

UNITED STATES DEPARTMENT OF COMMERCE

JESSE H. JONES, Secretary

BUREAU OF THE CENSUS

J. C. CAPT, Director (Appointed May 22, 1941)

WILLIAM LANE AUSTIN, Director (Retired, January 31, 1941)

VERGIL D. REED, Assistant Director

HOWARD H. McCLURE, Assistant Director



SIXTEENTH CENSUS OF THE UNITED STATES : 1940

AGRICULTURE

VOLUME I

**First and Second Series
State Reports**

Part 2

STATISTICS FOR COUNTIES

**Farms and Farm Property, With Related Information
for Farms and Farm Operators, Livestock
and Livestock Products, and Crops**

Prepared under the supervision of

ZELLMER R. PETTET

Chief Statistician for Agriculture

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1942

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Vital Statistics—HALBERT L. DUNN, *Chief Statistician.*

LETTER OF TRANSMITTAL

DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

Washington, D. C., February 12, 1942

SIR:

I transmit herewith part 2 of volume I of the Reports on Agriculture, Sixteenth Decennial Census. Volume I consists of six parts, presenting detailed statistics, respectively, for (1) New England, Middle Atlantic, and East North Central States, (2) West North Central States, (3) South Atlantic States, (4) East South Central States, (5) West South Central States, and (6) Mountain and Pacific States.

Provision for the 1940 Agriculture Census was made in the Act providing for the Fifteenth Decennial Census which was approved on June 18, 1929. Data in volume I, comprising the first and second series Census of Agriculture reports, were first published in two separate bulletins for each of the forty-eight States and the District of Columbia. The reports are the results obtained from a tabulation of the information given by farm operators to census enumerators in a personal canvass in connection with the Sixteenth Decennial Census.

The collection and compilation of these statistics and the preparation of this volume were made under the supervision of Z. R. Pettet, Chief Statistician for Agriculture, with the assistance of Sherman S. Slick, Assistant Chief Statistician, Warder B. Jenkins, Chief of Technical Staff, and Hilton E. Robison, Senior Agricultural Statistician.

Acknowledgment is made of the cooperation of representatives of the United States Department of Agriculture and of the Division of Statistical Standards, Bureau of the Budget.

Respectfully,

J. C. CAPT,

Director of the Census

Hon. JESSE H. JONES

Secretary of Commerce

SIXTEENTH CENSUS OF THE UNITED STATES: 1940

REPORTS ON AGRICULTURE, IRRIGATION, AND DRAINAGE

VOLUME I.—Statistics by Counties for Farms, Acreage and Values with Related Information for Farms and Farm Operators; Live-stock and Livestock Products; and Crops.

VOLUME II.—Statistics by Counties for Value of Farm Products, Farms Classified by Major Source of Income, and Farms Classified by Total Value of Products.

VOLUME III.—General Report—Statistics by Subjects for the United States, Geographic Divisions, and States.

UNITED STATES SUMMARY BULLETINS.—Statistics for the United States, Geographic Divisions, and States in condensed form as follows:

First Series Summary—Number of Farms, Uses of Land, Values, Principal Classes of Livestock and Livestock Products; and Specified Crops Harvested.

Second Series Summary—Farm Mortgages, Taxes, Labor, Expenditures, and Miscellaneous Farm Information; Goats and Mohair; and Fruits, Vegetables, and Minor Crops.

Third Series Summary—Value of Farm Products, Farms Classified by Major Source of Income, and Farms Classified by Total Value of Products.

SPECIAL POULTRY REPORT.—Statistics by Geographic Divisions and States for Poultry of All Kinds on Hand and Raised; by Counties for Chickens and Chicken Egg Production by Number of Chickens on Hand; and by Counties for Farms Reporting Chickens and Turkeys Raised by Numbers Raised.

IRRIGATION OF AGRICULTURAL LANDS.—Statistics by Counties and by Drainage Basins for 20 Irrigation States and a summary for the United States.

DRAINAGE OF AGRICULTURAL LANDS.—Statistics by Counties for 36 Drainage States and a Summary for the United States.

VOLUME I

This volume is composed of six parts with the States arranged by Geographic Divisions as follows:

PART 1—New England Division:

Maine.
New Hampshire.
Vermont.
Massachusetts.
Rhode Island.
Connecticut.

Middle Atlantic Division:

New York.
New Jersey.
Pennsylvania.

East North Central Division:

Ohio.
Indiana.
Illinois.
Michigan.
Wisconsin.

PART 2—West North Central Division:

Minnesota.
Iowa.
Missouri.
North Dakota.
South Dakota.
Nebraska.
Kansas.

PART 3—South Atlantic Division:

Delaware.
Maryland.
District of Columbia.
Virginia.
West Virginia.
North Carolina.
South Carolina.
Georgia.
Florida.

PART 4—East South Central Division:

Kentucky.
Tennessee.
Alabama.
Mississippi.

PART 5—West South Central Division:

Arkansas.
Louisiana.
Oklahoma.
Texas.

PART 6—Mountain Division:

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Wyoming.
Colorado.
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Utah.
Nevada.

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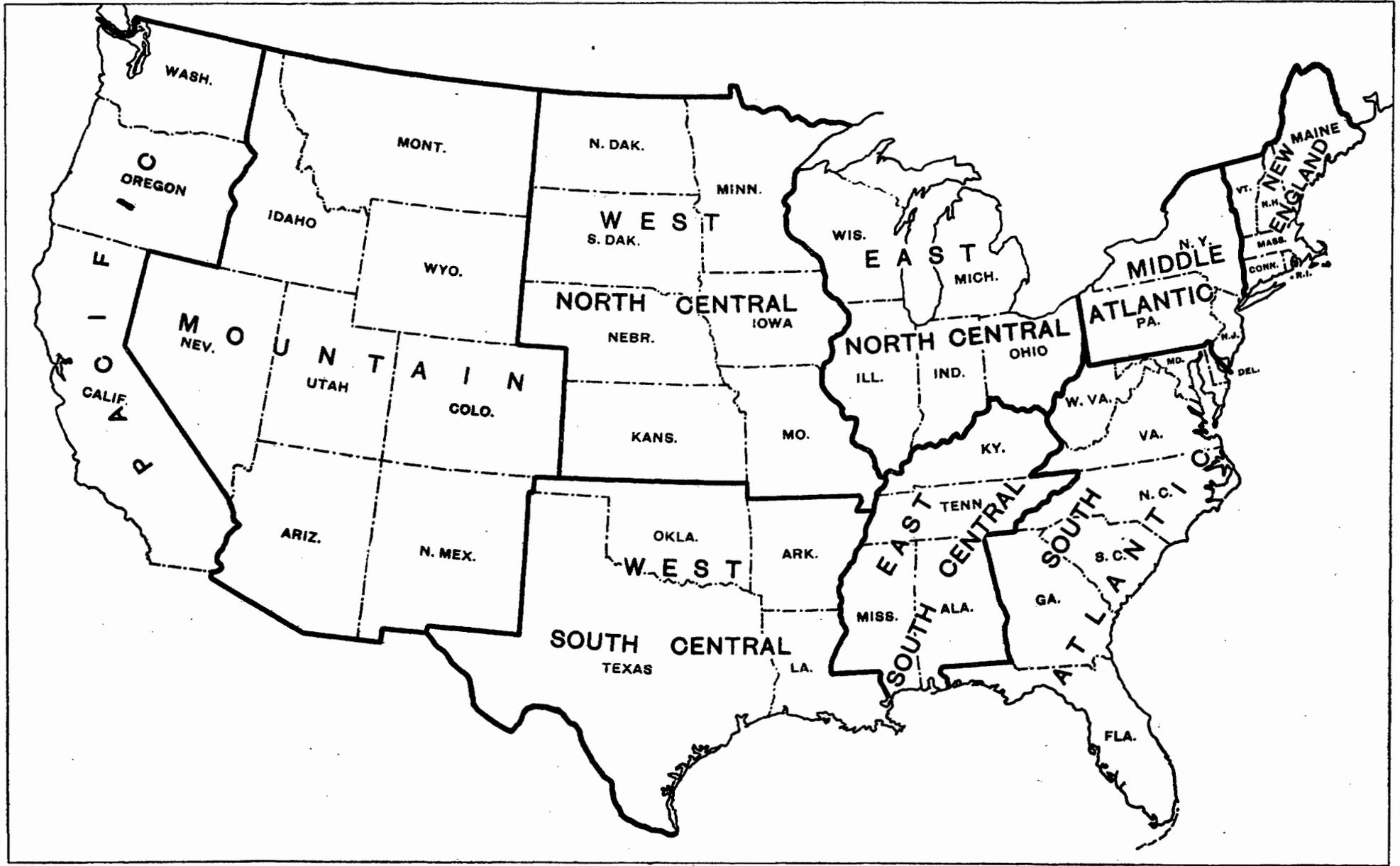
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Map of the United States. Showing Geographic Divisions



CENSUS OF AGRICULTURE: 1940

INTRODUCTION

History of Census of Agriculture.—The 1940 Census of Agriculture was a constituent part of the Sixteenth Decennial Census of the United States. The Federal Government first provided for a Census of Agriculture to be taken in 1840 in connection with the Sixth Decennial Census of Population. Since that time, a census of agriculture has always been taken in conjunction with the census of population in each decennial enumeration. Congress first provided for a mid-decennial farm enumeration to be taken in 1915, but owing to the war in Europe this census was not taken. Congress again provided for a mid-decennial agricultural census to be taken as of January 1, 1925, and such a census was taken. Another mid-decennial census was taken as of January 1, 1935, and the legislation which provided for it, which is still in effect, also provided that every ten years thereafter a census of agriculture should be taken. Thus, beginning with 1920, there has been a Federal Census of Agriculture every fifth year.

In 1840, the Census of Agriculture was rather limited in scope. It included such items as an inventory of the principal classes of domestic animals, the production of wool, the value of poultry, the value of products of the dairy, and the production of the principal crops. In 1850, the decennial census first included the number of farms and the acreage and value of farm land; in 1880, information was first secured as to the tenure under which the farms were operated; and in 1925 a more detailed classification of the farm land according to its use was introduced. No recent census has required information about silk cocoons which formed a part of the questionnaire for several of the earlier censuses. These are but a few of the additions, changes, and deletions which have been made in the 100-year span since the first Census of Agriculture.

Legal basis for the 1940 Census.—Provision for the 1940 Census was made in the Act providing for the Fifteenth Decennial Census which was approved on June 18, 1929. In part this Act provided, "That a census of population, agriculture, irrigation, drainage, distribution, unemployment, and mines shall be taken by the Director of the Census in the year 1930 and every ten years thereafter. The census herein provided for shall include each State, the District of Columbia, Alaska, Hawaii, and Porto Rico."

Method of canvass and tabulation.—In the 1940 Census of Agriculture, as for each census of agriculture beginning with 1900, a separate schedule was required for every farm in the United States. The data, therefore, are the results obtained from the tabulation of the information given by farm operators to census enumerators in a personal canvass of the individual farms.

After the schedules were received in Washington and examined for accuracy and completeness, the figures were transferred to punch cards. By means of other mechanical equipment the totals for geographic areas were obtained.

Presentation of statistics.—The data in this volume were first published in two separate bulletins for each of the forty-eight States and the District of Columbia. These State bulletins comprise the first and second series of reports for the 1940 Census of Agriculture.

In the first series of bulletins the data relate, in the main, to the number, acreage, and value of farms; the value of buildings and of implements and machinery on farms; farm land according to its utilization; some of the foregoing items classified by the color of the farm operator, some by the tenure of the farm operator, and some by the size of the farm; farms reporting and numbers of specified classes of livestock and poultry with some of their products; and farms reporting with the acreage and production of specified crops harvested. In

the second series of bulletins, the statistics are presented for the following items: Mortgage debt for farms of operating owners (both full owners and part owners); taxes on farm property owned by full owners and part owners; work off their farms by farm operators for pay or income; age of operators; year of occupancy translated (except for 1940) into the number of years the operators had been working their present farms; whether the farm operators reside on their farms; cooperative selling and purchasing of goods and services; farm labor employed at specified times; expenditures for selected items; inventories of automobiles, motortrucks, and tractors, with the year of latest model for each general class; the availability, use, and source of electric current; whether the farm has a telephone; kind of road adjoining the farm; inventory of goats; mohair production; goats milked; farm slaughter, purchases, and sales of various classes of livestock; the individual annual legumes; clover and grass seeds; miscellaneous field crops; farm gardens; vegetables harvested for sale; horticultural specialties; small fruits; and tree fruits, nuts, and grapes.

The same general plan of presentation is followed for all States, except that supplemental county table II with data by color and tenure of operator, is carried for the Southern States only, and county table XV is shown for only 19 States. This latter table carries the acreages and average yields of some of the principal crops which were harvested from irrigated land with comparative data for nonirrigated land. The 19 States for which county table XV is shown are: Arizona, Arkansas, California, Colorado, Idaho, Kansas, Louisiana, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming.

In a third series of bulletins to comprise volume II, county data are presented for amount of income received from sales of various livestock and livestock products, field crops, vegetables, fruits and nuts, horticultural specialties, and forest products, together with the value of farm products used by farm households. These data are also given by income groups and by the major source of income. In addition, data are shown for the value of livestock on farms, the value of livestock products, and the value of all crops harvested. These latter values, in general, are based on inventory or production multiplied by county unit prices.

In these three series of State reports, summary tables, containing totals for the States only, are presented and are followed by tables in which county data, as well as totals for the States, are shown. For those items appearing in the State tables, all available comparative data are presented for each census beginning with 1910. In the county tables, in addition to the data from the Census of 1940, comparative figures are presented for some of the items from both the Census of 1935 and the Census of 1930 and in other cases for either or neither of these years depending, in part, upon whether the information was available. Information for inquiries carried in former census years, but not included in the questionnaire for 1940 is omitted from all the tables.

In some cases the summary tables for the States show more information than is carried in the county tables. In other cases, especially where information is available for 1940 only, more information is carried in the county tables than in the State summary tables. The reader is cautioned to observe both the State and county tables in order to obtain all the information which is contained in these volumes.

A general report, volume III, will carry United States and State totals for various subjects or items. This latter publication will also present comparative data, when available, for all earlier census years.

Comparability of data.—The 1940 Census of Agriculture, in accordance with the law, was taken as of April 1, 1940, consequently, all inventory items relate to that date. Crop and livestock production, with the exception of citrus fruits, is for the calendar year 1939. Production of citrus fruits in Arizona and California was reported for the bloom of 1938, while in all other citrus-producing areas it was given for the bloom of 1939. For other years the inventory items relate to the date of the census and the production items to the preceding calendar year. Since the date of the census has varied, affecting the comparability of the data for some items more than for others, the date of the enumeration or the year of production is usually indicated in the tables. The user of the statistics must be on guard when comparing the figures for one year with those for another.

The difference in the time of the year when the enumeration was made does not, alone, account for all of the changes which have occurred from one census year to another. Various factors, some conflicting in their tendencies, have been at work. For example, the advance of mechanized farming tends to put larger acreages under the control of an operator; the utilization of the acreage has been affected by commodity prices, by weather conditions, and by government programs; and industrial employment has had its effect upon migration from farms to cities or from cities to farms. Special studies of the returns and comparisons with previous censuses are contemplated. These studies should assist in evaluating the data and explaining the changes which have occurred.

DEFINITIONS AND EXPLANATIONS

Only those items which need clarification, or for which explanatory remarks are deemed necessary as to their comparability are discussed.

A farm.—The schedule form for 1940 was entitled "Farm and Ranch Schedule." This title was followed by a subtitle "Including Special Agricultural Operations." The following definition appeared on each schedule:

A farm, for Census purposes, is all the land on which some agricultural operations are performed 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 a number of separate tracts, and the 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, renters, croppers, or managers, the land operated by each is considered a farm. Thus, on a plantation the land operated by each cropper, renter, or tenant should be reported as a separate farm, and the land operated by the owner or manager by means of wage hands should likewise be reported as a separate farm.

Include dry-lot or barn dairies, nurseries, greenhouses, hatcheries, fur farms, mushroom cellars, apiaries, cranberry bogs, etc.

Exclude "fish farms," fish hatcheries, "oyster farms," and "frog farms."

Do not report as a farm any tract of land of less than 3 acres, unless its agricultural products in 1939 were valued at \$250 or more.

In the enumerators' handbook the following instruction was given:

The definition of a farm found on the face of the schedule must be carefully studied by the enumerator. Note that for tracts of land of 3 acres or more the \$250 limitation for value of agricultural products does not apply. Such tracts, however, must have had some agricultural operations performed in 1939, or contemplated in 1940. A schedule must be prepared for each farm, ranch, or other establishment which meets the requirements set up in the definition. A schedule must be filled out for all tracts of land on which some agricultural operations were performed in 1939, or are contemplated in 1940, which might possibly meet the minimum requirements of a "farm." When in doubt, always make out a schedule.

Farming, or agricultural operations, consists of the production of crops or plants, vines, and trees (excluding forestry operations) or of the keeping, grazing, or feeding of livestock for animal products (including serums), animal increase, or value enhancement. Livestock, as here used, includes poultry of all kinds, rabbits, bees, and fur-bearing animals in captivity, in addition to mules, asses, burros, horses, cattle, sheep, goats, and hogs. Frequently, certain operations are not generally recognized as farming. This is especially true where no crops are grown or where the establishments are not commonly considered as farms.

A partial list of types of specialized agriculture and of operations not generally recognized as farming but for which farm and ranch schedules were required was provided. This list included such operations as apiaries (bee farms), feed lots, greenhouses, hatcheries, mushroom cellars, etc.

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. For all practical purposes, the number of farm operators is identical with the number of farms.

Color of operator.—Farm operators are classified as "white" and "nonwhite." White includes Mexicans and nonwhite includes Negroes, Indians, Chinese, Japanese, and all other nonwhite classes.

Race of operator.—Statistics by race of operator are given in one of the State tables but no data of this kind are presented in any of the county tables. Separate figures are given for the nonwhite races only.

Tenure of operator.—Farm operators are also classified according to the tenure under which they operate their farms. In State tables 1 and 2 comparative figures are given for full owners, part owners, managers; and "all tenants" for the Northern and Western States, whereas one subclass of tenants, viz., croppers, is added for the Southern States. In county table II data are presented for additional subclasses of tenants. These are cash tenants, share-cash tenants, share tenants including croppers, and other tenants for all States and, in a supplemental table to county table II, for the Southern States only, some data are carried separately for croppers. In the supplemental table to county table II, which, as just indicated, is a part of the reports for the Southern States only, information is presented by color and tenure, i. e., a tenure breakdown is shown for each of the two color classifications.

Full owners own all the land they operate.

Part owners own a part and rent from others the rest of the land they operate.

Managers operate farms for others and receive wages or salaries for their services. Persons acting merely as caretakers or hired as laborers are not classified as managers.

Tenants operate hired or rented land only. Cash tenants pay a cash rental, such as \$4.50 per acre for the cropland or \$500 for the use of the whole farm. Share-cash tenants pay a part of their rental in cash and part as a share of crops or livestock production. Share tenants pay a share only of either the crops or livestock production or both. Croppers have been defined as share tenants, to whom their landlords furnish all of the work animals or tractor power in lieu of work animals. Other tenants include those whose rental agreement was unspecified and those who did not fall definitely into one of the other subclasses.

Farms reporting.—The term "farms reporting," as used in the tables, indicates the number of farms for which the specified items shown in the particular table were reported. If there were 1,922 farms in a county and only 1,465 of these had chickens on hand over 4 months old, April 1, 1940, and the enumeration of that item were complete, the number of farms reporting chickens for that year would be 1,465.

Land area.—The approximate land areas given for the States and for the counties resulted from a complete remeasurement of the United States, its individual States, and their counties and, consequently, may be at variance with those published in earlier Census Reports even though the county boundaries may not have changed. The measurements involved geodetic values and planimeter readings, and the latest and most authentic maps to be secured from public and private sources were used.

Land in farms.—The acreage designated as "all land in farms" includes considerable areas of land not actually under cultivation and some land not even used for pasture or grazing, but all such land must have been under the control of the operator and considered a part of his farm. However, large areas of timberland or other nonagricultural land held by an operator of a farm as a separate business, and not used for pasture or grazing, or for any other farm purpose, were to be excluded. Land neither owned nor leased but from which crops, including wild hay, were harvested was to be reported as part of the farm. When cattle, sheep, or other livestock were

grazed or pastured on land neither owned nor leased by the operator, such land was not to be included as a part of the farm.

In 1940, data were secured for six classes of land based on the use made of the land in 1939, as follows:

1. **Cropland harvested.**—The land from which cultivated crops were harvested; land from which hay (including wild hay) was cut; and land in small fruits, orchards, vineyards, nurseries, and greenhouses. Where two or more crops were harvested in 1939 from the same acreage, such acreage was included only once in the acreage for cropland harvested. However, the acreage and the quantity of each individual crop were reported separately as crops harvested. Thus, in some counties the total of the acreage of crops may greatly exceed the acreage designated as cropland harvested.

2. **Crop failure.**—The land from which no crop was harvested in 1939 because of destruction by wind, hail, drought, floods, insects, disease, or from any cause, or failure to harvest because of low prices or lack of labor. If a crop was harvested, even though the yield was very low, the land from which the crop was actually harvested was included in the acreage for cropland harvested, not crop failure. The acreage designated as crop failure does not represent the entire acreage of crops which failed, but only that acreage of land in crops that failed and which was not successfully replanted to a crop that was harvested in 1939.

3. **Cropland lying idle or in summer fallow.**—Cropland which was lying idle or which was in cultivated summer fallow; or land on which crops were planted for soil improvement or the prevention of erosion, and which was not pastured, or from which no crop of any kind was harvested in 1939.

4. **Plowable pasture.**—Land used only for pasture in 1939 which could have been used for crops without additional clearing, draining, or irrigating. (Land from which a crop was harvested in 1939 but which was later used for pasture was included under cropland harvested rather than under pasture land.)

5. **Woodland.**—All farm wood lots or timber tracts, natural or planted, and cut-over land with young growth, which has or will have value as wood or timber. Chaparral and woody shrubs were to be omitted.

6. **All other land in farms.**—This classification includes pasture land other than plowable and woodland pasture, all wasteland, house yards, barnyards, feed lots, lanes, roads, etc.

In the last three preceding censuses information for eight classes of land according to use had been secured. The data obtained in 1940 for "woodland," as noted, were obtained as one total, whereas in the three previous census years these had been divided into "woodland pasture" and "woodland not used for pasture." Also, for the same years separate figures had been secured for pasture, other than plowable and woodland pasture with a "catch-all" question for rough, swampy, or waste lands not in woodland, pasture, or crops, and land occupied by buildings, barnyards, feed lots, roads, fences, ditches, etc. In the 1940 Census a combined figure was secured for these two classes as described under "6" above.

County table I presents figures for "Irrigated cropland harvested" and "Irrigated pasture." The acreage figures reported for irrigated cropland harvested are included in the acreage for "total cropland harvested." The acreage reported for irrigated pasture is usually a part of the plowable pasture though it may be part of the area shown for "all other land in farms" or even in "woodland."

Land in an individual farm occasionally lies in two or more counties. In such cases the entire farm was to be enumerated in the district in which the farmstead was located. As a result of this procedure, the acreage shown for "all land in farms" in some counties may be greater, and in other counties smaller, than the area actually in farms. Reference to crossline acreage is made in the tables only when the area shown for the farms of a county is in excess of the county area.

Farms and farm acreage classified by size of farm.—The revised grouping of farms and farm land by size (total acreage in the farm) as used in the Census of 1935 was repeated for 1940. The new classification was made with the expectation that the mode of more of the groups, especially in "survey" territory, would tend to fall more nearly at the midpoint of the group interval. The classification is so presented that comparisons are possible between the different years.

Heretofore, the "under 3 acres" group has included a count of farms for livestock operators who neither owned nor leased any land but grazed their animals on open or public range. In this report, the number of such farms still appears with the "under 3 acres" group, but in county table III separate figures are presented for such farms for those States where this condition was found to exist.

Farm values.—The enumerators were instructed to obtain from each farm operator the total value of the farm (land and buildings). This total value was to be reported in accordance with the market value. In deriving the average value per farm, it has always been assumed that the total value should be divided by the total number of farms. This has been done for all years even though in 1940 operations with no land owned or leased were tabulated as having "0" acres and "0" value. For part-owner operators, for the first time, the value of the owned portion of the farm was requested. These data appear in county table II.

When the Agricultural Appropriation Bill for 1941 was under consideration by Congress, a request was made that the Census Reports include the average value of farms of 30 acres and over. This information was needed in connection with the Farm Tenant Land Purchase Program. Consequently, such data are presented in county table I.

The operator was also asked to give the value of all farm buildings on the farm. These values were necessarily the nearest approximation the farm operator could give, and the figures obtained are probably somewhat less satisfactory than the figures for the total real-estate value; in other words, the value of the buildings should not be subtracted from the total value of the farm and the difference assumed to represent accurately the market value of the land alone.

Finally, the operator was asked to place a value on the farm implements and machinery used in operating the farm. This was to represent the present market value and was to include not only the farm implements but also the tools; automobiles; tractors; motortrucks; trailers; 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. However, the values of commercial mills and factories, also permanently installed irrigation and drainage equipment, were mentioned specifically to be omitted.

Farm mortgage debt.—The farm mortgage inquiries on the 1940 Farm and Ranch Schedule, as heretofore, were to be answered by operating owners only. Tenants and managers, in many cases, would not know whether the farms they were operating were mortgaged and would be even less likely to know the amount of the mortgage and the contract rate of interest. The inquiries for the latest census read 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, 1940?----- (Yes or No)
 Total amount of outstanding mortgage debt on such land and buildings----- \$ (Omit cents)
 What was the annual rate (contract rate) of interest on the first mortgage debt? (Report fractions)----- (Percent)

In many cases not all the land and buildings of a mortgaged farm are covered by mortgage. The above inquiries were not intended to ascertain the actual acreage under mortgage.

The mortgage information given herein for part owners (operating owners who rented some land from others) relates only to the portion of the farm owned by them, for, as with tenants, no attempt was made to secure the facts as to debt on the rented land. In the Census of 1940 a separate value of the owned portion of the farm for these owner-tenant operations was secured for the first time. This separate value has made possible computations for the owner's equity as well as for his encumbrance.

Owner-operators who rent land to others often think of their entire holdings as one farm, especially if the tracts are contiguous, thus having in mind something different from the Census definition of a farm. For such operators, the mortgage may cover the whole or any part of the land owned and, if an enumerator did not make it clear that the mortgage information was to relate only to that portion which the owner himself was operating, the respondent might have included in his answers data for the land rented to others. A blanket mortgage, covering both the land the owner was operating and land rented out, could not always be easily apportioned to the respective tracts. Therefore, in the tabulation of the results from the mortgage inquiries, consideration was given to another inquiry on the schedule which ascertained whether the owner owned any land in addition to that which he was operating. This type of inquiry was first carried in 1930.

In county table VIII figures are given for an item labeled "Average of the rates of interest." These figures should be used with caution, as they represent an addition of the rates reported, divided by the number of reports. They do not represent weighted averages. For example, if interest rates were reported, as 5 percent on \$20,000, 5-1/2 percent on \$10,000, 5-1/2 percent on \$8,000, and 8 percent on \$2,000, the average of these rates would be obtained by dividing their sum (24) by the number of reports (4). The result would be 6 percent, whereas, if extensions were made and a weighted rate secured, the average interest rate would be 5-3/8 percent.

As noted in the questions above, the annual interest rate should represent the *contract rate* on the first mortgage debt. Instructions were given to the enumerator that the rate should be the one specified in the first mortgage even though a lower rate was temporarily in effect, as was true of many of the Federal Land Bank loans. A tabulation of farm mortgage indebtedness by interest rates has been made and will be presented by geographic divisions and States in chapter IV of volume III. This tabulation will afford some opportunity to judge the frequency of reports of temporary rates instead of contract rates.

Farm taxes.—The two tax questions on the 1940 Farm and Ranch Schedule read as follows:

If you own all or part of this farm—
 Give amount of taxes levied in 1939 on the REAL ESTATE of this farm owned by you on April 1, 1940 (include buildings and other improvements, but do not include taxes levied by drainage or irrigation districts)-----\$
 Give amount of taxes levied in 1939 on PERSONAL property owned by you on this farm (include livestock, machinery, etc., but do not include automobile taxes, fees, or licenses)-----\$
 (Omit cents)

As with farm mortgages, the tax inquiries were restricted to owner-operators, both full owners and part owners. Taxes on farm land rented to others were to be excluded. Here, again, the tabulations were made in such manner that reports for operators who stated they did not own additional land were grouped together.

In many cases answers were supplied for the first question and none appeared for the second. In such instances, it may be that the operator did not pay any personal-property tax of the types specified or that the operator reported the total amount of his tax bill in the first question and could not or did not make a separate report for his personal taxes.

Cash-rented land.—In addition to cash tenants, another group of farm operators, namely, part owners, may be renting land for cash. A presentation is made separately in State table 7 of the data reported for cash tenants and for part owners whose rented land was operated on a cash basis. In this table the information pertains, in most part, to those operators who reported the amount of cash rent paid. The acreage of the farms, the value of the farms (land and buildings), the value of the buildings, and the amount of cash rent paid are given so that derived figures are available for the amount of rent per acre and the amount of rent per \$100 of value.

Work off farm.—Many operators of farms obtain additional income from personal services performed off their farms. In some cases the operator supplements his farm income with odd or spare time jobs; in many other cases his farming activities are only secondary, his off-farm job being his principal source of income. The inquiry carried on the 1940 Farm and Ranch Schedule ascertained the number of days the operator worked off his farm for pay or income and, of these days, the number spent (a) on another farm (or farms) where he was employed by someone else and (b) at jobs or businesses not connected with any farm. Instructions were given to the enumerators that this question was intended to secure a record of all time spent off the farm in 1939 for pay, income, or profit. Work of the operator in connection with a filling station, garage, tourist camp, or other nonfarm business conducted at the farm was considered as work off the farm and should have been reported under section "b" of the question. An operator who, on the census date, was running a different farm from the one he operated in 1939 was not supposed to report the time spent on the former as work off his farm. This is indicated by the wording of the main part of the inquiry, which read:

How many days in 1939 did you work for pay or income off the farm you operated?---- Days
 (If no days, write "None")

An effort was made to get a positive report as to off-farm work from every operator. If there were no off-farm work, an answer of "None" was to be supplied. However, the enumerator could not always supply an answer to this question.

Age of operator.—Farm operators have been classified by age for several censuses and the absolute figures for six age groups are shown, by tenure of operator, in State table 10. Averages are also given in this table by tenure for both white and nonwhite operators for 1940, the only year for which averages are available. Age data in county table IX are restricted to the average age for operators classified by color and for operators classified by tenure, disregarding color.

Year of occupancy.—The question on the 1940 Farm and Ranch Schedule, "Year when you began to operate THIS farm---- (Year)," reflects, in part, the stability or instability of operators on a particular farm. No account was taken as to whether the operator had ever had previous farm experience; for example, if an operator began operating his farm in 1940, it may have been the first time he was ever gainfully employed and not that he was unstable in his term of occupancy and had just moved from another farm. In making comparison between the tenure classes as to the length of time the operators had been on their farms, it is well to consider the average age of the operators in the identical tenure classes.

In both 1940 and 1935, only the year in which the operator began to operate his farm was secured. Since the Census of 1940 was taken as of April 1 and that of 1935 as of January 1, it is impossible to classify the data so as to make exact comparison between the two years. This lack of complete comparability also prevails in regard to the data obtained in 1940 with those obtained in 1930 and earlier years when the month, as well as the year, of the initial operation was secured and used in tabulating the reports. Hence, in State table 10 the year of occupancy is given for the 1940 Census, while for earlier census years the data have been translated into the number of years the operators had been operating their farms.

In State table 10 averages are presented for operators, classified by color and tenure, and in county table IX averages are presented for operators, classified by color, and a second group of averages for operators, classified by tenure. These averages were obtained by making a summation of all years reported for a given class and dividing the total by the total number of operators reporting for that class. The resulting quotient was shown as a whole number; for example, when the average came to something in excess of 1928 but not as much as 1929, the average year is shown in the tables as 1928.

Residence of farm operator.—Information was secured in 1940 as to whether the operator of the farm resided on the farm he was operating. The question read "Do you reside on this farm?----- (Yes or No)." The information obtained as a result of this inquiry, since it is available for the one year only, is carried in county table IX only and does not appear in any State table.

Cooperative marketing.—Since a clear-cut distinction is not easily made as to what types of transactions constitute cooperative selling and purchasing, and since inquiries carried in former censuses as to dollar volume of business were not fully satisfactory, the inquiries in 1940 were designed to get only positive or negative answers as to whether such transactions were made by the farm operator in the previous calendar year. Three questions were designed, one relating to cooperative selling, the second to cooperative buying, and the third to business done through a cooperative service organization. Instructions were given to the enumerators that service cooperatives included mutual fire insurance companies, mutual telephone companies, cooperative truck routes, spray rings, rural electrification associations, etc.

Farm labor.—Many and insistent demands produced the labor inquiry which comprised a part of the agricultural schedule for 1940. Several types of information were desired. Some persons wished to secure data which would show the varying supply and demand for labor at various seasons of the year. Others wished to obtain similar information by the type of labor hired, that is, whether hired or available for hire by the month, day, or on a piece work or contract basis. The amount paid for various classes of labor was also wanted.

After many conferences by representatives of interested agencies and private individuals, the following question, somewhat complex in nature, was formulated:

X.—FARM LABOR			
37. Number of workers 14 years old and over and wages paid for farm work on this farm (do not include housework or contract construction work):			
CLASS OF LABOR	Number of persons 14 years old and over working the equivalent of 2 or more days the week of—		Total cash wages paid for all hired labor in 1939
	Mar. 24-30, this year	Sept. 24-30, last year	
	Number	Number	Dollars
(a) Operator and unpaid members of his family			x x x x x x
(b) Labor hired by month			(Omit cents)
(c) Labor hired by day or week			(Omit cents)
(d) Others (include piece work and contract labor)			(Omit cents)

It is to be noted that adequate corrections for labor data, especially for type and numbers, cannot be made where reports were improperly recorded or where no reports were given.

In presenting the data, the cash expenditures for labor have been listed along with other farm expenditures and not in the section relating to the numbers employed. It should be noted that the expenditures for farm labor represent the amounts paid in cash. For certain types of labor, cash payments are often supplemented with the furnishing of board, housing, feed and pasturage for animals, or products of the farm for the use of the laborer's family.

Farm expenditures.—As noted in the foregoing under farm labor, the inquiry for that item specified expenditures in cash. For all other expenditures, it was pointed out in the instructions to enumerators that cash paid out and other obligations incurred during 1939 for all specified goods and services used on the farm should be included. In the case of a tenant-operated farm, contributions made by the landlord, as well as those made by the tenant operator, were to be included. Another instruction stated that a farm operator who rented land to others should report only the expenditures for the part he operated.

The inquiry for the amount expended for farm implements and machinery specified the inclusion of expenditures for automobiles, tractors, and motortrucks, while that for expenditures for building materials specified the inclusion of lumber, roofing materials, hardware, cement, paint, fencing material, etc., for use on the farm.

Farm machinery and facilities.—In 1940, an inventory record was made for the number of automobiles, motortrucks, and tractors on each farm. The enumerator was cautioned to include automobiles owned by hired help living on the farm. Any tractors which were home-made were to be listed under the inquiry relating to that item. For each of these three general classes of equipment, the year of latest model on the farm was to be recorded. The number of farms reporting each model is presented by tenure of operator and by individual year of model beginning with the most recent model and extending to those approximately 10 years of age. For all older models the number of farms reporting is shown in one group. Such data are presented in State table 11. In county table X the year of latest model is given for two 5-year groups and for a third group in which all older models fall.

The averages given for the year of latest model were obtained by adding the years reported for the individual models and dividing that sum by the total number of farms reporting. The resulting quotient is shown as a whole number; for example, a quotient of 1934 (with or without a decimal) is given in the tables as 1934. The average age of any of the types of equipment on the farm might be a little older than indicated by the average for the year of latest model, as shown in the tables, since in some cases there would be cars, trucks, or tractors, of an earlier model on the farm.

An inquiry was carried on the 1940 Farm and Ranch Schedule as to whether there was an electric distribution line within one-quarter mile of the farm dwelling. This distance was recommended by engineers as defining the probable range of potential users of electric current. Of the dwellings that were already lighted by electricity, the source of current was ascertained, that is, whether from a power line or from a home plant. Of those lighted by a home plant a presentation is made of the number within one-quarter mile of an electric distribution line.

The enumerator was required to indicate each kind of road on which a farm was located. Many farms have frontage on more than one type of road. For such farms, the tabulations were made so that the higher or superior class of road was shown in one group and the secondary type of road in another group. Such a distinction is made in State table 11. In county table X the farms are classified according to the highest type of road recorded for them.

Livestock and livestock products.—For convenience, the term "livestock" in the Census Reports is made to include not only domestic animals such as horses, mules, cattle, swine, sheep, and goats, but also fur-bearing animals (kept in captivity), poultry, and bees. It follows, then, that the term "livestock products" should include production from the above classes.

In making comparisons between the various census years for any particular class of livestock shown in the accompanying tables, several points should be kept in mind, two of which are:

(1) It is characteristic for some classes of livestock to change in numbers between years through rather definite cycles, i. e., from a low point to a high point and back again over a period of years. These cycles often follow price relationships. A census taken every five years might fall at different points of the cycle and thus interfere with the determination of long-time trends. Cyclical changes have an effect on the volume of production.

(2) A variation in the months of enumeration seriously affects the comparability of the statistics for most kinds of livestock, again making it difficult to determine the trend in numbers between census periods. As noted in the livestock tables, the 1940 and 1930 censuses were taken as of April 1; the 1935, 1925, and 1920 censuses as of January 1; and the 1910 census as of April 15. In the period from January 1 to April 1 (or April 15) rapid changes are taking place in the numbers of each class of livestock due to decreases from farm slaughter, deaths, and marketings during this three-month period and to increases due to births and purchases. The net effect of these influences cannot be readily appraised. For the country as a whole, April 1 is in the midst of the season when colts, calves, lambs, spring pigs, and other livestock are born. In some parts of the country, a census on that date would include many young animals; in other parts, it would include relatively few of such animals; and in still other parts, varying proportions would be included. For this reason and because of the necessity of limiting the number of inquiries, those responsible for the 1940 census schedule thought it best that all recently-born animals should be excluded from the enumeration.

A change of date from January 1 to April 1 may seriously affect comparability in enumeration of migratory sheep in the Western States. January 1 will usually find such sheep on the winter range but April 1 may find them in a different county or even a different State, en route to or on the spring-fall range. The instructions to the enumerators were that sheep on open range be enumerated where the ranch headquarters are located.

The inquiries for 1940 were so worded that, when considering young animals and poultry, inclusions were made for horse and mule colts and calves over 3 months of age, pigs and kids (goat) over 4 months of age, lambs over 6 months of age, and poultry over 4 months of age, on the date of the census. Because of the varying age groups included in the different census years, a tabulation appears as a part of this text presentation showing to what age groups the numerical data refer. The tabulation is confined to the material appearing as part of this volume.

AGE AND SEX GROUPS ENUMERATED FOR VARIOUS CLASSES OF LIVESTOCK, 1940, WITH APPROXIMATELY COMPARABLE GROUPS, 1910 TO 1935; AND OWNERSHIP OF BEES, 1910 TO 1940

(See State tables 3, 13, and 14, and county tables IV, V, and XI)

ITEM	1940 (April 1)	1935 (January 1)	1930 (April 1)	1925 (January 1)	1920 (January 1)	1910 (April 15)
Horses and/or mules—farms reporting—	Over 3 mo. old.	All ages.	All ages.	All ages.	(¹)	(¹)
Horses and colts—farms reporting—	Over 3 mo. old.	All ages.	All ages.	All ages.	All ages.	All ages.
Colts—number—	Over 3 mo. old.	All ages.	Over 3 mo. old.	All ages.	All ages.	Over 3-1/2 mo. old.
Mules and mule colts—farms reporting—	3 to 27 mo. old.	Under 2 yr. old.	3 to 27 mo. old.	Under 2 yr. old.	Under 2 yr. old.	(¹)
Mule colts—number—	Over 3 mo. old.	All ages.	Over 3 mo. old.	All ages.	All ages.	All ages.
Cattle and calves—farms reporting—	Over 3 mo. old.	All ages.	All ages.	(¹)	All ages.	All ages.
Cows and heifers—number—	Over 3 mo. old.	All ages.	Over 3 mo. old.	All ages.	All ages.	Over 3-1/2 mo. old.
Kept mainly for milk production—farms reporting—	Over 27 mo. old.	(¹)	Over 27 mo. old.	2 yr. old and over.	2 yr. old and over.	2 yr. old and over.
Kept mainly for beef production—farms reporting—	Over 27 mo. old.	(¹)	Over 27 mo. old.	2 yr. old and over.	2 yr. old and over.	Over 15-1/2 mo. old, kept for milk.
Hogs and pigs—farms reporting—	Over 4 mo. old.	All ages.	All ages.	All ages.	All ages.	Over 3-1/2 mo. old.
Sows and gilts—farms reporting—	Over 4 mo. old.	All ages.	Over 3 mo. old.	All ages.	All ages.	Over 3-1/2 mo. old.
number—	Farrowing between Dec. 1, 1939 and June 1, 1940.	Farrowing between Jan. 1 and June 1, 1940.	Farrowing between Jan. 1 and June 1, 1940.	(¹)	For breeding purposes, 6 mo. old and over.	(¹)
Sheep and lambs—farms reporting—	Over 6 mo. old.	All ages.	All ages.	All ages.	All ages.	All ages.
Ewes—farms reporting—	Over 6 mo. old.	All ages.	Over 6 mo. old.	All ages.	All ages.	Over 3-1/2 mo. old.
Yearling ewes—farms reporting—	Over 6 mo. old.	1 yr. old and over.	Over 6 mo. old.	(¹)	1 yr. old and over.	Over 3-1/2 mo. old.
Other ewes—farms reporting—	Over 6 mo. old.	1 yr. old and over.	Over 6 mo. old.	1 yr. old and over.	1 yr. old and over.	Over 3-1/2 mo. old.
Goats and kids—farms reporting—	Over 4 mo. old.	All ages.	All ages.	All ages.	All ages.	All ages.
Angora—farms reporting—	Over 4 mo. old.	All ages.	All ages.	All ages.	All ages.	All ages.
Other goats—farms reporting—	Over 4 mo. old.	(¹)	All ages.	(¹)	1 yr. old and over, raised for fleeces.	(¹)
Chickens—farms reporting—	Over 4 mo. old.	(¹)	All ages.	(¹)	All ages, raised for fleeces.	(¹)
Turkeys—farms reporting—	Over 4 mo. old.	(¹)	All ages.	(¹)	Other than goats and kids, raised for fleeces.	(¹)
Ducks—farms reporting—	Over 4 mo. old.	(¹)	All ages.	(¹)	Other than goats and kids, raised for fleeces.	(¹)
Geese—farms reporting—	Over 4 mo. old.	(¹)	All ages.	(¹)	Age not specified.	Over 3 mo. old.
Guineas—farms reporting—	Over 4 mo. old.	(¹)	All ages.	(¹)	Age not specified.	Over 3 mo. old.
Pigeons—farms reporting—	Over 4 mo. old.	(¹)	All ages.	(¹)	Age not specified.	Over 3 mo. old.
Quail—farms reporting—	Over 4 mo. old.	(¹)	All ages.	(¹)	Age not specified.	Over 3 mo. old.
Pheasants—farms reporting—	Over 4 mo. old.	(¹)	All ages.	(¹)	Age not specified.	Over 3 mo. old.
Hives of bees—farms reporting—	Over 4 mo. old.	(¹)	All ages.	(¹)	Age not specified.	Over 3 mo. old.
Hives owned by operator or by others.	Hives owned by operator or by others.	(¹)	Hives owned by operator.	(¹)	Hives.	Hives.
Hives owned by operator or by others.	Hives owned by operator or by others.	(¹)	Hives owned by operator.	(¹)	Hives.	Hives.
Fur animals in captivity: Silver fox—farms reporting—	Females over 3 mo. old.	(¹)	(¹)	(¹)	(¹)	(¹)
Mink—farms reporting—	Females over 3 mo. old.	(¹)	(¹)	(¹)	(¹)	(¹)

¹Not available.

In theory, a change in the date of the enumeration should have little effect on the volume of production reported for the previous calendar year. However, experience indicates that, when accurate records of production are not kept, daily production of milk and of eggs at the time of the enumeration does affect the total volume reported for a year. This means that a census of milk and egg production taken near the peak of production in April, for the previous year, would tend to give somewhat higher figures than a census taken in January which is near the low point.

In county tables IV and V, where the data are given only for the last 3 censuses, the inventory data for 1935 are given in italics, since that census was taken as of January 1 while the 1940 and 1930 enumerations were as of April 1.

Hogs and pigs.—In 1940, pigs on hand on April 1 which had been born since December 1, 1939, were not to be counted as a part of the farm inventory. In some of the previous censuses taken in April the inventory had been limited to hogs and pigs on hand which had been born prior to January 1 of the census year. The change, so that any pigs under 4 months of age would be excluded, was made at the request of the United States Department of Agriculture which divides farrowings into "spring" and "fall," the former including pigs born from December 1 to the following June 1, and the latter including pigs born between June 1 and December 1.

Poultry.—To be counted in 1940, all poultry on hand on the census date had to be over 4 months of age. This age limit, as in the case of pigs, had been raised. By excluding

fowls under 3 months in several of the preceding censuses, an approach was made to securing information for laying flocks, particularly for chickens. Since many chickens which go to market as broilers are about 12 weeks of age (or approximately 3 months), some chickens intended for broilers might be included in the enumerations and some might be excluded. By changing the minimum age to 4 months it was hoped that chickens on hand on the census date which were to be marketed as broilers would be excluded from the enumeration in 1940.

Separate inquiries were carried on the 1940 Farm and Ranch Schedule for chickens, turkeys, and ducks. Another inquiry was provided for other classes of poultry. The names of these other classes of poultry were to be given along with the numbers on hand over 4 months old on April 1, 1940, and the numbers raised in 1939. County data for chickens, turkeys, ducks, geese, and guineas are presented in county table V. State table 14 presents totals for farms reporting, numbers on hand, and numbers raised, for pigeons, pheasants, and quail. In many cases the names of the other classes of poultry were not given. The factual data for such reports are included under a heading "Unspecified and other."

Bees and honey.—Beekeeping has been considered as an agricultural operation. At the request of those interested in apiculture, the form of the inquiry was changed in 1940 so that two questions were carried in regard to the number of hives of bees. The first related to hives on a farm on April 1 which were owned by someone other than the farm operator and the second related to hives owned by the farm operator whether kept on his farm or on nonfarm land such as deserts, hills, swamps, etc. Data for each of these two groups are presented in county table V, at the beginning of which totals for the State are carried. If the number of farms reporting hives of bees for each of these groups are added, the total may differ somewhat from the number of farms reporting hives of bees shown in State table 3 since the figures shown in State table 3 for this item represent the number of farms having bees regardless of whether owned by the operator or by others but kept on farms.

The schedule inquiry in 1940 regarding honey production was addressed to the farm operator and read as follows: "Honey produced by your bees in 1939 . . . pounds . . ." In order to get a report on substantial amounts of honey production for bee owners whose bees were on another farm, the following instruction was given to the enumerators:

If on this farm there are bees owned by a person other than the operator, not only list on the schedule for this farm the number of hives but also inquire as to whether the owner of such colonies has other bees. If he has as many as 30 hives altogether, on this farm and elsewhere, you should visit him, if in your district, and determine whether a schedule should be obtained. If such is the case, prepare a farm schedule, including thereon the total quantity of honey produced by all his bees If such owner is not in your district, send to your supervisor the name and address of the owner of the bees and any information pertaining to his operations which might be helpful in the enumeration, such as number of hives of bees on this farm, a statement whether he has other bees and where located, etc., in order that a Farm and Ranch Schedule may be obtained from him.

Goats and mohair.—The inventory of goats and kids for April 1, 1940, related to those animals over 4 months old on that date. Separate data were secured for Angora and for "Other" goats and, for the first time, an inquiry was included relating to the number of goats milked. The quantity of mohair and kid hair clipped in 1939 was also reported.

Farm slaughter and purchases and sales of livestock.—Data are shown for four separate classes of animals butchered, namely, cattle (excluding calves), calves, hogs and pigs, and sheep and lambs. In the county table, figures are also given for the number of farms reporting slaughter of any of these four classes of animals. Another set of figures is given in the county table only for the number of farms reporting cattle and/or calves butchered. The 1940 inquiry included animals butchered in 1939 for use on the particular farm or for sale from that farm. Animals butchered off the farm on a custom basis, or otherwise, for use on the farm were to be reported by the operator of the farm for which the animals were butchered.

For purchases and sales, data are shown, in county table XI only, for four specific classes of animals, namely, cattle, excluding calves; calves; hogs and pigs; and sheep and lambs. Data are also presented therein for the farms reporting the purchase or sale of cattle and/or calves.

Fur animals (kept in captivity).—By definition, all establishments or businesses which kept fur-bearing animals for income or profit were classed as farms provided they met certain minimum requirements. However, information as to the type of animals kept or pelts taken was secured only for silver fox and mink. These data are presented in State table 14 only, but not in a county table.

Crops.—The 1940 Farm and Ranch Schedule was prepared in such a manner that every crop grown on tracts of land listed as farms should have been enumerated. The crop inquiries were varied in different sections of the country so that separate questions could be carried for all crops widely grown in each major area. If a separate inquiry was not carried for a particular crop, that crop could be reported under one of several "catch-all" questions on the schedule. By using a different schedule for each region it was also possible to use the unit of measure that was most prevalent in an area for reporting production.

The acreage, or area, given in the tables for the several crops represents the acreage harvested in 1939 with the following exceptions: The acreage given for land in fruit orchards, vineyards, and planted nut trees represents the land in bearing and nonbearing trees and vines, on the census date; and the acreage, or area, for horticultural specialties represents the land in those crops in 1939 and not the land from which a harvest was made. It should be pointed out that the acreage harvested is often much less than the acreage planted; also, that a crop intended for harvest in one manner might be harvested in an entirely different manner; for example, soybeans may have been planted for the beans but may have actually been hogged off or cut for hay. The following instruction was given to the enumerators for 1940:

If a crop which did not justify harvesting in the usual manner was grazed or hogged off, or was cut for forage, it should be considered as harvested. If, in harvesting, any appreciable part of a field was skipped, enter only the acres actually harvested. Where the entire field was gone over in harvesting, report the entire acreage as harvested even though the yield was small.

The production for the various crops represents the quantity harvested in 1939, with the exception of citrus fruit production which was to be reported for the crop from the bloom of 1938 for Arizona and California and from the bloom of 1939 for all other areas in which citrus fruits were grown.

In comparing the statistics for one census year with those for another, it should be borne in mind that the acreage of crops (or the number of fruit trees or vines) and the number of farms reporting are, on the whole, a better index of the general changes or trends in agriculture than the quantity of crop production, since variation in quantity may be due largely to favorable or unfavorable seasons or to other factors.

Units of measure.—The unit of measure for reporting production of some crops has varied from one census year to the next. As has been noted the schedule for 1940 made it possible to secure the production of certain crops in varying units for the major geographic regions. In the earlier censuses, production of a crop was quite generally, though not universally, reported in a standard unit for all areas with the result that the quantity harvested was given for some areas in terms of containers not widely used in those areas.

Types of containers and their cubic content have varied over the years with production and marketing practices. This has been especially true of units of measure for vegetables and fruits. It has been found impossible to obtain the production of vegetables in terms of standard containers, hence, the resort to use of value of sales, which has its limitations.

In the tables, the current production of the several crops is shown in the unit of measure carried on the schedule; for example, production of apples is shown in bushels for all States except Arizona and California where it is given in tons or fractions thereof, since the schedule required the production of this crop in those respective units. In the State tables the historical data are given for most of the crops in the unit carried on the most recent schedule for that area. This often required that the figures for earlier years be converted into different units from those reported and published for those years. Conversions have been made by using the weights in current use. These weights, or factors, used in

making the conversions will be published in the general report, volume III, where the data for each crop are brought together and shown by States in the same table.

For a few crops, the type of container, or weight per unit, has varied so much from one census year to another that it has been deemed inadvisable to show the production for other years in terms of the current census year's unit. Peanuts, which were reported in pounds in 1939 and in bushels in earlier years, afford a good example of the difficulty of converting production. There has been a considerable shift in the type of peanuts grown in the various States owing principally to market demands and, in part, to farm production practices and crop programs. The Virginia type of peanut weighs 22 pounds per bushel; Southeastern Runner type, 28 pounds per bushel; and the Spanish type, 30 pounds per bushel. Production of these types has varied widely within many of the States through the years and no reliable data on the production by types within the States are available.

Corn.—In State table 4 and county table VI figures are presented for the item "corn for all purposes." This item includes corn harvested for grain, for silage, and that hogged or grazed off, or cut for fodder. It does not, however, include sweet corn and other corn for roasting ears or for canning, popcorn, "Egyptian corn," kafir, or milo maize. There is no duplication of acreage for the uses shown in the table, that is, the acreage for all uses when totaled will equal that reported for "corn for all purposes."

Sorghums.—In the Census of 1940 sorghums for silage were reported separately from those which were cut for hay or fodder. Separate figures for these appear in county table VI but not in State table 4. Under the item "harvested for grain" the enumerator was instructed to "include the seed of sweet sorghums and the seed from the various hybrids, as well as from grain sorghums." As in the case of corn, there is no duplication in the acres of sorghums harvested for grain and the acreage cut for silage, hay, or fodder.

Small grains.—In the tables, figures are given for small grains threshed. The term "grain threshed" is broad enough to include grains harvested with combines, which are in general use in many areas. Acreages of oats, wheat, barley, and other small grains which were harvested for hay are shown with the hay crops and not under "small grains."

For the item "mixed grains (other than a flax and wheat mixture) threshed," the following instruction was given to the enumerators:

Even though the mixture of grains may be separated in the process of harvesting or after harvest and the quantities of the separate grains determined, report the total of the mixture here and do not report under the questions for those specific crops the quantities of the separate kinds included in this mixture.

In addition to an inquiry for "oats threshed" and an inquiry for "small grain hay" which included oats cut for hay, another inquiry was carried in the small grain block of the schedule worded as follows: "Oats cut for grain when ripe or nearly ripe and fed unthreshed (omit oat hay)."

Hay crops.—For the enumerators' guidance as to what hay crops were to be included under "annual legumes saved for hay," the following list was made a part of the schedule inquiry:

Cowpeas	Vetches	Mungbeans
Peanuts	Crotalaria	Other beans
Canada peas	Soybeans	Beggarweed
Austrian peas	Velvetbeans	Lupines
Other peas	Horsebeans	

This listing was followed by a note concerning byproducts used for hay or straw which read: "Include peanut vines saved for hay, but omit 'straw' where beans or peas have been threshed."

Separate figures for sweetclover hay and lespedeza hay were secured in the 1940 Census for the first time. These data appear in county table VII.

Annual legumes.—The inquiries for the individual annual legumes were designed to obtain the acreage of each crop grown alone and the acreage grown with companion crops. Because of different planting practices, the interplanted acreage cannot be satisfactorily reduced to an equivalent solid acreage to obtain a total acreage for any particular legume. That part of the acreage of the individual annual legumes cut for hay was to be reported not only under the separate inquiries for legumes, but, also, in the hay section of the schedule under "an-

nual legumes cut for hay." The acreage and production of annual legume hay appears in State table 4 and county table VII.

If soybeans, cowpeas, and peanuts were grown extensively in an area, a separate inquiry was carried for each on the regionalized farm schedule. For these three crops the total acreage harvested was requested and a subquestion was designed to ascertain the portion of the acreage (both grown alone and grown with other crops) which was harvested for beans only, for peas only, or for peanuts only. The data for acreage obtained as a result of the subquestions are shown in county table XII only.

For some of the annual legumes, such as cowpeas, picking of the seed is often incidental to the main use made of the crop. Some picking of seed is also made from interplanted acreages.

Dry lima beans are produced on an extensive scale in several sections of California. This crop was given a separate inquiry on the regionalized schedule for that State, which form was also used in Arizona. Such data are presented in State table 15 and county table XII for these two States.

Miscellaneous field crops.—In the "catch-all" question for field crops, some reports have been secured for crops not grown on an extensive scale. The data for any such crops are shown in a State table only. Some of the crops which may be listed therein are cassava, chicory, chufas, flax for fiber, ginseng, golden seal, kudzu, mustard seed, sugar beet seed, sunflower seed, willows, etc.

Vegetables.—The data for Irish potatoes and sweetpotatoes are presented in State table 4 and county table VII. Information is given in State table 16 and county table XIII for the farms reporting, acreage, and value of the individual vegetables harvested for sale (excluding Irish and sweet potatoes). Data are usually given for more kinds of vegetables in State table 16 than in county table XIII.

The inquiry on the 1940 schedule relating to vegetables grown for home use was intended to secure the value of all vegetables grown in 1939 on a particular farm for consumption by the operator's family and by all other households living on the farm.

Horticultural specialties.—Special emphasis was given in the instructions to enumerators that production in mushroom cellars, nurseries, greenhouses, and similar establishments were considered agricultural operations, for which a Farm and Ranch Schedule should be secured, if minimum requirements of a farm were met. Three inquiries were made a part of each regionalized schedule to obtain the area and the amount of sales of such products.

Small fruits.—The figures given for the individual small fruits represent the acreage and production for tame, or cultivated, varieties only, with the exception that wild blueberries were considered a harvested crop if the land was used primarily for their production. The 1940 schedule specified that nonbearing acreage was not to be included.

Tree fruits, nuts, and grapes.—On many farms there are a few fruit or planted nut trees, or grapevines which are not a part of a well-defined orchard or vineyard. In many such cases reports were secured for the number of trees, with or without production, but no acreage was shown. An acreage was supplied when there were enough trees or plants, at normal planting distances, to make two acres. For this reason, the number of farms reporting land in bearing and nonbearing fruit orchards, as shown in State table 17 and county table XIV, is usually smaller than the number of farms reporting tree fruits, nuts, or grapes of any kind.

Demand has been made for the number of farms reporting orchard fruits, the number of farms reporting citrus fruits, and the number of farms reporting nuts. State table 17 and county table XIV present this type of data. In several regions where fruit production is important, a separation was secured for cherries into sour cherries and sweet cherries; of peaches into clingstone and freestone; of pears into Bartlett and other pears; of plums into plums and prunes; and of grapes into table, raisin, and wine or juice varieties. Such information, when available, is carried in State table 17 and county table XIV.

Maple sirup and sugar.—Production of maple sirup and sugar was carried as a separate inquiry only in Region 1 which roughly comprises those States in the northeastern part of the country. When reported, it will appear in State table 17 and county table XIV.

UNITED STATES DEPARTMENT OF COMMERCE

JESSE H. JONES, Secretary

BUREAU OF THE CENSUS

J. C. CAPT, Director (Appointed May 22, 1941)

WILLIAM LANE AUSTIN, Director (Retired January 31, 1941)

VERGIL D. REED, Assistant Director

HOWARD H. McCLURE, Assistant Director



SIXTEENTH CENSUS OF THE UNITED STATES : 1940

AGRICULTURE

VOLUME II

Third Series State Reports

Part 1

STATISTICS FOR COUNTIES

Value of Farm Products

Farms Classified by Major Source of Income

Farms Classified by Value of Products

Prepared under the supervision of

ZELLMER R. PETTET

Chief Statistician for Agriculture

VOLUME II

Part 1.—The Northern States

Part 2.—The Southern States

Part 3.—The Western States

UNITED STATES

GOVERNMENT PRINTING OFFICE

WASHINGTON : 1942

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Vital Statistics—HALBERT L. DUNN, *Chief Statistician.*

LETTER OF TRANSMITTAL

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
Washington, D. C., April 30, 1942

SIR:

I transmit herewith part 1 of volume II of the Reports on Agriculture, Sixteenth Decennial Census. Volume II consists of three parts, presenting detailed statistics, respectively, for (1) the Northern States, (2) the Southern States, (3) the Western States.

Provision for the 1940 Agriculture Census was made in the Act providing for the Fifteenth Decennial Census which was approved on June 18, 1929. Data in volume II, comprising the third series Census of Agriculture reports, were first published in a separate bulletin for each of the forty-eight States and the District of Columbia. The reports are the results obtained from a tabulation of the information given by farm operators to census enumerators in a personal canvass in connection with the Sixteenth Decennial Census.

The collection and compilation of these statistics and the preparation of this volume were made under the supervision of Z. R. Pettet, Chief Statistician for Agriculture, with the assistance of Sherman S. Slick, Assistant Chief Statistician, Warder B. Jenkins, Chief of Technical Staff, Hilton E. Robison, Senior Agricultural Statistician, and Irvin Holmes, Senior Statistician.

Acknowledgment is made of the cooperation of representatives of the United States Department of Agriculture and of the Division of Statistical Standards, Bureau of the Budget.

Respectfully,

J. C. CAPT,
Director of the Census

Hon. JESSE H. JONES,
Secretary of Commerce

IV

REPORTS ON AGRICULTURE, IRRIGATION, AND DRAINAGE

Volume I.—Statistics by Counties for Farms, and Farm Property, with Related Information for Farms and Farm Operators; Livestock and Livestock Products; and Crops. (Six parts).

Volume II.—Statistics by Counties for Value of Farm Products, Farms Classified by Major Source of Income, and Farms Classified by Total Value of Products. (Three parts).

Volume III.—General Report—Statistics by Subjects for the United States, Geographic Divisions, and States.

United States Summary Bulletins.—Statistics for the United States, Geographic Divisions, and States in Condensed Form as Follows:

First Series Summary—Number of Farms, Uses of Land, Values, Principal Classes of Livestock and Livestock Products; and Specified Crops Harvested.

Second Series Summary—Farm Mortgages, Taxes, Labor, Expenditures, and Miscellaneous Farm Information; Goats and Mohair; and Fruits, Vegetables, and Minor Crops.

Third Series Summary—Value of Farm Products, Farms Classified by Major Source of Income, and Farms Classified by Total Value of Products.

Special Poultry Report.—Statistics by Geographic Divisions and States for Poultry of All Kinds on Hand and Raised; by Counties for Chickens and Chicken Egg Production by Number of Chickens on Hand; and by the Counties for Farms Reporting Chickens and Turkeys Raised by Numbers Raised.

Irrigation of Agricultural Lands.—Statistics by Counties and by Drainage Basins for 20 Irrigation States and a Summary for the United States.

Drainage of Agricultural Lands.—Statistics by Counties for 36 Drainage States and a Summary for the United States.

VOLUME II

This volume is composed of three parts with the States arranged by Sections and Geographic Divisions as follows:

Part 1—THE NORTHERN STATES

New England Division:

Maine
New Hampshire
Vermont
Massachusetts
Rhode Island
Connecticut

Middle Atlantic Division:

New York
New Jersey
Pennsylvania

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Ohio
Indiana
Illinois
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Wisconsin

West North Central Division:

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Iowa
Missouri
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South Dakota
Nebraska
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Part 2—THE SOUTHERN STATES

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South Carolina
Georgia
Florida

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Kentucky
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Alabama
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Arkansas
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Texas

Part 3—THE WESTERN STATES

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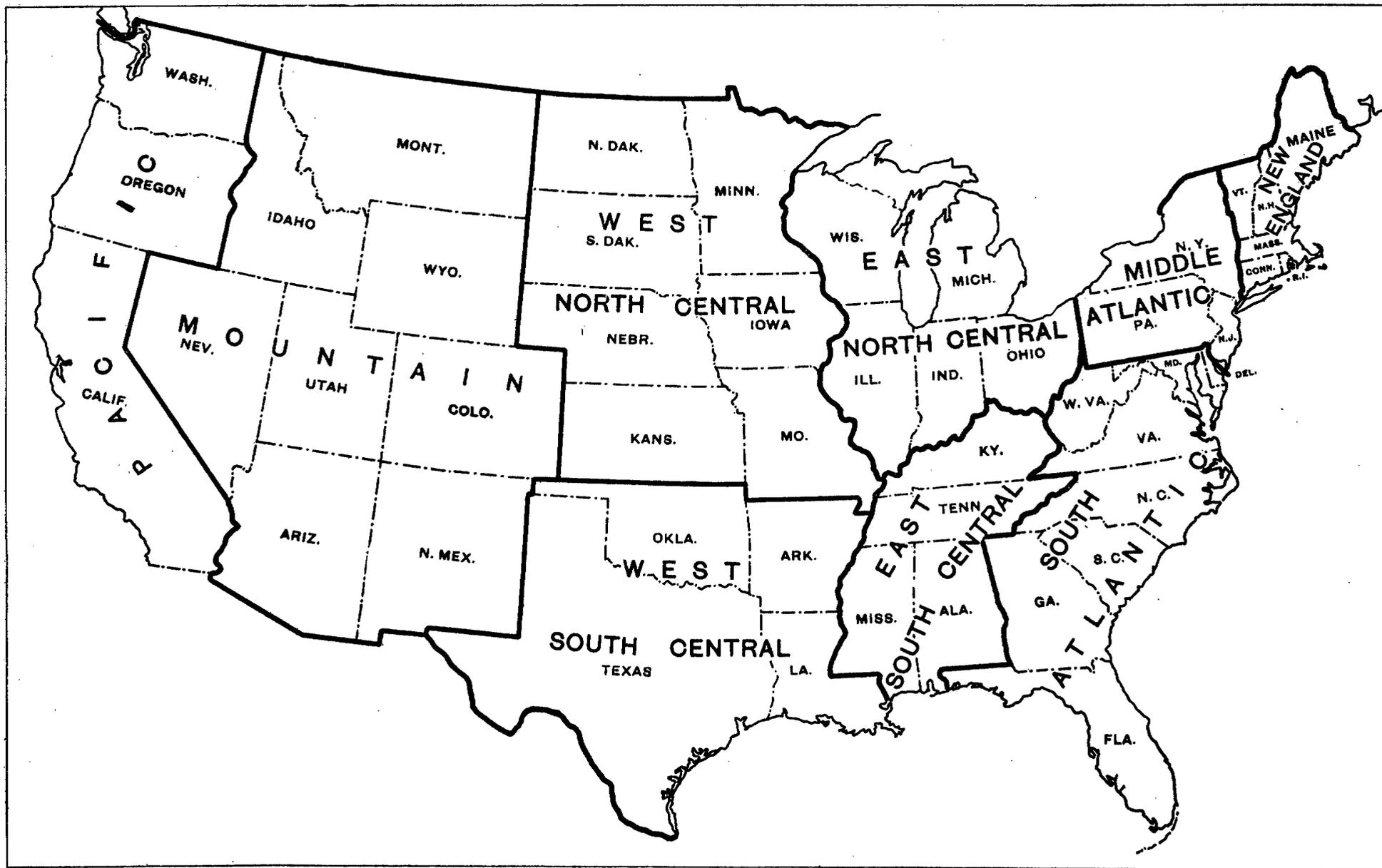
PART 1.—THE NORTHERN STATES

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1 State tables 1 to 17, inclusive, and County tables I to XV, inclusive, appear in Volume I of the Reports on Agriculture.

Map of the United States. Showing Geographic Divisions



CENSUS OF AGRICULTURE: 1940

INTRODUCTION

This volume presents all available information from the 1940 Census of Agriculture relative to the value of farm products. The nature of the value items included on the 1940 Census Farm and Ranch Schedule, the type of tabulations made, and the arrangement of the material in this volume, all result from the growing demand for more comprehensive statistics relative to farm income for small geographic areas.

The value statistics included in this volume may be classified broadly under two general heads, viz., "calculated values," and "enumerated values." The two series of figures serve basically different purposes and should not be confused.

The calculated value statistics are presented in State table 18 and county table XVI. The values in these tables, with certain exceptions noted below, were secured by multiplying the reported figures on livestock inventories and crop and livestock production by unit prices. Such statistics represent, for the most part, total value, or what has sometimes been called "farm value." They do not approximate gross farm income, much less cash farm income, since no deductions have been made for the value of products used by farm households, for seed, for waste, or for the value of crops fed on the farm where produced, which latter is duplicated in the livestock income of that farm. On the other hand, the value of byproducts, except cottonseed, peanut hay, and redtop hay, is not included. Neither is the value of annual legumes grazed or hogged off included in the calculated value of crops harvested. For livestock products the calculated values do not always fully represent the value of production. For example, the values for dairy products relate, except in the case of butter churned, to quantities sold and not to the total production including milk used by farm households and milk taken by calves or otherwise fed on the farm. Again, the values for livestock butchered and livestock sold do not represent the value of livestock production since they make no allowance for changes in inventory numbers.

The enumerated value statistics are presented in State table 19 and county tables XVII to XX, inclusive, and are here referred to as the "value of farm products sold, traded, or used by farm households." These statistics were obtained by enumeration, and represent the totals of individual farm reports for the ten value of products questions on the 1940 Farm and Ranch Schedule. When the value of products used by farm households is included in the totals, as it has been in this volume, these value statistics may be used, with certain limitations noted below, as one approximate measure of gross farm income.

The enumerated statistics relating to value of products sold, traded, or used by farm households were tabulated in three different ways: First, by geographic areas; second, by total value of products per farm; and third, by major source of income. The results of the first or geographic area tabulation are shown in county table XVII, which gives information on the number of farms reporting and the value for each of the principal products or groups of products (sources of income), with comparable figures from the 1930 Census insofar as they are available. The results of the tabulation by total value of products per farm are shown in county tables XVIII and XX. For 1930, only the number of farms is available for each of the income size groups. County table XX shows not only the total value of products sold, traded, or used by farm households for each income size group, but also the number of farms reporting and the value for each of the principal sources of income under each income size group.

State table 19 and county table XIX present the results of the tabulation by major source of income. Here the farms are classified according to their major (single largest) source of income. The number of farms reporting and the value, for each of the ten sources of income under each major source or type

group, are shown in State table 19, while in county table XIX similar figures are given for the principal sources of income under each major source group. *Since the 1940 major source tabulation is not strictly comparable with the 1930 type of farm tabulation, the 1930 figures by type of farm are shown in State table 19 for reference purposes only.* A discussion of the differences in method of classification, 1940 and 1930, is given below under the heading "Major source of income and type of farm."

For the 1930 Census the statistics relating to value of livestock on farms on the census date and value of crop and livestock production were published in volume II for Agriculture (parts 1, 2, and 3), entitled, *Reports by States, with Statistics for Counties and a Summary for the United States.* The 1930 Census figures on value of farm products sold, traded, or used by operator's family were published in volume III for Agriculture (parts 1, 2, and 3), entitled, *Type of Farm, Reports by States, with Statistics for Counties and a Summary for the United States.* The 1930 volume III presented type of farm tabulations by counties for farm land; value of specified farm property; receipts from boarders, lodgers, etc.; specified livestock and livestock products; specified farm expenditures; number of farms by size; and number of farms by value of products, in addition to the value of products figures shown for 1930 in this volume.

GENERAL DEFINITIONS AND EXPLANATIONS

A farm.—The schedule form for 1940 was entitled "Farm and Ranch Schedule." This title was followed by a subtitle "including special agricultural operations." The following definition appeared on each schedule:

A farm, for Census purposes, is all the land on which some agricultural operations are performed 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 a number of separate tracts, and the 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, renters, croppers, or managers, the land operated by each is considered a farm. Thus, on a plantation the land operated by each cropper, renter, or tenant should be reported as a separate farm, and the land operated by the owner or manager by means of wage hands should likewise be reported as a separate farm.

Include dry-lot or barn dairies, nurseries, greenhouses, hatcheries, fur farms, mushroom cellars, apiaries, cranberry bogs, etc.

Exclude "fish farms," fish hatcheries, "oyster farms," and "frog farms."

Do not report as a farm any tract of land of less than 3 acres, unless its agricultural products in 1939 were valued at \$250 or more.

In the enumerator's handbook the following instruction was given:

The definition of a farm found on the face of the schedule must be carefully studied by the enumerator. Note that for tracts of land of 3 acres or more the \$250 limitation for value of agricultural products does not apply. Such tracts, however, must have had some agricultural operations performed in 1939, or contemplated in 1940. A schedule must be prepared for each farm, ranch, or other establishment which meets the requirements set up in the definition. A schedule must be filled out for all tracts of land on which some agricultural operations were performed in 1939, or are contemplated in 1940, which might possibly meet the minimum requirements of a "farm." When in doubt, always make out a schedule.

Farming, or agricultural operations, consists of the production of crops or plants, vines, and trees (excluding forestry operations) or of the keeping, grazing, or feeding of livestock for animal products (including serums), animal increase, or value enhancement. Livestock, as here used, includes poultry of all kinds, rabbits, bees, and fur-bearing animals in captivity, in addition to mules, asses, burros, horses, cattle, sheep, goats, and hogs. Frequently, certain operations are not generally recognized as farming. This is especially true where no crops are grown or where the establishments are not commonly considered as farms.

A partial list of types of specialized agriculture and of operations not generally recognized as farming but for which Farm and Ranch Schedules were required was provided. This list included such operations as apiaries (bee farms), feed lots, greenhouses, hatoheries, mushroom cellars, etc.

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. For all practical purposes, the number of farm operators is identical with the number of farms.

Farms reporting.—The term "farms reporting," as used in the tables, indicates the number of farms for which the specified items shown in the particular table were reported. If there were 1,922 farms in a county and only 1,465 had dairy products sold or traded during 1939, and the enumeration of that item was complete, the number of farms reporting value of dairy products sold or traded for 1939 would be 1,465.

Livestock and livestock products.—For convenience, the term "livestock" in the Census Reports is used to include not only domestic animals such as horses, mules, cattle, swine, sheep, and goats, but also fur-bearing animals kept in captivity, poultry, and bees. It follows, then, that the term "livestock products," should include production from the above classes.

In the value tables in this volume there is one important exception to this general usage. In State table 19 and county tables XVII, XIX, and XX the term "livestock sold or traded" excludes poultry, bees, and fur-bearing animals.

In making comparisons between the various census years for any particular class of livestock shown in the accompanying tables, several points should be kept in mind, two of which are:

(1) It is characteristic for some classes of livestock to change in numbers between years through rather definite cycles, i. e., from a low point to a high point and back again over a period of years. These cycles often follow price relationships. A census taken every 5 years might fall at different points of the cycle and thus interfere with the determination of long-time trends. Cyclical changes have an effect on the volume of production.

(2) A variation in the months of enumeration seriously affects the comparability of the statistics for most kinds of livestock, again making it difficult to determine the trend in numbers between census periods. As noted in text table A, the 1940 and 1930 Censuses were taken as of April 1; the 1925, 1925, and 1920 Censuses as of January 1; and the 1910 Census as of April 15. In the period from January 1 to April 1 (or April 15) rapid changes are taking place in the numbers of each class of livestock due to decreases from farm slaughter, deaths, and marketings during this three-month period and to increases due to births and purchases. The net effect of these influences cannot be readily appraised. For the country as a whole, April 1 is in the midst of the season when colts, calves, lambs, spring pigs, and other livestock are born. In some parts of the country, a census on that date would include many young animals; in other parts, it would include relatively few of such animals; and in still other parts, varying proportions would be included. For this reason and because of the necessity of limiting the number of inquiries, those responsible for the 1940 census schedule thought it best that all recently-born animals should be excluded from the enumeration.

A change of date from January 1 to April 1 may seriously affect comparability in enumeration of migratory sheep in the western States. January 1 will usually find such sheep on the winter range, but April 1 may find them in a different county or even a different State, en route to or on the spring-fall range. The instructions to the enumerators were that sheep on open range be enumerated where the ranch headquarters were located.

The inquiries for 1940 were so worded that, when considering young animals and poultry, inclusions were made for horse and mule colts and calves over 3 months of age, pigs and kids (goat) over 4 months of age, lambs over 6 months of age, and poultry over 4 months of age, on the date of the census. Because of the varying age groups included in the different census years, text table A shows the age groups to which the value data refer.

In theory, a change in the date of the enumeration should have little effect on the volume of production reported for the previous calendar year. However, experience indicates that, when accurate records of production are not kept, daily production of milk and of eggs at the time of the enumeration does affect the total volume reported for a year. This means that a census of milk and egg production taken near the peak of production in April, for the previous year, would tend to give somewhat higher figures than a census taken in January which is near the low point.

Crops.—The 1940 Farm and Ranch Schedule was prepared in such manner that every crop grown on tracts of land listed as farms should have been enumerated. The crop inquiries were varied in different sections of the country so that separate questions could be carried for all crops widely grown in each major area. If a separate inquiry was not carried for a particular crop, that crop could be reported under one of several "catch-all" questions on the schedule. By using a different schedule for each region it was also possible to use the unit of measure that was most prevalent in an area for reporting production.

For definitions and explanations of the individual livestock and crop items, see chapters VII, VIII, and IX of volume III.

TOTAL VALUE OF LIVESTOCK ON FARMS AND OF LIVESTOCK PRODUCTS AND CROPS HARVESTED

For each agricultural census prior to 1920, the statistics relating to the value of the livestock inventory and the total value of livestock and crop production were enumerated figures. For the 1920 Agricultural Census the values for the livestock inventory and for livestock products were enumerated but the values for most crops were calculated by counties using State average unit values for each crop. For the 1925 and succeeding agricultural censuses, values were calculated for the livestock inventory and for livestock products, as well as for crops, but the method of calculation has varied. In the 1925 Agricultural Census the values were calculated by counties using, for most items, average unit values established for crop-reporting districts (groups of contiguous counties). For the 1935 Agricultural Census values were calculated by States only, using State average unit values. In the 1930 and 1940 Agricultural Censuses the values were calculated by counties using, for most items, county average unit values. The county unit values used in calculating total value of livestock on farms and total value of livestock products and crops harvested for the 1940 Census, as well as for the preceding censuses mentioned above, were obtained cooperatively by the Agricultural Statistics Division, Agricultural Marketing Service, Department of Agriculture and the Bureau of the Census.

Not all of the values for the 1940 Census shown in State table 18 and county table XVI are calculated values. For four items values were enumerated instead of production, because of the difficulty of finding a common production unit for purposes of enumeration. These four items are: Vegetables for sale, vegetables for farm household use, horticultural specialties, and forest products.

The following points should be observed in connection with the 1940 Census values presented in State table 18 and county table XVI:

Domestic animals.—The values for all species except goats represent the sum of the calculated values of individual age or sex groups. For goats the value is the sum of the calculated values for Angora goats and other goats.

Unspecified poultry.—Where the kind of poultry could not be identified, the unit value used was based on a weighted average of the unit values for identified kinds of other poultry in the same county and surrounding counties.

Dairy products.—The value of whole milk sold excludes the value of fluid sales of cream. The value of cream sold includes both the value of sales of sweet cream and the value of sales of sour cream (butterfat).

Cereals.—This item includes the value of the following crops: Corn for grain; sorghums for grain; and all wheat, rye, oats, barley, emmer and spelt, buckwheat, rice, and "mixed" grains threshed (or combined).

CENSUS OF AGRICULTURE: 1940

TABLE A.—AGE, SEX, AND OTHER GROUPS ENUMERATED FOR VARIOUS CLASSES OF LIVESTOCK, 1940; WITH APPROXIMATELY COMPARABLE GROUPS, 1900 TO 1935

ITEM	1940 (April 1)	1935 (January 1)	1930 (April 1)	1925 (January 1)	1920 (January 1)	1910 (April 15)	1900 (June 1)
Horses and/or mules—farms reporting	Over 3 mo. old.	All ages.	All ages.	All ages.	All ages.	All ages.	All ages.
Horses and colts—farms reporting	Over 3 mo. old.	All ages.	All ages.	All ages.	All ages.	All ages.	All ages.
number	Over 3 mo. old.	All ages.	Over 3 mo. old.	All ages.	All ages.	Over 3½ mo. old.	1 yr. old and over.
Colts—farms reporting	3 to 27 mo. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.
number	3 to 27 mo. old.	Under 2 yr. old.	3 to 27 mo. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.
Mules and mule colts—farms reporting	Over 3 mo. old.	All ages.	All ages.	All ages.	All ages.	All ages.	All ages.
number	Over 3 mo. old.	All ages.	Over 3 mo. old.	All ages.	All ages.	Over 3½ mo. old.	1 yr. old and over.
Mule colts—farms reporting	3 to 27 mo. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.
number	3 to 27 mo. old.	Under 2 yr. old.	5 to 27 mo. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.	Under 2 yr. old.
Cattle and calves—farms reporting	Over 3 mo. old.	All ages.	All ages.	All ages.	All ages.	All ages.	All ages.
number	Over 3 mo. old.	All ages.	Over 3 mo. old.	All ages.	All ages.	Over 3½ mo. old.	1 yr. old and over.
Cows and heifers—farms reporting	Over 27 mo. old.	2 yr. old and over.	Over 27 mo. old.	2 yr. old and over.	2 yr. old and over.	2 yr. old and over.	2 yr. old and over.
number	Over 27 mo. old.	2 yr. old and over.	Over 27 mo. old.	2 yr. old and over.	2 yr. old and over.	2 yr. old and over.	2 yr. old and over.
Kept mainly for milk production—farms reporting	Over 27 mo. old.	(¹)	Over 27 mo. old.	2 yr. old and over.	2 yr. old and over.	Over 15½ mo. old. kept for milk.	2 yr. old and over kept for milk.
number	Over 27 mo. old.	(¹)	Over 27 mo. old.	2 yr. old and over.	2 yr. old and over.	2 yr. old and over Jan. 1, kept for milk (estimated for 1920 reports).	2 yr. old and over kept for milk.
Kept mainly for beef production—farms reporting	Over 27 mo. old.	(¹)	Over 27 mo. old.	(¹)	2 yr. old and over.	(¹)	2 yr. old and over not kept for milk.
number	Over 27 mo. old.	(¹)	Over 27 mo. old.	2 yr. old and over.	2 yr. old and over.	(¹)	2 yr. old and over not kept for milk.
Hogs and pigs—farms reporting	Over 4 mo. old.	All ages.	All ages.	All ages.	All ages.	Over 3½ mo. old.	All ages.
number	Over 4 mo. old.	All ages.	Over 3 mo. old.	All ages.	All ages.	Over 3½ mo. old.	All ages.
Sows and gilts—farms reporting	Farrowing between Dec. 1, 1939 and June 1, 1940.	Farrowing between Jan. 1 and June 1.	Farrowing between Jan. 1 and June 1.	Farrowing between Jan. 1 and June 1.	For breeding purposes, 6 mo. old and over.	For breeding purposes, 6 mo. old and over.	All ages.
number	Farrowing between Dec. 1, 1939 and June 1, 1940.	Farrowing between Jan. 1 and June 1.	Farrowing between Jan. 1 and June 1.	For breeding purposes, 6 mo. old and over.	For breeding purposes, 6 mo. old and over.	(¹)	(¹)
Sheep and lambs—farms reporting	Over 6 mo. old.	All ages.	All ages.	All ages.	All ages.	All ages.	All ages.
number	Over 6 mo. old.	All ages.	Over 6 mo. old.	All ages.	All ages.	Over 3½ mo. old.	1 yr. old and over.
Ewes—farms reporting	Over 6 mo. old.	1 yr. old and over.	Over 6 mo. old.	1 yr. old and over.	1 yr. old and over.	Over 3½ mo. old.	(¹)
number	Over 6 mo. old.	1 yr. old and over.	Over 6 mo. old.	1 yr. old and over.	1 yr. old and over.	Over 3½ mo. old.	1 yr. old and over.
Yearling ewes—farms reporting	6 to 18 mo. old.	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
number	6 to 18 mo. old.	(¹)	6 to 18 mo. old.	(¹)	(¹)	(¹)	(¹)
Other ewes—farms reporting	Over 18 mo. old.	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
number	Over 18 mo. old.	(¹)	Over 18 mo. old.	(¹)	(¹)	(¹)	(¹)
Goats and kids—farms reporting	Over 4 mo. old.	All ages.	All ages.	All ages.	All ages.	All ages.	All ages.
number	Over 4 mo. old.	All ages.	All ages.	All ages.	All ages.	All ages.	All ages.
Angora—farms reporting	Over 4 mo. old.	(¹)	All ages.	(¹)	1 yr. old and over raised for fleeces.	(¹)	(¹)
number	Over 4 mo. old.	(¹)	All ages.	(¹)	All ages, raised for fleeces.	(¹)	(¹)
Other goats—farms reporting	Over 4 mo. old.	(¹)	(¹)	(¹)	Other than goats and kids raised for fleeces.	(¹)	(¹)
number	Over 4 mo. old.	(¹)	All ages.	(¹)	Other than goats and kids raised for fleeces.	(¹)	(¹)
Chickens—farms reporting	Over 4 mo. old.	Over 3 mo. old.	Over 3 mo. old.	Age not specified.	Age not specified.	Over 3 mo. old.	(¹)
number	Over 4 mo. old.	Over 3 mo. old.	Over 3 mo. old.	Age not specified.	Age not specified.	Over 3 mo. old.	Over 3 mo. old (includes guineas).
Turkeys—farms reporting	Over 4 mo. old.	Over 3 mo. old.	(¹)	(¹)	Age not specified.	Over 3 mo. old.	(¹)
number	Over 4 mo. old.	Over 3 mo. old.	(¹)	(¹)	Age not specified.	Over 3 mo. old.	Over 3 mo. old.
Ducks—farms reporting	Over 4 mo. old.	(¹)	(¹)	(¹)	Age not specified.	Over 3 mo. old.	(¹)
number	Over 4 mo. old.	(¹)	(¹)	(¹)	Age not specified.	Over 3 mo. old.	Over 3 mo. old.
Geese—farms reporting	Over 4 mo. old.	(¹)	(¹)	(¹)	Age not specified.	Over 3 mo. old.	(¹)
number	Over 4 mo. old.	(¹)	(¹)	(¹)	Age not specified.	Over 3 mo. old.	Over 3 mo. old.
Guineas—farms reporting	Over 4 mo. old.	(¹)	(¹)	(¹)	Age not specified.	Over 3 mo. old.	(¹)
number	Over 4 mo. old.	(¹)	(¹)	(¹)	Age not specified.	Over 3 mo. old.	Incl. with chickens.
Pigeons—farms reporting	Over 4 mo. old.	(¹)	(¹)	(¹)	Age not specified.	Over 3 mo. old.	(¹)
number	Over 4 mo. old.	(¹)	(¹)	(¹)	Age not specified.	Over 3 mo. old.	(¹)
Quail—farms reporting	Over 4 mo. old.	(¹)	(¹)	(¹)	Age not specified.	Over 3 mo. old.	(¹)
number	Over 4 mo. old.	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Pheasants—farms reporting	Over 4 mo. old.	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
number	Over 4 mo. old.	(¹)	(¹)	(¹)	(¹)	Over 3 mo. old.	(¹)
Hives of bees:							
Owned by operator and/or by others—farms reporting	Hives on operator's farm or on non-farm land.	(¹)	(¹)	(¹)	Hives of bees.	Hives on hand.	Hives on hand.
number	Hives on operator's farm or on non-farm land.	(¹)	(¹)	(¹)	Hives of bees.	Hives on hand.	Hives on hand.
Owned by farm operator—farms reporting	Hives on operator's farm or on non-farm land.	(¹)	Hives on operator's farm or elsewhere.	(¹)	(¹)	(¹)	(¹)
number	Hives on operator's farm or on non-farm land.	(¹)	Hives on operator's farm or elsewhere.	(¹)	(¹)	(¹)	(¹)
Owned by others—farms reporting	Hives kept on operator's farm.	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
number	Hives kept on operator's farm.	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Fur animals in captivity:							
Silver fox—farms reporting	Females over 3 mo. old.	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
number	Females over 3 mo. old.	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Mink—farms reporting	Females over 3 mo. old.	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
number	Females over 3 mo. old.	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)

¹ Not available.

Other grains and seeds.—The 1940 and 1930 Census figures for this item include flax threshed, annual legumes harvested for seed, alfalfa seed, clover and grass seeds, mustard seed, sugar beet seed, sunflower seed, hempseed, castor beans, and miscellaneous seeds. Flower and vegetable seeds, other than those specified above, were included under horticultural specialties in the 1940 Census. In the 1930 Census the value of flower and vegetable seeds grown on farms was included under the value of "other grains and seeds," while receipts from sales of flower and vegetable seeds in 1929 by nurseries, greenhouses, etc., were included under sales of horticultural specialties.

Hay and forage.—The 1940 figures for this item include the value for four crops not specifically covered by the 1930 figures. These crops are: Corn hogged or grazed off, or cut for green or dry fodder; silage crops other than corn and sorghums; oats cut and fed unthreshed; and root and grain crops (other than corn and annual legumes) hogged or grazed off. Two of these items—silage crops other than corn and sorghums, and root and grain crops hogged or grazed off—could be reported only under the "other field crops" question on the 1930 General Farm Schedule. The figures on root and grain crops hogged or grazed off exclude root crops harvested for feed, which were tabulated as a separate item under this group in both 1940 and 1930. All of the above four items, except silage crops other than corn and sorghums, were reported on an acreage basis only, and the values for the 1940 Census were calculated by using "per acre" unit values. As previously noted the 1940 figures for hay and forage do not include the value of annual legumes grazed or hogged off.

Cottonseed.—For the 1930 Census the production of cottonseed was enumerated, but the 1940 Farm and Ranch Schedule did not include this item. Consequently, production of cottonseed in 1939 was calculated by counties on the basis of the enumerated production of cotton (lint), and the value of cottonseed was then secured by multiplying the calculated production of cottonseed by the county unit price.

Fruits and nuts.—The 1940 calculated value of production of citrus fruits is based upon county unit prices which represent the equivalent packing-house door returns for all methods of sale. For the other fruits and nuts the 1940 figures were calculated by using county unit prices based on weighted averages for all methods of sale.

All other crops.—The value of maple sirup and maple sugar produced is included in the value shown for this item. Since the 1940 Census enumerated value of forest products sold includes the value of maple sirup and maple sugar sold, there is a partial duplication of values between these two items. For crops of very limited distribution, the values were secured by correspondence with the growers. Where the kind of crop could not be identified, the value was based on a weighted average "per acre" unit value for identified minor crops in the same county and surrounding counties.

VALUE OF FARM PRODUCTS SOLD, TRADED, OR USED BY FARM HOUSEHOLDS

The 1940 Farm and Ranch Schedule included ten questions relating to the value of farm products sold, traded, or used by farm households. These questions in the order of their appearance on the schedule were as follows:

- Value of all dairy products sold or traded in 1939.
- Value of all livestock sold or traded in 1939, except poultry, bees, and fur animals.
- Value of all poultry, eggs, baby chicks, poults, etc., sold or traded in 1939.
- Value of wool, mohair, meat, hides, etc., bees, honey, wax, and fur animals and pelts sold or traded in 1939.
- Value of the crops reported under Questions 87-142 (including landlord's share) which were or are to be sold or traded.
- (Crops, as used in this question, referred to field crops harvested in 1939.)
- Value of vegetables harvested in 1939 FOR SALE.
- Horticultural specialties, sales in 1939.
- Value of all fruits and nuts, including small fruits, produced in 1939, that were or are to be sold or traded.
- Value (estimated) of products of this farm in 1939 that were used by your family and by all households on this farm.
- Value of forest products sold in 1939.

The value of products information was secured in considerably more detail than in 1930 when the general farm schedule carried the following six value of products questions:

- Value of grains, cotton, tobacco, hay, vegetables, fruits, plants, flowers, and all other crops grown in 1929 which were or are to be sold or traded.
- Value of livestock sold or traded in 1929.
- Value of milk, cream, butter, butterfat, meat, poultry, eggs, honey, wool, mohair, and other livestock products sold or traded in 1929.
- Value of forest products sold in 1929.
- Value (estimated) of products of this farm in 1929 that were used by your family.
- Gross receipts from lodgers, boarders, and campers in 1929.

The arrangement of the value questions on the schedule was also changed materially. In 1930 all six value questions were carried in a single block; on the 1940 Farm and Ranch Schedule the ten value questions were distributed among the various crop and livestock questions, each value question following the crop or livestock questions upon which the value figure was based.

It will be noted that, in general, the value questions relating to livestock and livestock products, horticultural specialties, farm products used by farm households, and forest products apply to the calendar years 1939 and 1929; whereas the value questions for field crops, vegetables harvested for sale, and fruit crops are on a crop-year basis. That is, the values apply to quantities sold or to be sold or traded from crops harvested in 1939 and in 1929. One exception to the calendar year definition occurs in connection with the 1940 question on "other livestock products." Another exception to the crop-year definition occurs in connection with citrus fruit. These exceptions are discussed in detail below.

Farms with no farm products sold, traded, or used by farm households.—The numbers of farms shown for this classification in county tables XVII and XVIII represent farms for which there was a correct report of no products sold, traded, or used by farm households in 1939. These farms generally fall into one of two categories: new farms being brought into operation in the spring of 1940, or farms having a complete crop failure in 1939 for which there was also no income from livestock production in 1939 and no value for products used by farm households. This classification also includes a limited number of farms for which the only value of products reported was receipts from the rental of pasture. Where the schedule correctly represented a separate operating unit, it was necessary to classify such farms as having no farm products sold or traded, inasmuch as there was no value of products question on the 1940 Farm and Ranch Schedule under which rental from pasture could logically be included. In the 1930 Census the pasture rental on such farms was considered as income derived from crops. The "Flint Hills" of east central Kansas was one area in which this situation occurred.

Unclassified farms.—Where the figures on crop and livestock production and values were incomplete, the farm was placed in the "unclassified" category. In most cases these were farms on which the operator had moved between the time the 1939 crops were harvested and the time the census enumerator visited the farm. In 1929 this category also included farms that were not operated in 1929, as well as greenhouses, nurseries, and apiaries.

Farms reporting total value of farm products sold, traded, or used by farm households.—For 1939 this represents all farms for which there were usable reports on value of products, but excludes reports for farms with no products sold, traded, or used by farm households. In other words, the number of farms reporting total value of products, plus the unclassified farms, plus farms with no farm products sold, traded, or used by farm households equals all farms enumerated as of the census date. In 1929 the number of farms reporting for this item includes all farms classified by type regardless of whether or not any farm products were sold, traded, or used by farm households. For example, if a farm reported a complete crop failure, but the kind of crop could be reasonably identified and apparently represented the major crop on that farm,

the farm was classified according to the type represented by the crop failure. The 1929 count of farms reporting total value of farm products sold, traded, or used by farm households includes, therefore, some farms which, in the 1939 tabulation, were placed in the category of farms with no farm products sold, traded, or used by farm households.

Dairy products.—As previously shown, this question called for the value of all dairy products sold or traded in 1939. The question specified milk, cream, butter, and cheese, and the enumerator was instructed to explain if byproducts, such as buttermilk or skimmed milk, were sold which would give a high value for sales in relation to the quantities of whole milk, cream, and butter sold as reported in the block immediately preceding this value question. The value of goat milk or products sold was not to be included under this question, but was to be reported under "other livestock products." The value of dairy products purchased for resale was to be excluded, both from this value question and from the preceding items on quantities of whole milk, cream, and butter sold.

Livestock.—This value question followed immediately two livestock questions relating to the numbers of cattle, calves, hogs and pigs, and sheep and lambs bought and sold in 1939. It should be noted that the question specified, "except poultry, bees, and fur animals." The enumerator was instructed to explain if animals, other than the kinds listed in the preceding questions, were sold, the intention being that the value question should also cover sales of other kinds of livestock such as horses, mules, and goats. In handling the reports on this question, a distinction was made between livestock dealers and livestock feeders. Purchases and sales were included in the totals where other information on the schedule indicated that the operator had sufficient feed, either home-grown or purchased, or had sufficient pasture to add to the market value of the livestock. The statistics for this item represent, therefore, the totals of individual farm sales regardless of whether or not the animals were produced on the farm for which the sale was reported. Hence they are not directly comparable with livestock income figures based upon a State as a unit. This point is discussed in more detail below.

Poultry and poultry products.—As previously noted, hatcheries were included in the list of types of specialized agriculture for which Farm and Ranch Schedules were required and the enumerator was instructed to explain whenever the value entry for this question appeared high as a result of sales of baby chicks, poults, hatching eggs, etc. Schedules for State game farms are included. Quail, pheasants, and other game birds raised by such institutions for release were considered as sold.

Other livestock products.—The term "Other livestock products" is used in this volume to indicate the miscellaneous livestock products question, the wording of which was as follows: "Value of wool, mohair, meat, hides, etc., bees, honey, wax, and fur animals and pelts sold or traded in 1939." The value of goat milk and products sold, as well as the value of other miscellaneous livestock products sold, was included under this item. Although the wording of the question indicated that values for sales during the calendar year 1939 were desired, the following instruction was given in the enumerator's handbook:

Report here the value of goat milk and products sold as well as the value of wool shorn, mohair clipped, pelts taken from fur animals in captivity, and meat, hides, honey and wax produced in 1939 that were or are to be sold or traded. Also report the value of bees and fur animals sold or traded in 1939.

The value of meat sold applies to animals butchered by persons on farms, or for them on a custom basis, either on or off the farm. Sales of meat by slaughter houses and butchers, sometimes referred to as "local slaughter," are not included in these figures.

Field crops.—This question covers the value of the sales of field crops such as corn, sorghums, small grains, annual legumes, hay, clover and grass seeds, and miscellaneous crops including Irish potatoes and sweetpotatoes, cotton (lint), tobacco, sugarcane, sugar beets, broomcorn, popcorn, mint, hops, etc. In addition, the enumerator was instructed to include the value of sales of byproducts, such as cottonseed, beet pulp and tops, pea vines, etc., although no provision was

made for reporting the production of such byproducts on the schedule. On some schedules the value of sales of cottonseed apparently was not included in the value of field crops sold or traded. The enumerator was also instructed that where the farm operator was a tenant, the landlord's share should be included in reporting the value of sales, not only for this item, but also for all other value of products questions. No provision was made for reporting government benefit payments made under the programs administered by the Agricultural Adjustment Administration of the Department of Agriculture. However, crops upon which government loans had been secured were considered as sold unless they had been redeemed before the date of the census enumeration.

Vegetables for sale.—The values reported for this item represent a summation for each individual farm of the values reported for individual vegetable crops harvested in 1939 for sale. Irish potatoes and sweetpotatoes were not included under vegetables, but were included under field crops. The 1940 Census value figures shown for vegetables for sale in State table 19 and county tables XVII, XIX, and XX exclude the figures for unclassified farms, while those shown in State table 18 and county tables XIII (volume I) and XVI include data for all farms reporting vegetables.

Horticultural specialties.—The values reported for this item also represent a summation for each individual farm of the values reported for three items, viz., crops grown under glass and propagated mushrooms; nursery products; and flower and vegetable seeds, bulbs, and flowers and plants grown in the open. The figures for horticultural specialties shown in State table 19 and county tables XVII, XIX, and XX exclude the values reported by unclassified farms as well as the figures for all farms reporting area but no sales in 1939. The figures on horticultural specialties shown in State table 18 and county tables XIII (volume I) and XVI cover all farms reporting these items, including those reporting area but no sales in 1939.

Fruit and nut crops.—In general the figures reported for this question cover the value of all fruits and nuts produced in 1939 that had been or were to be sold at the time of the census enumeration. However, in Arizona and California, the value information on citrus fruit applies to the 1938-39 season; that is, to the crop harvested in 1938-39 from the bloom of 1938. For all other citrus-producing States, the value of sales of citrus fruit applies to the 1939-40 season; that is, to sales of the crop harvested in 1939-40 from the bloom of 1939. The value figures on fruit cover all tree fruits, nuts, and grapes, including small fruits and citrus. The values of sales of wild fruits and nuts are excluded with two exceptions: Wild blueberries were to be reported on the census schedule where the land was used primarily for their production; and wild or seedling pecans were also reported whether grown in orchards, farmyards, pastures, or elsewhere on the farm or ranch. The enumerator was instructed that, for all the value of products questions, gross receipts or values were desired without deductions for expenses of any kind. However, in the case of fruit, there was a noticeable tendency in some fruit areas for growers to report their net receipts instead of the gross value of all fruit sold or traded. This was particularly true in areas where certain marketing costs were commonly deducted from the payments to the grower for fruit sold. Another factor which may have contributed to this tendency to report net receipts for fruit crops was the absence of any questions on the schedule regarding expenditures for such items as spray materials, orchard cultivation, irrigation water, packages, and other production and marketing costs. In comparing the reported value of fruits and nuts sold with the calculated value of fruits and nuts harvested, allowance must also be made for the difference in definition of unit price previously noted.

Farm products used by farm households.—As mentioned above this question called for the value of products of the farm in 1939 that were used by the operator's family and by all households on the farm. The instructions to enumerators called attention to the fact that this question referred to the products of farms consumed by the operator's family, regardless of whether living on the farm or not, as well as the

value of products consumed by all other households on the farm. The definition of this question was broader, therefore, than in 1930 when the corresponding question asked for the value of products of the farm in 1929 that were used by the operator's family. In both 1940 and 1930 the following items were listed individually under the schedule question: Meat, milk, poultry, eggs, honey, vegetables, fruit, and firewood. The 1940 Farm and Ranch Schedule also specified fuel wood. Farm products of institutional farms which were used by inmates of the institution were considered as sold, and the value was included under the other nine value of products items. The same procedure was followed with respect to products of community and relief gardens.

Forest products.—The 1940 Census question included value of sales of firewood, fuel wood, standing timber, saw logs, veneer logs, pulpwood, mine props, tanbark, charcoal, fence posts, railroad ties, poles and piling, turpentine, resin, maple sirup and sugar, etc. Not all of these items were individually listed on the 1930 Census schedule, one notable exception being maple sirup and sugar.

Receipts from lodgers, boarders, and campers.—This question was included in the 1930 General Farm Schedule, but not on the 1940 Farm and Ranch Schedule. The values for this item were not included in the 1930 total value of farm products but were tabulated separately.

MAJOR SOURCE OF INCOME AND TYPE OF FARM

As previously mentioned, the figures from the 1940 Agricultural Census on value of farm products sold, traded, or used by farm households were tabulated by major source of income. In the 1930 Agricultural Census, the corresponding value tabulation was by type of farm. The two tabulations are not strictly comparable, but the 1930 value of products figures by type of farm are shown in State table 19 for reference purposes.

In making the tabulation by major source of income for the 1940 Census, the schedules for farms reporting farm products sold, traded, or used by farm households were sorted into ten major source groups corresponding to the ten value of products questions. The basis for this classification was the largest value of products entry. If the entries for two or more of the ten value of products questions were exactly the same, the farm was classified according to the item predominating as to major source in that locality. The procedure was, therefore, purely objective. It was possible for a sheep ranch to be classified with "livestock" as the major source of income or with "other livestock products" as the major source of income, depending upon the comparative gross receipts from sales of sheep and from sales of wool on that ranch in 1939. Similarly, a wheat farm, on which the 1939 wheat crop was a complete failure, would be classified as a subsistence farm, if the largest value entry was that for farm products used by farm households.

In the 1930 Census the value of products sold, traded, or used by farm households was used primarily in determining the type of farm, but the methods employed were necessarily more subjective than those used in connection with the 1940 Census. In the 1930 Census the farms were classified into thirteen types (including the "unclassified" group), while the "abnormal" group was further divided into five subtypes. For each of the major types, the sales of the major product (or group of products) had to represent 40 percent or more of the total value of all products of the farm before the farm was classified under that particular type. For the "self-sufficing" farms and certain of the "abnormal" subtypes, the minimum limit was 50 percent. "Stock-ranches" were differentiated from animal-specialty farms" on the basis of the ratio of pasture land to cropland, the limits for this ratio being varied as between the East and the West. Special rules were employed for handling certain of the subtypes under the "abnormal" group, as well as for handling other unusual cases.

One of the principal differences between the 1940 and 1930 methods of classification results from the use of a "general" type in the 1930 tabulation. Where the value of products from any one source did not represent as much as 40 percent of the total value of all farm products, the farm was classified as "general." If the value of products from each of two sources represented 40 percent or more of the total value, the farm

was classified as "general" unless it was one of the specialized combination types such as cotton-tobacco, fruit-truck, dairy-poultry, etc. In the latter case it was classified according to the predominating type in that locality. In the 1940 Census tabulation all of these "general" farms are classified under some one of the ten major source groups.

In the 1930 Agricultural Census, greenhouses, nurseries, and apiaries were included with the "unclassified" farms. This excluded the value of products for such farms from the 1930 Census type-of-farm tabulation. In the 1940 Census, greenhouses and nurseries are included under the "Horticultural specialties" group, while the value of apiary products sold or traded was reported under "other livestock products."

1900 CENSUS CLASSIFICATION OF FARMS BY PRINCIPAL SOURCE OF INCOME AND BY VALUE OF PRODUCTS

A somewhat similar plan of tabulation was used in the 1900 Census of Agriculture when the farms were classified according to principal source of income. The United States figures on gross farm income for 1899 for farms classified by principal source of income are shown in text table B.

TABLE B.—FARMS REPORTING AND VALUE OF FARM PRODUCTS NOT FED TO LIVESTOCK ON FARMS WHERE PRODUCED, CLASSIFIED BY TWELVE PRINCIPAL SOURCES OF INCOME, FOR THE UNITED STATES, 1899

CLASSIFICATION	FARMS REPORTING		VALUE OF FARM PRODUCTS (DOLLARS)	
	Number	Percent of total	Total	Average per farm
PRINCIPAL SOURCE GROUPS				
All groups	5,737,372	100.0	3,742,129,357	652
Farms with principal source of income from—				
Livestock	1,564,515	27.3	1,232,398,228	788
Dairy produce	357,544	6.2	281,276,239	787
Hay and grain	1,319,854	23.0	1,003,196,537	760
Cotton	1,071,545	18.7	461,113,058	430
Tobacco	106,250	1.9	65,338,800	615
Sugar	7,174	0.1	19,787,923	2,758
Rice	5,217	0.1	5,993,485	1,149
Vegetables	155,788	2.7	103,629,507	665
Fruits	82,060	1.4	75,095,900	915
Flowers and plants	5,159	0.1	18,422,522	2,991
Nursery products	2,029	(1)	10,086,156	4,971
Miscellaneous	1,059,237	18.5	465,794,022	440

¹ Less than one-tenth of 1 percent.

The following explanation of the classification procedure followed is taken from the text of the 1900 Agriculture Census Report:

"The basis for this classification is the value of the specified crops or products of 1899. If the value of the hay and grain raised on any farm exceeded that of any other crop and constituted at least 40 percent of the value of the products not fed to livestock, the farm was designated a 'hay and grain' farm. If vegetables were the leading crop, constituting 40 percent of the value of all products, the farm was designated a 'vegetable' farm. . . . 'Miscellaneous' farms were those whose operators did not derive their principal income from any one class of farm products. Those with no income in 1899 were classified according to the agricultural operations upon other farms in the same locality."

In the 1900 Census of Agriculture, the farms were also classified according to the amount of gross farm income in 1899, gross farm income here being defined as the value of farm products not fed to livestock on farms where produced. The United States figures on farms reporting and value of farm products for this tabulation are shown in text table C.

TABLE C.—FARMS REPORTING AND VALUE OF FARM PRODUCTS, CLASSIFIED BY VALUE OF FARM PRODUCTS NOT FED TO LIVESTOCK ON FARMS WHERE PRODUCED, FOR THE UNITED STATES, 1899

VALUE-GROUP	FARMS REPORTING		VALUE OF FARM PRODUCTS ¹	
	Number	Percent of total	Dollars	Percent of total
All groups	5,737,372	100.0	3,742,129,357	100.0
\$0	53,353	0.9		
\$1 to \$49	167,493	2.9	4,685,262	0.1
\$50 to \$99	305,448	5.3	22,187,798	0.6
\$100 to \$249	1,247,195	21.7	219,709,104	5.9
\$250 to \$499	1,602,875	27.9	588,612,983	15.8
\$500 to \$999	1,376,539	24.0	964,745,527	25.8
\$1,000 to \$2,499	825,142	14.5	1,202,624,396	32.1
\$2,500 and over	153,828	2.7	745,963,677	19.9

¹ Value of farm products not fed to livestock on farms where produced.

It should be observed that the 1900 Census definition of gross farm income is not strictly comparable with that employed in the 1940 and 1930 enumerations. Such an income figure includes, theoretically at least, the value of crops used for seed or wasted on the farm, the value for which is excluded under the 1940 and 1930 definitions. Furthermore, the 1900 Census figure on value of livestock sold represents only the value of sales of animals raised on the farm. In other words, the value of sales for purchased animals is excluded.

The 1900 Census figures on value of farm products by States and geographic divisions, together with a detailed explanation of the classification procedure followed and a reproduction of the schedule used will be found in the report of the Twelfth Decennial Census, 1900, volume V, Agriculture, part I.

INTERPRETATION OF THE STATISTICS

Definition.— In general the statistics on total value of farm products sold, traded, or used by farm households represent an approximate measure of *gross farm income*. If the value of farm products used by farm households is excluded from the totals, the resulting figures on value of farm products sold or traded represent an approximation of *cash farm income*. The user of these value statistics should keep in mind, however, that there are, theoretically at least, three basic types of figures on income from agricultural production in the United States:

- (1) United States farm income figures calculated on the basis of all farms in the United States as a unit. Interfarm sales, both within States and between States, would be excluded.
- (2) United States farm income figures calculated from farm income figures for individual States. Interfarm sales within States would be excluded, but interfarm sales between States would be included.
- (3) United States farm income figures representing an aggregate of the income for individual farms. Interfarm sales, both within States and between States, would be included.

The statistics on value of farm products sold, traded, or used by farm households, presented in this volume, clearly belong under the third classification. The duplication of income caused by the inclusion of interfarm sales is an important item, particularly in livestock feeding areas.

Unclassified farms.— As has been pointed out previously, the tabulations of value of farm products sold, traded, or used by farm households, for both 1940 and 1930, exclude the value of products for the "unclassified" farms. The extent of this incompleteness is shown, both in number of farms and in percent of all farms, in county table XVII.

Net income.— The figures on specified farm expenditures, shown in county table X (volume I) *should not be deducted* from the figures on value of products sold, traded, or used by farm households in an attempt to arrive at statistics on "net" income. As was pointed out in connection with the statistics on value of fruits and nuts sold or traded, census figures are not available for many important farm expenditure items. The cost of livestock purchased is also an important item in calculating "net" income.

Nonagricultural income.— Income from nonagricultural sources is *not included* in the figures on farm income for either the 1940 or 1930 Census enumerations. Because of the growth of part-time farming in recent years, nonagricultural income is an important item when comparisons are made involving the economic position of the individual farm rather than farming as an industry.

Government benefit payments.— As mentioned above, there was no provision on the 1940 Farm and Ranch Schedule for reporting the amount of government benefit payments. On some schedules where sugarcane or sugar beets were reported, there was evidence that the reported value of crops sold or traded included the government payment on sugarcane or sugar beets. In general, however, such payments appear to have been excluded from the figures on value of farm products sold, traded, or used by farm households.