

# CENSUS OF AGRICULTURE: 1929 AND 1930

## INTRODUCTION

**Scope of the census of agriculture.**—The census of agriculture in 1930 covered, as its principal subjects, general farm data, including number of farms, farm acreage, values, mortgages, taxes, expenditures, machinery, and facilities; crop acreage and production; and livestock, by classes and age groups.

This report, in three parts as shown on page ii, covers the principal subjects for which statistics were compiled from the census returns. The summary, which appears in each part, presents 7 tables showing United States totals only and 79 tables showing State totals. Four State tables present comparative data on the principal subjects and 12 tables present details for the counties.

The States included in each of the sections and the geographic divisions are shown on page ii.

**Method of taking the census.**—The census of agriculture is based upon the farm schedules, which contain a list of questions covering the different subjects of the farm census, with blank spaces for the replies. For purposes of enumeration the United States was divided into 120,136 districts, for each of which an enumerator was appointed to secure information on the schedules for population and agriculture. These enumerators, supplied with copies of the farm schedules and the population schedules, visited the individual farms and obtained the required information, in each case, from the farmer or from some member of his family, noting down the different items on the schedules as the information was secured.

The farm schedules, one for each farm in the United States, or 6,288,648 in all, were then forwarded to Washington, after having been examined by the district supervisors.

To prepare farm operators to answer the questions readily and accurately, 4,500,000 advance schedules were distributed among them in time for their study before the beginning of the enumeration.

In general, therefore, the census figures represent the tabulation of returns secured direct from the farmer. Supplemental data were supplied for certain items where returns were incomplete.

**Various dates of enumeration.**—Section 6 of the Fifteenth Census Act provided that the census of the population and of agriculture should be taken as of the 1st day of April, 1930. The date of enumeration of the Fourteenth Census was January 1, 1920. The act of March 3, 1919, which provided for the Fourteenth Census, provided, also, that a census of agriculture should be taken as of January 1, 1925. The data appearing in this publication for 1925 and 1924 were compiled in accordance with that provision.

**General farm schedule.**—The general farm schedule for the census of 1930 contained 353 inquiries, of which 116 covered an inventory as of April 1, 1930, 170 related to farm production in the calendar year 1929, and 67 related to business transactions in connection with farm operations.

The general farm schedule was prepared for the purpose of collecting data relating to farm operators, farm land, farm property, farm products, and business transactions relating to farm operations. The data pertaining to farms and farm property, including livestock, related to April 1, 1930; those of livestock products, crops, and farm expenditures were for the calendar year 1929.

**Special fruit and nut schedules.**—Two special fruit and nut schedules were used in the census of 1930; one for the State of Florida and 31 selected counties in Alabama, Louisiana, Mississippi, and Texas; and the other for the State of California and 24 selected counties in Arizona, Idaho, Oregon, and Washington. These two schedules, differing slightly in details, were designed to secure more complete reports from those areas than was provided for on the general farm schedule.

**Method of tabulation.**—The agricultural schedules when filled out by the enumerators were examined by the supervisors and forwarded to the Bureau of the Census, Washington, D. C. Upon receipt of the schedules by the Bureau of the Census a large force of trained clerks in the division of agriculture were assigned to the task of editing them to make sure that the items had been properly entered on the schedules. The punch-card system of tabulation was used. It was necessary to use the punch cards owing to the large volume of data to be tabulated, and also to the limited time which was allowed for tabulating and publishing the results.

**Arrangement of statistics by States, sections, and geographic divisions.**—Practically all of the summary tables give information by States and also total figures for the three sections and nine groups of States, designated as geographic divisions, as well as for the United States. This grouping of States into larger units of territory facilitates the study of conditions in broad geographic areas regarding the status of agricultural production in different parts of the country. The States within the geographic divisions have been arranged geographically rather than alphabetically, which makes it easier to compare the conditions in any State with those in contiguous States. Totals are shown also for the three sections: North, South, and West.

**Comparability of statistics.**—The 1930 farm census was taken as of April 1, 1930, while the censuses of 1925 and 1920 were taken as of January 1, of those years. These changes in the date of enumeration have affected somewhat the comparability of the statistics for the different censuses. This is especially true of the statistics with regard to livestock on farms.

United States Tables I to VII, inclusive, present a brief summary of the major items of the 1930 farm census for the United States and the three great sections into which the country may be conveniently divided, namely, the North, the South, and the West. There are also shown comparable items, wherever

available, from the farm census of 1920 and the per cent of increase or decrease between 1930 and 1920.

State Tables 1 to 79, inclusive, present by geographic divisions and States a summary of practically all the subjects covered by the 1930 census of agriculture, which appeared in separate State bulletins by counties, as first series and second series. Wherever available and convenient, comparable items, averages, and the per cent of increase or of decrease have been given for the censuses of 1925 and 1920.

**Census dates.**—The census of 1930 relates to April 1 of that year and the crop year 1929. The censuses of 1925 and 1920 relate to January 1 of those years and the crop years, 1924 and 1919, respectively.

### EXPLANATION OF TERMS

**Population—urban, rural, and farm.**—Table 1 is introduced to show, for the United States, sections, and States the number of inhabitants living in urban areas (incorporated places of 2,500 population and over), and those living in rural areas and incorporated places having less than 2,500 inhabitants; and especially to show the farm population, and the movement of city population to farms and the movement of farm population to cities.

**Movement of farm population.**—Information relative to the movement of population as affecting the farm population was sought for the first time at the census of 1930, through two questions which appeared on the general farm schedule, as follows:

1. How many persons make their home on this farm who have moved here from a city, village, or other incorporated place during the last 12 months?

2. How many persons who now make their home in a city, village, or other incorporated place have moved there from this farm during the last 12 months?

In securing answers to these questions, enumerators were instructed to omit movements of students, persons on a visit, and laborers staying on the farm only a short time.

**Farm.**—A "farm," for census purposes, is all the land which is directly farmed by one person, either by his own labor alone or with the assistance of members of his household or hired employees. The land operated by a partnership is likewise considered a farm.

A "farm" may consist of a single tract of land or of a number of separate tracts, and these several tracts may be held under different tenures, as when one tract is owned by the farmer and another tract is rented by him. When a landowner has one or more tenants, or managers, the land operated by each is considered a farm. Thus on a plantation the land operated by each cropper or tenant was reported as a separate farm, and the land operated by the owner or manager by means of wage hands likewise was reported as a separate farm. The enumerators were instructed not to report as a farm any tract of land of less than 3

acres, unless its agricultural products in 1929 were valued at \$250 or more.

The definition of a farm used in the 1930 census was the same as for 1925; and that for 1920 contained an additional provision with regard to a farm of less than 3 acres, as follows: " \* \* \* or which required for its agricultural operations the continuous services of at least one person." It is possible that the difference in the number of farms shown for 1930 and 1925 as compared with 1920 is to some extent due to this change in the definition of a farm.

The Bureau of the Census reports a farm in the minor civil division and county in which the farm or ranch operating headquarters are located. This, in some instances, affects the figures for farm acreage as compared with the total land area, as a number of farms and ranches extend across the boundaries of minor civil divisions and counties and even across State lines.

**Farm operator.**—A "Farm operator," according to the census definition, is a person who operates a farm, either performing the labor himself or directly supervising it. The number of operators is the same as the number of farms.

**Farms reporting.**—The term "Farms reporting," as used in the tables, means the number of farms for which were reported the particular item, or items, shown in the particular table. For example, if only one-half of the farms in a State or county reported sheep on hand, the other half did not have sheep to report. Enumerators visited all farm operators in their respective districts and secured complete reports for their farms on the general farm schedule.

**Color of farm operators.**—Farm operators are classified as white and colored, the white including Mexicans and Hindus, and the colored including Negroes, Indians, Chinese, Japanese, and all other nonwhite races.

**Tenure.**—Farm operators are classified, according to the tenure under which they operate their farms, into four general classes, as follows:

Full owners are farm operators who own all the land which they operate.

**Part owners** are farm operators who own part of the land which they operate, and rent and operate additional land. Part owners, therefore, have some of the characteristics of full owners and some of the characteristics of tenants.

**Managers** are farm operators who operate farms or ranches for the owners, receiving wages or salaries for their services.

**Tenants** are farm operators who operate hired land only. In the present report separate figures are shown in all States for two classes of tenants—namely, (1) cash tenants, who pay a cash rental as \$7 per acre for crop land or \$500 for the use of the whole farm; and (2) all other tenants, including those giving a share of the products for the use of the land or a share for part and cash for part.

Table 9 shows also, for the Southern States, the number, acreage, and value of farms operated by croppers, who are defined as share tenants to whom landlords furnish all the work animals.

**Relationship to landlord.**—The statistics show the number of tenants related to their landlords, and also the number which are classified as "cash tenants" and "all other tenants," as the case may be, who answered "Yes" to the question: "Do you rent this farm from your own or your wife's parent, grandparent, brother, or sister?" These figures are important because the terms of tenancy are more likely to be different where the tenant is closely related to the landlord than where the owner-tenant contract is purely a matter of business. For each of the two groups of cash tenants (related and not related to landlord), the tables show the number of farms, acreage, rent per year, average rent per farm, and average rent per acre.

**Land in farms.**—The acreage designated as "All land in farms" includes considerable areas of land not actually under cultivation and some not even used for pasture, since each farmer was asked to report as a unit all the land under his control, or rather all the land which he thought of as a part of his farm. Isolated tracts of timberland and other areas not connected with the farm were not included.

The following classes of farm land, based on the uses made of the land in 1929, are shown separately. This classification of farm land was first presented in the reports of the census of 1925.

**Crop land.**—The total crop land consists of the three classes of land, as follows:

1. Crop land harvested in 1929, comprising all land from which cultivated crops were harvested, all land from which hay was cut (including wild hay cut), and all land in small fruits, orchards, vineyards, gardens, nurseries, and greenhouses. A given acreage was counted but once, even though two or more crops were harvested from it.

2. Crop failure, comprising land from which no crop was harvested in 1929 because of crop failure or destruction from any cause, including drought, flood, insects, or disease.

3. Idle or fallow land, comprising crop land which was lying idle or which was in cultivated summer fallow in 1929.

**Pasture land.**—The total pasture land consists of the three classes of land, as follows:

1. Plowable pasture, comprising land used only for pasture in 1929 which could have been plowed and used for crops without clearing, draining, or irrigating.

2. Woodland pasture, comprising woodland used for pasture at any time during 1929. (Woodland pasture includes all farm wood lots or timber tracts, natural or planted, and cut-over land with young growth; but excludes chaparral and woody shrubs.)

3. Other pasture, comprising all land used for pasture in 1929 which was not included under plowable pasture or woodland pasture.

**Woodland not used for pasture.**—Under this heading is reported all woodland included in the farm acreage but not pastured in 1929.

**All other land in farms.**—Under this heading are included all rough, swampy, or waste lands not in forest, pasture, or crops; and also the land occupied by buildings, barnyards, feed lots, roads, ditches, etc.

**Farm values.**—The farmer was asked to report, first, the total value of his farm (land and buildings), including all the land which he operated, both owned and hired, whether operated for himself or managed for others. He was asked to give the current market value—that is, the amount for which the farm would sell under normal conditions, not at forced sale. The tabulated results of this inquiry are shown as value of "Land and buildings" and represent the total value of farm real estate.

The farmer was also asked to report the value of all farm buildings on his farm and of his dwelling house alone. These values were necessarily the farmer's closest approximation of their value, and the figures obtained are probably somewhat less satisfactory than the figures for the total real-estate value. The question calling for the value of the farmer's dwelling house appeared on the census farm schedule for the first time in 1930.

The figure shown for "Land, excluding buildings," is obtained by subtracting the value of the buildings from the basic value of land and buildings together.

In comparing the values of farm properties, both real and personal, as reported at the census of 1930 with those reported in 1925 and 1920, the variations in the purchasing power of the dollar should be kept in mind.

**Value of farm implements and machinery.**—The value of farm implements and machinery is the combined value of automobiles; trucks; tractors; tools; wagons; harnesses; dairy equipment; cotton gins; threshing machines; combines; apparatus for making cider, grape juice, and sirup, and for drying fruits; and all other farm machinery. The value of commercial mills and factories located on the farm was not included.

**Mortgage debt.**—Mortgage-debt figures are given for farm owners, the number of mortgaged farms being given for full owners and part owners combined, and for full owners alone, while the amount of the mortgage debt is shown for full owners only. The number of owners reporting mortgage debt in 1930 is the number who answered "Yes" to the question reading as follows:

"If you own all or part of this farm, was there any mortgage debt on the land and buildings so owned on April 1, 1930?"

The questions calling for the amount of mortgage debt and charges on mortgage debt were as follows:

1. Amount of mortgage debt on land and buildings in this farm owned by you, April 1, 1930?
2. Amount charged you on this mortgage debt for interest, commissions, bonuses, and premiums in 1929?

The questions asked in 1920 relative to mortgages were practically the same as stated above for 1930, except that they called for the rate of interest instead of the amount charged for interest, commissions, bonuses, and premiums.

In 1925 the questions were not limited to debt on land operated by the farmer reporting. Two questions were asked, as follows:

1. Amount of mortgage debt on all farm land and buildings owned by you (anywhere in the United States).
2. Value of farm land and buildings covered by mortgages reported above.

**Taxes.**—The taxes shown are the amounts paid or payable in 1929 on farms operated by full owners only. Taxes on all farm property include real-estate taxes, personal-property taxes on livestock and machinery, and special assessments, but do not include taxes for irrigation or drainage districts. Taxes on land and buildings only are shown separately.

**Farm expenditures.**—The farm expenditures shown comprise amounts expended by farm operators during the year 1929, for selected items defined on the schedule, as follows:

**Feed** includes hay, grain, mill feed, and other products ("not raised on this farm") for use as feed for domestic animals and poultry.

**Fertilizer** includes commercial fertilizer, manure, marl, lime, and ground limestone. The table shows also the number of tons of commercial fertilizer purchased.

**Farm labor**, amount expended in cash for farm labor (exclusive of housework). The table shows also the number of days of farm work (exclusive of housework) performed in 1929 by hired laborers of all ages.

**Farm implements and machinery**, includes automobiles; trucks; tractors; tools; wagons; harnesses; dairy equipment; cotton gins; threshing machines; combines; apparatus for making cider, grape juice, and sirup, and for drying fruits; and all other farm machinery (exclusive of commercial mills and factories).

**Electric light and power**, amount expended for purchase of electric light and power (paid to a power company).

**Kind of road.**—Under this heading the farms are classified according to the answer to the following question: "What kind of road adjoins this farm?"

**Cooperative marketing.**—Under this heading are shown the value of farm products sold to, or through, farmers' cooperative marketing organizations in 1929, the value of supplies purchased from, or through, such organizations in 1929, and the number of farms reporting each.

**Domestic animals.**—The tables present statistics for seven classes of domestic animals, namely, horses, mules, asses and burros, cattle, swine, sheep, and goats.

The classification of cattle as beef and dairy is shown only for cows and heifers, which are reported as kept mainly for beef production or for milk production. Where cattle kept are of a general-purpose type, it is difficult for either the enumerator or the farmer to classify the cattle on this basis, a condition that results in a disparity in the figures of different censuses greater than that warranted by the changes in the types of cattle.

**Cows milked.**—Two new questions relative to dairy products were introduced in the farm schedule of 1930. One of these questions called for the number of cows milked daily at the time of the enumeration, and the other called for the daily production of milk at that time.

**Milk production.**—The figure given for milk production represents the total production of milk, including estimates for those farms reporting cows milked but not reporting the amount of milk produced. These estimates for 1929 were made on the basis of the average production per cow milked, as shown by completed schedules received from the several counties.

**Butterfat sold.**—Where farmers sold cream (or milk) and received payment for the number of pounds of butterfat contained therein, the butterfat content for which they thus received payment is reported as cream sold as butterfat. The figure given for cream sold *not* as butterfat represents, therefore, only cream sold by the gallon or similar unit.

**Wool.**—The figure given for wool production represents the total production, including estimates for incomplete reports. These estimates were based on the average production of wool per sheep on hand, as shown by completed schedules received from the several counties.

**Chickens and chicken eggs.**—Two new questions relative to chickens were introduced in the farm schedule of 1930. One of these questions called for the daily production of chicken eggs at the time of the enumeration, and the other called for the number of baby chicks bought in 1929.

**Acreage and production of crops.**—The acreage and production for all crops secured in the census of 1930 relate to the crop year 1929. The acreage shown for the several crops represents the acreage harvested, which is sometimes less than the acreage planted. The production represents the quantity actually harvested in the form indicated. For example, the number of bushels of oats shown includes only oats actually threshed. The number of bushels of corn includes only that husked or snapped, the measure being 56 pounds of shelled corn or 70 pounds of ear corn per bushel.

**Corn.**—The total acreage of corn was obtained in 1930 and classified under the same heads as in 1925, the year in which this classification was first used in a Federal census. Corn harvested for grain includes corn snapped, husked, or (at the time of the enumera-

tion) to be husked, for grain. The acreage of corn for fodder includes the area from which the whole plant was cut for green or dry fodder and not husked or snapped. Corn was reported as grazed off where the whole plant was hogged or grazed off by any kind of livestock and none of the corn was husked or snapped.

**Oats.**—The census schedules for 1930 and 1925 carried a question calling for the acreage of "Oats cut for grain when ripe or nearly ripe and fed unthreshed." Previous census schedules called only for oats cut green for hay and the acreage and bushels of oats cut for grain. Doubtless some farmers who fed oats unthreshed in 1919 reported the acreage as for oats threshed for grain at the census of 1920. Because of this change, the acreage in oats harvested for grain in 1919 may be slightly exaggerated.

**Hay.**—The figures for annual legume hay in 1929 and 1924 are not exactly comparable because the schedule for 1930 called for acreage and production of legumes *saved* for hay, while that for 1925 called for the acreage and production of legumes *cut* for hay.

The total hay crops as shown for 1929 does not include sorghums, although they were included in the total tonnage of hay as reported for 1924. The acreage and production of sorghums cut for silage, hay, or fodder in 1929 are separately shown in Table 43.

**Cotton.**—The instructions to enumerators contained the following, relative to reporting the number of bales: "Cotton is to be reported in running bales. These bales weigh approximately 500 pounds each. If the cotton was packed in round bales, report its equivalent in square bales of 500 pounds each, counting two round bales as equivalent to one square bale."

**Vegetables harvested for sale.**—This summary shows the acreage of all vegetables, not grown under glass, that were harvested for sale and the value of these crops in 1929. Individual figures are shown for the principal vegetables; these, together with those reported as "Other vegetables" make up the totals compiled from the census farm schedules. This table also shows comparative figures on acreage in 1919, where such figures are available.

**Fruits.**—The quantities of fruits produced, as shown in the tables, are on the basis of fresh fruits; though some crops, such as grapes, prunes, and figs may have been dried on the farm preparatory to marketing them.

**Values of crops and specified livestock and livestock products.**—The values shown were obtained by multiplying unit values by the number of units in each class. The unit values were obtained jointly by the Bureau of the Census and the Bureau of Agricultural Economics of the United States Department of Agriculture.