Mapped Data With 1974 Comparative Data

Map number		Title	Unit of measure	1978		1974 ¹
All farms	Farms with sales of \$2,500 or more			Total	Not on mail list	
FARMS						
M1	M3 MAP	Number of farms.....	Number..	2,478,642	220,867	2,314,013
M2P		Percent change in number of farms.....	Percent..	7.1	(X)	(X)
		Farms with sales of \$2,500 or more.....	Number..	1,864,687	69,749	1,695,047
		Farms with sales of \$2,500 or more as a percent of all farms...	Percent..	75.2	31.6	73.3
M5		Farms with sales of less than \$2,500.....	Number..	611,653	151,118	616,728
M6P		Farms with sales of less than \$2,500 as a percent of all farms.....	Percent..	24.7	68.4	26.7
M7		Agricultural operations excluded by current farm definition but not by 1959 farm definition.....	Number..	468,973	250,846	152,110
M8P		Agricultural operations excluded by current farm definition as a percent of all farms.....	Percent..	18.9	113.6	6.6
VALUE OF LAND AND BUILDINGS						
M9P		Average value of land and buildings per farm.....	Dollars..	262,252	84,177	147,838
M10P		Average value of land and buildings per acre of land in farms..	Dollars..	628	1,246	336
SIZE OF FARMS						
M11P	M12P	Average size of farm.....	Acres...	415	68	440
		Average size of farm with sales of \$2,500 or more.....	Acres...	497	122	534
M13		Farms with less than 50 acres.....	Number..	690,329	147,542	507,797
M14		Farms with 50 to 179 acres.....	Number..	814,689	55,642	827,884
M15		Farms with 180 to 259 acres.....	Number..	241,929	8,075	253,232
M16		Farms with 260 to 499 acres.....	Number..	354,427	6,650	362,866
M17		Farms with 500 to 999 acres.....	Number..	215,112	1,903	207,297
M18		Farms with 1,000 acres or more.....	Number..	162,156	1,055	154,937
M19		Farms with 2,000 acres or more.....	Number..	63,635	334	62,225
FARMS BY STANDARD INDUSTRIAL CLASSIFICATION						
M20		Cash grain farms--Industry Group 011.....	Number..	593,558	19,760	580,254
M21		Wheat farms--Industry 0111.....	Number..	75,582	1,800	105,167
M22		Rice farms--Industry 0112.....	Number..	6,568	77	6,787
M23		Corn farms--Industry 0115.....	Number..	156,387	7,692	134,551
M24		Soybean farms--Industry 0116.....	Number..	194,508	7,453	122,454
M25		Field crop farms, except cash grains--Industry Group 013.....	Number..	312,542	27,180	207,633
M26		Cotton farms--Industry 0131.....	Number..	32,115	670	30,725
M27		Tobacco farms--Industry 0132.....	Number..	142,606	12,720	95,493
M28		Sugar crop farms--Industry 0133.....	Number..	4,289	17	7,380
M29		Irish potato farms--Industry 0134.....	Number..	6,893	857	6,940
M30		Vegetable and melon farms--Industry Group 016.....	Number..	35,382	4,518	19,548
M31		Fruit and tree nut farms--Industry Group 017.....	Number..	90,027	9,837	51,270
M32		Horticultural specialty farms--Industry Group 018.....	Number..	32,810	3,903	19,678
M33		General farms, primarily crop--Industry Group 019.....	Number..	71,848	9,020	44,659
M34		Livestock farms, except dairy, poultry, and animal specialty--Industry Group 021.....	Number..	1,037,320	117,588	493,816
M35		Beef cattle feedlots--Industry 0211.....	Number..	86,901	7,848	53,321
M36		Beef cattle farms, except feedlots--Industry 0212.....	Number..	662,327	69,311	263,222
M37		Hog farms--Industry 0213.....	Number..	193,252	35,797	108,190
M38		Sheep and goat farms--Industry 0214.....	Number..	22,851	2,163	9,372
M39		Dairy farms--Industry Group 024.....	Number..	168,666	3,100	196,057
M40		Poultry and egg farms--Industry Group 025.....	Number..	51,246	6,894	42,690
M41		Broiler, fryer, and roaster chicken farms--Industry 0251.....	Number..	21,981	1,066	21,935
M42		Chicken egg farms--Industry 0252.....	Number..	24,120	5,473	15,410
M43		Animal specialty farms--Industry Group 027.....	Number..	49,576	874	11,167
M44		General farms, primarily livestock--Industry Group 029.....	Number..	35,667	5,095	14,995
FARMS BY VALUE OF SALES						
M45		Farms with sales of \$200,000 or more.....	Number..	80,756	138	51,446
M46		Farms with sales of \$100,000 to \$199,999.....	Number..	141,926	876	101,153
M47		Farms with sales of \$40,000 to \$99,999.....	Number..	363,383	3,290	324,310
M48		Farms with sales of \$20,000 to \$39,999.....	Number..	306,112	6,937	321,771
M49		Farms with sales of \$10,000 to \$19,999.....	Number..	309,594	10,379	310,011
M50		Farms with sales of \$5,000 to \$9,999.....	Number..	331,042	16,954	296,373
M51		Farms with sales of \$2,500 to \$4,999.....	Number..	331,874	31,175	257,263
M52		Farms with sales of \$1,000 to \$2,499.....	Number..	611,653	151,118	649,448
M53P		Farms with sales of \$20,000 or more as a percent of all farms..	Percent..	35.0	5.1	34.5
TENURE AND CHARACTERISTICS OF OPERATORS						
M54		Farms operated by full owners.....	Number..	1,451,446	153,544	1,423,953
M55P		Percent of farms operated by full owners.....	Percent..	58.6	69.5	61.5
M56		Farms operated by part owners.....	Number..	713,548	32,436	628,224
M57P		Percent of farms operated by part owners.....	Percent..	28.8	14.7	27.2
M58		Farms operated by tenants.....	Number..	313,648	34,887	261,836
M59P		Percent of farms operated by tenants.....	Percent..	12.6	15.8	11.3
M60P		Rented or leased land in farms by county.....	Number..	406,248,824	4,844,723	379,126,290
M61P		Rented or leased land in farms as a percent of land in farms...	Number..	39.4	32.5	37.3
M62		Farms operated by black and other races.....	Number..	79,916	21,928	59,371
M63P		Average age of farm operators.....	Years...	50.1	47.6	51.7

See footnotes at end of table.

1978 Summary of Mapped Data With 1974 Comparative Data—Con.

Map number	Title	Unit of measure	1978		1974
			Total	Not on mail list	
Farms with sales of \$2,500 or more					
All farms					
TENURE AND CHARACTERISTICS OF OPERATORS—Con.					
M64P	Percent of farm operators 65 years old and over.....	Percent..	16.4	16.8	18.5
M65	Farm operators reporting any off-farm work.....	Number..	1,364,835	161,549	1,011,476
M66P	Percent of farm operators working off their farms 100 days or more.....	Percent..	44.4	67.9	35.2
M67P	Percent of farm operators not residing on farm operated.....	Percent..	17.8	9.0	16.3
M68	Farm operators who are female.....	Number..	128,170	15,371	(NA)
M69P	Percent of farm operators who are female.....	Percent..	5.2	7.0	(NA)
M70	Farms reporting land held under foreign ownership.....	Number..	4,983	632	(NA)
OCCUPATION OF OPERATOR					
M71	Farm operators reporting principal occupation as farming.....	Number..	1,326,785	57,480	1,235,852
M72P	Percent of farm operators reporting principal occupation as farming.....	Percent..	53.5	26.0	74.3
M73	Farm operators reporting principal occupation other than farming.....	Number..	1,151,857	163,387	426,690
M74P	Percent of farm operators reporting principal occupation other than farming.....	Percent..	46.5	74.0	25.7
FARMS BY TYPE OF ORGANIZATION					
M75	Farms operated by individuals or families.....	Number..	2,175,437	209,577	1,517,573
M76P	Percent of land in farms operated by individuals or families...	Percent..	66.7	89.7	74.9
M77	Farms operated by partnerships.....	Number..	241,290	8,752	144,969
M78P	Percent of land in farms operated by partnerships.....	Percent..	15.5	8.2	13.7
M79	Farms operated by corporations.....	Number..	51,270	1,039	28,656
M80P	Percent of land in farms operated by corporations.....	Percent..	11.7	0.6	10.7
LAND IN FARMS AND LAND USE					
M81	Land in farms.....	Acres...	1,029,694,535	14,917,301	1,017,030,357
M82P	Land in farms as a percent of land area.....	Percent..	45.4	0.7	44.9
M84	Cropland.....	Acres...	461,340,542	7,466,409	440,039,087
M85	Cropland—increase and decrease in acreage.....	Acres...	*21,301,455	(X)	(X)
M86P	Cropland as a percent of land area.....	Percent..	20.4	0.3	19.4
M87P	Cropland as a percent of land in farms.....	Percent..	44.8	50.1	43.3
M88	Harvested cropland.....	Acres...	320,666,222	3,520,267	303,001,943
M89	Harvested cropland—increase and decrease in acreage.....	Acres...	*17,664,279	(X)	(X)
M90P	Harvested cropland as a percent of land in farms.....	Percent..	31.1	23.6	29.8
M91P	Pastureland as a percent of land in farms.....	Percent..	54.5	51.5	(NA)
IRRIGATION AND DRAINAGE					
M92	Irrigated land in farms.....	Acres...	50,837,940	488,034	41,243,023
M93	Irrigated land—increase and decrease in acreage.....	Acres...	*9,594,917	(X)	(X)
M94P	Irrigated land as a percent of land in farms.....	Percent..	4.9	3.3	4.1
M95P	Irrigated harvested cropland as a percent of harvested cropland.....	Percent..	13.7	9.9	12.1
M96	Irrigated pastureland and rangeland.....	Acres...	5,728,989	112,861	3,978,236
M97P	Irrigated field corn for all purposes by county.....	Acres...	10,099,239	50,519	6,674,082
M98P	Irrigated sorghum for all purposes by county.....	Acres...	2,168,039	8,647	2,649,862
M99P	Irrigated cotton by county.....	Acres...	4,690,681	14,026	3,698,569
M100P	Irrigated wheat by county.....	Acres...	3,012,181	9,857	3,235,662
M101P	Irrigated alfalfa hay by county.....	Acres...	5,986,725	114,462	5,103,963
M102	Artificially drained agricultural land.....	Acres...	105,278,488	(NA)	42,784,305
M103P	Artificially drained agricultural land as a percent of land area.....	Percent..	4.6	(NA)	1.9
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD					
M104	Value of agricultural products sold.....	Dollars..	108,113,519,000	1,040,061,000	81,526,126,000
M105P	Value of agricultural products sold by county.....	Dollars..	108,113,519,000	1,040,061,000	81,526,126,000
M106P	Average value per farm of agricultural products sold.....	Dollars..	43,618	4,709	35,231
M107P	Average value of agricultural products sold per acre of land in farms.....	Dollars..	105	70	80
M108P	Value of agricultural products sold as a percent of value of land and buildings and market value of machinery and equipment.....	Percent..	14.8	9.9	20.9
M109	Value of crops sold.....	Dollars..	48,617,400,000	414,200,000	41,790,365,000
M110P	Value of crops sold as a percent of agricultural products sold.....	Percent..	45.0	39.8	51.3
M111P	Average value of crops sold per acre of harvested cropland....	Dollars..	152	117	138
M112P	Value of grains sold as a percent of agricultural products sold.....	Percent..	24.9	17.6	30.6
M113P	Value of cotton and cottonseed sold as a percent of agricultural products sold.....	Percent..	2.9	0.8	2.8
M114P	Value of tobacco sold as a percent of agricultural products sold.....	Percent..	2.2	7.5	2.1
M115	Value of livestock, poultry, and their products sold.....	Dollars..	59,496,118,000	625,861,000	39,503,850,000
M116P	Value of poultry and poultry products sold as a percent of agricultural products sold.....	Percent..	7.9	11.5	7.6
M117P	Value of dairy products sold as a percent of agricultural products sold.....	Percent..	10.5	8.5	10.2

See footnotes at end of table.

1978 Summary of Mapped Data With 1974 Comparative Data--Con.

Map number	Title	Unit of measure	1978		1974 ¹
			Total	Not on mail list	
Farms with sales of \$2,500 or more					
All farms					
	MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD--Con.				
M118P	Value of cattle and calves sold as a percent of agricultural products sold.....	Percent.	27.6	26.7	22.7
M119P	Value of hogs and pigs sold as a percent of agricultural products sold.....	Percent.	7.6	9.0	6.7
M120P	Value of sheep, lambs, and wool sold as a percent of agricultural products sold.....	Percent.	0.6	0.5	0.6
	DIRECT SALES OF AGRICULTURAL PRODUCTS				
M121	Value of agricultural products sold directly to consumers for human consumption.....	Dollars.	392,322,000	11,495,000	(NA)
M122P	Value of agricultural products sold directly to consumers for human consumption by county.....	Dollars.	392,322,000	11,495,000	(NA)
	FARM-RELATED INCOME				
M123	Income from machine work, customwork, and other agricultural services.....	Dollars.	653,513,000	15,847,000	628,023,000
	SELECTED FARM PRODUCTION EXPENSES				
M124	Expenditures for livestock and poultry purchased.....	Dollars.	16,232,159,000	192,915,000	9,954,580,000
M125P	Expenditures for livestock and poultry purchased by county.....	Dollars.	16,232,159,000	192,915,000	9,954,580,000
M126	Expenditures for feed for livestock and poultry.....	Dollars.	16,035,645,000	249,649,000	13,651,116,000
M127P	Expenditures for feed for livestock and poultry by county.....	Dollars.	16,035,645,000	249,649,000	13,651,116,000
M128P	Expenditures for commercially mixed formula feeds as a percent of all feed purchased for livestock and poultry.....	Percent.	55.9	68.4	61.8
M129	Expenditures for seeds, bulbs, plants, and trees.....	Dollars.	2,638,166,000	31,048,000	1,798,643,000
M130P	Expenditures for seeds, bulbs, plants, and trees by county.....	Dollars.	2,638,166,000	31,048,000	1,798,643,000
M131	Expenditures for commercial fertilizer.....	Dollars.	6,388,998,000	58,416,000	5,137,361,000
M132P	Expenditures for commercial fertilizer by county.....	Dollars.	6,388,998,000	58,416,000	5,137,361,000
M133	Expenditures for agricultural chemicals, excluding fertilizer.....	Dollars.	2,914,958,000	25,455,000	1,757,779,000
M134P	Expenditures for agricultural chemicals, excluding fertilizer by county.....	Dollars.	2,914,958,000	25,455,000	1,757,779,000
M135P	Average expenditures per farm reporting for agricultural chemicals, excluding fertilizer.....	Dollars.	1,928	348	1,684
M136	Expenditures for energy and petroleum products for farm business.....	Dollars.	6,123,760,000	98,056,000	(NA)
M137P	Expenditures for energy and petroleum products for farm business by county.....	Dollars.	6,123,760,000	98,056,000	(NA)
M138	Expenditures for gasoline for farm business.....	Dollars.	2,100,977,000	46,159,000	1,538,042,000
M139P	Expenditures for gasoline as a percent of all expenditures for energy and petroleum products for farm business.....	Percent.	34.3	47.1	(NA)
M140	Expenditures for diesel fuel for farm business.....	Dollars.	1,483,802,000	14,410,000	806,506,000
M141P	Expenditures for diesel fuel as a percent of all expenditures for energy and petroleum products for farm business.....	Percent.	24.2	14.7	(NA)
M142	Expenditures for LP, butane, or propane gas for farm business.....	Dollars.	478,369,000	5,923,000	285,830,000
M143P	Expenditures for LP, butane, or propane gas as a percent of all expenditures for energy and petroleum products for farm business.....	Percent.	7.8	6.0	(NA)
M144	Expenditures for electricity for farm business.....	Dollars.	1,328,005,000	19,714,000	(NA)
M145P	Expenditures for electricity as a percent of all expenditures for energy and petroleum products for farm business.....	Percent.	21.7	20.1	(NA)
M146	Expenditures for hired farm labor, excluding contract labor....	Dollars.	6,849,036,000	34,608,000	4,652,075,000
M147P	Expenditures for hired farm labor, excluding contract labor, by county.....	Dollars.	6,849,036,000	34,608,000	4,652,075,000
M148	Expenditures for contract labor.....	Dollars.	908,084,000	9,126,000	511,633,000
M149P	Expenditures for contract labor by county.....	Dollars.	908,084,000	9,126,000	511,633,000
M150	Expenditures for machine hire, customwork, and rental of machinery.....	Dollars.	1,776,142,000	25,267,000	1,342,702,000
M151P	Expenditures for machine hire, customwork, and rental of machinery, by county.....	Dollars.	1,776,142,000	25,267,000	1,342,702,000
	HIRED FARM LABOR				
M152	Hired farm workers working 150 days or more.....	Number..	957,918	4,224	712,715
M153	Hired farm workers working less than 150 days.....	Number..	4,657,601	112,101	4,502,517
M154P	Percent of farms reporting only workers working less than 150 days.....	Percent.	26.8	13.1	(NA)
M155P	Percent of farms reporting any hired labor.....	Percent.	39.7	14.4	35.9
M156P	Ratio of hired farm workers working 150 days or more to farm operators.....	Number..	.39	.02	.42
	MACHINERY AND EQUIPMENT ON PLACE				
M157	Estimated market value of all machinery and equipment on place.....	Dollars.	79,482,285,000	1,881,596,000	48,402,624,000
M158P	Estimated market value of all machinery and equipment on place by county.....	Dollars.	79,482,285,000	1,881,596,000	48,402,624,000

See footnotes at end of table.

1978 Summary of Mapped Data With 1974 Comparative Data--Con.

Map number	Title	Unit of measure	1978		
			Total	Not on mail list	1974 ¹
Farms with sales of \$2,500 or more					
All farms					
MACHINERY AND EQUIPMENT ON PLACE--Con.					
M159P	Average estimated market value per farm reporting of all machinery and equipment on place.....	Dollars..	32,172	8,577	22,303
M160	Motortrucks, including pickups.....	Number..	3,555,002	197,173	3,038,462
M161	Motortrucks, including pickups--increase and decrease in number.....	Number..	*516,540	(X)	(X)
M162	Wheel tractors.....	Number..	4,839,323	213,095	4,311,822
M163	Wheel tractors--increase and decrease in number.....	Number..	*527,501	(X)	(X)
M164	Grain and bean combines, self-propelled.....	Number..	664,111	9,416	524,095
M165	Grain and bean combines, self-propelled--increase and decrease in number.....	Number..	*140,016	(X)	(X)
M166	Pickup balers.....	Number..	768,884	24,886	666,070
M167	Cornpickers, corn heads, and picker-shellers.....	Number..	694,251	15,203	614,891
M168	Cottonpickers, excluding cotton strippers.....	Number..	41,435	390	(NA)
AGRICULTURAL CHEMICALS USED					
M169	Acres on which commercial fertilizer was used.....	Acres...	228,618,251	2,270,741	184,642,504
M170P	Acres of cropland, excluding cropland pasture, on which commercial fertilizer was used as a percent of harvested cropland.....	Percent..	65.8	50.3	62.4
M171	Acres on which lime was used.....	Acres...	16,853,085	359,493	8,239,896
M172P	Average tons of lime applied per acre.....	Tons...	1.7	1.4	1.7
M173	Acres of crops including hay treated for insect control.....	Acres...	76,554,288	686,228	56,641,641
M174P	Acres of crops including hay treated for insect control as a percent of harvested cropland.....	Percent..	23.9	19.5	19.1
M175	Acres of crops treated for nematodes.....	Acres...	8,877,956	73,435	1,754,282
M176	Acres of crops and orchards treated for disease control.....	Acres...	11,569,863	155,003	4,183,196
M177P	Acres of crops and orchards treated for disease control as a percent of harvested cropland.....	Percent..	3.6	4.4	1.4
M178	Acres of land treated for weed or grass control.....	Acres...	165,916,644	1,299,530	115,940,829
M179	Acres treated with chemicals for defoliation or for growth control.....	Acres...	9,336,833	69,348	5,174,206
LIVESTOCK AND POULTRY					
M180	Cattle and calves--inventory.....	Number..	105,715,399	1,850,290	113,174,700
M181	Cattle and calves--inventory--increase and decrease in number.....	Number..	**7,459,301	(X)	(X)
M182P	Cattle and calves--inventory by county.....	Number..	105,715,399	1,850,290	113,174,700
M183	Farms with 200 cattle and calves or more on hand.....	Number..	91,470	495	98,195
M184	Cows and heifers that had calved--inventory.....	Number..	45,541,672	993,706	51,912,414
M185P	Cows and heifers that had calved--inventory as a percent of all cattle and calves.....	Percent..	43.1	53.7	45.9
M186	Milk cows--inventory.....	Number..	10,354,979	133,287	10,654,516
M187	Milk cows--inventory--increase and decrease in number.....	Number..	*299,537	(X)	(X)
M188P	Milk cows--inventory by county.....	Number..	10,354,979	133,287	10,654,516
M189	Farms with 100 milk cows or more on hand.....	Number..	16,339	88	14,505
M190P	Milk cows as a percent of all cows and heifers that had calved.....	Percent..	22.7	13.4	20.5
M191	Beef cows--inventory.....	Number..	35,186,693	860,419	41,257,898
M192	Beef cows--inventory--increase and decrease in number.....	Number..	*6,071,205	(X)	(X)
M193P	Heifers, heifer calves, steers, steer calves, bulls, and bull calves as a percent of all cattle and calves.....	Percent..	56.9	46.3	54.5
M194	Cattle and calves sold.....	Number..	79,074,391	1,054,040	70,019,180
M195	Cattle fattened on grain and concentrates and sold for slaughter.....	Number..	29,801,099	79,056	26,070,304
M196	Fattened cattle sold--increase and decrease in number.....	Number..	*3,574,780	(X)	(X)
	Fattened cattle sold by county.....	Number..	29,801,099	79,056	26,070,304
M197P	Fattened cattle sold as a percent of all cattle sold.....	Percent..	37.6	7.5	52.3
M198P	Farms with 500 fattened cattle or more sold.....	Number..	5,302	0	4,789
M199	Hogs and pigs--inventory.....	Number..	58,809,991	1,112,673	45,503,604
M200	Hogs and pigs--inventory--increase and decrease in number.....	Number..	*13,306,387	(X)	(X)
M201	Farms with 200 hogs and pigs or more--inventory.....	Number..	82,652	383	63,991
M202	Hogs and pigs for breeding.....	Number..	8,772,422	256,291	6,136,546
M203	Hogs and pigs for breeding--increase and decrease in number.....	Number..	*2,290,537	(X)	(X)
M204	Litters of pigs farrowed between December 1, 1977, and November 30, 1978.....	Number..	11,221,252	221,756	9,069,449
	Hogs and pigs sold.....	Number..	92,140,548	1,383,405	79,897,397
M206	Hogs and pigs sold by county.....	Number..	92,140,548	1,383,405	79,897,397
M207P	Feeder pigs sold.....	Number..	20,021,188	530,090	13,166,688
M208	Feeder pigs sold as a percent of all hogs and pigs sold.....	Percent..	21.7	38.3	16.5
M209P	Hogs and pigs sold other than feeder pigs.....	Number..	72,119,360	853,315	66,730,709
M210	Sheep and lambs--inventory.....	Number..	12,371,786	128,310	15,379,604
M211	Sheep and lambs--inventory--increase and decrease in number.....	Number..	*3,007,818	(X)	(X)
M212	Ewes 1 year old or older.....	Number..	7,903,782	95,561	8,687,989
M213	Sheep and lambs sold.....	Number..	10,349,562	89,023	13,433,679
M214	Horses and ponies--inventory.....	Number..	2,209,138	252,110	1,595,640
M215	Chickens 3 months old or older--inventory.....	Number..	359,064,123	4,706,696	335,740,245
M216	Chickens 3 months old or older--inventory--increase and decrease in number.....	Number..	*23,323,878	(X)	(X)
M217	Chickens 3 months old or older--inventory by county.....	Number..	359,064,123	4,706,696	335,740,245
M218P	Broilers, fryers, and other meat type chickens sold.....	Number..	3,135,618,936	73,464,446	2,518,513,032
M219					

See footnotes at end of table.

1978 Summary of Mapped Data With 1974 Comparative Data—Con.

Map number		Title	Unit of measure	1978		1974 ¹
Farms with sales of \$2,500 or more	Total			Not on mail list		
All farms						
LIVESTOCK AND POULTRY--Con.						
M220		Broilers, fryers, and other meat type chickens sold--increase and decrease in number.....	Number..	*617,105,904	(X)	(X)
M221P		Broilers, fryers, and other meat type chickens sold, by county.....	Number..	3,135,618,936	73,464,446	2,518,513,032
M222		Turkeys sold.....	Number..	141,302,966	26,790	123,838,212
M223		Turkeys sold--increase and decrease in number.....	Number..	*17,321,833	(X)	(X)
FIELD CROPS HARVESTED						
M224		Corn harvested for all purposes.....	Acres...	79,114,740	764,373	72,330,443
M225		Corn harvested for all purposes--increase and decrease in acreage.....	Acres...	*6,784,297	(X)	(X)
M226P		Corn harvested for all purposes by county.....	Acres...	79,114,740	764,373	72,330,443
M227P		Acres of corn harvested as a percent of harvested cropland.....	Percent.	24.7	21.7	23.9
M228		Corn harvested for grain.....	Acres...	70,734,094	690,614	61,653,842
M229		Corn cut for silage or green chop.....	Acres...	8,343,904	72,087	10,111,824
M230		Sorghums harvested for all purposes, except syrup.....	Acres...	14,063,788	69,366	14,791,032
M231		Sorghums harvested for all purposes--increase and decrease in acreage.....	Acres...	**727,244	(X)	(X)
M232P		Sorghum harvested for all purposes, except syrup, by county....	Acres...	14,063,788	69,366	14,791,032
M233P		Acres of sorghums harvested for all purposes, except syrup, as a percent of harvested cropland.....	Percent.	4.4	2.0	4.9
M234		Sorghums harvested for grain.....	Acres...	12,961,799	61,970	12,929,130
M235		Wheat harvested for grain.....	Acres...	54,457,876	302,708	62,957,215
M236		Wheat harvested for grain--increase and decrease in acreage....	Acres...	*8,499,339	(X)	(X)
M237P		Wheat harvested for grain by county.....	Acres...	54,457,876	302,708	62,957,215
M238P		Acres of wheat harvested for grain as a percent of harvested cropland.....	Percent.	17.0	8.6	20.8
M239		Oats harvested for grain.....	Acres...	10,240,993	119,090	11,142,686
M240		Oats harvested for grain--increase and decrease in acreage....	Acres...	*1,159,641	(X)	(X)
M241		Barley harvested for grain.....	Acres...	8,975,538	31,726	7,286,041
M242		Barley harvested for grain--increase and decrease in acreage.....	Acres...	*1,623,225	(X)	(X)
M243		Rye harvested for grain.....	Acres...	438,403	5,729	636,881
M244		Flaxseed harvested.....	Acres...	430,416	4,880	1,452,127
M245		Rice harvested.....	Acres...	3,003,344	1,673	2,547,262
M246		Soybeans harvested for beans.....	Acres...	61,832,897	493,048	48,118,849
M247		Soybeans harvested for beans--increase and decrease in acreage.....	Acres...	*13,714,048	(X)	(X)
M248P		Soybeans harvested for beans by county.....	Acres...	61,832,897	493,048	48,118,849
M249P		Acres of soybeans harvested for beans as a percent of harvested cropland.....	Percent.	19.3	14.0	15.9
M250		Peanuts harvested for nuts.....	Acres...	1,434,353	8,878	1,368,990
M251		Dry field and seed beans harvested for beans.....	Acres...	1,317,141	17,991	1,350,749
M252		Cotton harvested.....	Acres...	12,737,497	43,725	12,223,500
M253		Cotton harvested--increase and decrease in acreage.....	Acres...	*513,997	(X)	(X)
M254P		Acres of cotton harvested as a percent of harvested cropland.....	Percent.	4.0	1.2	4.0
M255		Sunflower seed harvested.....	Acres...	2,481,657	3,649	535,345
M256		Sugar beets harvested for sugar.....	Acres...	1,248,823	5,352	1,169,990
M257		Sugarcane harvested for sugar.....	Acres...	766,071	0	668,326
M258		Irish potatoes harvested.....	Acres...	1,395,150	9,264	1,345,121
M259		Irish potatoes harvested--increase and decrease in acreage.....	Acres...	*50,029	(X)	(X)
M260		Tobacco harvested.....	Acres...	1,004,697	41,473	877,113
M261		Tobacco harvested--increase and decrease in acreage.....	Acres...	*127,584	(X)	(X)
M262		Land from which hay was cut.....	Acres...	61,757,610	1,516,219	56,236,381
M263P		Land from which hay was cut by county.....	Acres...	61,757,610	1,516,219	56,236,381
M264		Land from which hay was cut--increase and decrease in acreage.....	Acres...	*5,521,229	(X)	(X)
M265P		Land from which hay was cut as a percent of harvested cropland.....	Percent.	19.3	43.1	18.6
M266		Alfalfa hay cut.....	Acres...	26,385,353	425,270	23,246,694
M267		Alfalfa hay cut--increase and decrease in acreage.....	Acres...	*2,049,114	(X)	(X)
M268		Other tame dry hay cut.....	Acres...	19,475,849	822,373	16,410,490
M269		Small grain hay cut.....	Acres...	2,908,076	52,407	1,589,968
M270		Wild hay cut.....	Acres...	8,448,080	183,978	7,322,415
M271		Grass silage and haylage harvested.....	Acres...	3,644,961	8,791	2,697,143
M272		Alfalfa seed harvested.....	Acres...	389,639	660	400,169
M273		Red clover seed harvested.....	Acres...	131,815	924	270,840
VEGETABLES						
M274		Vegetables harvested for sale.....	Acres...	3,569,304	35,162	3,124,257
M275P		Vegetables harvested for sale by county.....	Acres...	3,569,304	35,162	3,124,257
M276		Tomatoes harvested for sale.....	Acres...	425,317	3,357	421,386
M277		Sweet corn harvested for sale.....	Acres...	674,128	6,450	640,740
M278		Cucumbers and pickles harvested for sale.....	Acres...	125,892	3,211	101,141
M279		Watermelons harvested for sale.....	Acres...	181,436	4,838	135,876
M280		Snap beans, bush and pole, harvested for sale.....	Acres...	341,374	1,596	320,158
M281		Lettuce and romaine harvested for sale.....	Acres...	253,020	66	235,424
M282		Asparagus harvested for sale.....	Acres...	86,675	519	108,542

See footnotes at end of table.

1978 Summary of Mapped Data With 1974 Comparative Data--Con.

Map Number	Title	Unit of measure	1978		1974 ¹
			Total	Nt on mail list	
All farms	Farms with sales of \$2,500 or more				
	VEGETABLES--Con.				
M283	Cantaloupe and Persian melons harvested for sale.....	Acres...	110,572	940	70,621
M284	Green peas harvested for sale.....	Acres...	363,952	1,997	398,817
	BERRIES, FRUITS, AND NUTS				
M285	Berries harvested for sale.....	Acres...	131,023	4,878	121,127
M286	Strawberries harvested for sale.....	Acres...	45,567	1,985	36,151
M287	Land in orchards.....	Acres...	4,546,138	82,511	4,190,340
M288P	Land in orchards by county.....	Acres...	4,546,138	82,511	4,190,340
M289	Acres of apple trees.....	Acres...	577,967	22,573	507,348
M290	Acres of peach trees.....	Acres...	262,587	5,453	249,819
M291	Acres of pear trees.....	Acres...	95,425	2,746	94,122
M292	Acres of cherry trees.....	Acres...	129,563	2,489	119,112
M293	Acres of plum and prune trees.....	Acres...	141,489	5,582	132,663
M294	Acres of grape vines.....	Acres...	762,536	8,691	712,804
M295	Acres of orange trees.....	Acres...	914,250	4,331	915,217
M296	Acres of grapefruit trees.....	Acres...	245,463	737	226,373
M297	Acres of lemon trees.....	Acres...	81,709	110	79,635
M298	Acres of English or Persian walnut trees.....	Acres...	200,608	6,888	166,943
M299	Acres of almond trees.....	Acres...	347,240	4,799	275,908
M300	Acres of pecan trees.....	Acres...	456,615	11,880	328,608

* Net increase for U.S. total.

** Net decrease for U.S. total.

1. Nt fully comparable because of direct enumeration sample in 1978 totals; see text.
2. Data are based on a sample of farms; see text.
3. Data are only for farms with sales of \$2,500 or more.
4. Excludes abnormal farms; see text.
5. Data apply only to individuals or family operations and partnership operations.