CHAPTER I - FARMS AND FARM PROPERTY

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CHAPTER I. - FARMS AND FARM PROPERTY

Introduction. -- This chapter presents the data collected at the 1940 Census of Agriculture for the number and acreage of farms and for the values of specified classes of farm property. In addition to the acreage in the farms enumerated as of April 1, 1940, the statistics include a classification of this land according to use in 1939 and the number of farms reporting each class. Certain of these data are also shown for irrigated farms in 20 States. Farms reporting and acreage of irrigated cropland harvested and irrigated pasture are shown for all States. Supplemental information is given for the total land area, with the proportion in farms, and for the total, rural, and farm population. Comparative data, when available, are shown for the earlier census years beginning with 1850, although many of such data are shown only for the United States as a whole. In 1850, the date of the first relatively complete Census of Agriculture in the United States, information was first secured for the number of farms, farm acreage, and value of farms, though in the 1840 census information was secured for certain agricultural products and the numbers of various kinds of farm animals.

Figures for the continental United States (comprising the 48 States and the District of Columbia) have been summarized in tables 1 to 7, inclusive, of this chapter, while data for each of the States, the District of Columbia, and for the 9 geographic divisions, or groups of States, are shown in tables 8 to 20. These geographic divisions are made up, for the most part, of States having many characteristics in common, and the statistics presented in this form afford a basis for comparison between areas larger than the individual States. The United States, or summary, tables present all available comparative data for every census year for the above items collected in the 1940 Census of Agriculture. Comparative data for other census years are shown only for 1935 and 1930 in all the division and State tables except table 18. This table presents all historical data for number, acreage, and value of farms. It also shows the total population for these same years.

Many of the data relating to farms and farm property, which are presented in this chapter as simple State, geographic division, and United States totals were tabulated by various classifications. County data were published in the First Series of State Bulletins of the 1940 Census of Agriculture Reports. These State bulletins are included in volume I.

Other chapters of this volume which show data for farms, farm acreage, and values by various classifications are as follows: Chapter II, "Size of farms"; chapter III, "Color, tenure, and race of farm operator"; and chapter IV, "Farm mortgages and farm taxes." The number, acreage, and value of farms, whose operators worked 100 or more days in 1939 for pay or income not connected with their farms, are shown in chapter V. Cropland harvested in 1939 on farms reporting tractors is shown in chapter VI. Further classifications of farm operators (the number of which is identical with the number of farms) are shown in chapter V, "Work off farm, age, and years on farm"; and in chapter VI, "Cooperation, labor, expenditures, machinery, facilities, and residence."

Several facts of particular significance are shown by the data presented in this chapter. The general trend toward a decreasing proportion of our population residing in rural areas, particularly on farms, which has been shown by past censuses, continued for the 1940 Census. However, the trend of population away from farms was slowed up considerably and actually reversed during the fore part of the past decade. The number of farms which steadily increased up to 1920 showed decreases in both 1925 and 1930, and after a temporary upward swing recorded in 1935 paralleling the population change shown by the census of that year, again dropped reaching a level below that for 1930. The net losses from 1930 were largely in the Great Plains area and in the Cotton Belt. Despite decreases in num-

ber of farms, very little farm land was entirely abandoned, most of the acreage being absorbed by other farms. In fact the total land in farms continued upward, a trend that has continued almost unbroken since the first figures for this item were secured in 1850. Decreases occurred in a number of States but these were more than offset by increases in others, particularly in the Great Plains and in the Mountain and Pacific States. The proportion of farm land in crops, which had increased more or less parallel to all land in farms up to 1930, continued the downward trend shown by the 1935 Census, much of the land formerly used for crops having been shifted to pasture and to idle or fallow cropland, including land used for soil-improvement crops. The total value of farm real estate in the United States was, approximately, one-third lower in 1940 than in 1930 but somewhat higher for the country as a whole than in 1935. Although for most States the 1940 realestate values were higher than in 1935, those for the Great Plains States continued downward reflecting the continuation of drought effects in that area. The decline in the value of farm buildings was generally relatively less than that for all The value of farm implements and machinery farm real estate. was nearly as high in 1940 as in 1930.

Population.—All of the population data presented in this chapter were secured in the decennial censuses of population except those for 1935. In that year the number of persons living on farms was obtained as a part of the middecennial Census of Agriculture. Data for total population are shown only from 1850 to 1940 since no data for number, acreage, and value of farms were secured in any census prior to that date. A brief description of each class of population for which data are presented in this chapter follows:

In general rural population, as defined by the Bureau of the Census, is that residing outside of cities and other incorporated places having 2,500 inhabitants or more. The remainder of the population is classified as urban. The definition of rural and urban population has varied somewhat in different censuses. The data presented are on the basis of the 1930 definition and therefore the figures for rural population for 1920 and earlier are not in exact agreement with those published in the reports for previous censuses.

Farm population comprises all persons living on farms, without regard to occupation. Figures for farm population were first secured in 1920. In that year it included, in addition to persons living on farms, those farm laborers (and their families) who; while not living on farms, nevertheless, lived in strictly rural territory. The rural-farm population consists of those persons living on farms in rural areas, and the urbanfarm population comprises those persons living on farms located in urban places. As would be expected the urban-farm population constitutes a very small part of the total farm population, amounting to only 0.3 percent. The farm population figures shown for 1935 were obtained in connection with the Census of Agriculture for that year and are not strictly comparable with those shown for the decennial censuses. The 1935 Farm and Ranch Schedule asked for the "Number of dwellings on this farm," and the "Number of persons living in these dwellings." In the decennial censuses of population, farm population has been determined according to the replies to such questions as "Does this household live on a farm?" the wording of the inquiry on the 1940 Population Schedule. The instructions to enumerators did not specify that the census definition of a farm be adhered to rigidly. The 1930 instructions specifically called for an answer of "No" for any place not commonly regarded as a farm even though a farm schedule may have been required. The comparability of the farm population figures has also been influenced by the enumeration dates, April 1, for 1940 and 1930, and January 1, for 1935 and 1920. The number of persons on farms on April 1, in most areas, would be expected to be appreciably greater than on January 1, due to advancement of the farm season. More detailed definitions and a discussion of the comparability of the data for the various census years may be found in the 1940 Population Reports.

Trends in the rural population of the United States since 1850 and in the farm population since 1920, and their relation to the total population are shown graphically in the accompanying chart. These data are also shown in table 1. Note that although the rural population has increased steadily, its growth has not been nearly as rapid as that of the total population. In 1850 about 85 percent of the population was rural and only 15 percent urban. By 1920 less than half of the population lived in rural areas and by 1930 the proportion had further decreased until it was slightly less than 44 percent. The 1940 Census shows that, although the general trend continued, the rural population represented only a slightly smaller proportion of the total population than in 1930.

TOTAL, RURAL, AND FARM POPULATION IN THE UNITED STATES: 1850-1940



Farm population, for which figures were first secured in the 1920 Census, decreased in the following decade. The returns of the 1935 Census of Agriculture showed a rather pronounced increase in the farm population. This "back-to-the-farm" movement was accompanied by a check of the flow of farm folk to industry and was generally attributed to the depression years in the early "thirties." By 1940 the movement was again toward the cities and the farm population had decreased to approximately the 1930 level. In 1940 less than 1 in 4 of the total population lived on farms. In 1920 less than 1 in 3 of the total population lived on farms and these constituted about three-fifths of all persons living in rural areas.

Changes in farm population by divisions and States since 1930 are shown in table 8 and in the total population since 1850 in table 18. Except for the Great Plains area, the 1935 Census indicated a rather general increase in the farm population over that of 1930, particularly around industrial centers, mining sections, and in areas often designated as "Subsistence farming." Decreases occurred in much of the Great Plains area. Continued drought conditions resulted in a still further decline in the farm population of that area between 1935 and 1940, the last census showing total decreases for the decade ranging up to 21.1 percent for South Dakota. The 1940 Census shows that for most other areas much of the gain made in the earlier part of the decade had been offset by losses in the latter part of the decade.

In table 2 are presented some very significant United States averages relating to population and farm data. Although the averages relating to the total population tend to serve as rough measures of the per capita agricultural requirements at the various census years they should be used with considerable caution since they do not take into account either exports or imports. The ratios based on the farm population give rough measures of the per capita agricultural production. In general, farm practices are becoming more efficient, so that fewer and still fewer farm workers are required. The rather short series for which the numbers of farm population are available coupled with the "back-to-the-farm" movement in the fore part of the past decade, and rather pronounced changes in land utilization, tend, however, to obscure this general trend. The trend is shown to better advantage in table 1 by the decreasing proportions of the total population represented by rural population.

Approximate land area of the United States. The land area in the United States was 1,905,361,920 acres in 1940 and is defined to include dry land and land temporarily or partially covered by water, such as marshland, swamps, and river flood plains; streams, sloughs, estuaries, and canals less than one-eighth of a statute mile in width; and lakes, reservoirs, and ponds having less than 40 acres of area. Land areas in the various States are shown in table 9. The approximate land areas reported for 1940 resulted from a complete remeasurement of the United States and its individual States and, consequently, are at variance with those shown for earlier years. Figures for earlier years are given in table 3 for the United States and in volume I for the individual States.

These entirely new determinations represent the first basic remeasurement of the United States since the work of Henry Gannett, prepared for the Tenth Decennial Census of 1880. The measurements, involving geodetic values and planimeter readings, were based on U.S. Coast and Geodetic Survey aeronautical charts. County areas, shown in the First Series of State Bulletins of the 1940 Census of Agriculture Reports, and in volume I, were measured from United States Geological Survey and Post Office Department State maps and adjusted to the State totals. For a more complete description of the methods used and for areas by States, counties, minor civil divisions, and cities, refer to the Census Report entitled "Areas of the United Stat's."

The apparent increase of 2,145,280 acres in the area of the United States since 1935 is largely due to the more accurate maps used in the redetermination of areas, showing a rather general decrease in inland water areas. Variations in the land areas of the several States may be ascribed to increases or decreases in water area, map improvements involving longitudinal and latitudinal position, or to the more accurate placement of boundaries. Changes in the total area of the United States and of the individual States from 1850 to 1935 represent corrections or adjustments in the figures originally determined by Henry Gannett and were necessitated by boundary changes, drainage of lakes and swamps, building of reservoirs, The particular changes during this period and and the like. their principal causes are given in footnote 1 of table 3.

Farms.—The definition of a farm as used for the 1940 Census was carried on the schedule and read as follows:

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, aplaries, cranberry bogs, etc. Exclude 'fish farms,' fish hatcheries, 'oyster farms,' and 'frog

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 traots 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, mighroom cellars, etc.

Farms idle in 1940 but operated in 1939 were included in the enumeration. Also included were farms which had not been operated in 1939 but which were being, or were to be, operated in 1940. No count was made of the number of farms included which were not actually "going" farms on the census date but obviously the number of such farms was not significant.





The definition used in the 1940 census was essentially the same as that used in the 1935, 1930, and 1925 censuses. Those used for the 1920 and 1910 censuses were similarly worded but were somewhat more inclusive. In those years farms of less than 3 acres and with less than \$250 of products were to be included provided they required the continuous services of at least one person.

In the census of 1850 there was no acreage qualification given in the definition but there was a lower limit of \$100 for value of produce. For 1860 no definition was given enumerators. For 1870, 1880, and 1890 no farm of less than 3 acres was to be reported unless \$500 worth of produce was actually sold from it during the year. In the definition for 1900 there was no acreage limit, a return, essentially, to the definition used in 1850. Market, truck, and fruit gardens, orchards, nurseries, cranberry marshes, greenhouses, and city dairies were to be included in 1900 provided the entire time of at least one individual was devoted to their care.

Although the establishments included in each census enumeration were determined largely by the definition of a farm used for the various censuses, they were also influenced by the individual enumerators. Local concepts have perhaps affected the number of farms enumerated. Obtaining complete coverage of establishments not generally considered as farms is particularly difficult. This difficulty led to changing the title of the schedule from "General Farm Schedule" of 1930 to "Farm and Ranch Schedule" in 1935 in an effort to obtain more complete coverage of ranches, and to adding a subtitle "Including Special Agricultural Operations" in 1940, in order to emphasize other operations not generally recognized as farming. Whenever there was doubt on the part of an enumerator as to whether a particular establishment required a Farm and Ranch Schedule he was instructed to make out a schedule. All doubtful schedules were reviewed in Washington by a specially trained section to determine whether they were acceptable under the census definition of a farm. In the 1940 Census, out of a total of 44,704 rejects in the Washington Office less than 22,000 schedules were rejected because they failed to meet the minimum regulrements of a farm.

As would be expected the work of the enumerator often affects the comparability of data from one census to another. The effect on the comparability of State data is probably negligible.

Any differences resulting from changes in the definition of a farm, or in the enumeration, would be expected to be confined largely to small farms, particularly those under 3 acres and those from 3 to 9 acres. In general the demarcation between farms and nonfarms is act to be less definite where the acreage is small than where it is large. The acreage and value limitations included in the definition for most censuses refer specifically to farms under 3 acres. Farms under 3 acres have never been very numerous, amounting to 0.6 percent of all farms in 1940. In 1930, in which year more farms were in this size group than at any other census, they represented only 0.7 percent. Farms from 3 to 9 acres represented 7.7 percent of all farms in 1940. This proportion is higher than for any other census, except 1935 when the percent of farms in this group was 7.9. For further discussion of farms by size see chapter II of this volume.

Comparability in the number of farms from one census to another may also be affected by the date of enumeration. The enumerations for 1940 and 1930 were as of April 1, those for 1935, 1925, and 1920 were as of January 1, that for 1910 April 15, and those for all earlier census years, June 1. In the winter-vegetable areas, where many operators do not reside on the land, a census taken shortly after January 1 of any year would be expected to be more complete than one taken after April 1. In most other areas farm activity is apt to be somewhat more noticeable after April 1 and a more complete enumeration of farms with nonresident operators would be easier than for enumeration after January 1. On the other hand by April 1 many farm operators will have just moved onto their farms and will know little of the past year's operations.

Comparability in the count of farms in some counties from one census to another may be affected by changes in the management of some of the larger holdings or in their enumeration. Year to year changes in the management of plantations may affect the number of farms from one census to another, for in one year the plantation may be operated as a unit with the help of hired laborers while in another year a part or the whole of this plantation may be operated by tenants or croppers and the land operated by each reported as a separate farm. Differences in management of unit developments, or differences in their enumeration due to the difficulty of determining whether one or several schedules should be prepared, also affect the count of farms in a few counties from one census to another, particularly in citrus growing areas and in a few other fruit and nut growing areas.

Farms reporting.—The items included in this chapter were not all reported by every farm. For example, less than onehalf of all farms have woodland and less than 10 percent had land from which all crops failed in 1939. The number of farms for which specified items were reported are given in the tables under the term "Farms reporting." The number of all farms is used as the farms reporting "Land in farms," also for farms reporting "Value of land and buildings." However, there were 489 farms in 1940 with no acreage. Practically all these represented livestock grazing on open range.

Land in farms. — The acreage designated as "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.

On the other hand "Land in farms" does not include all land used for agricultural purposes. 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. Thus vast acreages of range lands such as National Forests, Taylor Grazing Lands, State lands, or other public lands, and some railroad and other privately owned lands, although they may have been used primarily for grazing purposes, were not included as land in farms.

ALL LAND IN FARMS AND CROPLAND HARVESTED FOR THE UNITED STATES: 1850 - 1940



The distinction between lands to be included and those to be excluded was based entirely on whether the operator had control of the land used. Thus lands used under a lease were to be included and those used under a permit were to be excluded. As it was not always possible to determine from the schedules whether the land was leased or used under permit, some range lands not leased may have been included. The large increases in land in farms in the Great Plains and in the Mountain and Pacific States shown by the 1940 Census do not necessarily mean that more lands in these areas are being used for agricultural purposes. It is more likely that most of the increases represent grazing lands which formerly were open range, or grazed under permit, and are now being operated on a For example, Taylor Grazing Lands leased under lease basis. section XV of the Act would be by definition, and probably was for the most part, included in the acreage in farms. Many individual reports in some of the Mountain and Pacific States also showed large acreages of State lands leased. Land reported in farms in 1940 may also have included considerable acreages grazed under permit where a definite area was assigned the operator, as was the general policy followed in regard to Taylor Grazing Lands.

Land in farms may also be affected by the date of enumeration. See the discussion above on the effect of date of enumeration on the number of farms. The total acreage, however, is less affected, probably, than its classification as to use. The classification of land according to use, particularly cropland harvested, is much more difficult on an April 1 date than on a January 1 date because of the greater number of new operators on farms.

Land in farms was enumerated according to the location of the farmstead. Hence some of the acreage reported for the individual States may actually have been located in other States. Although such so-called "cross-line" acreages do not greatly affect State figures they sometimes have a very appreciable effect on county data. Changes in the management of cross-line holdings or in their enumeration frequently affect the comparability of the data of particular counties from one census to another. **Uses of land.**— In the 1940 Census the schedule called for a breakdown of "Land in farms" into 6 classes according to use made of the land in 1939. These classes, although worded somewhat differently on the schedule, may be described as follows:

1. <u>Cropland harvested</u>.—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. <u>Crop failure</u>.—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. <u>Cropland lying idle or in summer fallow</u>.--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. <u>Plowable pasture</u>.—Land used only for pasture or grazing 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. <u>Woodland</u>.—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. <u>All other land in farms</u>.—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 wasteland not in woodland, pasture, or crops, and land occupied by buildings, barnyards, feed lots, roads, fences, ditches, etc. In the 1940 census due to schedule limitations a combined figure was secured for these two classes as described under "6" above.

Prior to 1925 farm land was classified as "Improved land" and "Unimproved land." For several years the unimproved land was further broken down into "woodland" and "other unimproved land." The data for these earlier years are carried in table 4 to afford some guidance in making comparisons. The figures shown as "cropland harvested" for census years prior to 1925 represent totals of the acreages of individual crops harvested which, because of two or more crops grown on the same land, would make the totals slightly higher and affect comparison with those for 1925 to 1940, inclusive.

It should be noted, from the descriptions of the various classes of land as already given that it is not always possible to define each class concisely. This is particularly true in regard to "plowable pasture," "woodland," and "all other land." A considerable part of the variations in the acreages of these 3 classes of land may be attributed to differences in interpretation by enumerators. Also weather conditions prevailing for a few years prior to each enumeration will affect land classification, particularly plowable pasture. These differences have a much more pronounced effect on county than on State data.

PERCENT OF ALL LAND IN FARMS REPRESENTED BY CROPLAND HARVESTED AND CROP FAILURE, BY STATES: 1940 AND 1930



ALL LAND IN FARMS ALL CROPLAND HARVESTED

The 1940 figures for "plowable pasture" were also apparently affected to some extent because of the absence of any other specific questions relating to pasture. Woodland pasture was to have been entered under "woodland," and nonplowable pasture under "all other land." The question for "woodland" did not epecifically mention woodland pasture and that for "all other land" mentioned only "rough pasture land." Frequently it was apparent that large acreages of nonplowable pasture had been reported under "plowable pasture." In other instances such as in the semiarid regions, where the classification of much of the pasture lands is largely a matter of personal opinion, it was suspected that some of the pasture had been erroneously classified but unless the evidence was rather conclusive the reports were allowed to stand.

Some difficulty in the classification of land according to use resulted because of new operators who did not know the use made of the land the preceding year. The difficulty was most pronounced as regards cropland, particularly cropland harvested. Such farms, being relatively few in number, had no appreciable effect on State totals but in a few instances county figures may have been affected.

Changes in number of farms and farm acreage.— Changes in the number of farms, land in farms, and of cropland harvested for all census years for which these data are available are shown graphically for the United States in the accompanying charts. Figures on the number of farms and land in farms since 1850 are given in table 3 for the United States and in table 18 by divisions and States. Division and State figures for 1940, 1935, and 1930 with percent distributions by States are also given for these items in table 9. Data for the various classes of land are shown historically for the United States in table 4 and these data with averages and percentages are shown for 1940, 1935, and 1930 by divisions and States in tables 10 to 15, inclusive.

In 1940, there were 6,096,799 farms recorded in the United States, or a decrease of 191,849 from the number reported 10 years earlier. Although there was a decrease for the entire decade there were rather general increases during the depression years in all areas, except in the Great Plains which were being ravaged by drought, and in scattered counties of the Cotton Belt. The largest increases were near urban centers, in mining and industrial areas, and in a considerable portion of the areas designated as "Subsistence farming." This "backto-the-farm" movement resulted in the highest number of farms on record, 6,812,350 in 1935. Before the end of the decade, however, improved industrial conditions had again drawn persons from the farm until the number of farms in most of the areas showing increases in 1935 were near, and in some instances below, the levels recorded at the beginning of the decade. Thus, the number of farms in the United States again showed a reversal of the upward trend which had continued unbroken up to 1920

Despite the large increases in the number of farms between 1930 and 1935, decreases occurred in scattered counties throughout the Cotton Belt, particularly in some of the plantation areas, and in some sections of the Great Plains. Further and more pronounced decreases in these two general areas were recorded in the 1940 Census. The decreases in the South were accompanied by decreases in the number of cropper operators and apparently represented, for the most part, consolidations into larger operating units. The decreases in the number of farms recorded for the Great Plains were accompanied by increases in land in farms indicating a tendency toward larger farms.

The area of land in farms increased during the decade. a trend that has continued unbroken, except for the Census of 1925, since the first figures were obtained for this item in 1850. However, considerable gains in farm acreage, particularly in the South, accompanied the migration back to the farms during the depression years; and, except in New England, the Middle Atlantic States, and southward to and including Virginia, most of these gains were retained. The largest increases between 1935 and 1940 were in the Mountain States, particularly in Arizona and New Mexico. Very substantial gains were also recorded in other grazing areas of the West. These increases in grazing lands in farms do not necessarily mean that more lands in these areas are being used for agricultural purposes. Most of these lands were formerly used as open range or grazed under permit. See preceding discussion under "Land in farms."

Most of the changes in number of farms and in farm acreage since these data were first secured in 1850, particularly up to about 1900, were due to the opening to settlement of vast areas of new land which caused a westward migration of persons to take up these lands. By 1900, all the better lands had been taken and settlement had reached the semiarid regions of the Great Plains. Since 1900, more and more land in the Great Plains area has been incorporated in farms and each census shows some evidence of the struggle to settle the area. Each census has also shown some decreases in portions of this general area where operators were driven out, generally, by drought conditions. Many of these abandoned lands were taken over by the farm operators who remained or by new settlers. A general tendency has been toward larger and larger farms, which are better suited to the area. Also, particularly in recent years, there has been a definite shift in the utilization of the land, with less acreage in crops and more in pasture. Rather large increases in number of farms and land in farms also occurred during this period throughout the Mountain and Pacific States. Other areas settled since the turn of the century include cutover lands of the upper Great Lakes region, which were largely settled by 1920, and the upper delta areas of the Mississippi River where especially heavy increases in number of farms occurred between 1910 and 1930.

Not all changes in the number of farms have resulted from the settlement of new lands. Much of the variation, especially in more recent years, has been due to changes in size of operations. In this connection, see chapter II, "Size of farms", this volume. The general trend of population away from farms as recorded by the Censuses of 1940, 1930, and 1920, farm mechanization, and shifts toward more extensive types of agriculture in some areas, have tended toward consolidation of small farms into larger operating units. On the other hand shifts to more intensive and specialized types of agriculture have, in some instances, resulted in the breaking down of larger holdings into smaller operating units. The "back-to-the-farm" movement in the depression years was also accompanied by some decreases in the size of farms. From the Civil War to about 1910 the breaking up of plantations in the South accounted for much of the increases in farms in that area, although the bringing of new lands under cultivation was also a factor of importance. Abandonment of farm lands coupled with some consolidations account for most of the rather general decreases in number of farms in the northeastern dairy States, and in much of the Corn Belt since 1900. Decreases in much of the Cotton Belt recorded in the Censuses of 1920 and 1925 may be attributed to rather widespread abandonment of farms due to the boll weevil. Much of this land, however, had been brought back under cultivation by 1930. In some counties, urban centers have encroached upon the farm lands materially reducing the county totals.

In 1940 land used for crops amounted to 341,822,447 acres, a decrease of 4.9 percent as compared with 1930. This decrease was rather widely distributed, with the largest losses in the Great Plains States and was partly attributable to the agricultural production control programs and partly to severe drought conditions in the Great Plains area. The least changes were in the South Atlantic, East South Central, and Pacific States. Much of this land taken out of crop production during the decade had apparently been shifted to idle or fallow land. including land used for soil improvement crops, and also to pasture as indicated by increases in plowable pasture acreage. As previously noted, in the discussion of the various classes of land, some of the increase in plowable pasture may have resulted from schedule differences. Up to and including 1930, every decennial census had shown increases in crop acreage, although throughout much of the period for which data are available some losses occurred in the older settled areas of the East. These losses were especially heavy in the decade from 1920 to 1930 and were rather generally distributed over most

of the originally forested areas in the eastern part of the country.

Value of farm property.---Values are given in this chapter for the following specified classes of farm property:

- 1. Value of farms (land and buildings)
- 2. Value of farm buildings
- 3. Value of farm implements and machinery
- 4. Value of livestock

The values shown for these specified classes of farm property do not accurately represent the total value of farm property; as certain classes of livestock, particularly young animals, have been omitted, as have the values of crops and livestock products on hand.

VALUE OF SPECIFIED CLASSES OF FARM PROPERTY IN THE UNITED STATES: 1850-1940

BILLIONS OF DOLLARS



Except for the Census of 1935, values for land and buildings, implements and machinery, and livestock, have been secured for all censuses beginning with 1850, and for buildings beginning with 1900. In 1935, values were secured for land and buildings and livestock, but not for buildings or for implements and machinery.

Questions for the value of the farm (land and buildings), farm buildings, and implements and machinery were included on the 1940 schedule and the figures therefor represent enumerated entries. The 1940 values for livestock, however, were calculated by multiplying the numbers of livestock of each species and class in each county, by county unit prices obtained cooperatively by the Agricultural Marketing Service of the United States Department of Agriculture and the Bureau of the Census. The values for livestock for 1935, 1930, and 1925 were obtained in the same manner as for 1940, except that for the Census of 1935 the calculations were made on a State basis using State unit prices, and for 1925 on a county basis using unit prices for crop reporting districts, each consisting of a group of contiguous counties. Prior to 1925 livestock values were obtained by enumeration. Refer to chapter VII, "Livestock and livestock products," for the items included in the livestock values shown for each census.

In reporting the total value of the farm' (land and buildings) the enumerators were instructed to obtain from each farm operator a value representing the market value of the farm, that is, the amount that would be received by a willing seller from a willing buyer and not at a forced sale. This value was to include all the land in the farm whether owned, rented from others, or managed for others, and all the buildings and improvements thereon as of April 1, 1940. For institutional farms, and for establishments where farming was combined with nonfarm activities, only the acreage and the value of land and buildings actually used for farm purposes were to be included. The value will not necessarily relate solely to a farm's agricúltural possibilities. The reported value may be due in part to the proximity of the farm to a city, to the presence of minerals, or to buildings as in the case of a country estate. The inclusion of nonagricultural values does not affect the total value, appreciably, in most States, but the totals for some counties, particularly those near urban centers and in country estate areas, are much higher than would be justified if the values were due entirely to farm earnings.

PERCENT DISTRIBUTION OF VALUE OF SPECIFIED CLASSES OF FARM PROPERTY, BY STATES: 1940 AND 1930

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VALUE OF LAND AND BUILDINGS

In a few instances, comparability of county data, particularly when these data are broken down by minor civil divisions, color, tenure, and size of farm, may have been affected slightly because of difficulties in supplying satisfactory values where they had been omitted on schedules for farms of unusual types, or where rather generally omitted for tenant operators.

In obtaining the 1940 data for value of farms, an additional question was asked of part owners, namely, the value of the owned portion. In earlier censuses it was thought that there was some tendency for part owners to omit the value of land rented from others, and to report only the value of the owned portion. It is believed that the additional question, although not included primarily for this reason, resulted in some improvement but did not entirely eliminate this tendency. An offsetting tendency is for owner-operators who rent out some of their land to report the total value of their holdings

No specific instructions were given to enumerators in 1940 for reporting the value of buildings, except that such value constituted a part of the total value of the farm. The value of the buildings on a farm is considerably more difficult to determine than the value of the entire farm. In some instances, the buildings may add little to the market value of the farm, and the difference in the value with or without the buildings may have little or no relation to the worth of the buildings when considered from the standpoint of original or replacement costs. The figures obtained, therefore, are probably somewhat less satisfactory than the figures for the total real-estate values. For this reason, the value of 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. In reporting institutions the value of the institutional buildings was to be omitted. In reporting country estates, however, if there were enough agricultural production to classify them as farms the value of all buildings was generally included. Since country estates constitute a very small portion of all farms, State figures in general are not affected materially.

All farms do not have buildings and since reports may not have been secured for all farms which had buildings, the number of farms reporting, as well as the value of buildings, is shown in the tables. It is believed, however, that the number of farms failing to report is relatively small and, therefore, the count of farms not reporting value of buildings may be assumed, in general, to represent those without buildings.

The enumerator was asked to obtain from each farm operator the present market value of all farm implements and machinery used in operating the farm. The value of implements and machinery used jointly by two or more farmers was to be enumerated for the farm where the machinery was located on the census date. Specific mention was made of automobiles: tractors: motortrucks; trailers; tools; wagons; harnesses; dairy equipment; cotton gins; threshing machines; combines; and apparatus for making cider, grape juice, and sirup, and for drying fruits. Commercial mills and factories, and permanently installed irrigation and drainage equipment were not be be included. For earlier censuses the question relative to the value of farm implements and machinery was essentially the same as for 1940, except that no mention was made of permanently installed irrigation and drainage equipment. The value of farm implements and machinery was obtained by a single over-all question. It is probable that a somewhat different figure would have been obtained if values had been secured separately for the various items.

Values for farm implements and machinery were reported by only 82.3 percent of all farm operators in 1940. Although many of the farms for which no values were reported may have had no implements and machinery, it is not likely that such farms were nearly as numerous as those failing to report. When available, both farms reporting and value of implements and machinery are given in the tables. Although the value reported for implements and machinery may be somewhat low because of failures to report this item, farms which failed to report probably had much less per farm in the way of implements and machinery than those reporting. Data for values of the specified classes of farm property are presented for each census beginning with 1850 for the United States in table 5 and for 1940, 1935, and 1930 by divisions and States in tables 16 and 17. Values of farms (land and buildings) with averages, per farm and per acre, are also given by divisions and States for 1940, 1935, and 1930 in table 9; and for 1850 to 1940 in table 18.

AVERAGE VALUE OF LAND AND BUILDINGS, PER ACRE, FOR THE UNITED STATES: 1850-1940



The value of the specified classes of farm property in the United States in 1940 was \$41,254,978,628, of which 81.5 percent was represented by real estate. 11.0 percent by livestock. and 7.4 percent by farm implements and machinery. There was a 27.6 percent decline in the value of farm property during the decade, although the values in 1940 were for the most part higher than those reported in the middecennial census of 1935. Until 1920 each census showed substantial increases in the value of farm property. The gains in general accompanied the increases in number of farms and land in farms until 1900. From 1900 to 1920 the value of farm property rose at an increasing rate, the gain from 1910 to 1920 amounting to 90.8 percent. By 1935 the value of farm real estate in most States had dropped to levels below those of 1910. Farm real-estate values changed the least in those areas, such as in New England and the Middle Atlantic States, where a large proportion of the farms have site or residential values quite distinct from purely agricultural values. Data for values of the specified classes of farm property are shown graphically for each census year beginning with 1850 for the United States, and the percentage of the total value represented by each class is shown for 1930 and 1940, by States, in accompanying bar charts.

Average values per farm based on all farms are shown for the specified classes of farm property. The averages presented do not represent the average investments per farm operator since a very considerable portion of farm land is rented from others. Considerable equipment and livestock are also owned by the landlords of tenant operators. The average values of land and buildings per farm, based on all farms, and those per farm reporting were both calculated on the basis of the total number of farms even though in 1940 there were 489 farms with no land owned or leased. Practically all these farms represented livestock grazing on open range. The number of such farms for prior censuses is not available. Averages per farm reporting as well as averages based on all farms are given for buildings and for implements and machinery.

Changes in the per acre value of farm real estate followed, in general, the changes in total value. Per acre averages, although reflecting changes in level of farm real-estate values, do not constitute a true index of the changing values of farms, especially for the United States as a whole, because farm lands lost or added at the various censuses have not been representative. This is particularly true in regard to the increases in land areas shown by the 1940 Census. Most of this increase was in the Mountain and Pacific States and represented very large acreages of semiarid or arid range lands. The United

States average value per acre is shown graphically for the various census years in the accompanying chart.

Irrigation .- In the 1940 Census of Agriculture irrigation data were secured for irrigated farms in 20 specified States and for irrigated cropland harvested and for irrigated pasture in all States. Data for individual irrigated crops were obtained for 19 States and are presented by States in chapters VIII and IX, and by counties in the Second Series State Bulletins and volume I. Irrigated cropland harvested and irrigated pasture are shown for the United States in their relation to the various classes of land according to use in table 4 and by divisions and States in table 19. County data for these items are published in the First Series State Bulletins and in volume I. United States data for number of irrigated farms and area irrigated from 1890 to 1940 are given in table 7. Totals for number, acreage, and values for irrigated farms in selected States, 1940 and 1930, are shown by States in table 20; combined totals for these States with comparative data for nonirrigated farms are shown in table 6. For county data relative to the number, acreage, and values for irrigated farms, refer to Census Reports for Irrigation; as in all former decennial censuses since 1910 a separate census was taken for irrigation enterprises. This census covered 20 States in 1940 and 19 States in the preceding censuses. Data for the irrigation censuses are not included in this report but are published separately.

IRRIGATED FARMS IN THE UNITED STATES: 1890 - 1940



Data relating to irrigation have been obtained on the agricultural schedule at each decennial census beginning with 1890 and also at the middecennial Census of 1935. For each decennial census beginning with 1910 there has also been a census of irrigation enterprises. For most of these censuses the data were collected for and their publication restricted to specified States. For each decennial census beginning with 1900, the number of acres of each crop irrigated was secured in connection with the Census of Agriculture. However, these data have not always been considered complete, particularly for the Censuses of 1910 and 1920. In 1935 irrigation data were limited to irrigated land from which crops were harvested, but these data were secured for all States.

The number of irrigated farms in the United States has increased steadily except from 1935 to 1940 when for the United' States as a whole there was a slight decrease in the total. The 1934 acreages irrigated were for the most part lower than those for either 1939 or 1929 due to rather general drought conditions which prevailed that year.

Maps. — Several maps presented in this chapter show the geographic distribution of the rural and farm population, the number and acreage of farms and the several classes of farm land according to use, values of specified classes of farm property, and the net changes in several of these items for the decade 1930-1940. The maps were prepared on a county unit basis. Thus, for the dot map showing crop failure, where a scale of one dot equals 5,000 acres, any county having as much as 2,500 acres but less than 7,500 acres of crop failure received one dot. Counties having less than 2,500 acres received no dots. For example, Ohio with a total of 152,237 acres of crop failure has only 14 dots (not 30), since only 14 counties had as much as 2,500 acres of crop failure and none had 7,500 or more acres.