CENSUS OF AGRICULTURE: 1940

INTRODUCTION

History of Census of Agriculture.—The 1840 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, 1926, and such a census was taken. Another mid-decennial census was taken as of January 1, 1936, 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 1930, 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 for the first time included the number of acres and value of farm land; in 1860, information was first secured as to the tenure under which the farms were operated; and in 1885 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, 1928. 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 1860, 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 to expedite the tabulation. The results of this and other tabulations of the 1940 Census have been published in separate bulletins and in other publications.

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; 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, motorcycles, 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, for the value of livestock on farms, the value of livestock, 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 all other tables are carried for the United 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 included for 1940 are Alabama, Arkansas, Arizona, California, Colorado, Idaho, Kansas, Louisiana, Maine, Maryland, Mississippi, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming.

In this third series of reports, county and State tables, all 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 and the United States, are presented. 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 for the previous years. This information is 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 and to determine 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.
CENSUS OF AGRICULTURE: 1940

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 1939, while in all other citrus-producing areas it was given for the bloom of 1938. 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 of the year of production is usually indicated in the tables. The user of the statistics should 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 larger farms. The utilization of the acreage has been affected by commodity prices, by weather conditions, and by government programs; and industrial employment has had 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 aid 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 by the landlord. When a landlord has one or more tenants, renters, croppers, or managers, the land operated by such, 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 dairy farms, beef dairies, nurseries, greenhouses, hatcheries, fur farms, mushroom culture, 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 $350 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 $350 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 become a "farm." When in doubt, always make out a schedule.

Farming, or agricultural operations, consist 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 animal livestock, animal livestock products, and farm stock, as here used, includes poultry of all kinds, rabbits, bees, and fur-bearing animals in captivity, in addition to milk, eggs, hogs, horses, mules, and goats. 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 is provided. This list included such operations as apiaries (bee farms), feed lots, greenhouses, hatcheries, mushroom cellars, etc.

Farmer operator.—A "farmer operator," according to the Census definition, is a person who operates a farm, either personally, through labor of his family, or by direct supervision. 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.—Statistical by race of operator are given in one of the State tables but no data of this kind are presented in 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 Tables 1 and 2, all tenures are shown. In Tables 3 to 11, separate 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, or other tenants. The following 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 rented land only. Cash tenants pay a cash rental, such as $4.50 per acre for the cropland or $50 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 land and labor, or all or part 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 was 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. 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" may be considered 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
INTRODUCTION

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 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, the first time, the value of the part owner's share 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 50 acres or less. This request 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 the value accurately the land, etc.

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; stoves; milking apparatus; motors; tractors; trailers; wagons; harnesses; dairy equipment; cotton gins; and such other machinery and apparatus for making cider, grape juice, and syrup, and for drying fruits; and all other farm machinery. However, the values of commercial mule 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 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? 

Total amount of outstanding mortgage debt on farm and buildings—

Was the annual interest on the first mortgage debt (Report front—

or front)—

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.


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 (including with hay) was included only if the crops were harvested 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 area of the acreage or crops may greatly exceed the acreage designated as cropland harvested.

2. Crop Failure.—The land from which no crop was harvested in 1939 was treated as "crop failure." This included all land from which no crop was harvested because of destruction by wind, lightning, storms, drought, 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 that 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 not cropped during the 1939 growing season was included only if the land on which the 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 seeding, draining, or other treatment (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. All other land in Farm.—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 cropland, 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 "8" 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.

FARM VALUES.—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 by building 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 included a count of farms and 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.
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 a tabulated form 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 conclusion in 1940 Farm and Ranch Schedule table 9, "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 gainfully employed and that he was unstable in his farm 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 classification only in 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 9, the year of occupancy is given for the 1940 operator, while for earlier years those years that 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 1929 but not as much as 1930, the average is shown in the table as 1929, the 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 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.

Labor.—Many of the recent 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 of the amount paid for various classes of labor was also wanted.
INTRODUCTION

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

X.—FARM LABOR

<table>
<thead>
<tr>
<th>CLASS OF LABOR</th>
<th>Number of persons 14 years old and over working the equivalent of 2 or more days per week</th>
<th>Total cash wages paid for all hired labor in 1936</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Operator and unpaid members of his family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar. 31-34, this year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sep. 30-36, last year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Labor hired by month</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Labor hired by day or week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Others (include piece work and contract labor)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 pasture 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 1936 for all specified and other 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 motor trucks, 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, motor trucks, 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 states of operation 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 given 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. 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 convenient, 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. It is essential 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 or during the course of the 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 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 increased replacements. 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 west and can lead to ennumerate 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 other young, they were made for horse and mule colts and calves over 5 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.
### CENSUS OF AGRICULTURE: 1940

**AGE AND SEX GROUPS ENUMERATED FOR VARIOUS CLASSES OF LIVESTOCK, 1940, WITH APPROXIMATELY COMPARABLE GROUPS, 1910 TO 1930; AND OWNERSHIP OF BEEHIVES, 1910 TO 1940**

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

<table>
<thead>
<tr>
<th>ITEM</th>
<th>1940 (April 1)</th>
<th>1935 (April 1)</th>
<th>1930 (January 1)</th>
<th>1925 (January 1)</th>
<th>1920 (January 1)</th>
<th>1910 (April 13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horses and/or mules—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>All ages.</td>
<td>All ages.</td>
<td>All ages.</td>
<td>All ages.</td>
</tr>
<tr>
<td>Horses and/or mules</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Cattle—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>All ages.</td>
<td>All ages.</td>
<td>All ages.</td>
<td>All ages.</td>
</tr>
<tr>
<td>Calves</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>5 to 27 mo. old.</td>
<td>5 to 27 mo. old.</td>
<td>5 to 27 mo. old.</td>
<td>5 to 27 mo. old.</td>
</tr>
<tr>
<td>Male calves</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Cattle and calves—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>All ages.</td>
<td>All ages.</td>
<td>All ages.</td>
<td>All ages.</td>
</tr>
<tr>
<td>Holy heifers—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Kept mainly for milk—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Kept mainly for beef—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Goats and kids—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>All ages.</td>
<td>All ages.</td>
<td>All ages.</td>
<td>All ages.</td>
</tr>
<tr>
<td>Sheep and lambs—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Ewes</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Yearling ewes</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Other sheep—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Goats and kids—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Angora—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Other goats—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Chickens—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Turkeys—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Ducks—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Geese—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Guinea fowl—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Pigeons—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Quail—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Pheasants—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Riesz of bees—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Hives owned by operator or by others—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Hives owned by operator—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>For animals in captivity—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Silver fox—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
<tr>
<td>Mink—</td>
<td>Farms reporting—</td>
<td>Number</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
<td>Over 3 mo. old.</td>
</tr>
</tbody>
</table>

1 Not 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 end of the 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 2 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
INTRODUCTION

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 10 weeks old (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 included. However, information as to the type of animals kept or poultry 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 or farms 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 area planted for purposes for 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 might be planted for the beans but may have actually been hogs planted 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 hogs off, or was cut for forage, it should be computed as land in bearing; that is, the harvested, or subject part of any field was included, enter only the acres actually harvested. Where the entire field was gone over in harvesting, report the entire acres as harvested even though the yield was small.

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

In comparing the statistics for one census year with those for another, it should be born 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 conditions and trends in agriculture than the quantity of crop production, since variation in quantity is largely a result of favorable or unfavorable year 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 uniformly, reported in a standard unit for all areas with the result that the quantity harvested was given for some areas in terms of container 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 imperative in the production of vegetables in 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 provides for the production of apples in these 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 enumerations will be published in the general report, Volume II, 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 1929 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 peanut 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; Southeasterner 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 hopped or grazed off, or cut for fodder or feed, if it does not, however, include sweet corn and other corn for roasting ears or for canning, popcorn, "Egyptian corn," kafrir, 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 crop 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 acreages of sorghums harvested for grain and the acreage cut for silage, hay, or fodder.

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 report the total in 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 "corn 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 not under "small grains".

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:

- Clover
- Peanuts
- Canada beans
- Soybeans
- Austrian peas
- 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 included 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 the 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 "annual legumes cut for hay." The acreage and production of annual legumes cut for 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 obtain 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 acresses. 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 16 and county table XIII 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 acreages 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 for average 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 1929 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.—Most of the farms that have no 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.

Jam 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 plums into plums and prunes; and of pears into pears, melons, 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 syrup and sugar.—Production of maple syrup 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.