CHANGES IN AGRICULTURE, 1900 TO 1950

Introduction.—Many people wish to know what important changes have taken place in agriculture. This part of the report summarizes the extent and direction of the changes in the number of farms, land in farms, livestock production, acreage and production of crops, farm mechanization, the number of people living on farms, and agricultural workers.

During the last 50 years, farming in the United States has been revolutionized by the widespread use of machinery and by the direct use of scientific knowledge and improved methods in agricultural production. The nature and extent of some of these changes may be indicated by comparison of farm operations and conditions in 1900 with those of 1950.

In 1900, the farmer performed chores by hand, plowed with a walking plow, forked hay, milked by hand, and went to town once a week on horseback or by wagon to obtain the few necessities not produced on the farm. The power needed for farm operations was supplied by work animals and humans. Food for the farmer and members of his family, and feed for the work animals came from the farm. Fuel was obtained from the farm woodlot. Fertilizer was seldom used. The flickering kerosene lamp furnished the light. The hand pump and the windmill pumped water. Farm butchering and the trading of bread grains for flour were necessary customs.

By 1950, most farm operations had been greatly changed. Electricity and other power equipment performed many chores; plowing was performed with the tractor gangplow; and the hay rake, hayloader, or pick-up baler had greatly reduced the labor required for the hay harvest. Milking machines had lightened the burdens of milk production; the automobile, truck, and improved roads had made a trip to town, whenever desired, easy and quick. Tractors and other machines provided more than three-fourths of the power needed for field operations. An increasing proportion of the farm family's food was processed off the farm. Potato production had disappeared from half the farms. Custom trading of grain for flour had been eliminated in all except remote areas. Two-fifths of the farms had given up farm butchering. Electricity provided lights on four out of five farms. Two out of five farm homes had running water. A large-scale feed industry had developed to provide processed feed for dairy cows, poultry, etc. The heavy use of mineral fertilizer had become extensive in the eastern half of the Nation. Custom hiring of farm equipment, often with an operating crew, had become a common practice on half of the farms, particularly on those not large enough to provide for the efficient use of specialized mechanical power and equipment.

The revolution arising from farm mechanization during the half century was the second revolution in agriculture that occurred during the last 150 years as a result of the introduction and widespread use of new machines and power. Prior to 1800, land was farmed much as it had been for the previous 300 years. The wooden plow, the hoe, the scythe, cradle and flail were the chief tools. During the nineteenth century, the development of the steel plow and the reaper ushered in the machine age of agriculture. The general use of horse-drawn machinery resulted in the displacement of manpower by horse and mule power, and in the utilization of vast areas of farm lands in the Midwest for the growing of feed and food crops. The mechanization of farm operations during the last three decades by the substitution of tractors for horses and mules has accelerated changes started by the widespread use of horse-drawn machinery in the middle of the nineteenth century.

The machine age has brought vast changes in agriculture in the United States. Since 1800, the combine has replaced the sickle; the tractor has been substituted for the ox; the population has increased from 4 million to 151 million; a rural civilization has become an industrial civilization; land once free has become high-priced; and, in farming, the emphasis has changed from production of products needed on the farm to the highly commercialized production of farm products for sale.

Farm life and living standards have also changed with the changing of agriculture. The changes in farm life and living standards during the last 50 years have been greater than those during the preceding century. Many items for family consumption formerly produced on the farm are now produced elsewhere. Many materials—feed, fertilizer, machinery, fuel, etc.—required for farm production are now produced elsewhere; some on other farms, others in urban factories. Many production processes performed on farms in 1900 are now concentrated in nonfarm factories. Electricity has displaced the candle and kerosene lamp in the farm home. The refrigerator, the deep freeze, and modern methods of food distribution have helped to eliminate the home canning, the springhouse, and the potato hill as methods of farm food preservation. The telephone, radio, television, automobile, and good roads have nearly eliminated the isolation that characterized farm living in 1900.

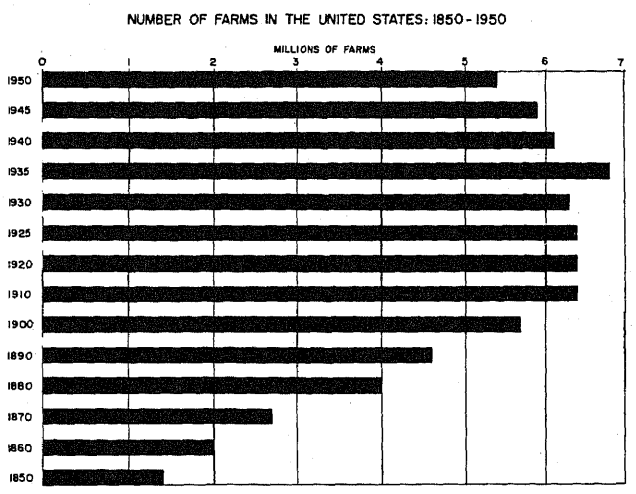
The use of labor-saving machines plus the use of scientific knowledge on farms have greatly reduced the number of persons required for producing food and fiber for an increasing population. In 1870, agricultural workers comprised half of all workers; in 1900, about one-third of all workers; and in 1950, less than a fifth of all workers.

The use of scientific knowledge and improved methods have also been dynamic factors in changing agriculture. The introduction of new crops, the improvement of varieties of crops, the use of hybrid corn, the conquest of plant and animal diseases and pests, the building of improved roads, the electrification of farms and farm homes, and the improvement in livestock and poultry have brought tremendous changes in farms and farm production. These changes, in addition to the use of labor-saving machinery, have made possible an increased production for an ever-increasing nonfarm population and have made possible improved levels of diet without great changes in the area used for farming.

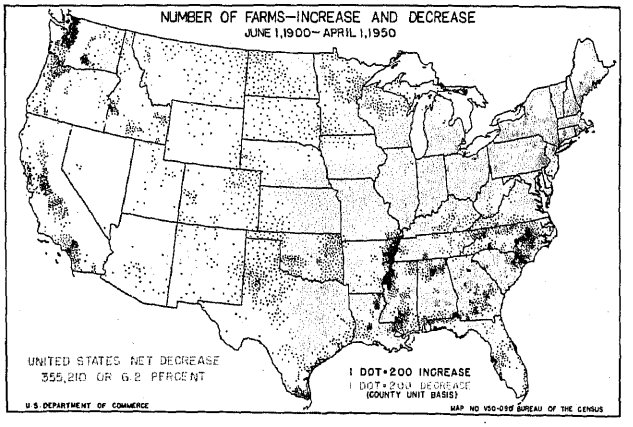
Improved roads, improved rail transportation, and motortrucks have brought changes in the location of many agricultural activities. Fruit, vegetable, and livestock production is now possible in areas distant from the consuming market. While land itself cannot be moved, other factors of production have become increasingly movable. Advances in processing, storage, transportation, and communication have done much to overcome problems of time and distance. The period of 1900–1950, therefore, has seen many geographic changes in production because of technological developments in processing and transportation, such as the rail tank car, tank truck, better refrigeration, large-scale processing, paper cartons, quick freezing, improved highways, etc.

The periodic censuses provide only part of the needed measures of the vast changes in a half century. The maps, graphs, and brief summaries of changes that appear on the following pages help to indicate the extent and area of some but not all of the changes in agriculture since 1900.

Number of farms.—During the last 100 years, the number of farms has tripled. However, the number has decreased considerably since the peak was reached in 1935. We now have 355 thousand fewer farms than in 1900.

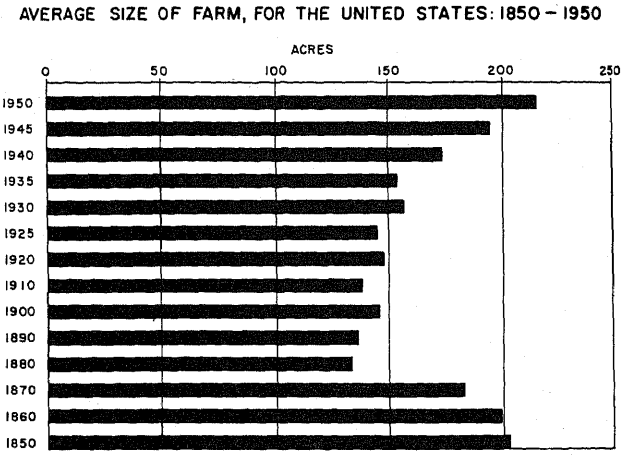


Actually the change in the number of farms with full-time operators was much greater than indicated by these figures. Nearly all of the 5,737,372 farms in 1900 were full-time farms; that is, practically all the farm operators were employed full time in agriculture. However, of the 5,382,000 farms in 1950, 639,239 were part-time farms and 1,029,392 were residential farms. The operators of many of the part-time and residential farms were employed, generally on a full-time basis, at jobs not connected with agriculture. Therefore, if the comparison for 1900 and 1950 were made on the basis of full-time farms, the number of farms in 1950 would probably be more than one million less than in 1900.

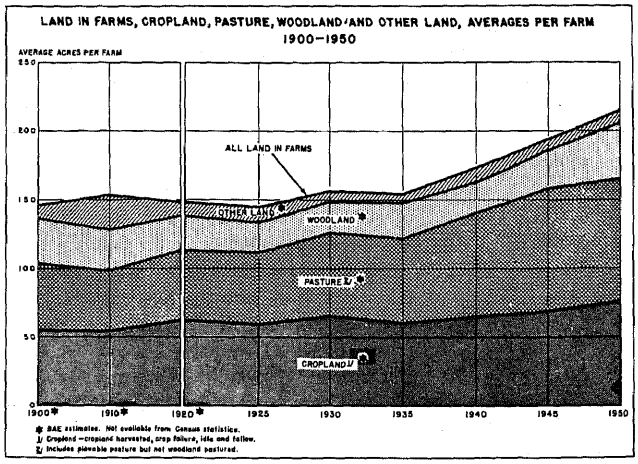


The decrease in farms during the 1900–1950 period occurred largely in the North and East. During this period, a large number of farms in the Northeast were abandoned and many owners of farms ceased farming operations and obtained employment in industry and in cities. The consolidation of farms through mechanization, and the abandonment of farming activities by a considerable number of families affected a reduction in the number of farms in the Midwest. Decreases in the South occurred in the older part of the Cotton Belt mainly because of the boll weevil infestation.

Most of the increase in farms occurred in the South and West. High birth rates, and increased cotton and tobacco production contributed to the increase in the farms of the South. Homesteading, the use of semiarid lands for grain production, the development of farm equipment, and an 18 million-acre increase in irrigated land were important factors affecting farm numbers in the western part of the Nation.



Size of farm.—There has been a gradual increase in the average size of farms since 1900. However, the increase in the last 15 years was greater than during the first 35 years. The average size in 1950 was 215.6 acres as compared with 146.2 acres in 1900.

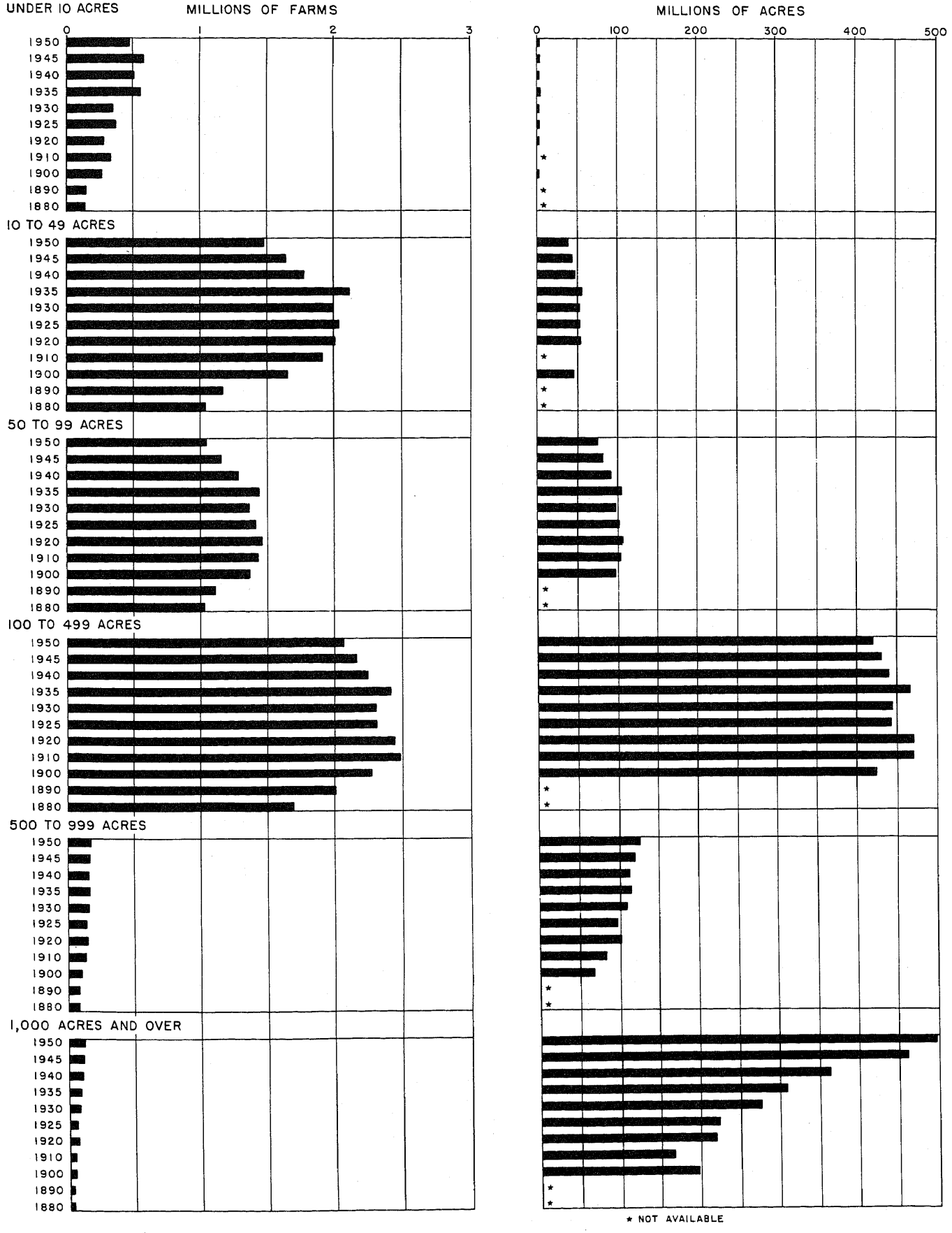


During the half century the increase in size of farms meant an increase of approximately 30 acres in cropland and 70 acres in pasture land in the average farm.

During the half century the number of farms under 10 acres in size almost doubled, increasing from 267 thousand to 484 thousand Almost two-thirds of this increase took place in the South. The number of farms 10 to 49 acres in size decreased about 200 thousand, or 11.2 percent, during the 50-year period. There was a decrease of more than 300 thousand in the number of farms 50 to 99 acres during the half century. Practically all of the decrease occurred in the North. Farms of 100 to 499 acres declined by almost 220 thousand, the loss being divided about equally between the North and the South. Farms of 500 to 999 acres increased from 102 thousand to 182 thousand and farms of 1,000 acres and over from 47 thousand to 121 thousand. More than half of the increase in the number of farms of 500 to 999 acres occurred in the North and almost half of the increase in farms of 1,000 acres and over took place in the West.

The land in farms of less than 500 acres decreased almost 34 million acres or 5.9 percent from 1900 to 1950. On the other hand, the acreage in farms of 500 to 999 acres increased from 68 million to 126 million acres, and the acreage in farms of 1,000 acres and over increased from 198 million to 494 million acres. More than half of the increase in land in farms of 500 to 999 acres took place in the North and almost three-fourths of the increase in land in farms of 1,000 acres and over occurred in the West.

NUMBER OF FARMS, 1880 TO 1950, AND LAND IN FARMS, 1900 TO 1950, BY SIZE OF FARM, FOR THE UNITED STATES



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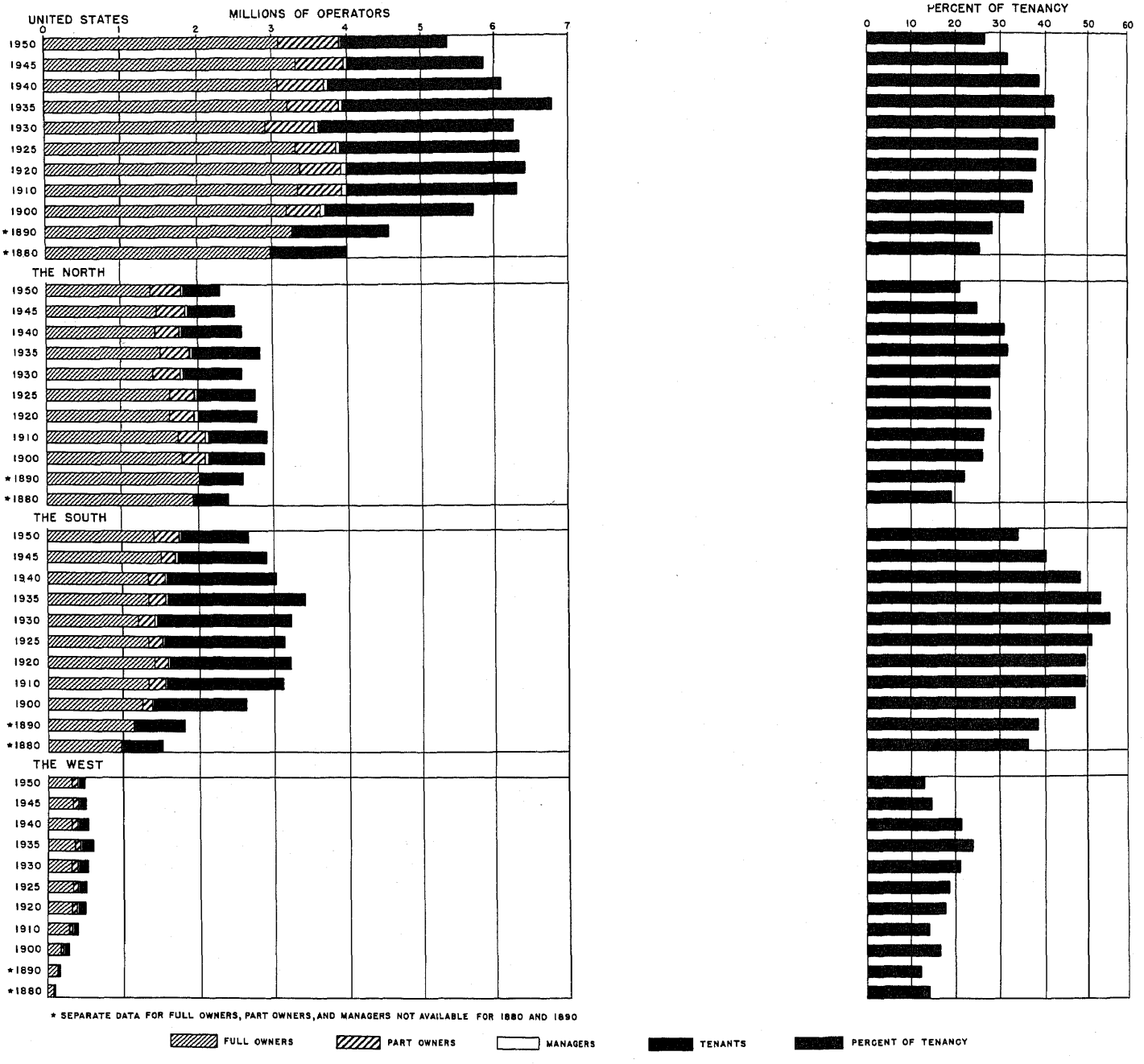
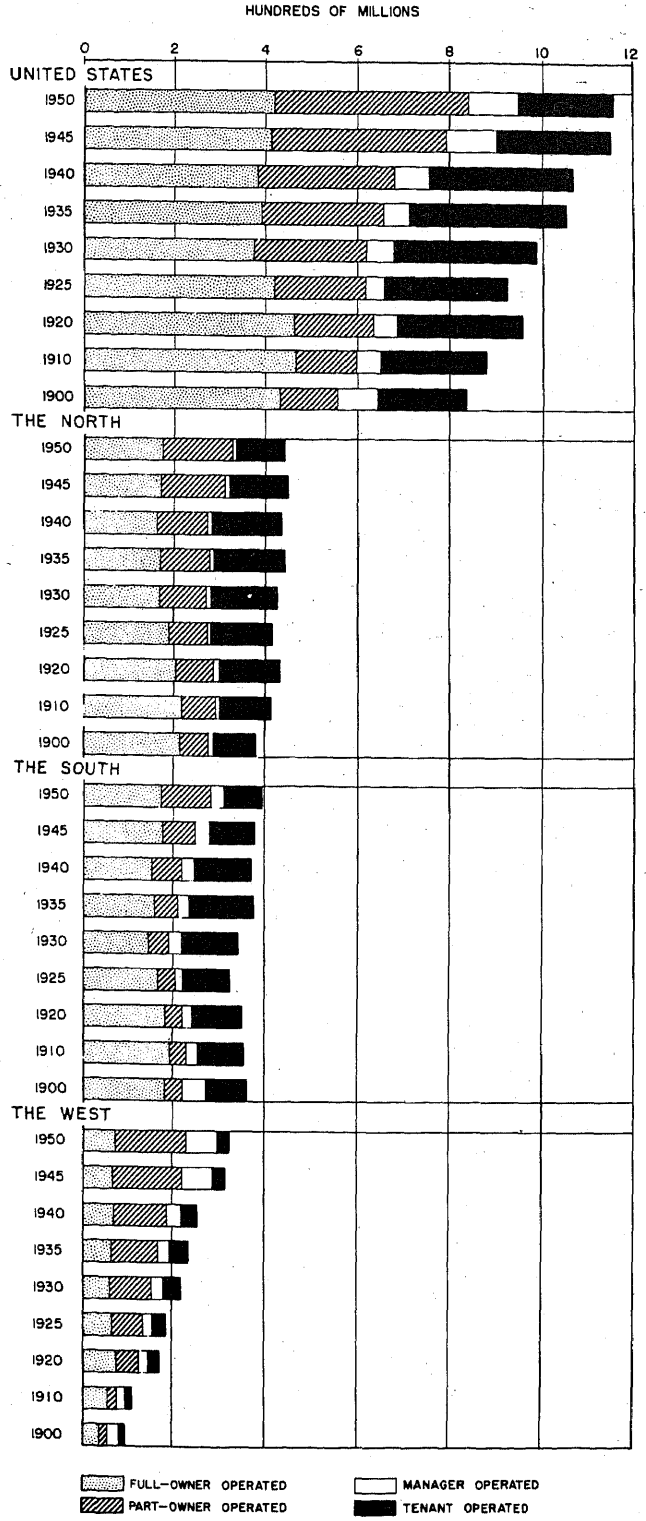
NUMBER OF FARM OPERATORS, BY TENURE, AND PERCENT OF TENANCY, FOR THE UNITED STATES AND REGIONS: 1880–1950



Color and tenure of operator.—The two most significant changes in farm tenure during the last 50 years were the increase in the number of farms operated by part owners and the increase in farm tenancy from 1900 to 1935 followed by the rapid decline in farm tenancy since 1935. The number of farms operated by full owners, 3,089,583 in 1950, was only slightly less than the number in 1900. Most of the decrease probably resulted from changes in the Census definition of a farm. However, in 1900, most of the full-owner farms were farms receiving the full-time attention of the farm operator. On the other hand, at least two-fifths of the full-owner farms in 1950 were operated by farm operators whose principal employment was not directly connected with any farm, or whose families depended upon off-farm income more than upon the sale of farm products for their cash income. The development of good roads, the widespread use of automobiles, the decline in weekly hours of work in nonfarm jobs, the mechanization of farming operations, the installation of electricity and modern conveniences in farm areas, etc., have resulted either in the establishment of approximately 1.3 million places as full-owner country residences and part-time farms or in the conversion of farms to country residences and part-time farms. If allowance were made for the development of residential and part-time farms, the actual number of full-time full-owner farms may have decreased as much as one million since 1900.

FARM ACREAGE, BY TENURE, FOR THE UNITED STATES AND REGIONS: 1900–1950



The increase in the number of part owners was one of the outstanding changes in the farm tenure during the half century. Most of the increase occurred between 1940 and 1950. Undoubtedly the increase was associated with the mechanization of farms whereby farm operators found it possible and economically desirable to rent additional land, thereby obtaining greater use of available farm machinery and labor. The greatest numerical increases were in the North and South, while the greatest relative increase was in the West.

The land in farms operated by part owners was more than three times as large in 1950 as in 1900. Significant increases in the acreage operated by part owners occurred in all three regions, although the numerical increases were much greater in the West and North. The increase in the acreage of land in farms operated by part owners in the West resulted largely from the change in the arrangements regarding the use of range lands.

The increase in the number of tenant farms from 1900 to 1935 followed by the sharp decrease in the number of tenant farms since 1935 was one of the most significant changes in farm tenure during the twentieth century. The proportion of farms operated by tenants was 35.3 in 1900; the proportion increased to 42.1 in 1935, and then declined to 26.8 in 1950. Throughout the present century almost two-thirds of the tenant farms were in the South. The change in tenants was greater in the South than in the other two regions. Nearly half of the reduction in the number of tenants in the South resulted from the decrease in the number of croppers.

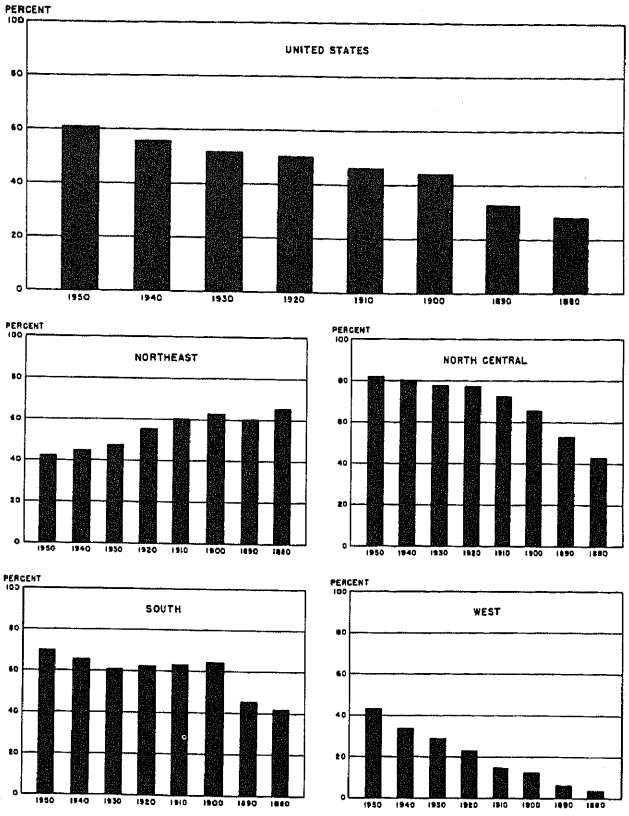
Farms operated by nonwhite operators totaled 768 thousand in 1900. The number increased to 950 thousand by 1920 and since then the number has declined. In 1950, there were approximately 581 thousand nonwhite farm operators. Most of the change in the number of farms operated by nonwhite farmers has resulted from the change in the number of farms operated by nonwhite tenants. Throughout the half century, about 95 percent of the farms operated by nonwhite farmers were in the South. The changes in the number of farms operated by nonwhite farmers in the United States reflect changes that occurred almost entirely in the South.

NONWHITE FARM OPERATORS—NUMBER OF FARMS AND LAND IN FARMS, FOR THE UNITED STATES: 1900 TO 1950

Item and tenure	1950	1940	1930	1920	1910	1900
Number of farms [1]	580, 919	719, 071	916, 070	949, 889	920, 883	767, 764
Full owners	153, 461	167, 576	158, 857	192, 401	195, 809	176, 016
Part owners	55, 350	33, 522	43, 863	40, 821	45, 412	30, 501
Tenants	371, 637	517, 256	710, 228	714, 441	678, 118	559, 423
Croppers (South only)	198, 057	299, 118	392, 897	333, 713	[2] 373, 551	[3] 284, 760
All land in farms [1]	62, 646, 990	45, 739, 931	41, 087, 982	44, 944, 521	46, 632, 305	41, 766, 023
Full owners	9, 549, 326	21, 367, 603	10, 642, 918	14, 005, 208	15, 961, 506	13, 770, 801
Part owners	5, 912, 854	3, 113, 123	3, 137, 341	2, 698, 984	3, 114, 957	2, 205, 297
Tenants	14, 366, 739	20, 991, 689	26, 871, 404	27, 764, 650	27, 129, 953	25, 282, 712
Croppers (South only)	5, 540, 171	9, 042, 878	11, 969, 697	10, 140, 783	[2] 13, 358, 580	[3] 12, 078, 523

[1] Includes managers. [2] Includes share tenants and croppers. [3] Includes share-cash and share tenants and croppers.

LAND IN FARMS AS A PERCENT OF TOTAL LAND AREA, FOR THE UNITED STATES AND REGIONS: 1880–1950

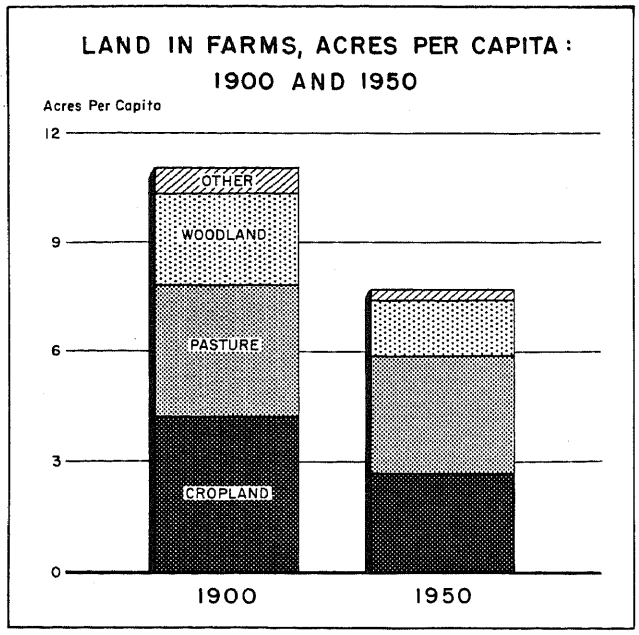


Land in farms.—The total land area of the United States has changed very little since 1900. In 1950, the total land area was 1,903,824,640 acres, of which 60.9 percent was in farms. A larger part of the Nation's land is now included in farms than at any previous date. The increase in the farm area was gradual from 1900 to 1930, and after 1930 the rate of increase accelerated.

The proportion of land in farms showed different trends in the various regions. In the Northeast, the trend was slightly downward until 1910, when farming activities were sharply curtailed. The accelerated downward trend tended to level off, however, during the last two decades. In the West, the trend was nearly the opposite—land in farms increased more than threefold during the 50-year period. In the South, the increase in farm land began to level off following 1900, while in the North Central States, the increase continued until 1920, when the leveling-off began. Significant increases during the last decade took place in the South and West, and the increase in the North Central States more than offset the decrease in the Northeast.

The United States is one of the most fortunate nations in the world in the opulent relationship of population to available agricultural land. If the cropland, pasture, and forest lands of the United States were allotted on a per-capita basis as of the 1949 use, each person would get a total of 11.3 acres. On

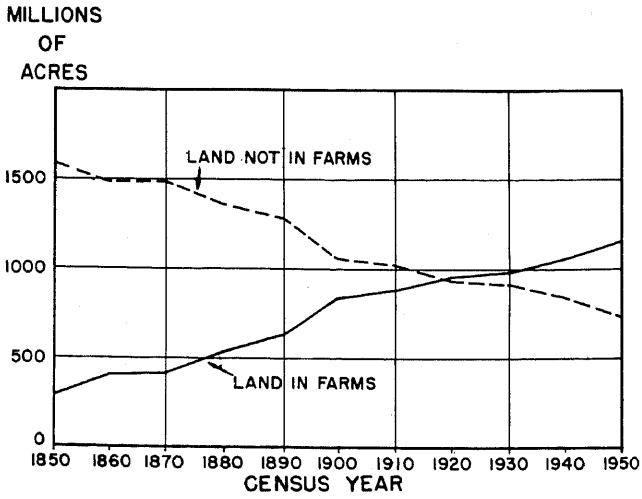
LAND IN FARMS, ACRES PER CAPITA: 1900 AND 1950



the basis of arable or cropped land, meadow and permanent pasture, forest and woodland, and unused but potentially productive land, the estimated per-capita acreage for the world as a whole was 8.2 acres in 1949.

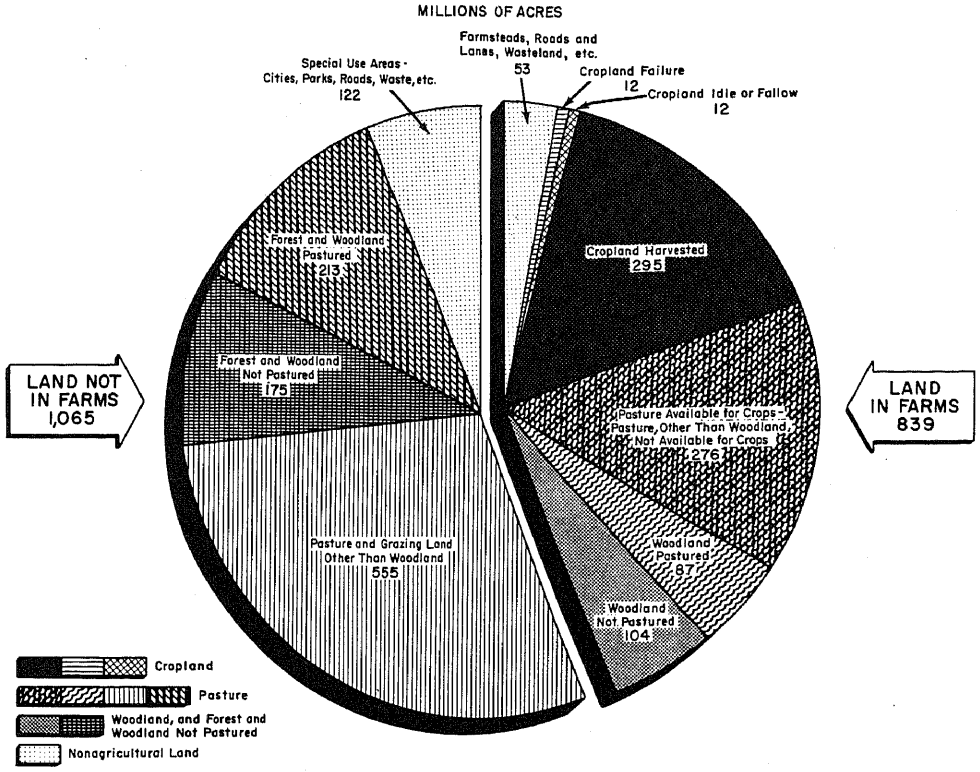
However, the amount of land in farms per capita has decreased with the rapid growth of population in the United States.

ACREAGE OF LAND IN FARMS AND NOT IN FARMS, FOR THE UNITED STATES: 1850–1950



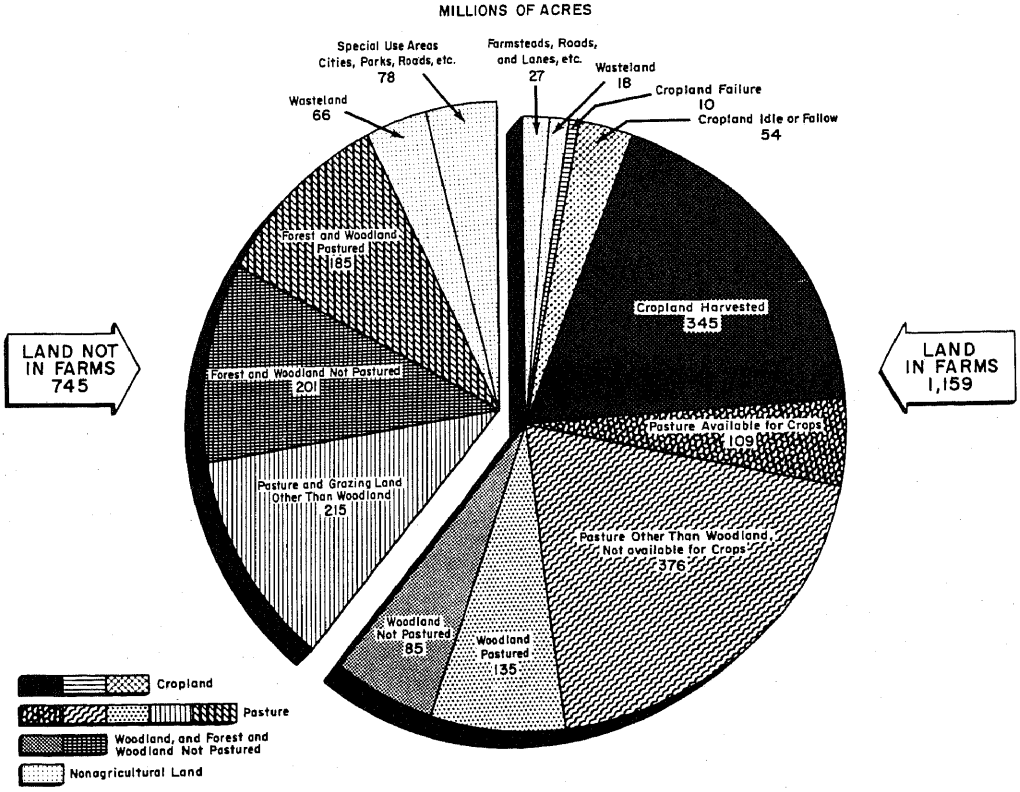
During the past 100 years, land in farms has been increasing decade by decade until in 1950 only two-fifths of the total land area or 745 million acres remained outside of farms. Since 1900, the increase in land in farms has amounted to 320 million acres.

MAJOR USES OF LAND, FOR THE UNITED STATES: CENSUS OF 1900



During the last 50 years, not only has the proportion of land in farms increased, but also the use of land has changed. In 1900, less than 300 million acres were used for harvested crops; by 1950, the acreage of harvested crops had increased to 352 million. Pasture land not in farms declined nearly 368 million acres. Between 1900 and 1920, large acreages of land not previously in farms were transferred to the farm area, increasing the acreage of both farm pasture and cropland.

MAJOR USES OF LAND, FOR THE UNITED STATES: CENSUS OF 1950



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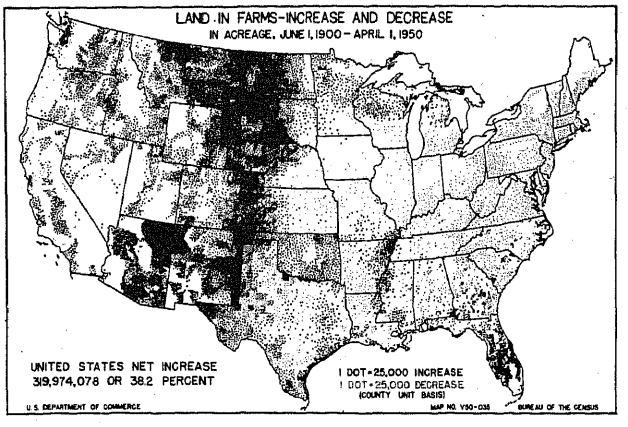
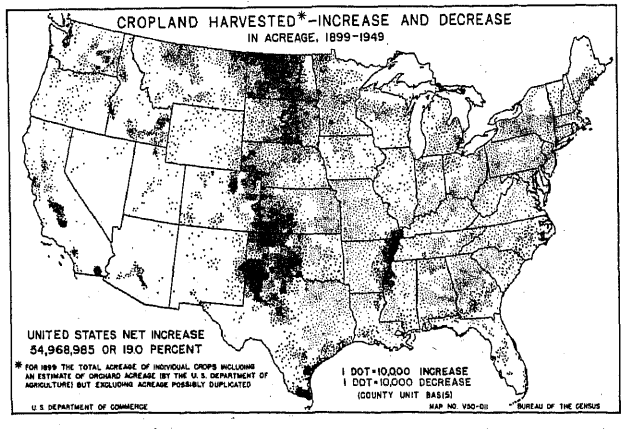


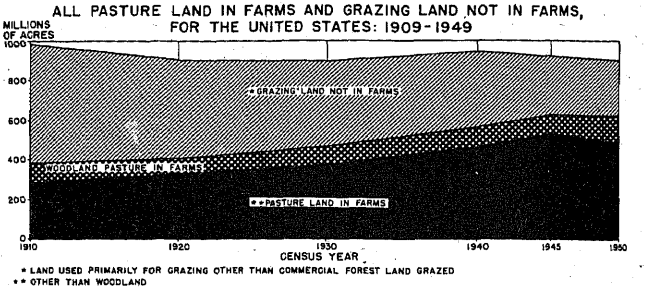
Widespread increases in land in farms have occurred since 1900. The greatest expansion was in the Western States and the Plains States west of the Mississippi River.

In the Northeast and in the States along the Appalachians, decreases in land in farms occurred over large areas. In the South, both increases and decreases occurred. Generally increases in land in farms in the Southern States were connected with the clearing and draining of land and with improved flood control. Decreases most generally occurred in the Piedmont area, in Missouri, and in hilly areas. In the Corn Belt and Lake States there was relatively little change in land in farms except for some decline in the hilly unglaciated southern part of the Corn Belt States and in the cut-over areas in the northern parts of the Lake States.

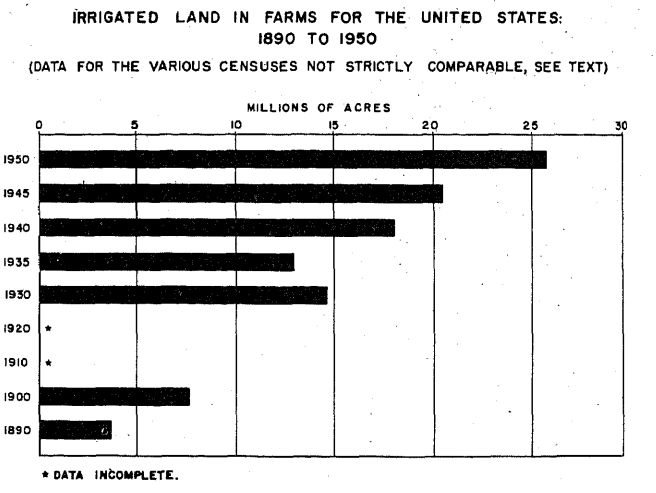


Cropland harvested.—Between 1899 and 1949 there was a net increase of nearly 55 million acres of cropland harvested. During this 50-year period cropland harvested increased greatly in some areas, while in other parts of the United States it declined. The most striking and widespread increase occurred in the Great Plains where wheat, cotton, and, later, sorghums were major crops. In the South, acreage in harvested cropland expanded along the Mississippi Valley, along the Atlantic and Gulf Coasts, and in the Lower Rio Grande Valley. Irrigation contributed to the increase in cropland in the Lower Rio Grande Valley. In the Corn Belt and in the Lake States cropland was added largely through the drainage of wet lands in farms existing in 1900.

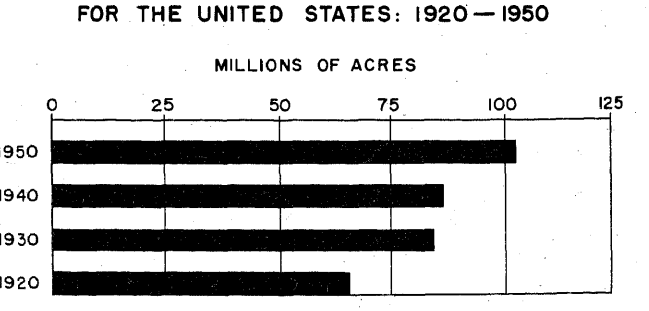
Decreases in cropland harvested between 1899 and 1949 occurred mostly in the eastern half of the United States.



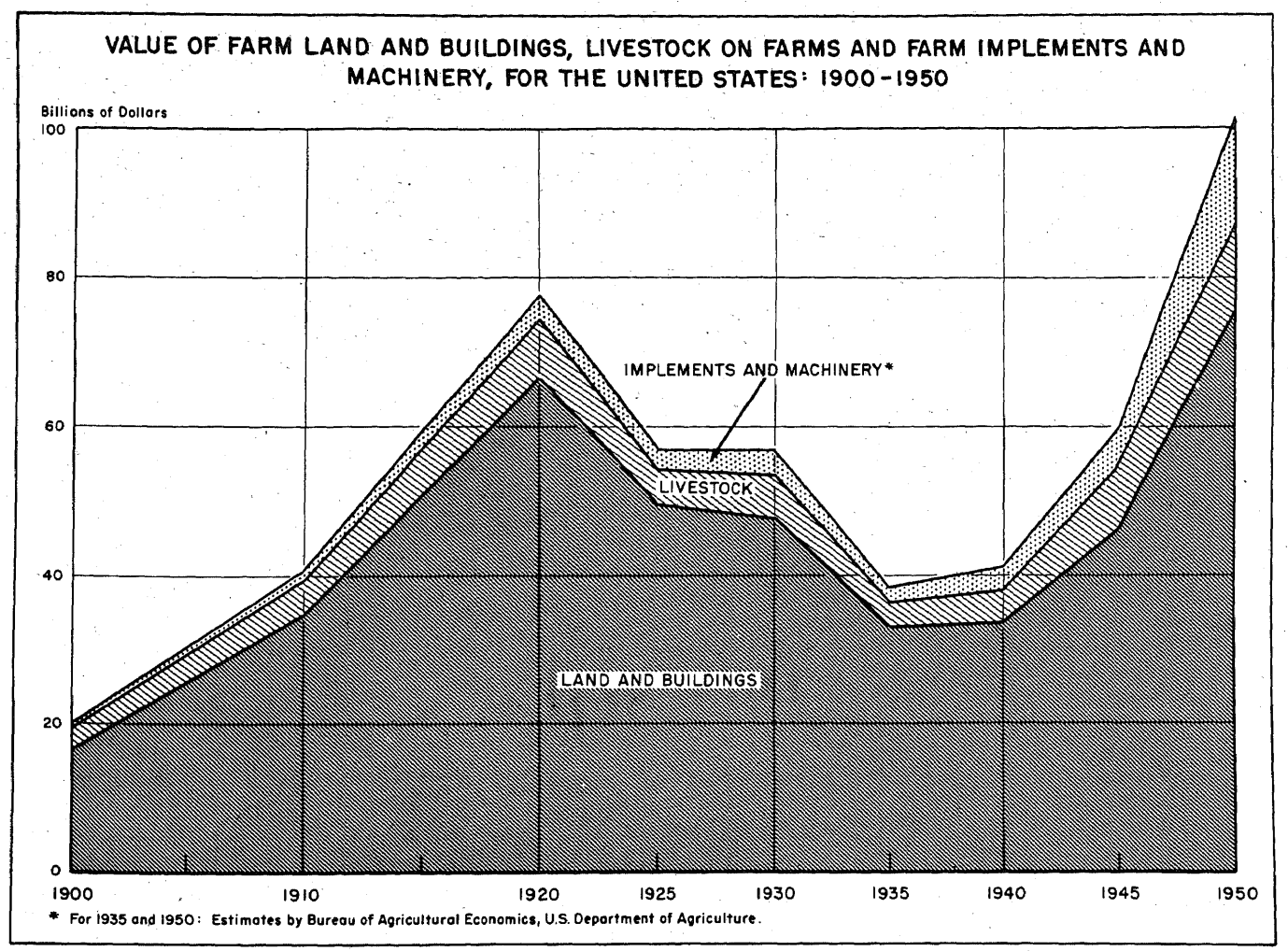
Pasture land.—In 1950 there were approximately 900 million acres of land used for pasture or grazing exclusive of the 120 million acres of commercial forests not in farms. Of the total used for pasture or grazing, 620 million acres were in farms and 280 million acres were not in farms. The steady shift in the pasture area from grazing land not in farms to farm pasture was one of the significant changes in land use during the present century. Practically all of the increase in pasture land in farms occurred in the Western States.

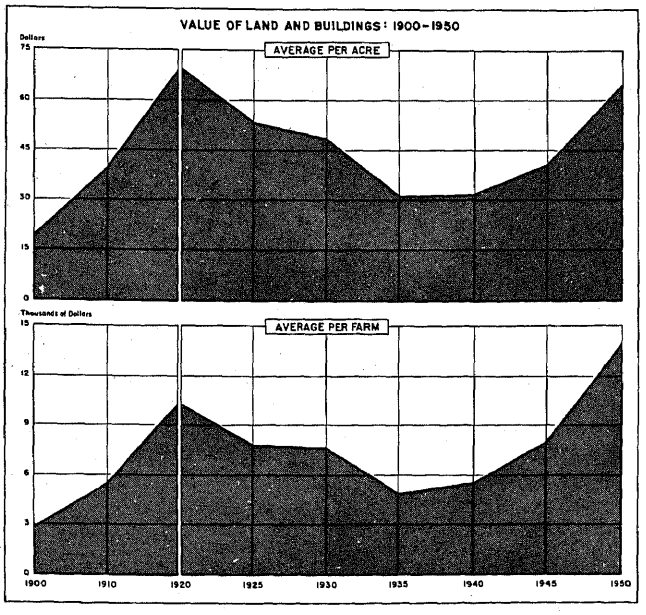


Irrigated land.—The acreage of irrigated land increased 18 million acres between 1900 and 1950. Most of this increase occurred in the West. Irrigation has affected agriculture both by making additional cropland available, and by greatly increasing the yields of crops. In the 11 Western States the increases in acreage of cropland harvested resulted largely from the development of irrigation and dry farming.



Drained land.—As the land in this country was settled, thousands of acres were too wet to be of much agricultural value. Since that time much of this land has been drained and now represents some of the most productive land.





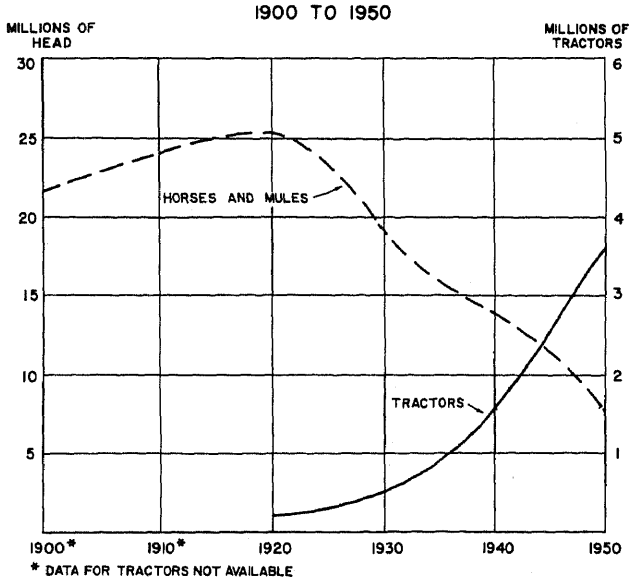
Value of farm property.—Drastic changes occurred in the value of farm property during the last half century. From 1900 to 1920 the value of farm property rose 299 percent, then declined 50 percent by 1935. Since 1935, the value has increased 129 percent to the highest level in history. These changes reflect the change in the amount and quality of farm property as well as the change in price level. During the half century the acreage of land in farms, the number of livestock on farms, and the amount of implements and machinery increased.

With the increase in farm mechanization, farm implements and machinery have increased in importance relative to other classes of farm property. In 1900, land and buildings comprised 82.1 percent of the total value of farm property; livestock, 14.2 percent; and implements and machinery, 3.7 percent. In 1950, land and buildings represented 74.4 percent of the total; livestock, 11.5 percent; and implements and machinery, 14.1 percent. The average value per farm of the various classes of farm property were as follows:

Item	Average per farm (dollars)	
	1900	1950
Specified classes of farm property	3, 526	18, 804
Land and buildings	2, 896	13, 983
Livestock	499	2, 168
Implements and machinery	131	2, 653

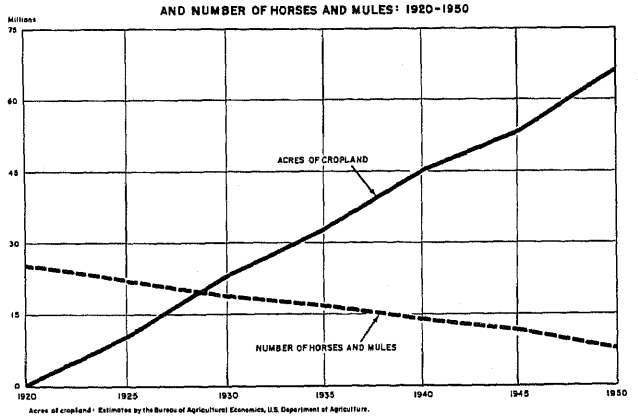
Because of the increase in the size of farms, the average value of land and buildings per farm increased more than the average value per acre during the half century. Average value of land and buildings per farm in 1950 was $13,983 or 4.8 times the average per farm in 1900.

HORSES AND MULES AND TRACTORS ON FARMS: 1900 TO 1950



Farm work power.—At the beginning of the century, work animals provided practically all the power for operating farm machines and for hauling farm products to market. In 1950, practically all the transportation of farm products to market was performed with motorpower, and tractors provided four-fifths or more of all the power for operating field machinery.

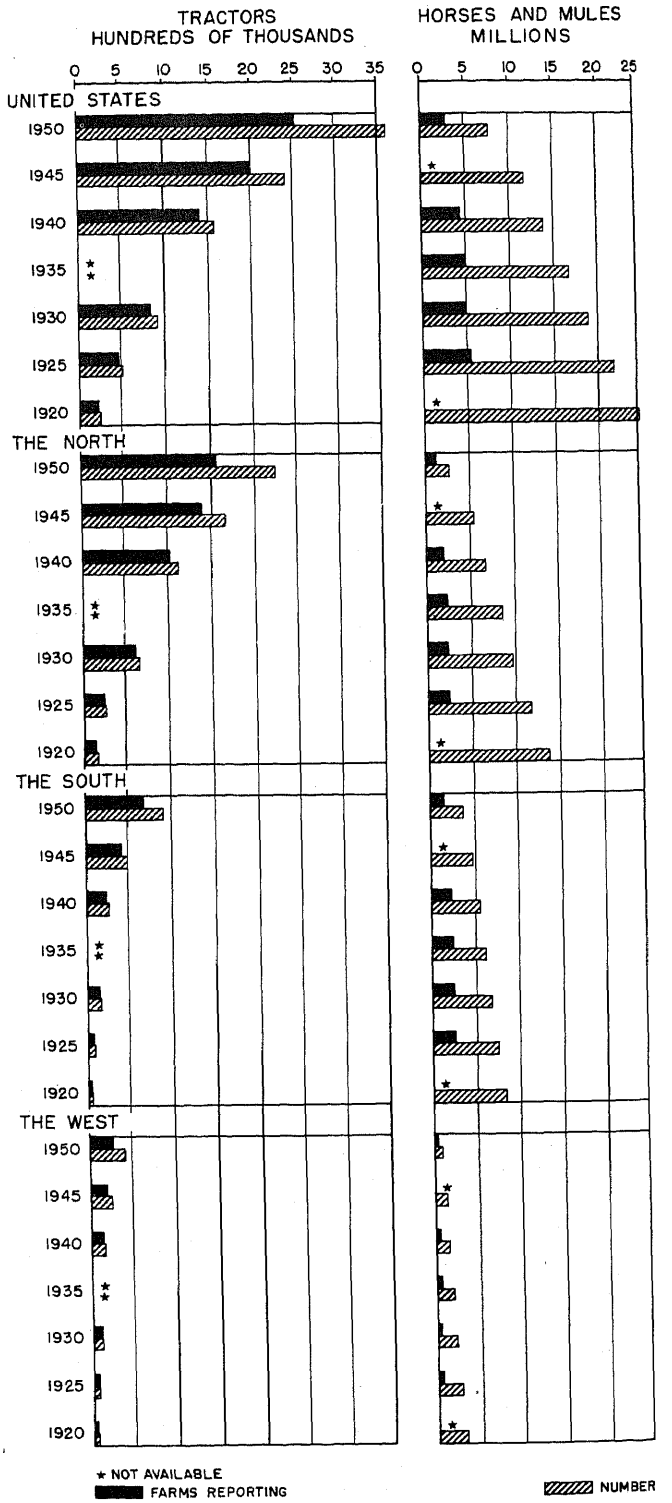
ACRES OF CROPLAND MADE AVAILABLE BY THE DECLINE IN HORSES AND MULES AND NUMBER OF HORSES AND MULES: 1920-1950



Since 1920, the decrease in the number of horses and mules has released almost 70 million acres of cropland from the raising of feed for work animals. This land has been diverted to the production of food or of feed for meat animals, milk cows, and poultry.

The increased use of mechanical power on farms has influenced agriculture more than any other factor during the present century. The change from horses and mules to tractors for farm work has made available an acreage of cropland greater than the total increase in cropland during the half century for the production, directly or indirectly, of meat, milk, eggs, and other food. The use of the tractor and related equipment for farm work, and the use of farm trucks for hauling and automobiles for traveling have speeded up the rate at which farm work is done and has increased the capacity of agricultural workers, enabling considerable numbers of farm workers to leave the farms or to engage in nonfarm work, notwithstanding considerable increases in total farm production. Tractors and power-operated equipment have made an increase in the size of farms possible. The substitution of tractors for animal power has also made available additional power for farm use. With a tractor, the farmer of 1950 probably turned out twice the amount of farm products for market as his father did with a team of horses 50 years earlier. Moreover, less of

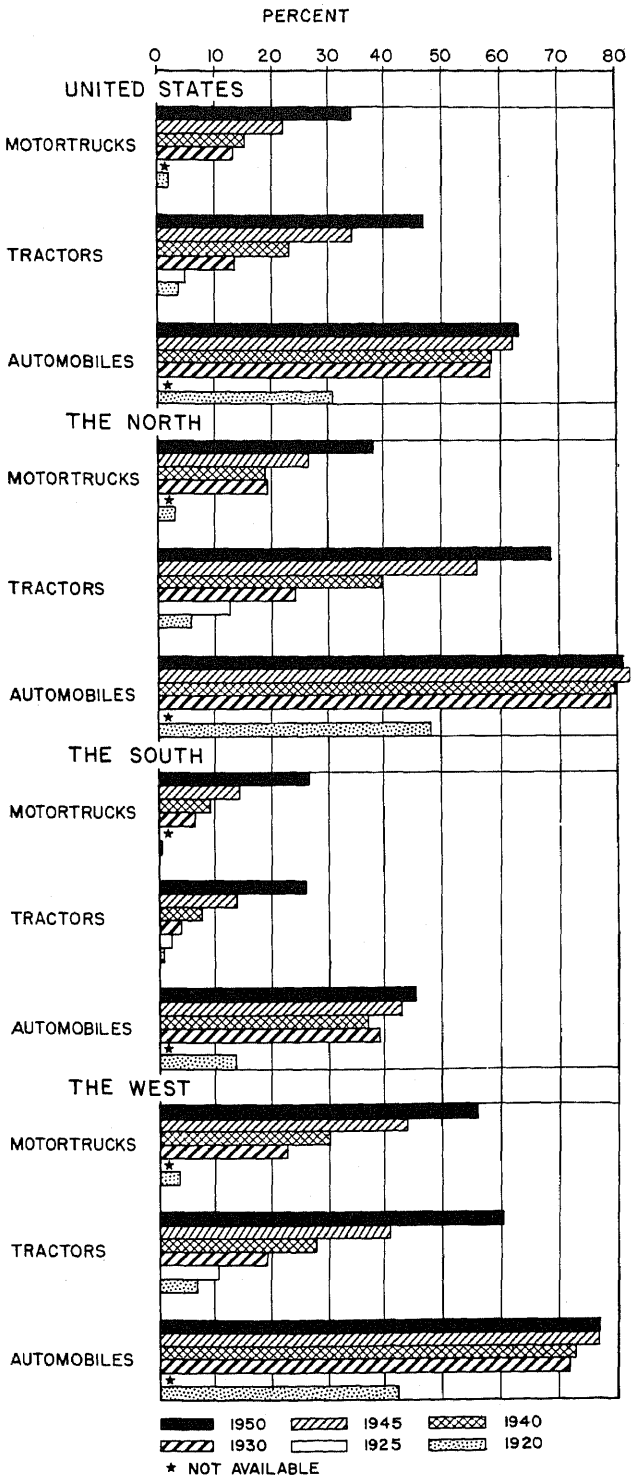
FARMS REPORTING AND NUMBER OF TRACTORS AND NUMBER OF WORK STOCK ON FARMS, FOR THE UNITED STATES AND REGIONS: 1920 TO 1950



the farmer's time was required to care for the tractor than to raise feed for and to produce and care for the horses that were replaced by the tractor.

The introduction of the tractor has been slower in the South than in the other regions. The number of small farms, low income per farm, low farm wages, and the system of farming that requires much hand labor have retarded mechanization.

PERCENT OF FARMS REPORTING MOTORTRUCKS, TRACTORS, AND AUTOMOBILES FOR THE UNITED STATES AND REGIONS: 1920 TO 1950



Farm transportation.—At the beginning of this century, horses and mules provided the only means of moving farm products to the market. Now nearly all farm products move from the farms by trucks. The great increase in the nonfarm population from about 42 million to approximately 125 million has greatly increased the importance of transportation. The use of the motortruck has made possible the production of many kinds of farm products, particularly perishable ones in areas remote from market. A synchronized system of marketing and distributing farm products has made it possible for farmers, with the aid of motortrucks, to supply food to consumers hundreds of miles away.

The 2.2 million trucks on farms in 1950 represented 26.8 percent of the total number of trucks registered in the United States. Trucks, both those on farms and those not on farms, have become the principal carriers for many agricultural products, especially those which must be moved quickly and assembled from many farms or production areas.

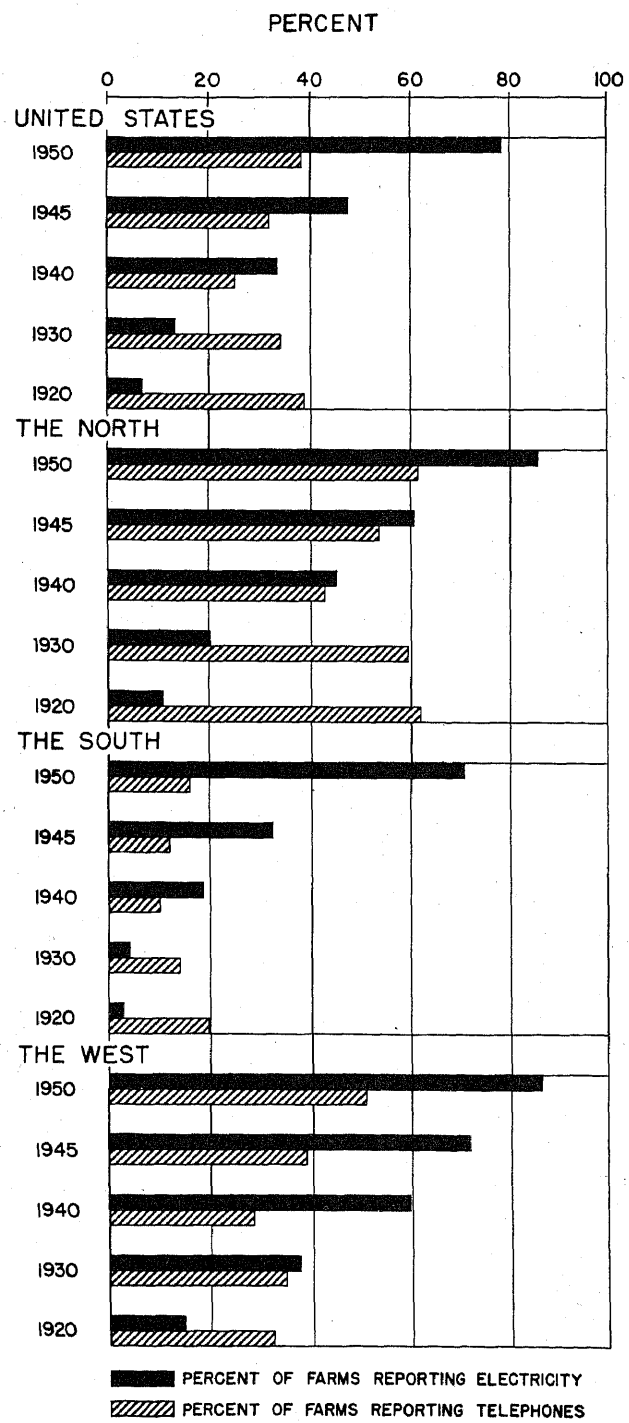
Motortrucks were reported on 1.8 million farms in 1950. Almost half of these farms were in the North. For the United States, one out of three farms had motortrucks in 1950; in the North, almost two out of five; in the South, almost one out of four; and in the West, one out of two.

The farm automobile and truck, coupled with the development of highways, have been not only substituted for horse transportation, but have also increased transportation. Farmers have come to depend upon trucks and automobiles to furnish transportation for business and pleasure purposes, that could have been accomplished only with great difficulty, if at all, with animal motive power.

The development of good roads has aided in making the use of automobiles and motortrucks important for farm people. In 1900, hard-surface roads were of no importance in farm areas. In fact, in 1920, there were only 387 thousand miles of rural hard-surface road. However, by 1950, the mileage of rural hard-surface roads exceeded 1,650,000. In 1900, practically all farms were located on dirt or unimproved roads; in 1950, 32.1 percent of the farms were located on a hard-surface road, and 35.2 percent on gravel, shale, or other type of improved road.

Mechanization of farm operations and farm electrification.—The mechanization of crop operations was one of the most dramatic changes in farm methods during the half century. The use of the grain combine has helped make possible great savings in the labor requirements for wheat production. The use of grain combines has become widespread only during the last quarter of the century. In 1950, there were 713,633 grain combines on farms. Most of the acreage of small grains and seeds is now harvested with grain combines. The use of the grain combine and other mechanized equipment has been a significant factor in the increase in the average size of farm and the acreage of wheat per farm in the main wheat-producing areas. Figures for the following selected counties in which wheat production is the most important agricultural enterprise indicate the changes that have occurred with the use of grain combines.

PERCENT OF FARMS REPORTING ELECTRICITY AND TELEPHONES, FOR THE UNITED STATES AND REGIONS: 1920 TO 1950



Item	Garfield County, Okla.	Sherman County, Oreg.	Whitman County, Wash.
Average size of farm (acres):			
1900	172. 5	555. 0	379. 4
1910	197. 3	799. 4	383. 7
1920	211. 3	887. 0	423. 6
1925	204. 7	1, 006. 2	413. 6
1930	204. 2	1, 179. 4	495. 5
1935	213. 5	1, 194. 1	482. 6
1940	223. 2	1, 348. 0	532. 9
1945	248. 8	1, 604. 3	609. 6
1950	257. 6	1, 790. 2	670. 9
Average acreage of wheat per farm:			
1900	51. 8	167. 2	90. 9
1910	40. 3	263. 8	112. 1
1920	105. 0	254. 2	163. 2
1925	84. 2	255. 9	131. 9
1930	98. 1	353. 6	180. 9
1935	88. 1	296. 6	133. 5
1940	116. 3	269. 6	142. 9
1945	121. 5	414. 9	163. 7
1950	145. 0	432. 7	229. 5

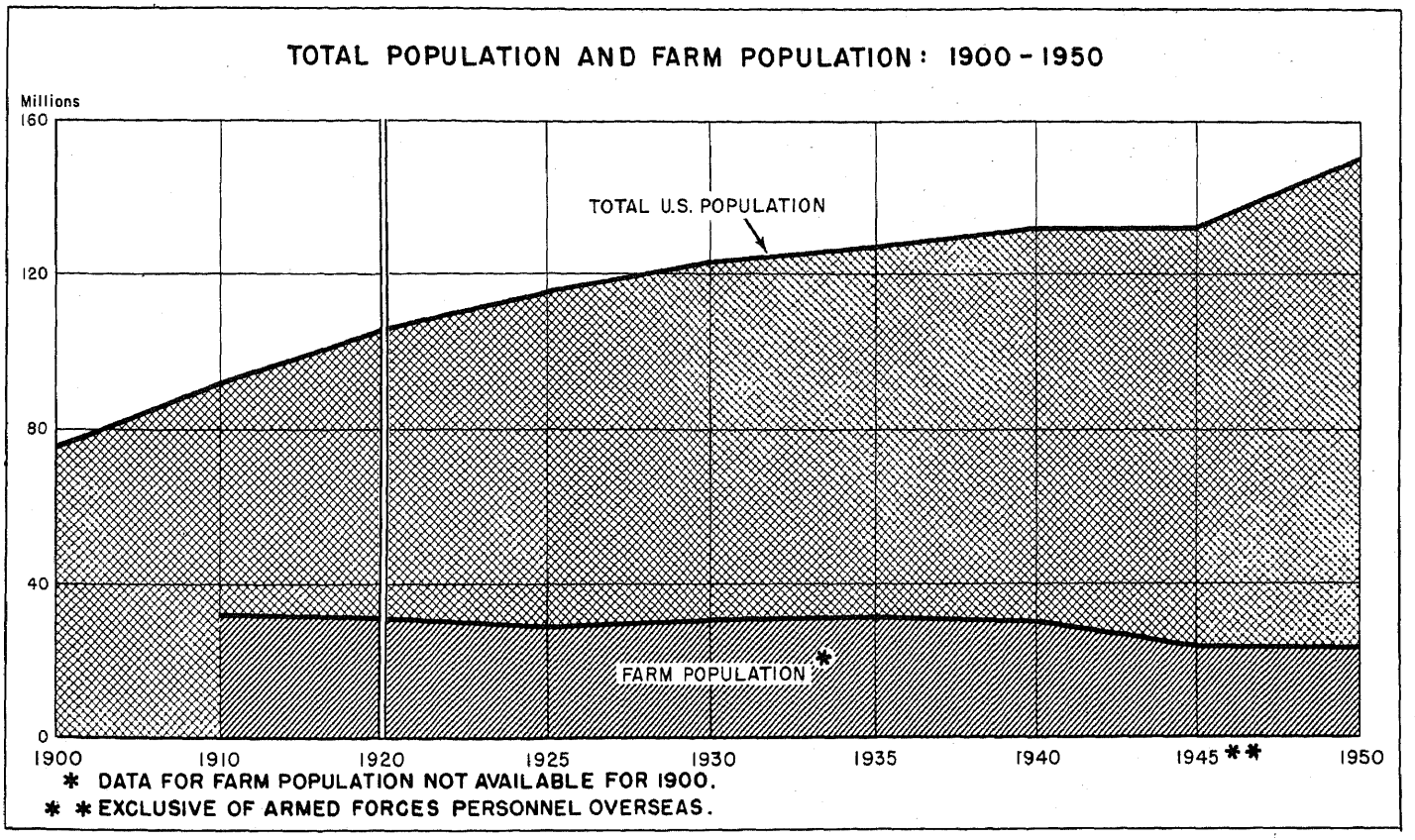
Throughout the half century, corn has been harvested from more acres, has had a greater value, and has required more farm labor than any other crop. The rapid increase in the use of the mechanical corn picker has reduced the man hours required for corn harvesting by three-fourths, shortened the period of the corn harvest, and has made the job of harvesting our most important crop much easier. The rapid adoption of the mechanical corn picker is shown by the increase of the number of farms having corn pickers. Over 53 percent of the corn production occurs in the Corn Belt States of Iowa, Illinois, Indiana, Ohio, and Missouri. In the Corn Belt, more than one out of three farms harvesting corn had a mechanical corn picker in 1950.

In 1900, practically no farms used electricity. In 1950, more than three-fourths of all the farms had electric service from central-station sources. Half of the increase in the number of farms with electricity came from 1945 to 1950 and more than four-fifths during the period 1930–1950.

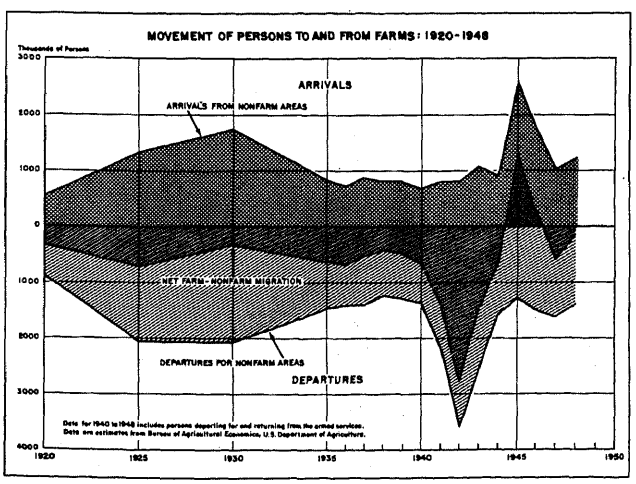
Electricity provides stationary power for farm production uses, such as for pumping water, operating milking machines, etc., electric lights and heat for livestock and poultry production, as well as for lighting, cooking, and other household work in farm homes. The use of electricity has aided in the development of extensive irrigated areas in the West.

The use of pick-up hay balers has become common only during recent years. In 1950, 191,658 farms had hay balers. The pick-up baler is reducing the labor requirement for hay production.

The outstanding part of the mechanization of dairy farms has been the adoption of the milking machine. In the last 30 years, the number of farms having milking machines has increased more than ten times. In 1950, 357 thousand dairy farms had a milking machine—an increase of almost 150 thousand dairy farms with milking machines since 1945.

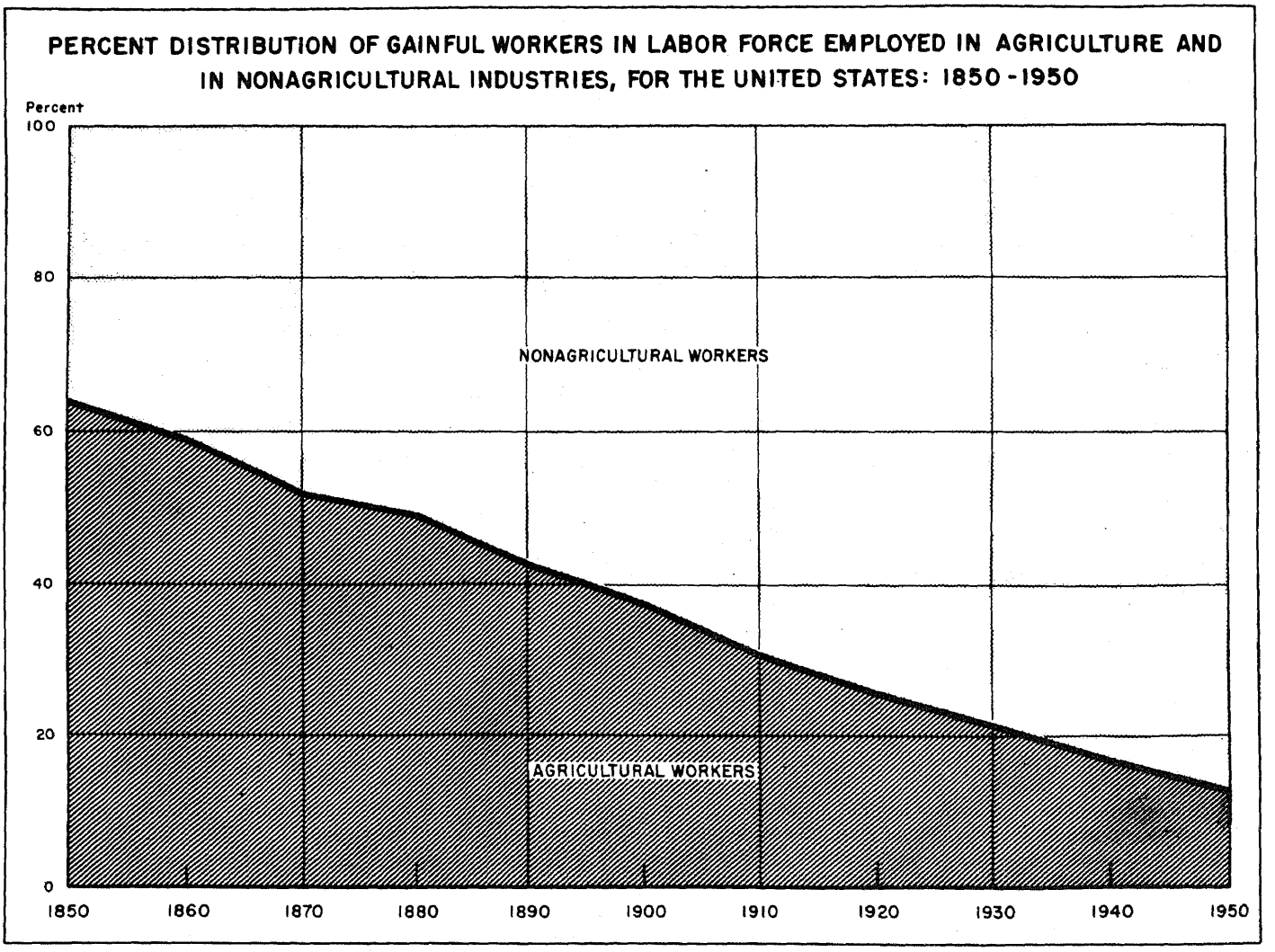


Farm population.—The total population of the United States doubled in the period from 1900 to 1950. During the same period the farm population declined approximately a third. In 1900, one out of two of our people lived on farms; in 1950, only one out of six had a farm residence. During the last two or three decades, a larger number of persons living on farms have worked at nonfarm jobs and are not part of the agricultural labor force. The peak in farm population was reached between 1910 and 1920. Since then the trend in the number of people living on farms has been downward. A rapid loss in farm population occurred during World War II because of the demand for manpower in industry and in the military services.



Migration from farms.—Between 1910 and 1950, the number of persons on farms decreased by about 8.8 million. This was at an average rate of over 200 thousand per year. During this period large numbers of people left the farm. On the other hand, a considerable number of persons have returned to the farm each year. The net movement from farms usually exceeded the movement of persons to farms by an amount greater than the natural increase in the farm population. Migration rather than a drop in the increase of the farm population caused the number of persons living on farms to decrease during the 40 years. During the last 30 years, the natural increase in the farm population has averaged about 400 thousand annually. The net annual movement of farm population from farms has averaged slightly more than 600 thousand per year, hence, the farm population has decreased on the average of about 200 thousand persons per year. The gross movement of people to farms was much greater than the net movement. The flow of population to and from farms has fluctuated greatly. Earning opportunities off the farm as compared with those on farms, ability to move from one area to another, acceptability of nonfarm areas as a place to live and to work, willingness to leave the farm, drought, more attractive living and working conditions in nonfarm areas, etc., have influenced the movement from farms.

Some of the net movement of persons from farms represented a shift from farms without an actual change of residence, either because of a change of occupation of residents or by a substantial curtailment in farm operations.



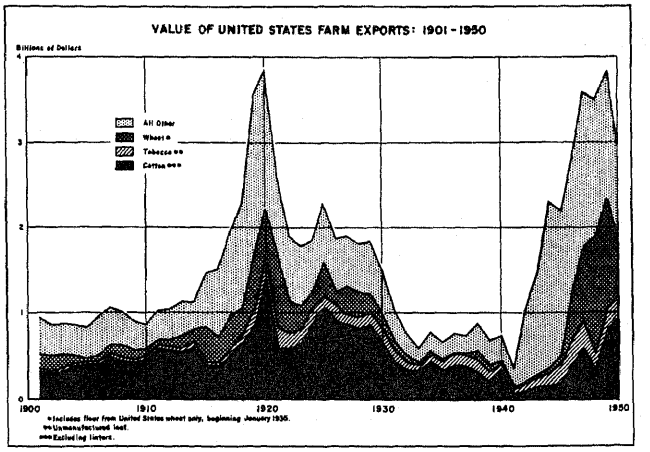
Agricultural workers.—In 1900, 10.9 million agricultural workers produced the food for 76 million people. In 1950, 7.5 million agricultural workers produced food for 151 million persons.

Farm mechanization, the movement of farm workers to industrial and city jobs, and the transfer of work from the farm to nonfarm places have been important factors in the decrease in the number of agricultural workers.

While the number of agricultural workers has declined, total agricultural production has increased. Total agricultural production and long-term gains therein are difficult to measure. Estimates prepared by the Bureau of Agricultural Economics indicate that the output of farm products has increased over 50 percent during the past 40 years. Increased mechanization, the more widespread use of electricity, substantial increases in crop yields, and gain in livestock production have made possible the great rise in total farm output, even with the decline in agricultural workers and fewer man hours spent at farm work. The output of farm products per man hour in 1950 was nearly 2¼ times that of 1910.

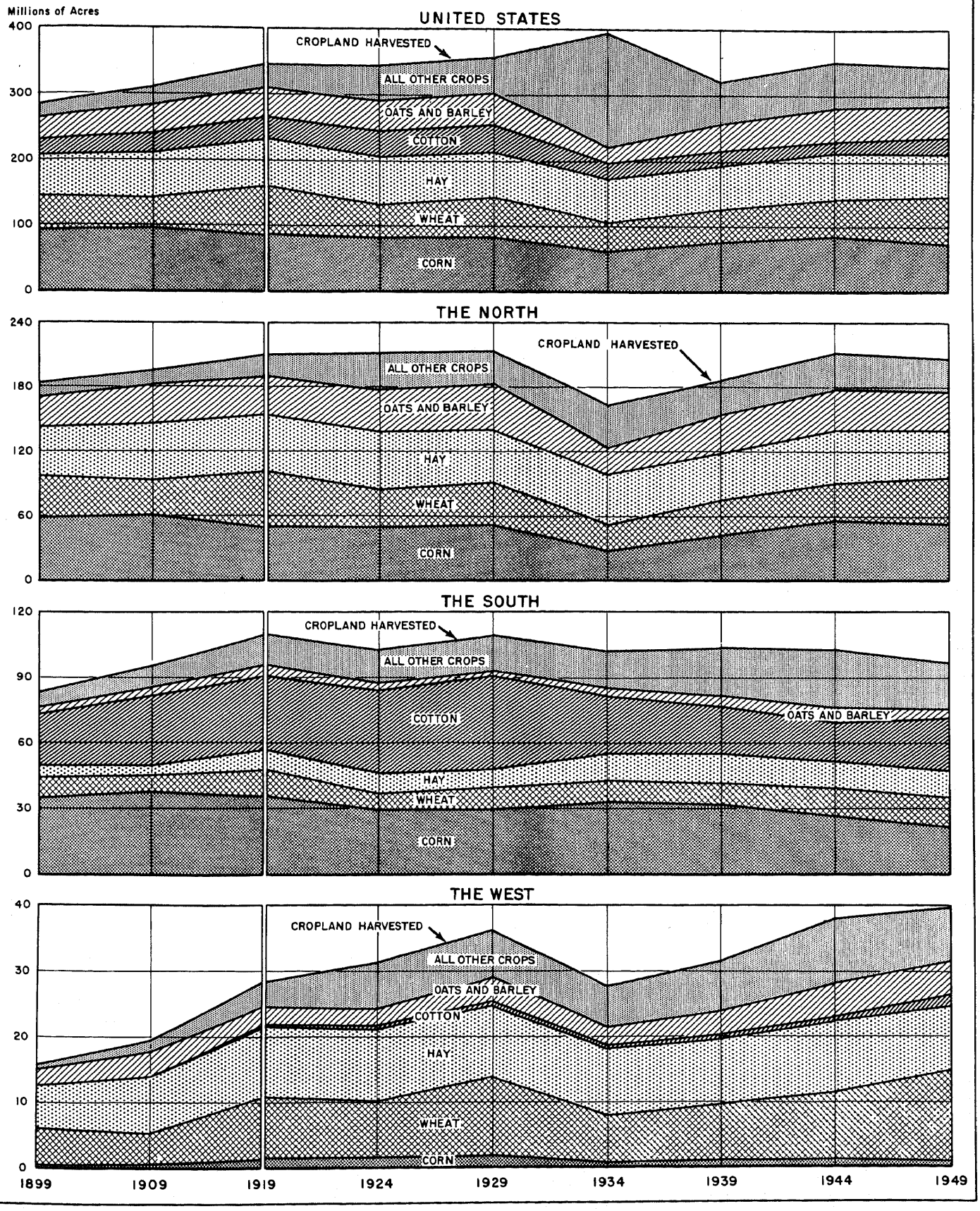
Farm exports.—A considerable part of the farm production of the United States is exported for use abroad. The export market is particularly important for the food grains, wheat and rice, cotton, tobacco, and fats and oils.

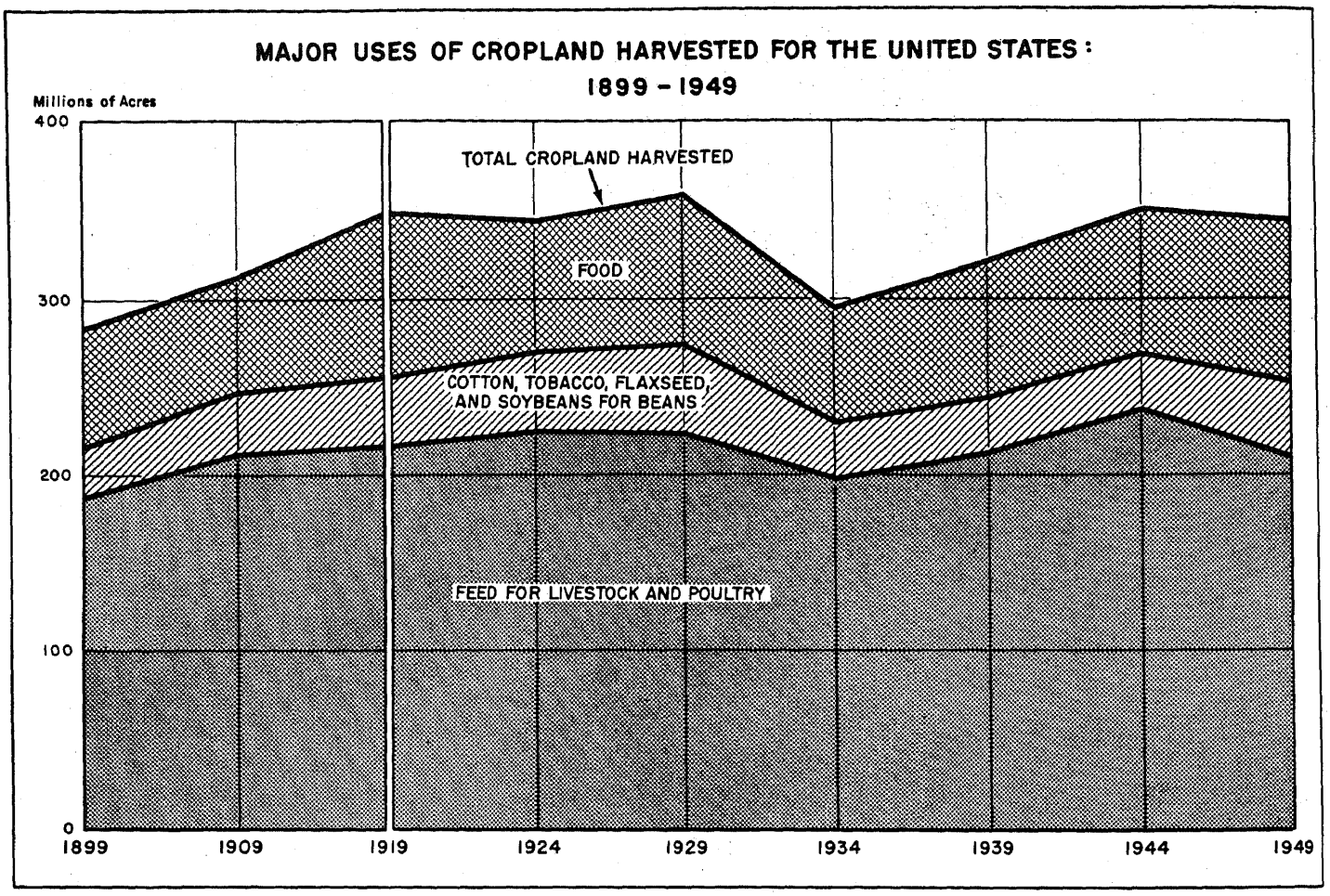
The value of agricultural exports has declined relative to the



value of farm production, particularly since World War I. During World War I, the value of agricultural exports was about one-fifth of the total value of farm products sold and consumed by farm households. This proportion dropped to less than 10 percent from 1930 to 1945. From 1945 to 1949, farm exports were valued at slightly more than one-tenth of the value of all farm products sold and consumed by farm households.

DISTRIBUTION OF ACRES OF CROPLAND HARVESTED BY MAJOR CROPS FOR THE UNITED STATES AND REGIONS: 1899-1949

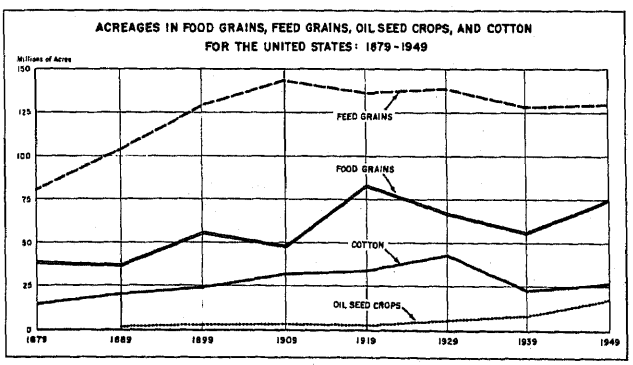


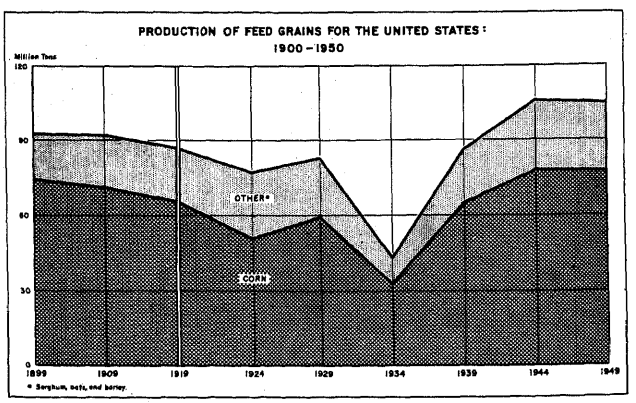


Use of cropland.—The acreage of land used for harvested crops has varied from approximately 283 to 359 million acres during the last 50 years. However, since 1909, the increase in acreage has been very small. Approximately two-thirds of the acreage has been used for the production of feed for livestock and poultry, 25 percent for growing food crops, and 10 percent for growing such crops as cotton, tobacco, flaxseed, and soybeans.

The acreage for feed grains was about the same in 1949 as in 1899. There has been an increase in the acreage of food grains. The acreage of cotton increased during the first three decades, but then declined to about the same level as in 1899. There has been a sharp increase in the acreage of oil crops—flaxseed, soybeans, and peanuts.

Corn has continued to be the most important feed grain as well as the most important crop. However, sorghums and barley have become increasingly important as feed grains during the last two decades.

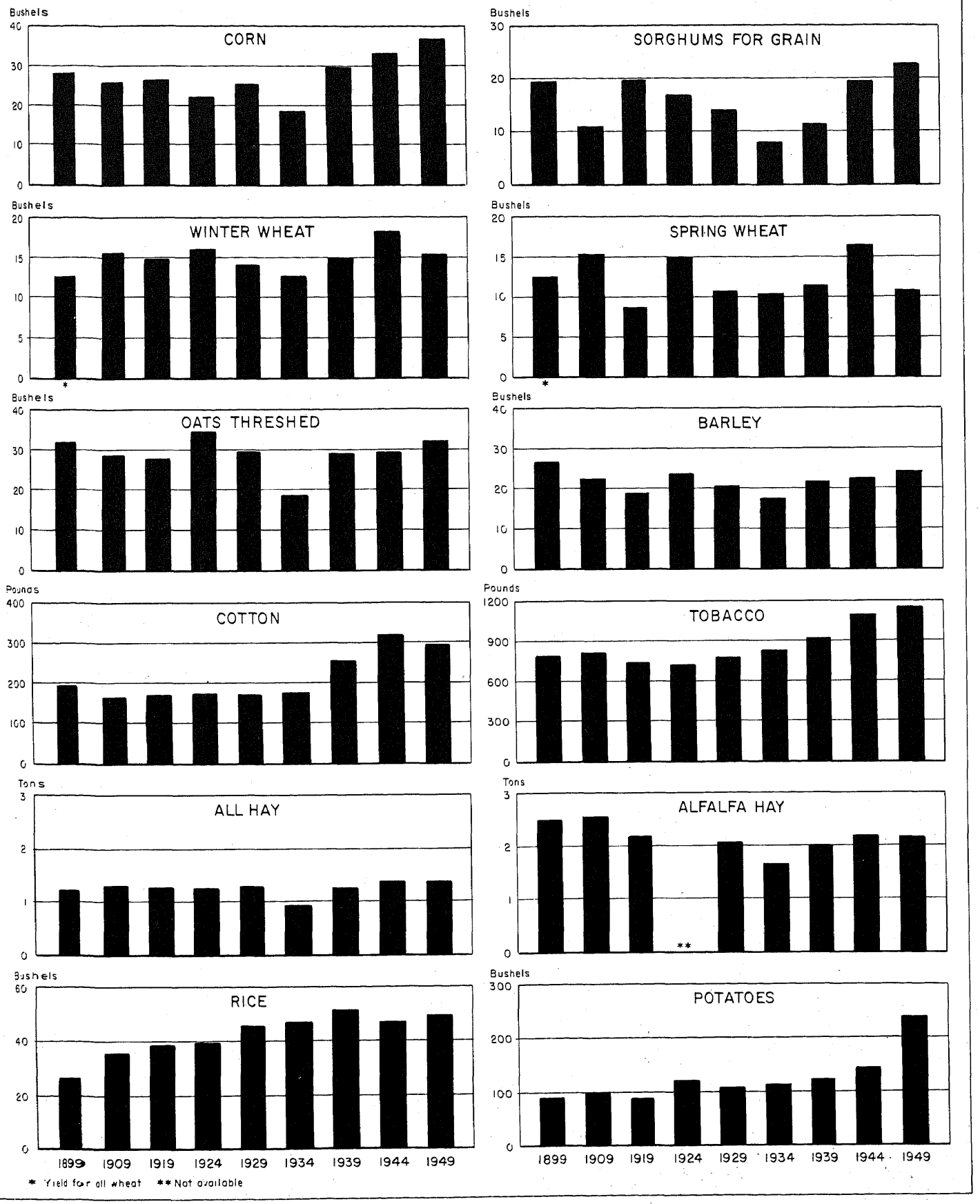




The acreage of cropland used for crops has declined in the North and South since 1919. On the other hand, the acreage of land in harvested crops has increased in the West.

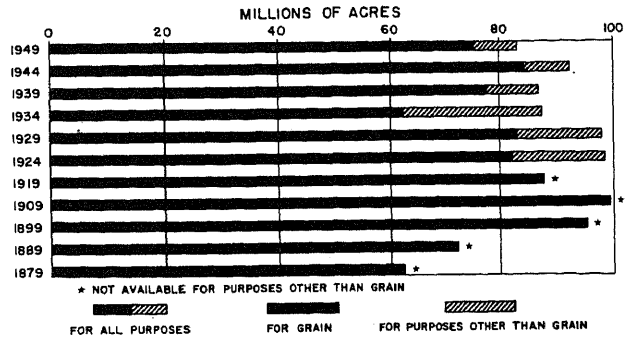
The average yields per acre shown on page 85 are only for the census years, and hence do not accurately show change in the average yields. However, until the last decade or so, there was very little change in yields per acre. Greater use of fertilizer, lime, hybrid corn, the adoption of improved practices, the substitution of high-yielding crops for low-yielding crops, and the replacement of cropland in the North and South by cropland with higher per-acre yields, have contributed to an increase of more than one-third in the production per acre during the 50-year period.

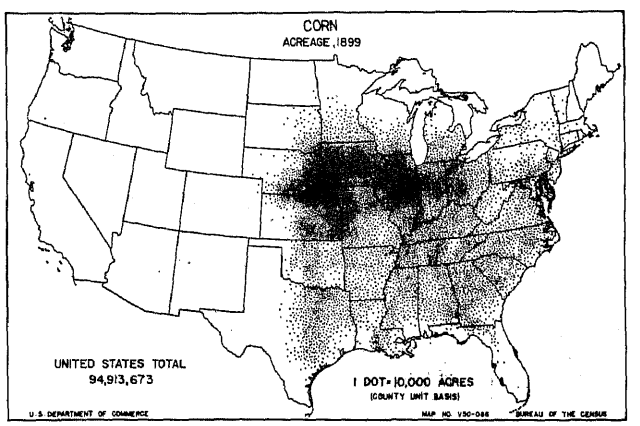
YIELD PER ACRE OF SPECIFIED CROPS: 1899 – 1949

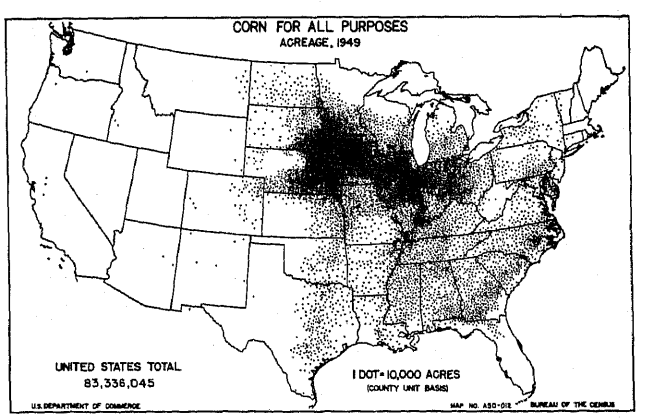


Corn.—The acreage of corn was 11.6 million acres less in 1949 than in 1899. However, the production of corn for grain in 1949 exceeded that of 1899 by 111.9 million bushels or 4.2 percent. The increase in yield per acre has resulted from the increased use of hybrid seed and mineral fertilizers. There has been a concentration of corn acreage and production in the Corn Belt States of Iowa, Illinois, Ohio, Indiana, Missouri, and Nebraska. These States in 1899 had 45.5 percent of the acreage and produced 57.5 percent of the corn crop. In 1949, the same States had 47.8 percent of the total corn acreage and accounted for 61.3 percent of the corn crop. The corn acreage has declined in the Eastern and Southern States. Corn production has moved westward in the States adjacent to the Corn Belt. Grain sorghums have replaced corn as a feed crop in parts of Texas, Oklahoma, and Kansas.

CORN FOR ALL PURPOSES AND CORN HARVESTED FOR GRAIN—ACREAGE FOR ALL PURPOSES, 1924 TO 1949; AND ACREAGE FOR GRAIN, 1879 TO 1949; FOR THE UNITED STATES

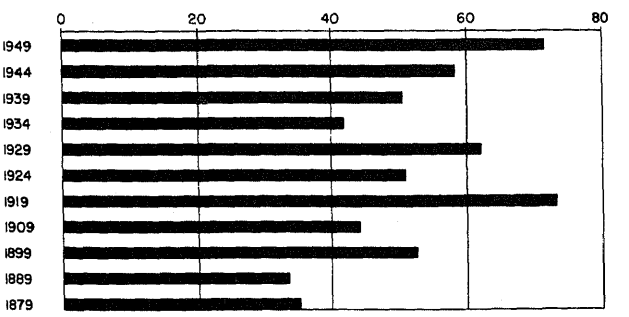




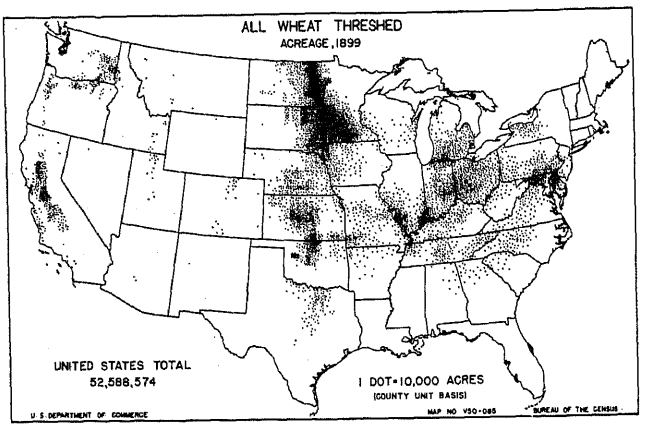


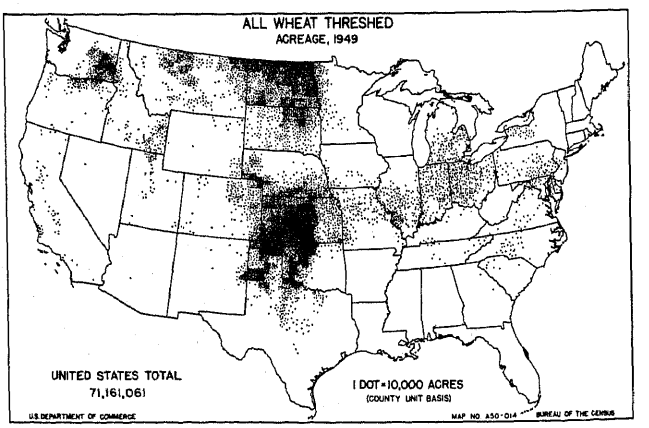
Wheat.—The acreage of wheat was 18.6 million acres greater in 1949 than in 1889. Most of the increase in acreage occurred in the Great Plains States of North Dakota, Kansas, Oklahoma, and Texas. The large areas that were used for grazing in 1899 were in wheat in 1949. The acreage of wheat in all States east of the Mississippi River except Illinois and Mississippi was less in 1949 than in 1899. The wheat acreage has declined in California, but has increased in Washington and Oregon.

WHEAT THRESHED—ACREAGE OF ALL WHEAT, FOR THE UNITED STATES: 1879 TO 1949

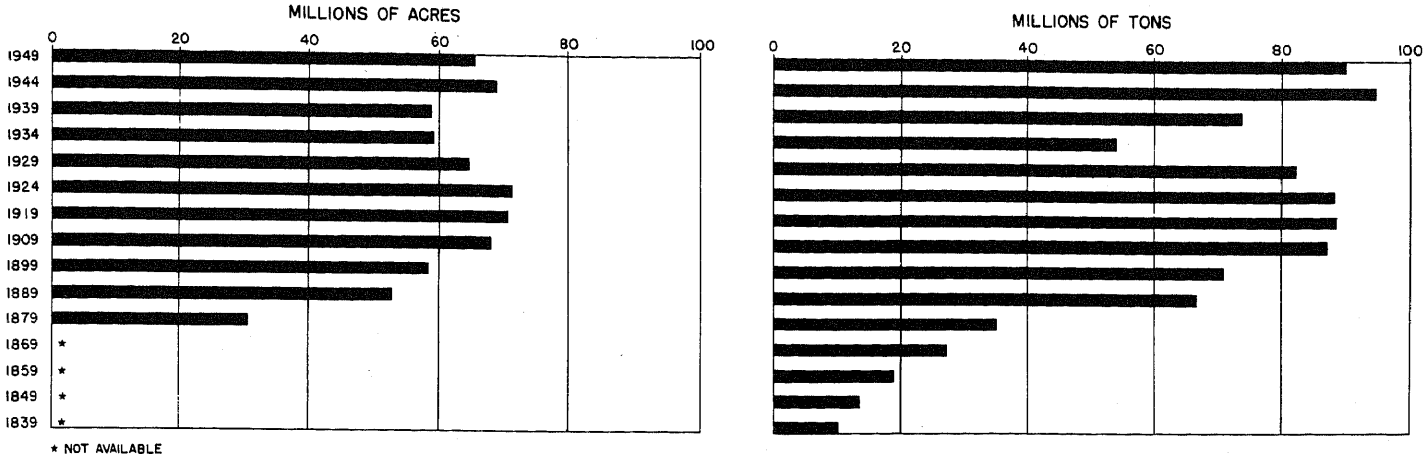


The number of farms growing wheat was 44 percent less in 1949 than in 1899. As a result of the mechanization of farm operations for wheat production, the decline of wheat production on general farms east of the Mississippi River, and the increase of wheat acreage in the Great Plains area, the acreage of wheat per farm reporting was 62 acres in 1949 as compared with 26 acres in 1899.



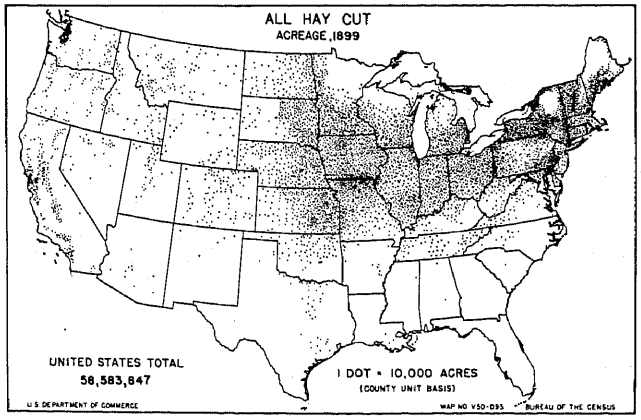


ALL HAY, EXCLUDING SPECIFIED ANNUAL LEGUMES AND SORGHUM HAY—ACREAGE, 1879 TO 1949; AND PRODUCTION, 1839 TO 1949; FOR THE UNITED STATES

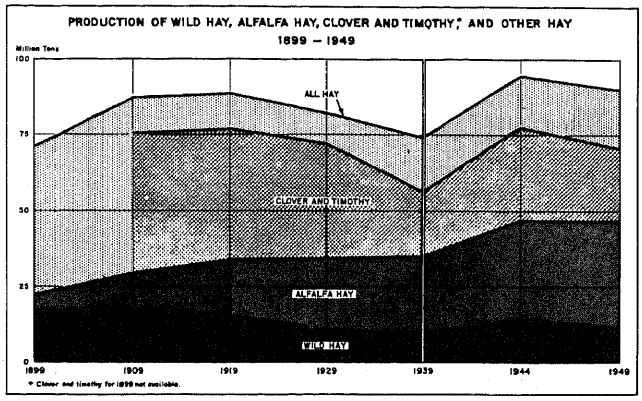


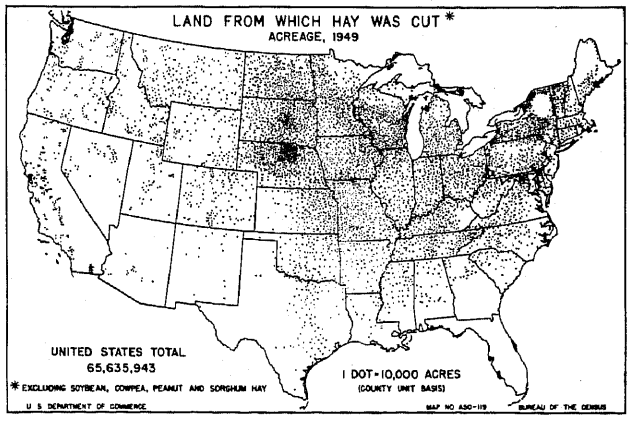
Hay.—Hay, excluding soybean, cowpea, and sorghum hay, was cut from 7.1 million more acres in 1949 than in 1899. The acreage of soybean, cowpea, peanut, and sorghum hay was not large in 1899. In 1949, soybean hay was harvested from 1.1 million acres; cowpea hay, from 0.3 million acres; peanut vines, from 1.3 million acres; and sorghum hay and forage, from 3.3 million acres.

An important change in hay and forage production has been the increase in the production of alfalfa hay and corresponding decreases in clover and timothy hay and wild hay. There has also been an increase in lespedeza, a legume hay. This hay was not grown on any significant acreage in 1899; in 1949, it was harvested from 6.9 million acres and produced 7.9 million tons. The increase in soybean hay during the 50 years has amounted to 1 million acres and 1.4 million tons of hay. The substitution of higher quality legume hay for other hay has resulted not only in an increase in tonnage, but also in higher feed value from the same tonnage.

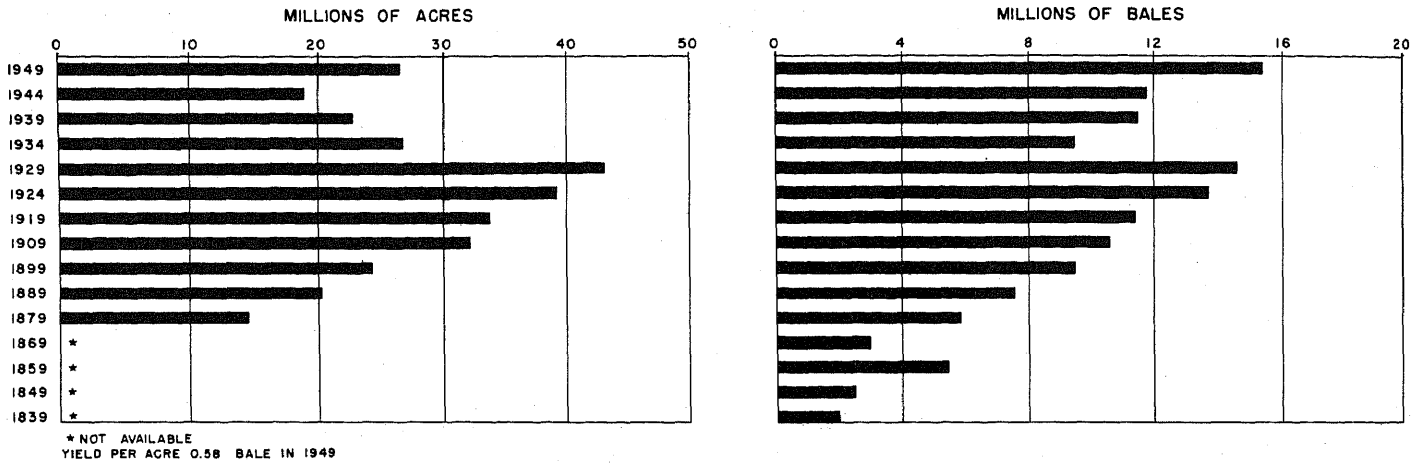


Significant changes have occurred in hay acreage and production in both the South and West during the half century. In the South, hay acreage, excluding soybean, cowpea, and peanut hay, increased from 5.2 million acres in 1899 to 11.9 million acres in 1949 and production from 5.7 million to 14.8 million tons. The increase in the West was from 6.9 million to 10.0 million acres and from 10.5 million to 18.0 million tons.





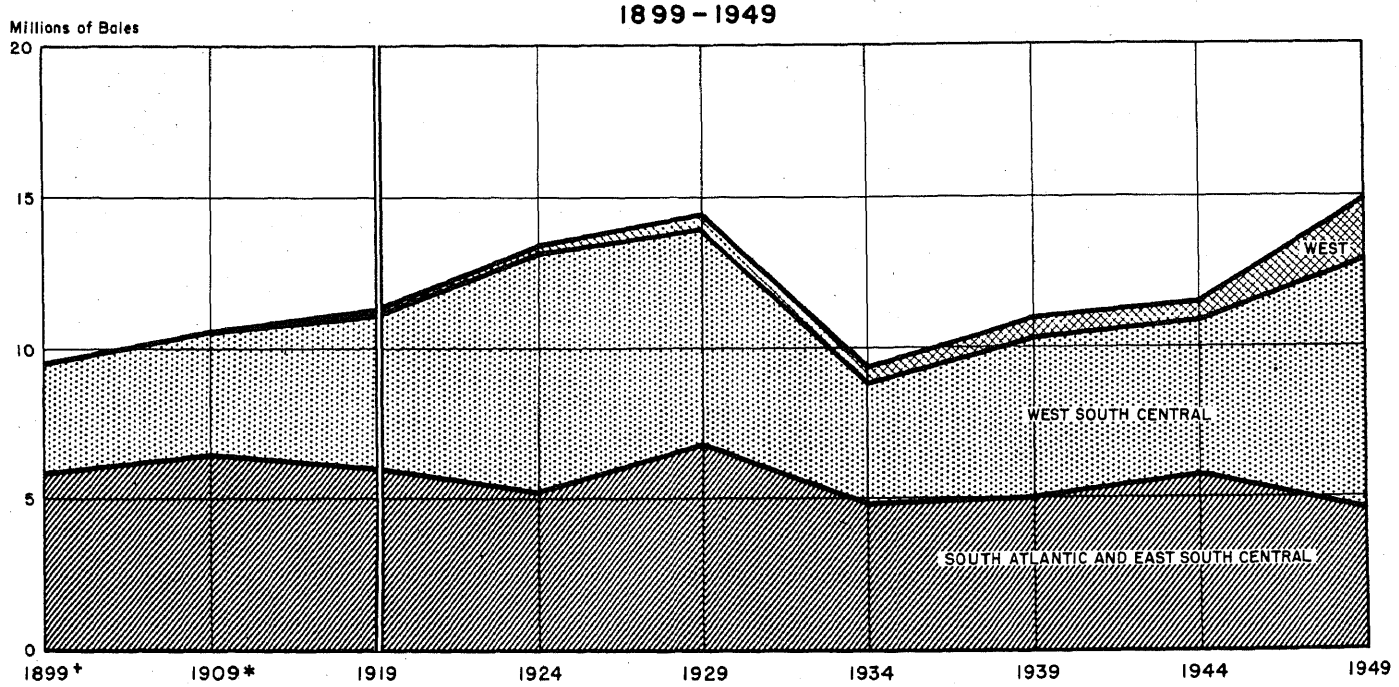
COTTON HARVESTED – ACREAGE, 1879 TO 1949; AND PRODUCTION, 1839 TO 1949; FOR THE UNITED STATES



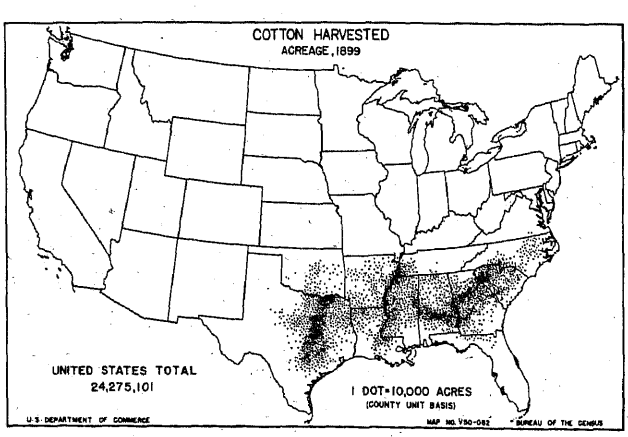
* NOT AVAILABLE
YIELD PER ACRE 0.58 BALE IN 1949

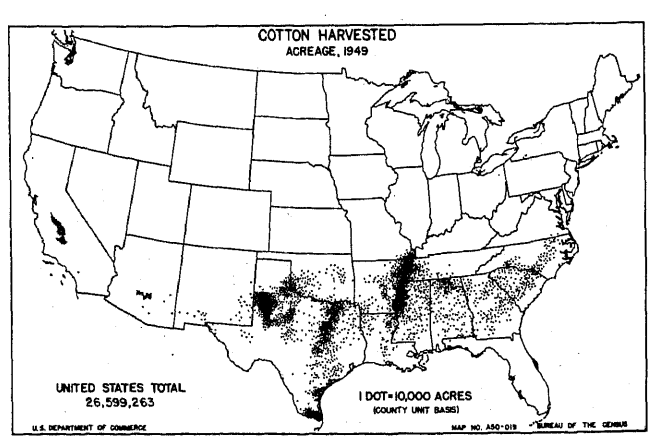
Cotton.—The acreage of cotton was 2.3 million acres, or 9.5 percent, greater in 1949 than in 1899. However, production was 5.9 million bales, or 62 percent, greater in 1949. During the half century, the center of cotton production has shifted westward. The acreage in the States east of the Mississippi River has declined 32 percent, largely because of boll weevil infestation, while the acreage in States west of the Mississippi has increased 62 percent. The High Plains of Texas, south Texas, California, and Arizona have become important cotton-producing areas since 1900.

COTTON PRODUCTION FOR THE SOUTH AND WEST: 1899–1949

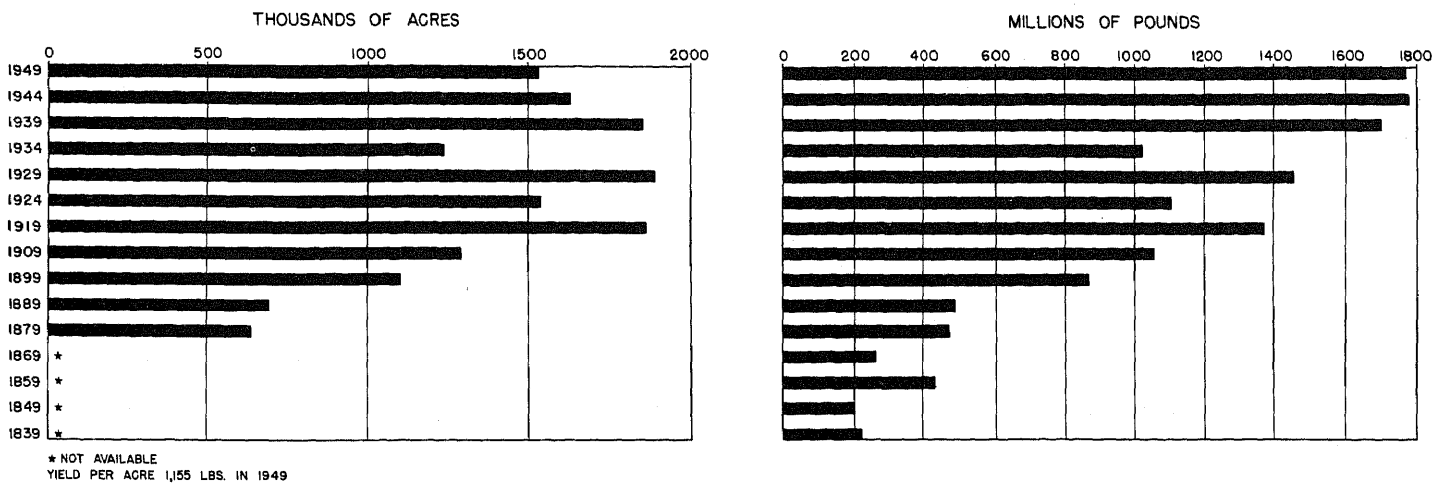


*Only 400 bales for the West. †Only 38 bales for the West.

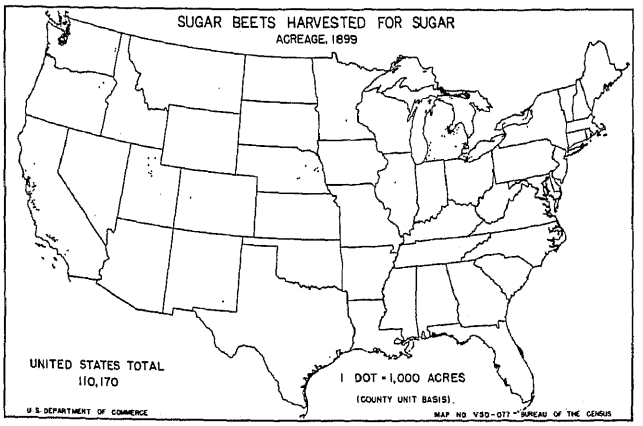


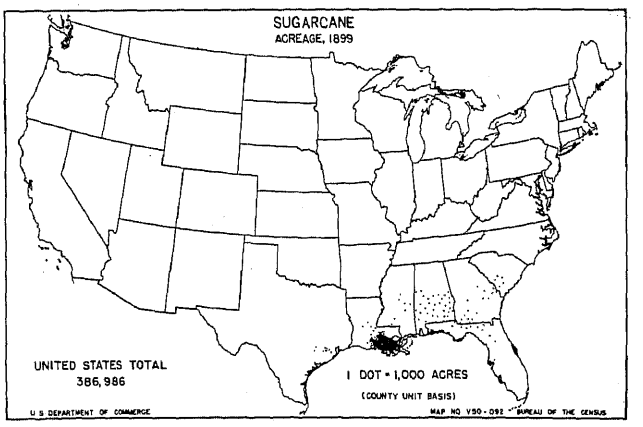


TOBACCO HARVESTED—ACREAGE, 1879 TO 1949; AND PRODUCTION, 1839 TO 1949; FOR THE UNITED STATES



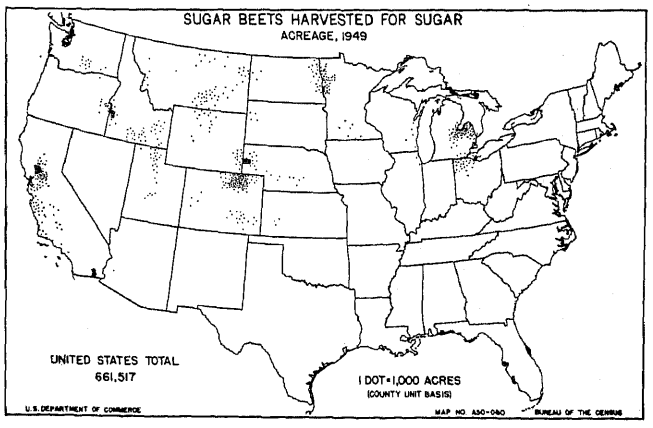
Tobacco.—Except for the development in Georgia and Florida, the areas of tobacco production were approximately the same in 1949 as in 1899. The 1949 tobacco acreage was about 40 percent greater than that of 1899, while the 1949 production exceeded that of 50 years earlier by 104 percent. The tobacco acreage was significantly greater in 1949 than in 1899 in North Carolina, South Carolina, Georgia, and Florida. Decreases occurred in New York, Ohio, Virginia, Kentucky, and Wisconsin.

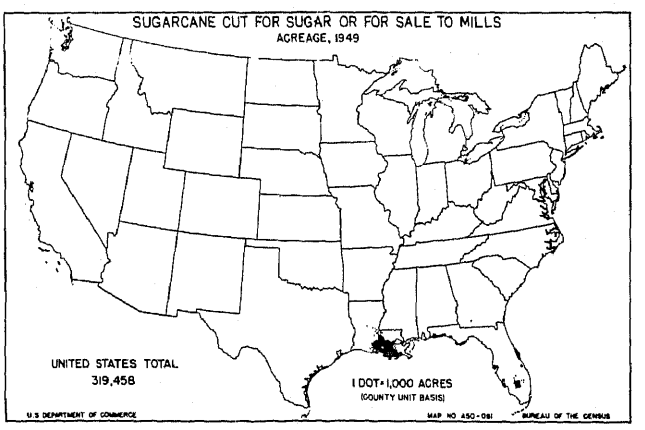


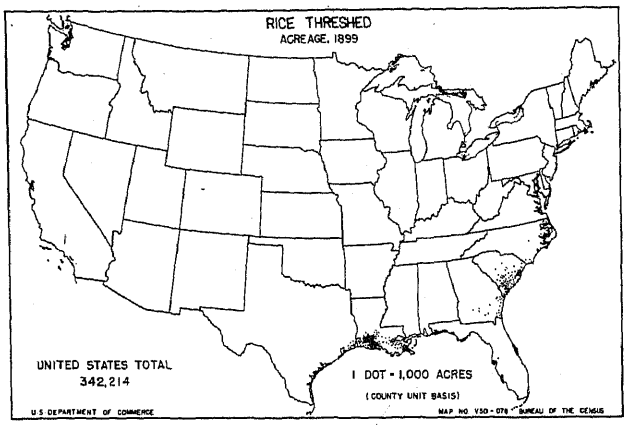


Sugar beets.—The acreage for sugar beets for sugar for 1949 was about six times that of 1899. Significant increases occurred in the important production areas of Michigan, Minnesota, Utah, and Colorado, in the Red River Valley, and on the irrigated lands of the West.

Sugarcane.—The acreage of sugarcane for sugar was less in 1949 than in 1899. Outside of Louisiana, the acreage in 1899 was used to produce sirup rather than sugar. During the half century, a new area for commercial sugar production was established in Florida. While the acreage of sugarcane has declined, production has increased about 50 percent as a result of the increase in yield per acre.



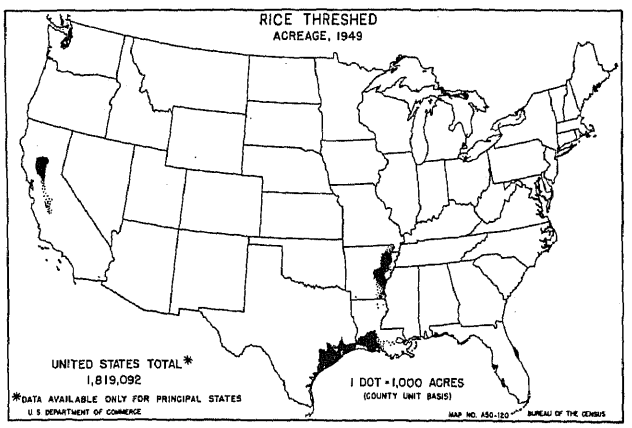


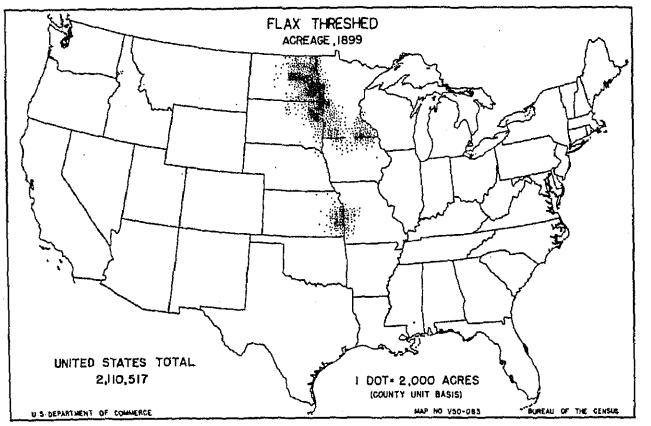


Rice.—Rice acreage and production have increased greatly during the last 50 years:

Year	Acres	Bushels harvested
1949	1,819,092	89,431,985
1944	1,394,129	65,043,952
1939	851,060	43,807,455
1934	705,858	32,957,745
1929	740,588	33,468,983
1924	744,033	29,525,543
1919	911,272	35,330,912
1909	610,175	21,838,580
1899	342,214	9,002,886

Rice production has disappeared from the Atlantic Coast States. Large increases occurred in Arkansas, Texas, and California.

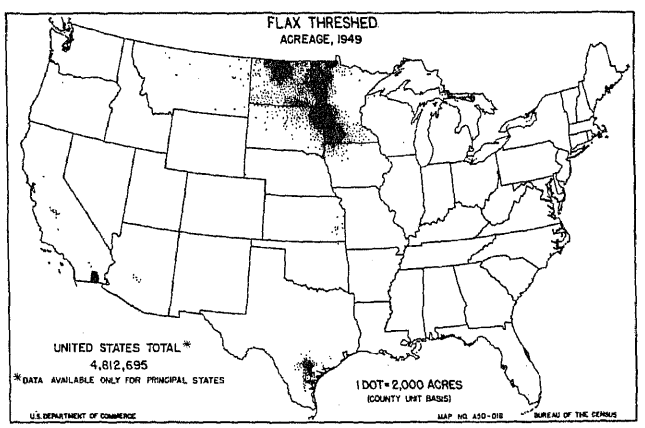




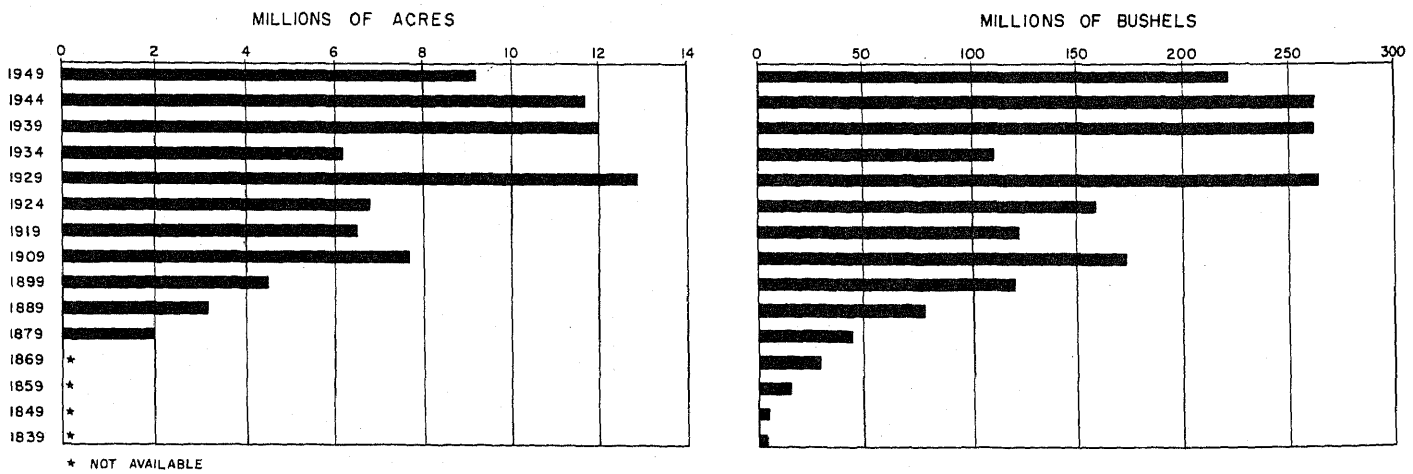
Flax.—The relationship of flax acreage and production for years covered by the census from 1899 to 1949 is shown by the following figures:

	Acres	Bushels harvested
1949	4,812,695	40,189,048
1944	2,477,070	20,765,238
1939	2,081,497	18,829,453
1934	998,031	5,598,054
1929	2,965,635	15,046,097
1924	3,435,115	28,245,739
1919	1,260,687	6,653,200
1909	2,083,142	19,512,765
1899	2,110,517	19,979,492

The increase in acreage and production occurred largely in North Dakota, South Dakota, and Minnesota, although new areas of production developed in Texas and California.



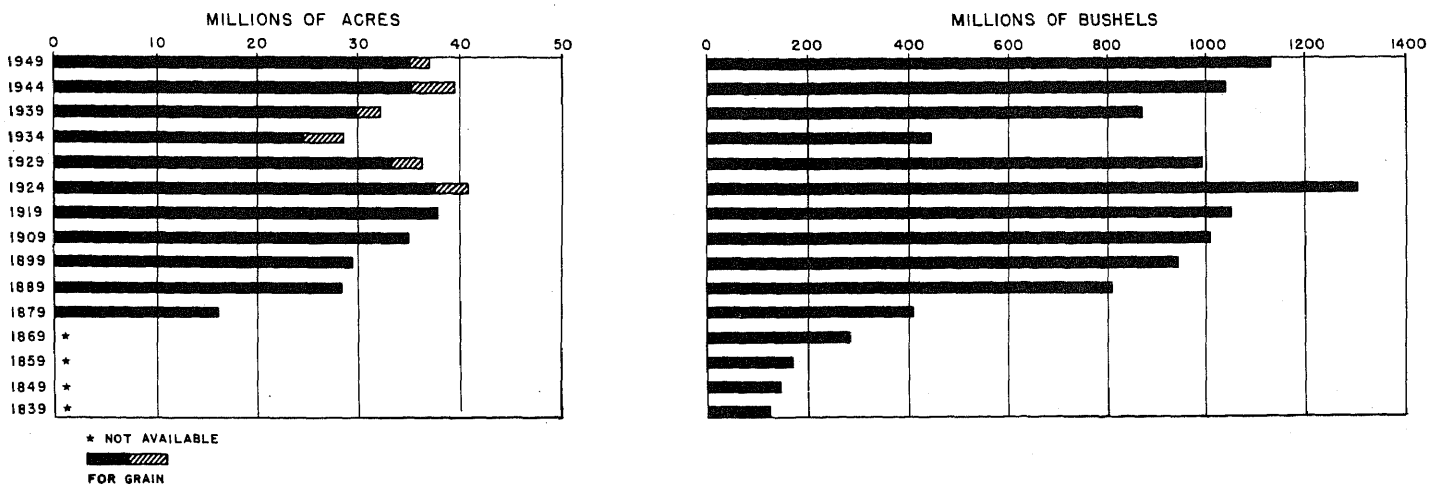
BARLEY THRESHED – ACREAGE, 1879 TO 1949; AND PRODUCTION, 1839 TO 1949; FOR THE UNITED STATES

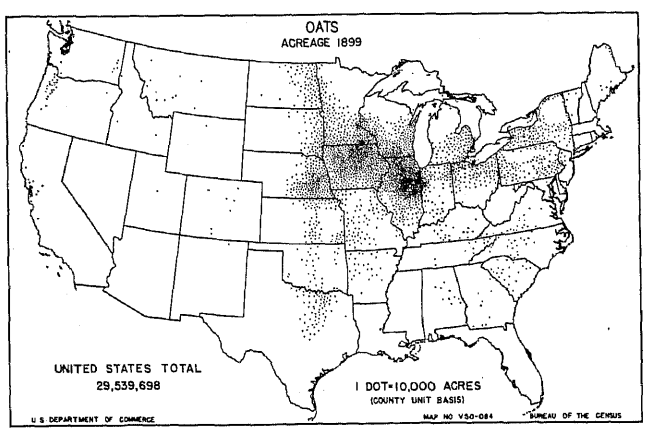


* NOT AVAILABLE

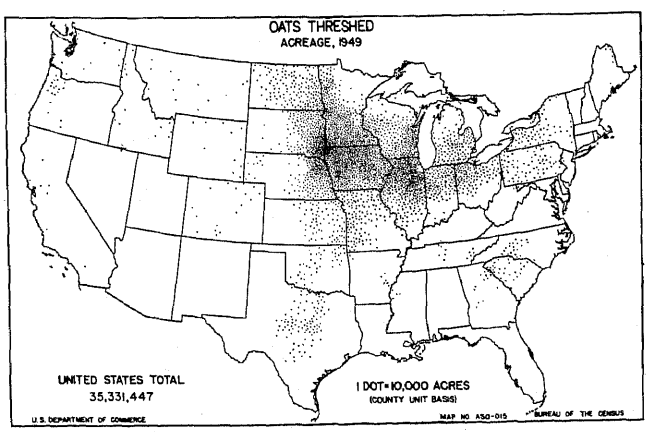
Barley.—The acreage and production of barley have more than doubled during this century. Barley was grown on about the same number of farms in 1949 as in 1899. The increase in acreage occurred largely in the Great Plains States of Minnesota, North Dakota, South Dakota, and Colorado. The map on page 24 shows the geographic distribution of barley acreage in 1949.

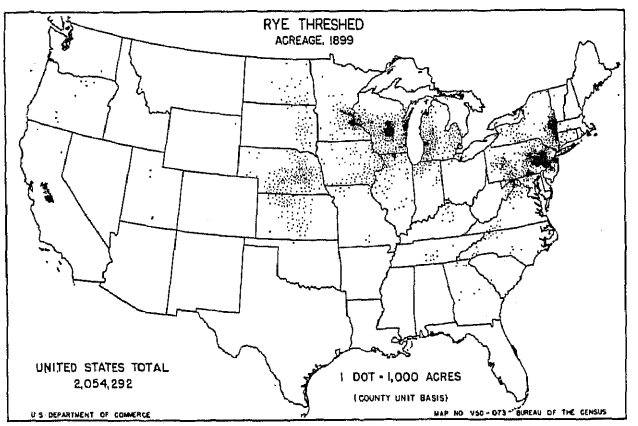
OATS FOR GRAIN—ACREAGE OF OATS THRESHED, 1879 TO 1949, AND OF OATS CUT FOR FEEDING UNTHRESHED, 1924 TO 1949; AND PRODUCTION OF OATS THRESHED OR COMBINED, 1839 TO 1949, FOR THE UNITED STATES





Oats.—The acreage of oats threshed in 1949 was almost 6 million acres greater than in 1899. Most of the increase occurred in the midwestern States of Wisconsin, Minnesota, Iowa, South Dakota, and North Dakota. Decreases in oat acreage in the eastern and southern States have been associated with the decrease in the number of horses and mules.

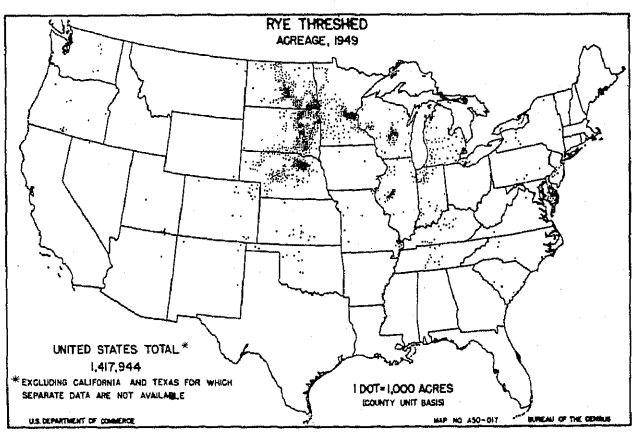


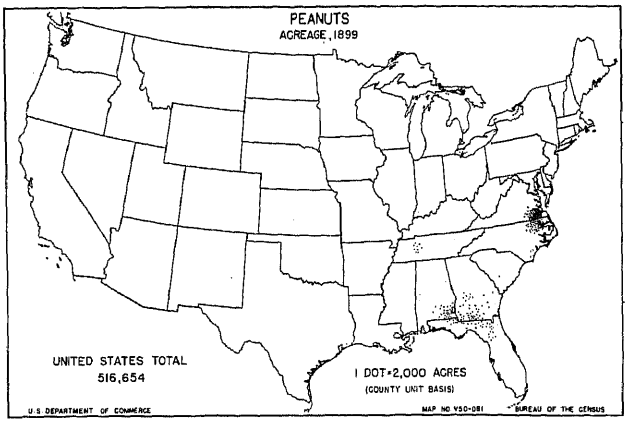


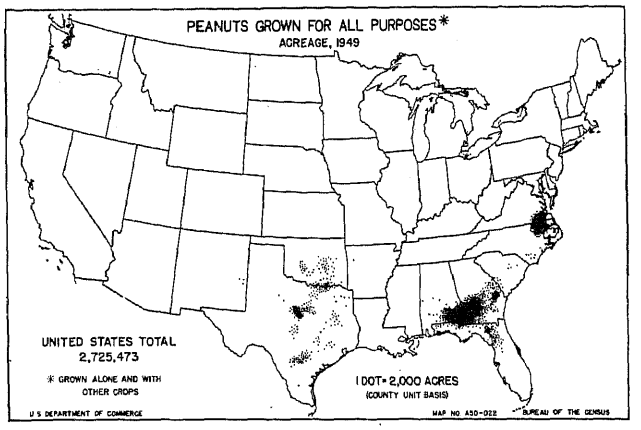
Rye.—The acreage of rye was 600 thousand acres, or 31.0 percent, less in 1949 than in 1899. Rye acreage and production as reported for the census years from 1899 to 1949 are as follows:

Year	*Acres*	*Bushels harvested*
1899	2,054,292	25,568,625
1909	2,195,561	29,520,457
1919	7,679,005	75,992,223
1924	3,743,562	55,673,814
1929	3,032,802	34,302,824
1934	1,913,771	16,233,692
1939	3,555,729	35,843,953
1944	2,023,338	21,348,502
1949	1,417,944	16,563,013

In 1899, nearly one-third of the rye acreage was in the States east of the Corn Belt. In 1949, less than 5 percent of the acreage was in these States. Production in 1949 was concentrated largely in the States of North Dakota, South Dakota, Nebraska, and Minnesota.

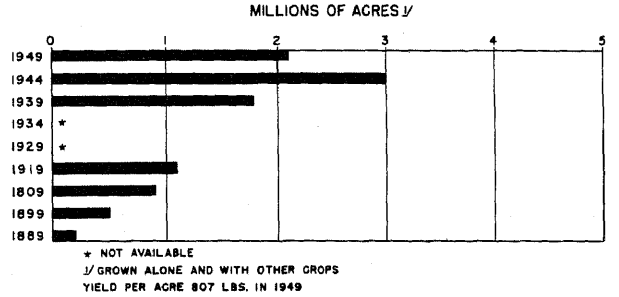






Peanuts.—The acreage of peanuts harvested for nuts has increased fourfold since the beginning of the century. The acreage for 1949 included almost 600 thousand acres harvested for purposes other than for nuts. Most of this acreage for other purposes was used as feed for hogs. The peanut acreage also provided 674 thousand tons of peanut vines for forage in 1949. New areas of peanut production have been developed during the last 50 years in Texas, Oklahoma, and New Mexico. Large increases occurred also in the peanut-producing areas of Virginia, North Carolina, Georgia, Florida, and Alabama.

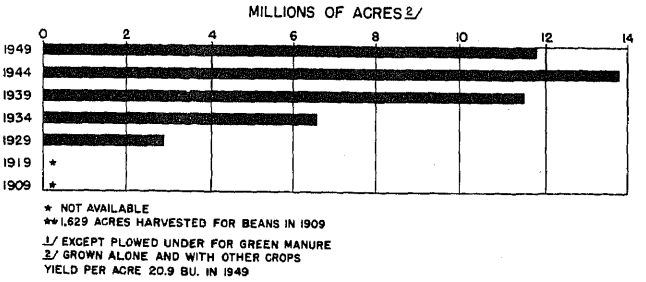
PEANUTS—ACREAGE FOR NUTS, FOR THE UNITED STATES: 1889 TO 1949



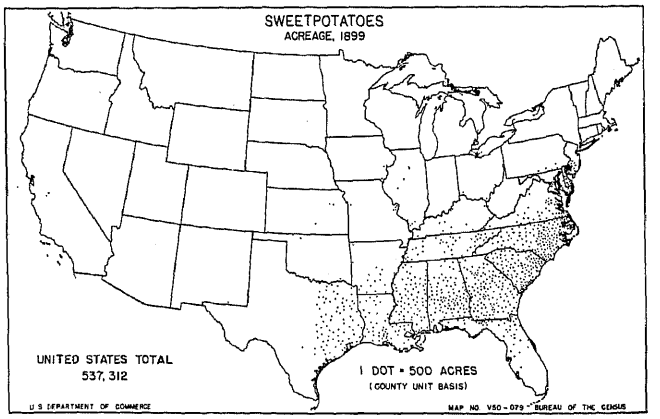
Dry peas and beans.—Significant increases occurred during the half century in both the acreage and production of dry peas and beans. In 1899, the acreage in these crops totaled 1.4 million acres as compared with 2.1 million acres in 1949. Production in 1899 was 14.5 million bushels as compared with 37.6 million bushels in 1949. Much of the increase in acreage resulted from the replacing of summer fallow on wheat land in the Pacific Northwest by the growing of peas.

SOYBEANS—ACREAGE FOR ALL PURPOSES 1/

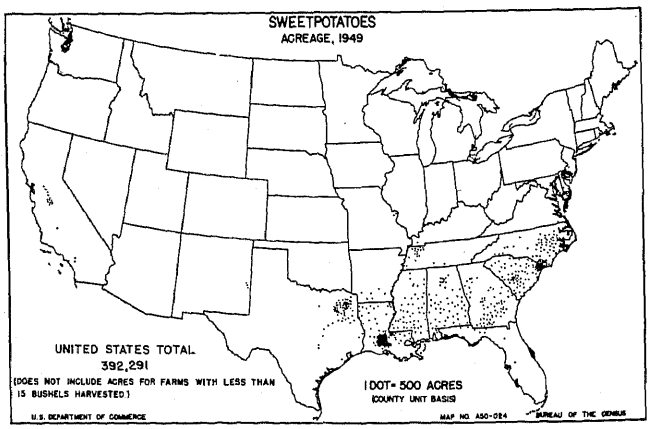
FOR THE UNITED STATES: 1909 TO 1949



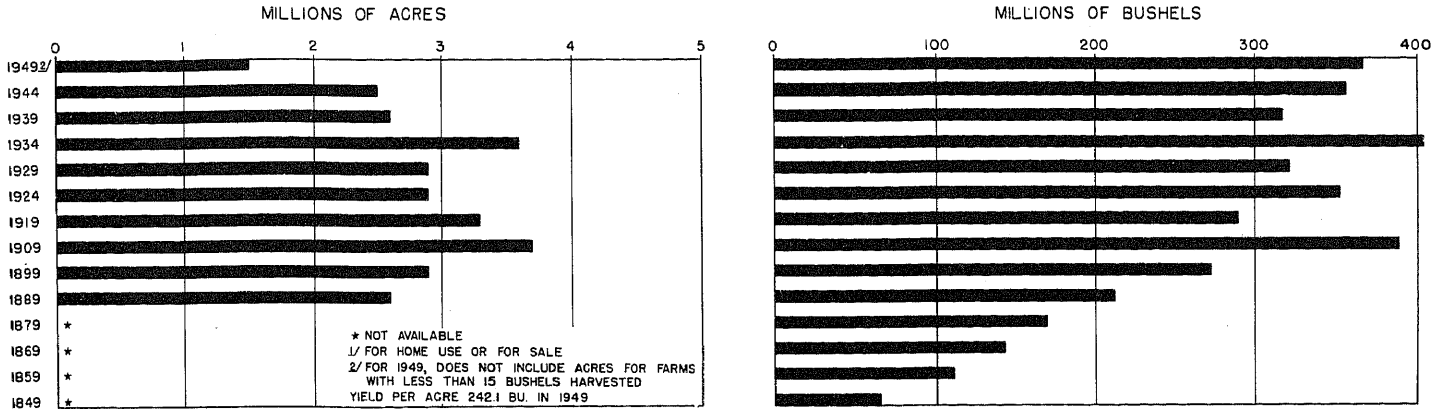
Soybeans.—Soybean acreage and production have grown phenomenally during the last three decades. Soybeans were introduced into the United States as early as 1804, but they were not yet an important crop at the beginning of the twentieth century. Only 1,629 acres were harvested for beans in 1909. The development of high bean-yielding varieties, improvement of harvesting machinery, and new industrial outlets for soybean products have resulted in rapid increases in acreage and production. Soybean production rose from 9 million bushels in 1929 to 212 million bushels in 1949. Nearly all the acreage and production have been in the North Central States. The geographic distribution for the acreage of soybeans for all purposes is shown by map on page 27.

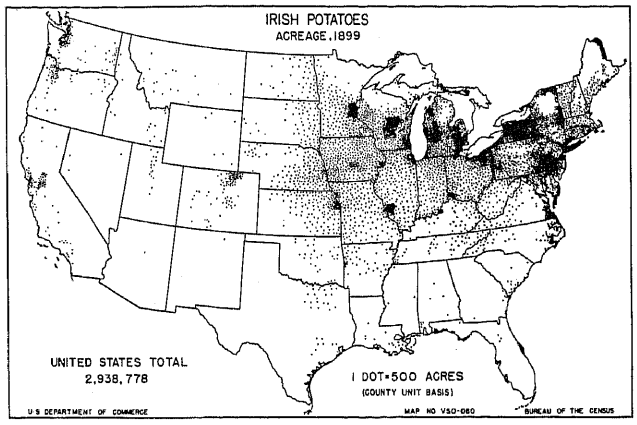


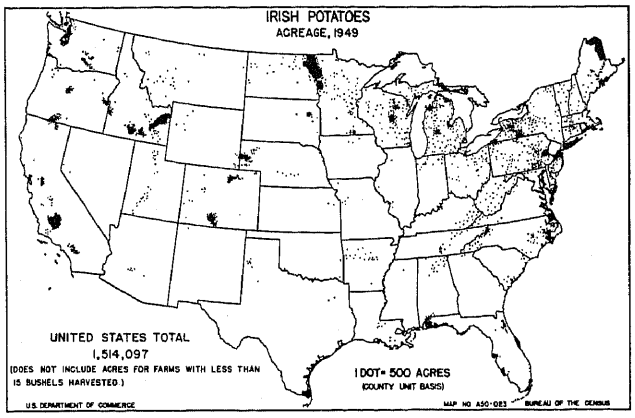
Sweetpotatoes.—The 1949 acreage of sweetpotatoes was approximately 145 thousand acres, or 27.0 percent, less than the 1899 acreage. Sweetpotato acreage has expanded northward and 21.5 percent fewer farms harvested sweetpotatoes in 1949 than in 1899.



IRISH POTATOES 1/—ACREAGE, 1889 TO 1949; AND PRODUCTION, 1849 TO 1949; FOR THE UNITED STATES

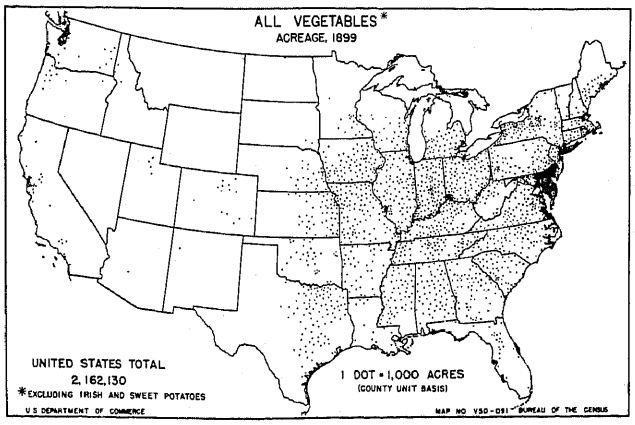


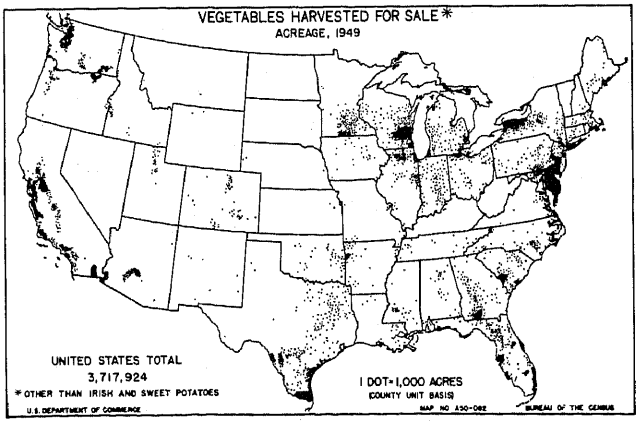


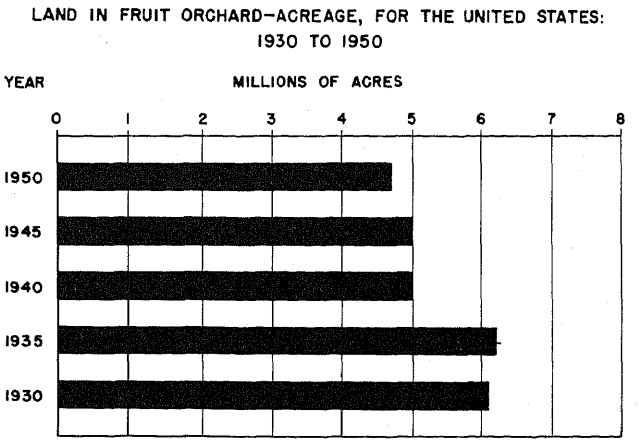


Irish potatoes.—Significant changes have occurred in both the acreage and the location of Irish potato production during this century. The 1949 acreage was only about half that of 1899. On the other hand, the 1949 production exceeded that of 1899 by 34 percent. A phenomenal increase occurred in yield per acre during the half century. Yield per acre in 1949 was more than two and a half times that of 1899. The production of Irish potatoes has been concentrated in a few areas of commercial production. The small potato patch has been disappearing from the general farm. The number of farms harvesting Irish potatoes was 42 percent less in 1949 than in 1899. During the 50-year period, new important areas of commercial production developed in the Red River Valley, Idaho, Colorado, California, Washington, and Oregon.

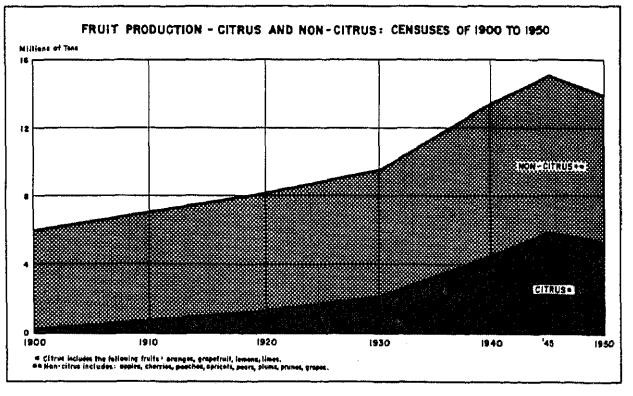
Vegetables for sale.—The commercial production of vegetables has expanded rapidly during the last 50 years. The acreage in 1949 exceeded that of 1899 by 72 percent. In 1899, vegetables were grown mostly in the warm season near to the places of consumption. With improvement in transport facilities and a widening knowledge of vitamins and food values of vegetables, the expansion of the acreage for winter supply has been very rapid, notably in Florida, Texas, and California. There has been an increase in specialization of vegetable production and in yield per acre. During the last two decades the acreage of vegetables grown for sale per farm reporting has more than doubled and the proportion of farms growing vegetables has declined significantly. There have been significant changes in the acreage of various vegetable crops. In 1949, the six leading crops on the basis of acreage were sweet corn, tomatoes, watermelons, green peas, green beans, and lettuce and romaine. In 1899, the six leading vegetable crops on the same basis were watermelons, sweet corn, tomatoes, cabbage, muskmelons, and onions.



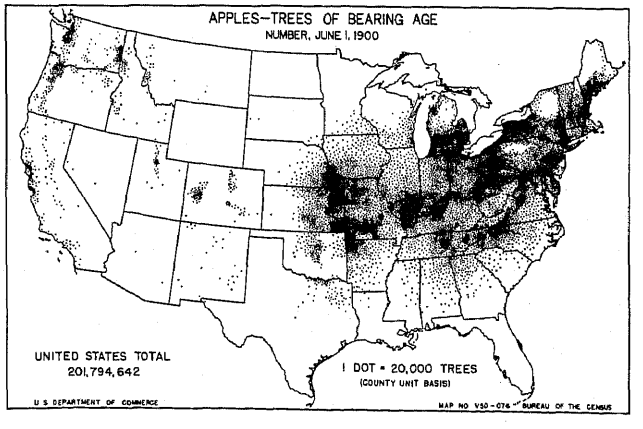


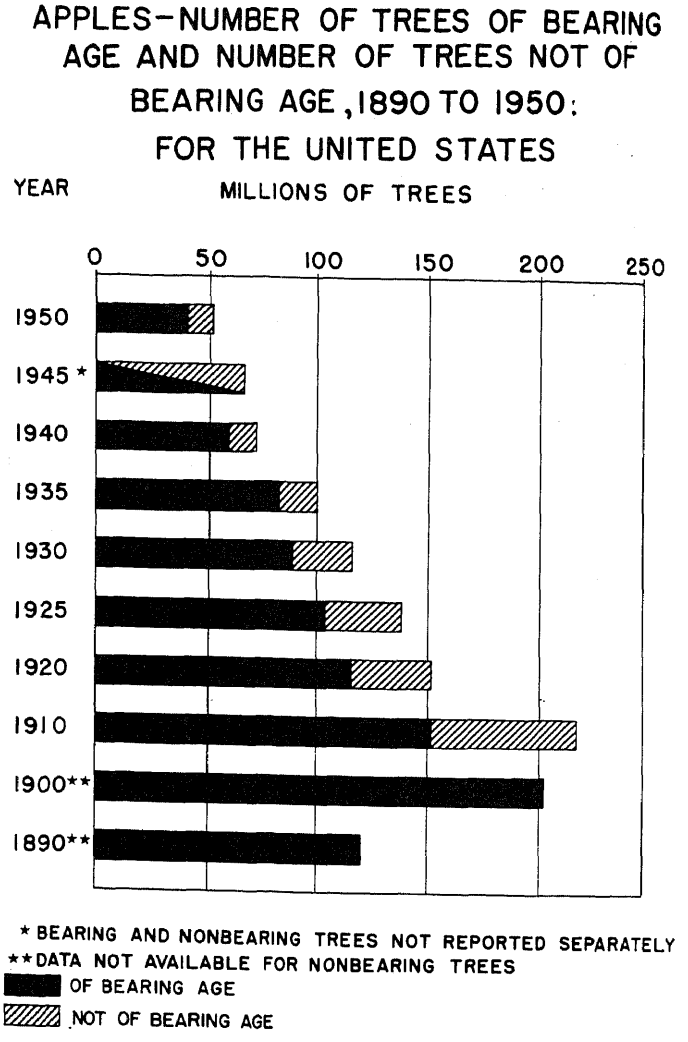


Fruits.—The acreage of land in fruit orchards has been steadily declining. There has been a decline in the number of trees for most deciduous fruits on farms, and a significant increase in the number of citrus trees. The decline in fruit tree numbers has occurred chiefly on general farms with small orchards.

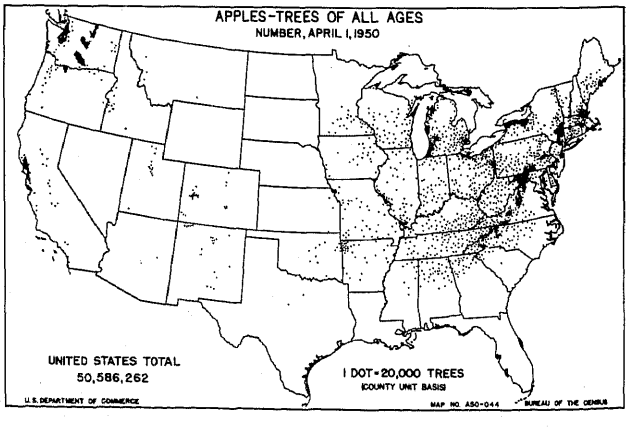


While the acreage of land in fruit orchards, vineyards, and planted nut trees has been declining, the production of fruit has been increasing. However, most of the increase in production has been in citrus fruits. Citrus production represented 38.1 percent of the total tonnage of fruits in 1949 as compared with 3.3 percent in 1899. The per-capita production of fruits was 17 percent greater in 1949 than in 1899. The increase in the use of canned fruits and fruit juices constituted one of the marked shifts in the use of agricultural products during the half century.

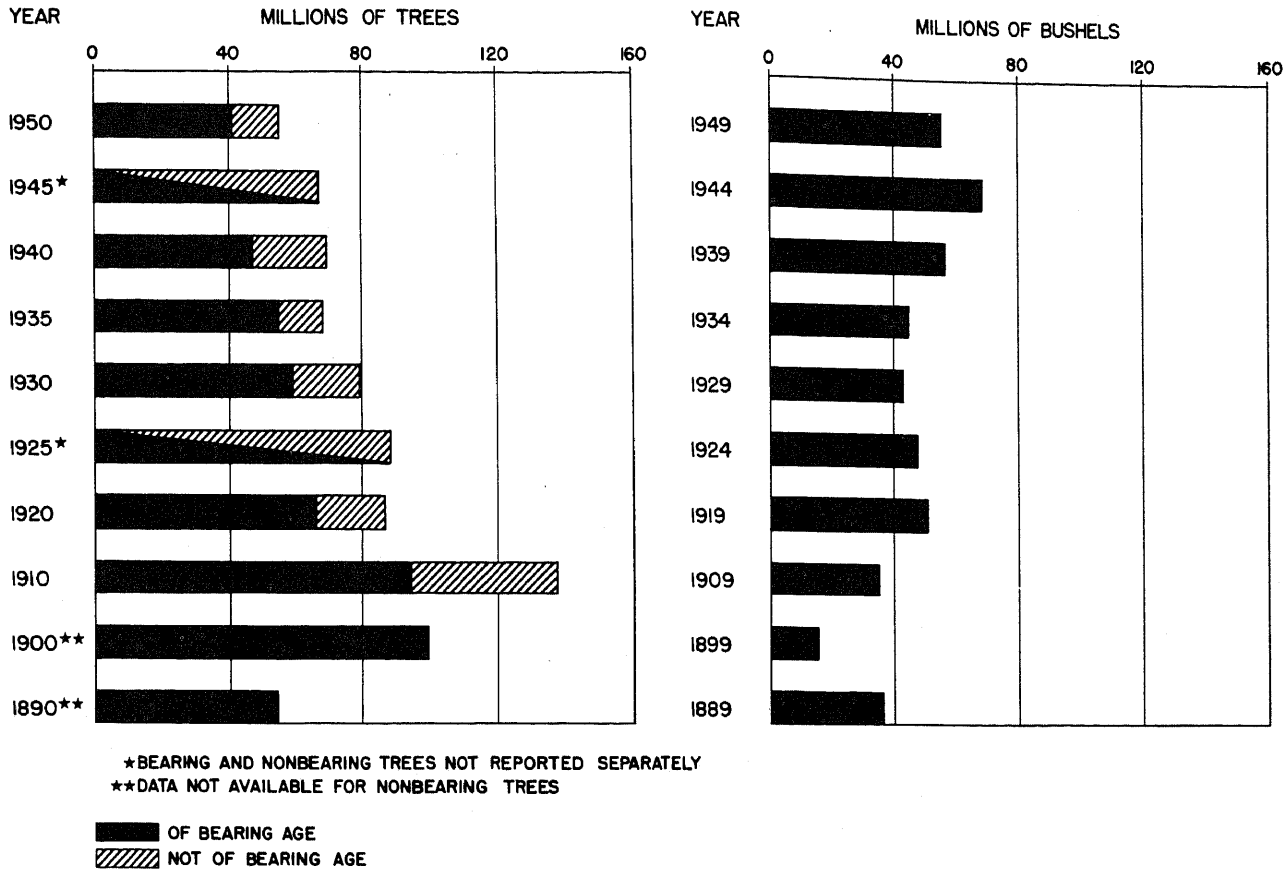




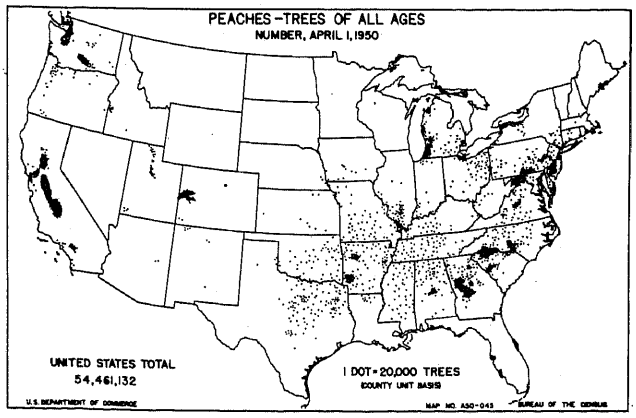
Apples.—There were less than one-fourth as many apple trees on farms in 1950 as in 1900. Disease and weather conditions have destroyed many unproductive trees in small orchards and on general farms. Apple production has been gradually concentrated in those districts that have favorable physical conditions and marketing facilities and on specialized fruit farms. However, because of the use of improved varieties, insect and disease control, increased used of fertilizers, the increase of apple trees in highly productive areas, etc., total apple production has not declined very much.

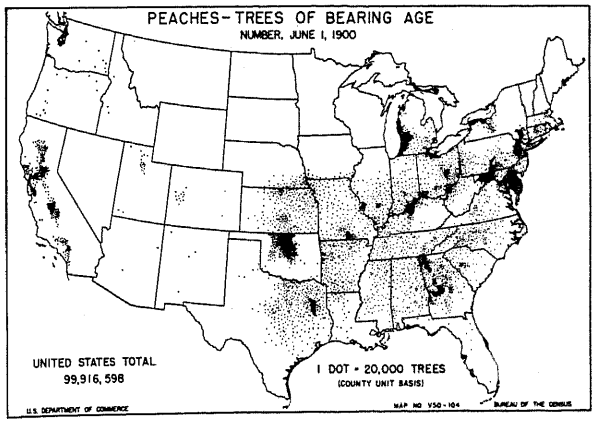


PEACHES – NUMBER OF TREES OF BEARING AGE AND NUMBER OF TREES NOT OF BEARING AGE, 1890 TO 1950; AND PRODUCTION, 1889 TO 1949: FOR THE UNITED STATES

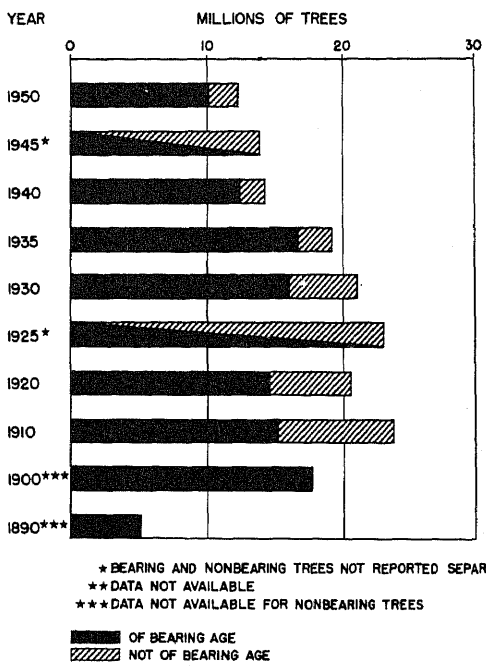


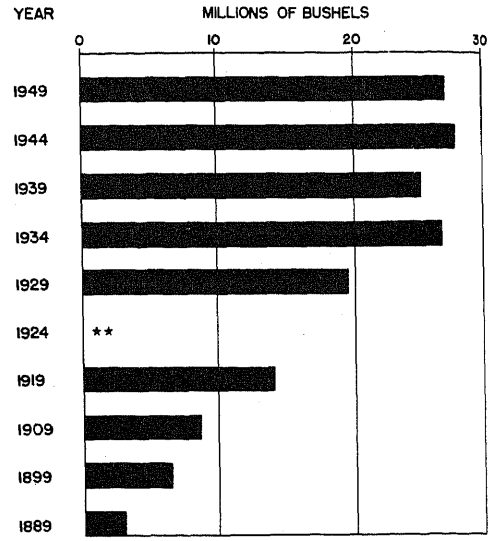
Peaches.—There were less than half as many peach trees of bearing age on farms in 1950 as in 1900. As with apples, the production of peaches has been concentrated in the more favorable producing areas and peach trees have almost disappeared from general farms. In 1950, peach trees were found on only one out of five farms. The maps below indicate the disappearance of the farmers' orchards in the North and South and the increasing importance of peaches in California, Colorado, Idaho, and Washington. Notwithstanding the decline in the number of peach trees, peach production in the second quarter of the twentieth century exceeded that of the first quarter.





PEARS—NUMBER OF TREES OF BEARING AGE AND NUMBER OF TREES NOT OF BEARING AGE, 1890 TO 1950; AND PRODUCTION, 1889 TO 1949: FOR THE UNITED STATES

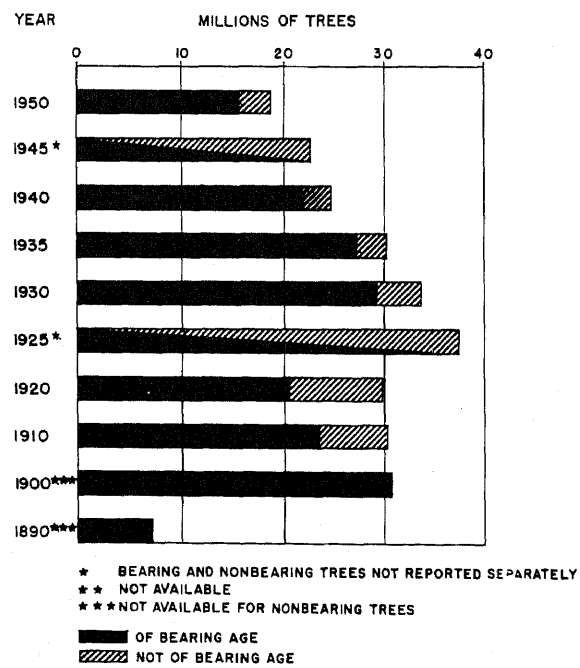


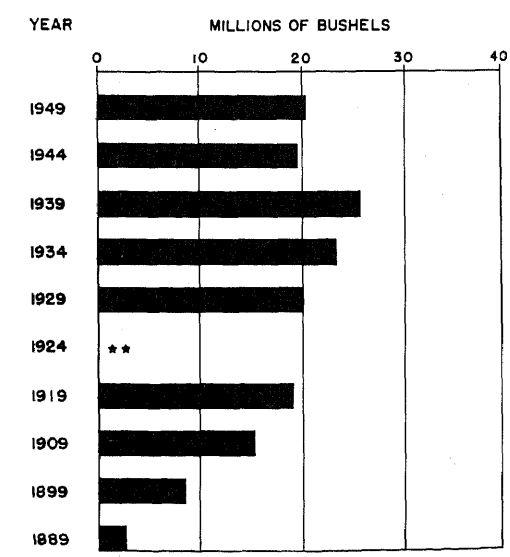


Pears.—The decline since 1900 in the number of pear trees has been less than in the number of apple and peach trees. The decrease in the number of pear trees has occurred largely on the farms having a small number of trees.

Although the number of pear trees has been declining, production has been maintained at levels of from 20 to 30 million bushels during the last quarter of a century. The geographic distribution of pear trees in 1950 is shown by the map on page 32.

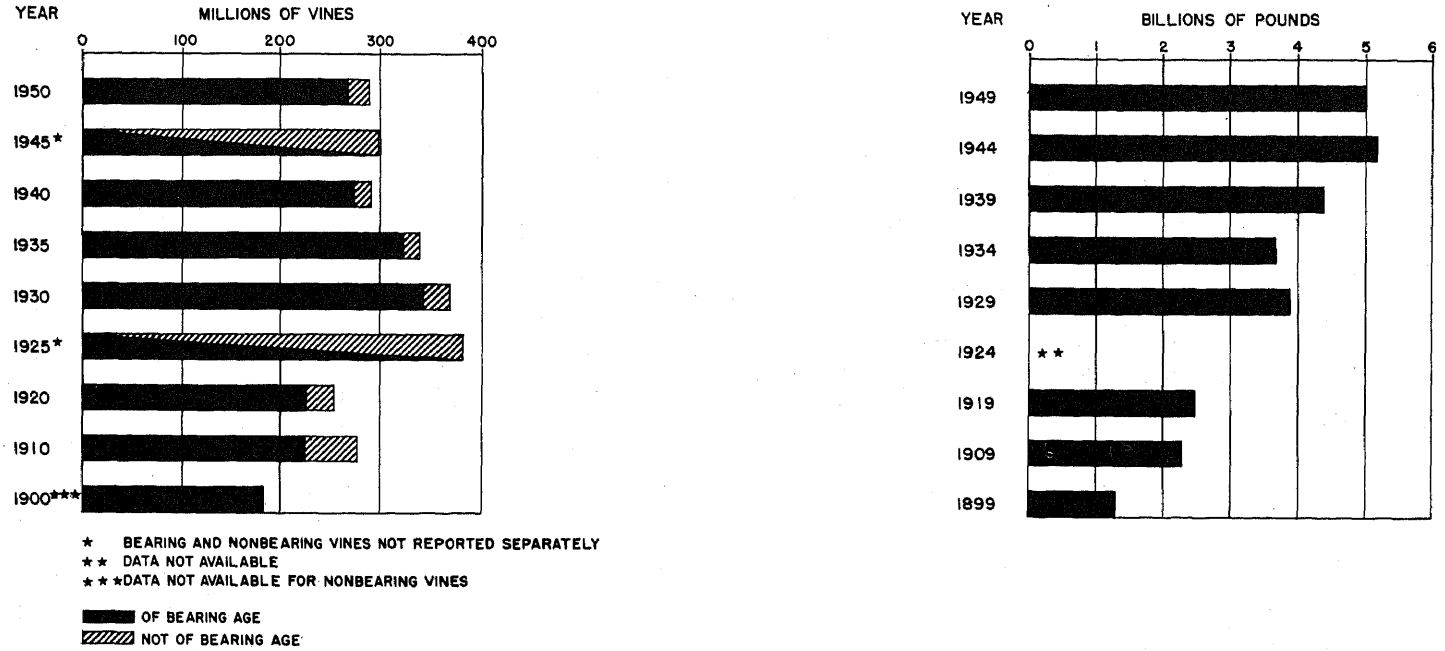
PLUMS AND PRUNES—NUMBER OF TREES OF BEARING AGE AND NUMBER OF TREES NOT OF BEARING AGE, 1890 TO 1950; AND PRODUCTION, 1889 TO 1949: FOR THE UNITED STATES





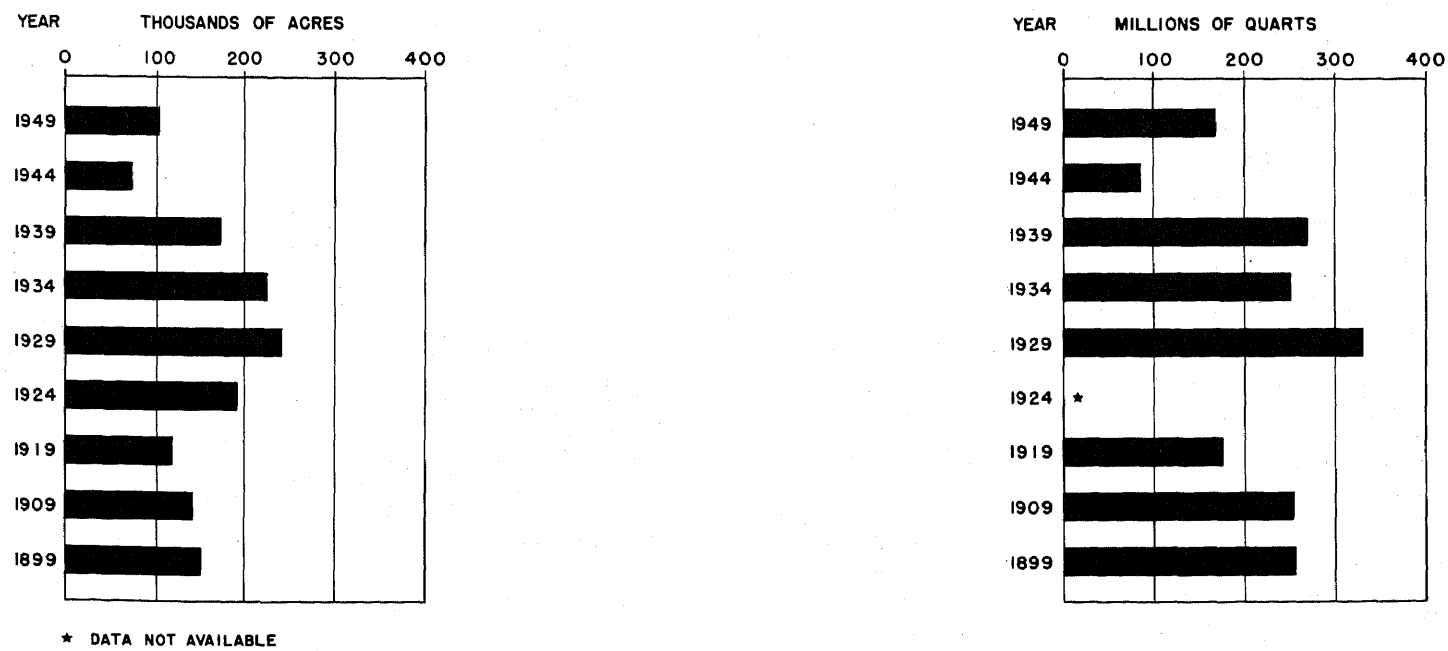
Plums and prunes.—There were about half as many plum and prune trees in 1950 as in 1900. Production of plums and prunes has been maintained at the level of approximately 20 million bushels during the last three decades, notwithstanding a significant decrease in the number of trees. About 40 percent of the plum and prune trees of bearing age were in California and Oregon in 1900 as compared to more than 75 percent in 1950. The geographic distribution of plum and prune trees in 1950 is shown by the map on page 32.

GRAPES—NUMBER OF VINES OF BEARING AGE AND NUMBER OF VINES NOT OF BEARING AGE, 1900 TO 1950, AND PRODUCTION, 1899 TO 1949: FOR THE UNITED STATES

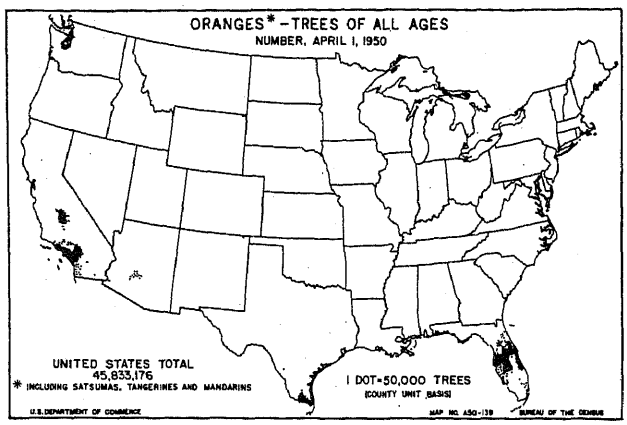


Grapes.—During the half century, a significant expansion occurred in the number of grapevines and in grape production. Nearly all this expansion occurred in California. California now has slightly more than four-fifths of the grapevines, and accounts for 95 percent of the grape production. The map on page 32 shows the geographic distribution of grapevines in 1950.

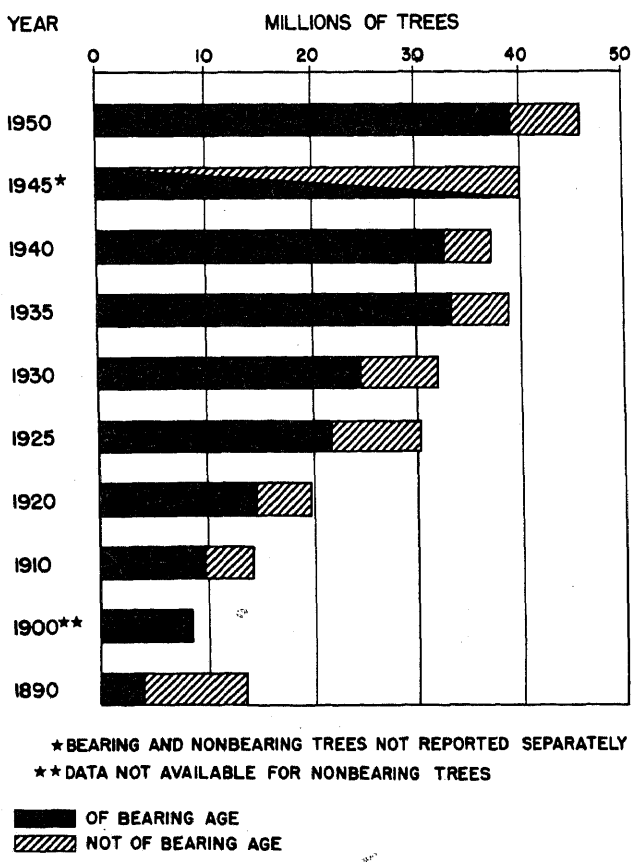
STRAWBERRIES—ACREAGE AND PRODUCTION, FOR THE UNITED STATES: 1899 TO 1949



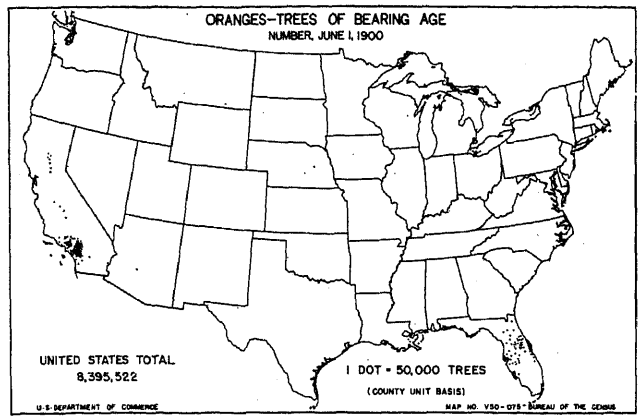
Strawberries.—The strawberry crop has been the most important of the berry and small fruit crops throughout the last 50 years. The acreage in 1949 was a third less than in 1899. Production has varied considerably from census to census because of the effect of weather conditions. Strawberry production has become more concentrated in a few important areas of production. The map of page 33 indicates the geographic distribution of the acreage in 1949.



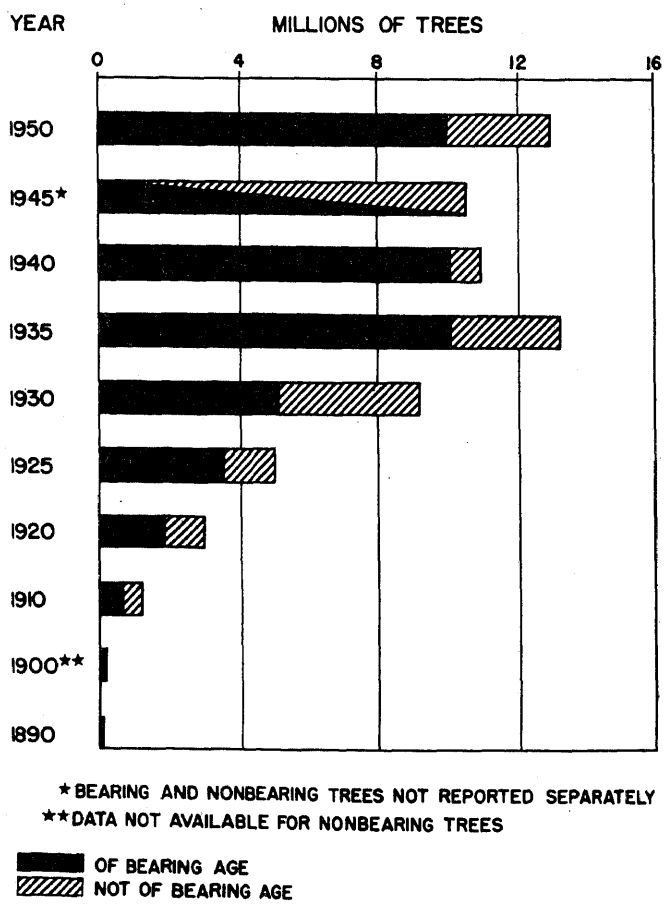
ORANGES (INCLUDING SATSUMAS, TANGERINES, AND MANDARINS) — NUMBER OF TREES OF BEARING AGE AND NUMBER OF TREES NOT OF BEARING AGE, 1890 TO 1950: FOR THE UNITED STATES



Oranges.—The number of orange trees has increased more than 5 times during the 50-year period. Large new areas of production were developed in Arizona and the Rio Grande Valley of Texas. Orange trees and production are concentrated in California, Arizona, Texas, and Florida. The use of canned orange juice and frozen concentrated orange juice has greatly increased during recent years.



GRAPEFRUIT — NUMBER OF TREES OF BEARING AGE AND NUMBER OF TREES NOT OF BEARING AGE, 1890 TO 1950: FOR THE UNITED STATES



Grapefruit.—There has been a tremendous growth in grapefruit production since 1900. During the half century, new areas with large numbers of trees were developed in Florida, Texas, California, and Arizona.

Horses and mules.—Horses and mules are gradually vanishing from the Nation's farms. At the beginning of the century there were almost 22 million horses and mules on farms. They provided all the power for operating field machines and hauling farm products to market. In 1950, there were less than 8 million horses and mules on farms.

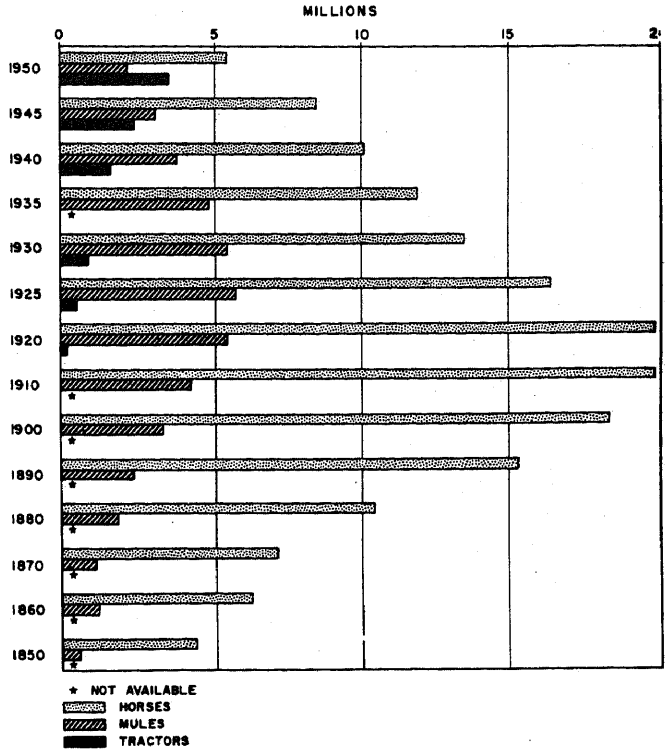
The peak in the number of horses and mules occurred between 1910 and 1920. The number in 1950 was less than a third of that of 1920.

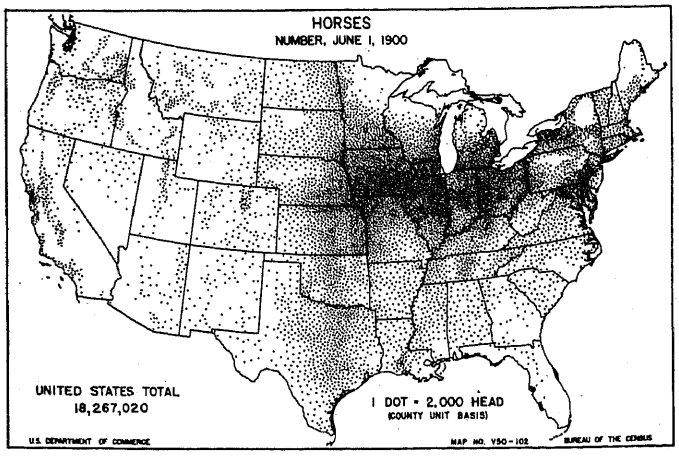
The increase in farm tractors and the farm use of petroleum products has accompanied the decline in horse and mule population. During the last 20 years, there has been a decrease of a little over four in the number of horses and mules for each tractor added on farms.

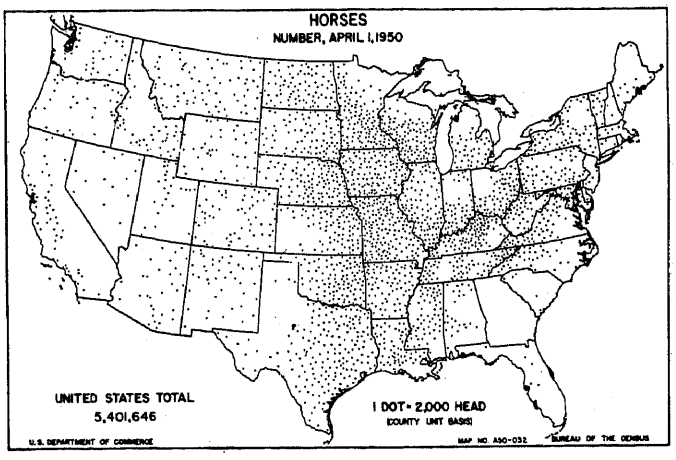
In 1900, the greatest concentration in horses occurred in the area from Ohio westward to eastern Nebraska. By 1950, there were very few horses in this area. In 1950, there was very little animal power used in the Midwest.

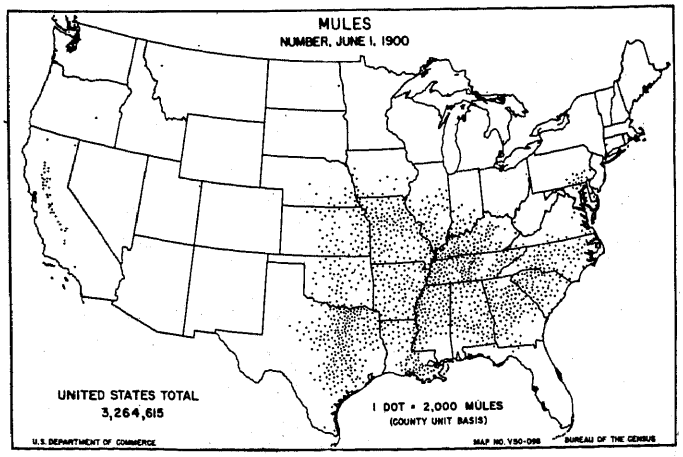
During most of the present century, mules have been more numerous than horses in the South. In that area, most of the mules were on cotton and tobacco farms. In the South, almost three-fifths of the farms have less than 30 acres of cultivated land. The difficulty of mechanizing farming operations for cotton and tobacco production, the small size of farms, and the relatively low income per farm have retarded the substitution of tractor power for animal power in most parts of the South.

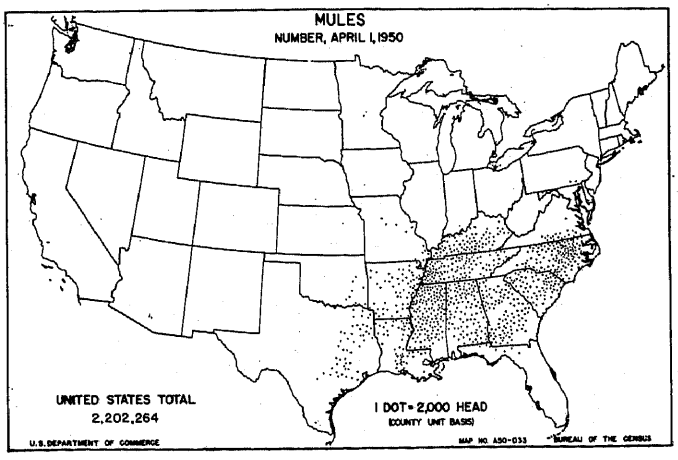
NUMBER OF HORSES, MULES, AND TRACTORS, FOR THE UNITED STATES: 1850 TO 1950





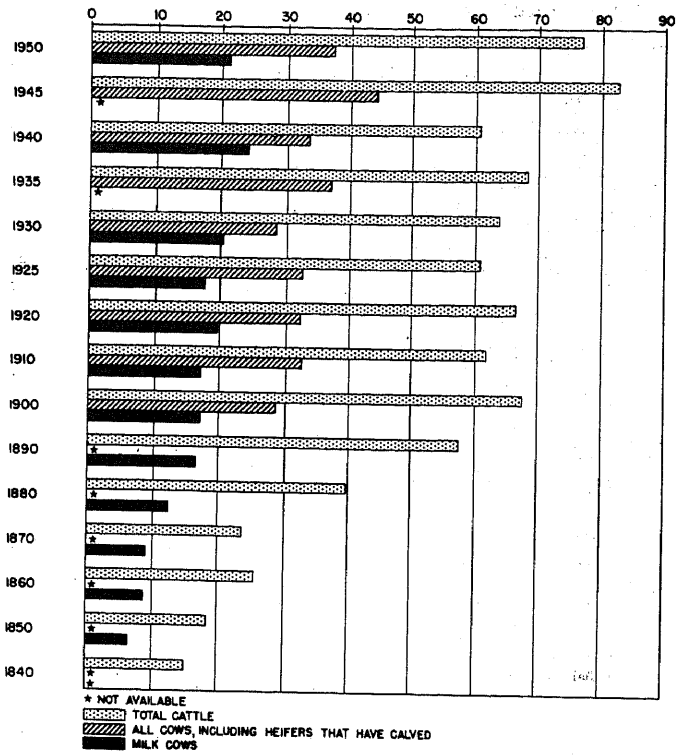


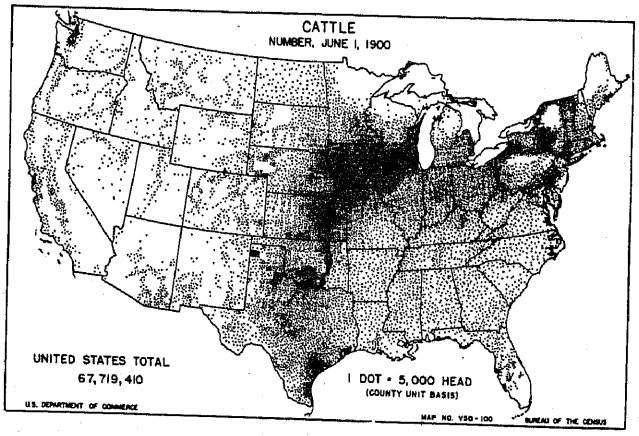




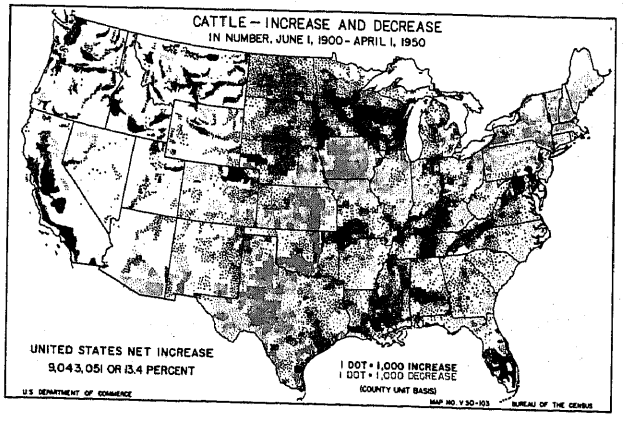
NUMBER OF CATTLE, OF COWS, INCLUDING HEIFERS THAT HAVE CALVED, AND OF MILK COWS, FOR THE UNITED STATES: 1840 TO 1950

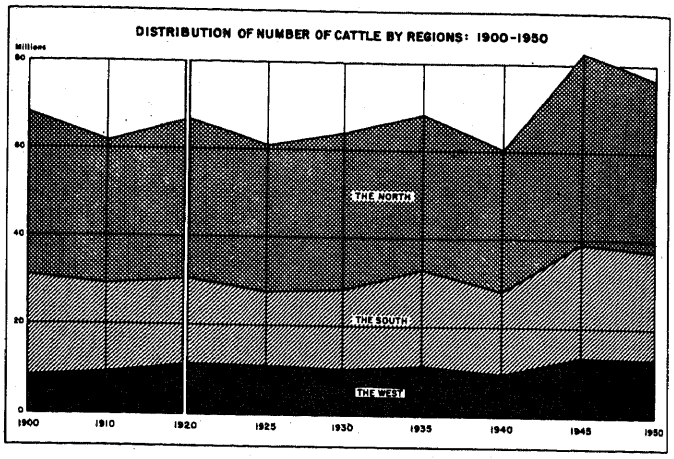
MILLIONS OF HEAD

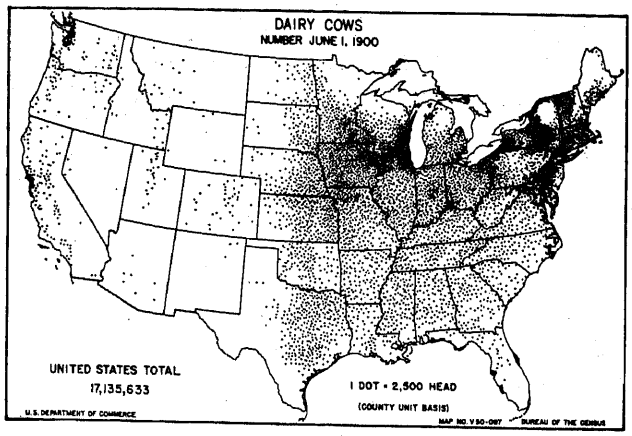




Cattle.—The number of cattle and calves in 1950 was almost 77 million. In 1900, the number was about 68 million. These numbers are not fully comparable because the 1950 Census was taken in April and the 1900 Census, in June. There was a much larger number of calves included in the total in 1900 than in 1950, and therefore the increase was greater than indicated by the comparison of the total number for the two years.

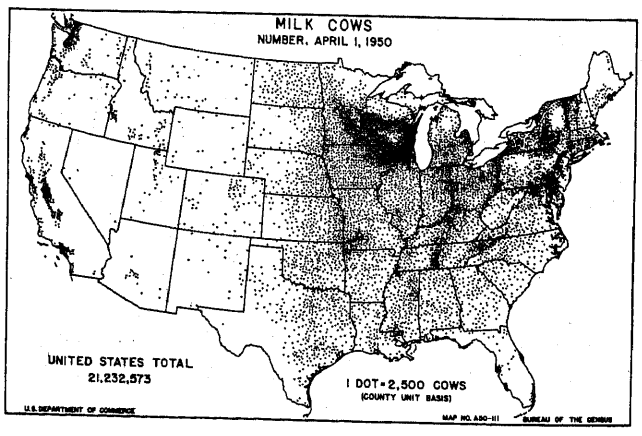




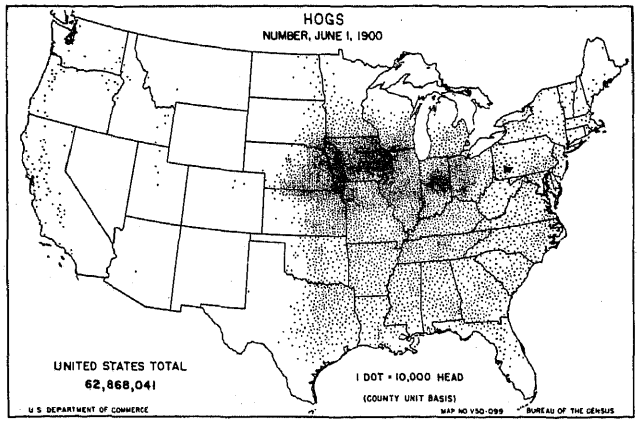


If calves are excluded, the increase in the number of cattle was from about 53 million in 1900 to almost 66 million in 1950. The number of cattle in the West has increased at a faster rate than in the North and the South. However, the North still has more than half the cattle in the United States.

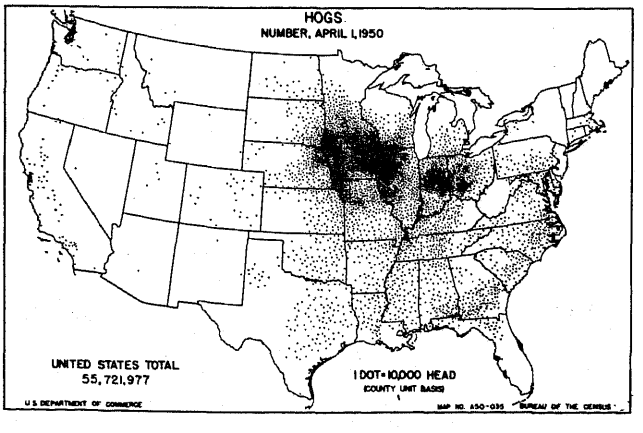
Large increases in the number of cattle occurred in Wisconsin, Minnesota, North Dakota, South Dakota, Virginia, Kentucky, Tennessee, Mississippi, Alabama, Louisiana, Florida, and in the irrigated sections of the West. Decreases occurred in parts of the Corn Belt and in eastern Nebraska, Kansas, Oklahoma, and Texas, where much land that was used for grazing in 1900 was used for wheat and other crops in 1950.



The number of milk and dairy cows increased about 20 percent during the half century. This increase was much less than the 100 percent increase in the number of people. Most of the increase occurred in the West and South. The increased milk supplies for the increase in population have been provided for largely by greater milk production per cow, and in part, by increases in the number of cows.

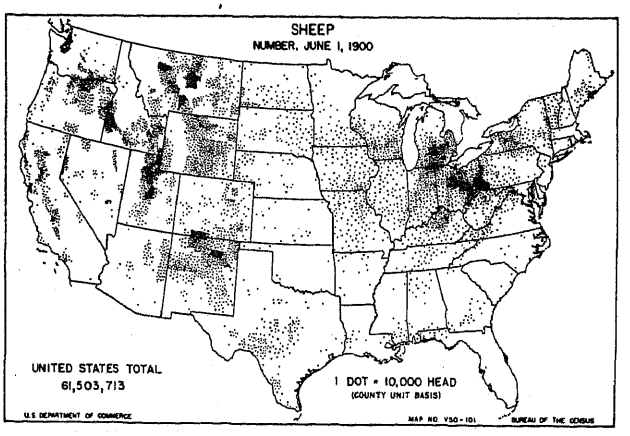


Hogs.—The number of hogs and pigs on farms in 1950 was 7 million less than in 1900. However, this number overstates the actual decrease because of the larger number of pigs included in the total for 1900 than for 1950. The decrease in the number of hogs and pigs does not indicate a corresponding decline in hog and pork production. A larger number of pigs raised per litter and heavier weights of hogs when slaughtered have resulted in an actual increase in pork production during the half century. A greater proportion of the hogs were concentrated in the Corn Belt in 1950 than in 1900. In fact most of the decreases occurred in areas outside the Corn Belt. There were fewer hogs in most of the Southern and Eastern States in 1950 as compared with 1900.

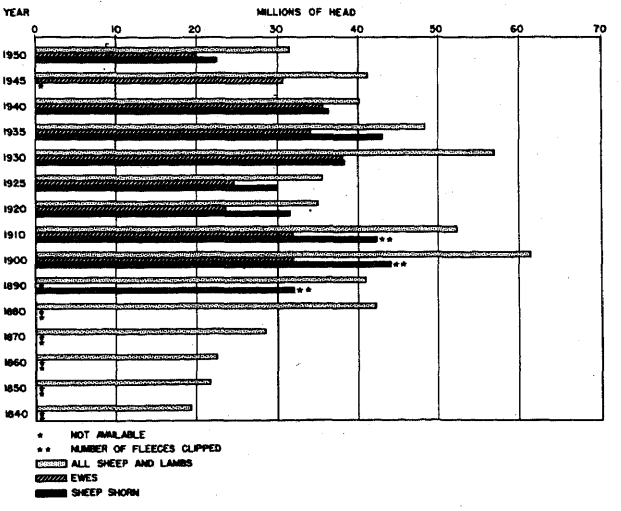


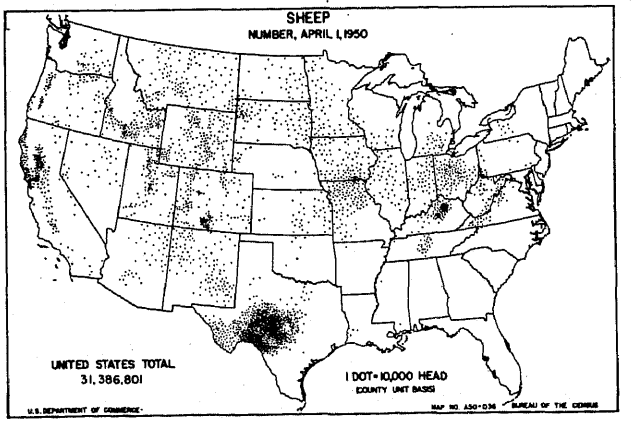
Sheep.—The decline during the 50 years in the number of sheep has been faster than that of any other kind of livestock except horses and mules. Only two-thirds as many ewes six months old and over were on farms and ranches in 1950 as in 1900.

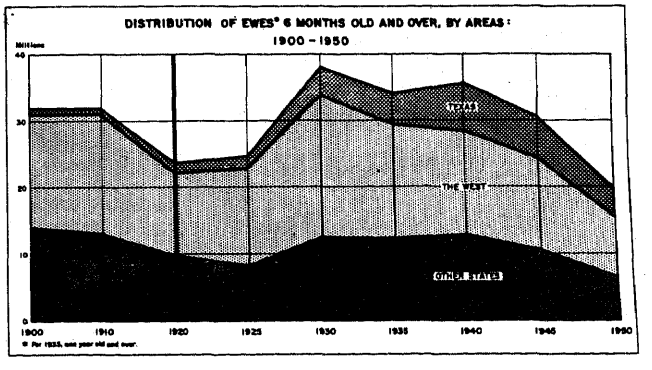
During the half century the sheep industry moved westward. Two-thirds of the sheep were in Texas and the West in 1950. Since 1940, sheep have decreased in number in all areas. In 1900, sheep were kept primarily for their wool. By 1919, the value of sheep sold or slaughtered on farms had exceeded the value of wool sold. Sheep sold and slaughtered on farms were valued at 95 percent more than the wool produced in 1949.

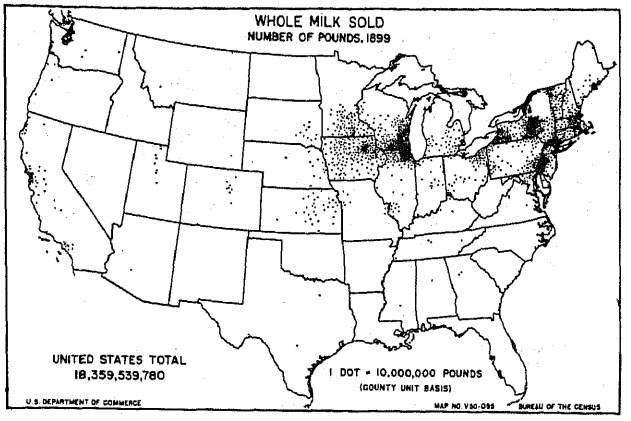


NUMBER OF SHEEP AND LAMBS, OF EWES, AND OF SHEEP SHORN IN THE UNITED STATES: CENSUS OF 1840 TO 1950

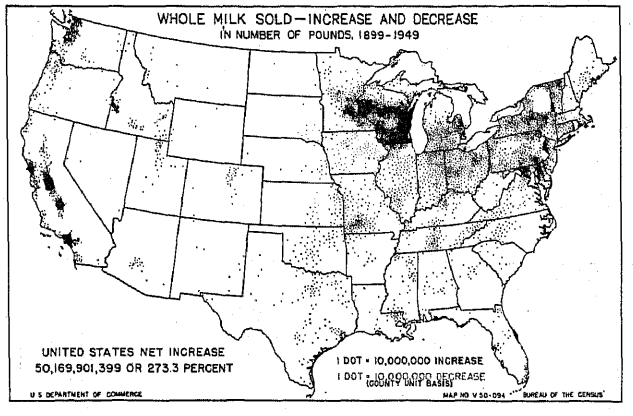




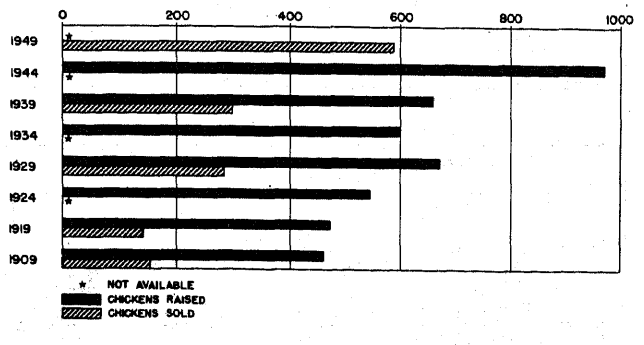


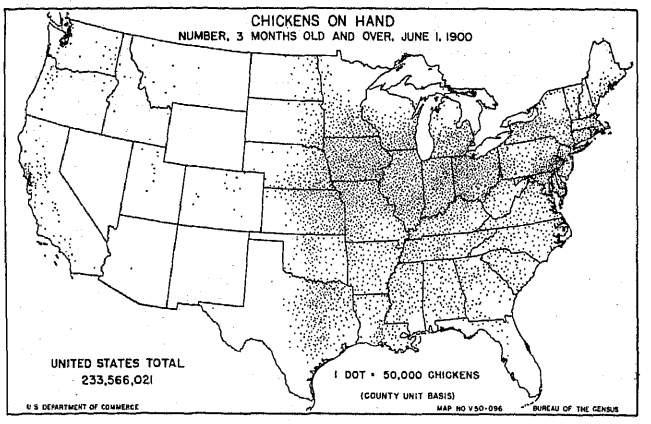


Whole milk.—The amount of whole milk sold was 273 percent greater in 1949 than in 1899. This large increase reflects in part the increase in milk production and in part the increase in the proportion of dairy products sold as whole milk. In 1899, the sales of cream, butter, and cheese from farms made up over 34 percent of the value of dairy products sold. In 1949, these dairy products comprised only 12 percent of all dairy products sold. Large increases occurred in whole milk sold in Wisconsin and Minnesota and in the milksheds adjacent to or surrounding the larger cities.



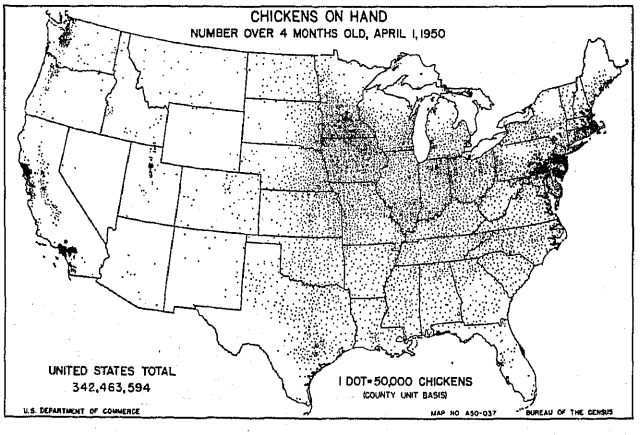
NUMBER OF CHICKENS SOLD AND CHICKENS RAISED, FOR THE UNITED STATES: 1909 TO 1949





Chickens.—Over 100 million more chickens were on farms in 1950 than in 1900. Increases occurred in all areas and in all States. However, the greatest increases took place in New Jersey, Pennsylvania, Massachusetts, California, Washington, Minnesota, North Carolina, Texas, Iowa, and Oregon. The number of chickens sold has more than tripled during this century. In 1909, 154 million chickens were sold; in 1949, 588 million. The phenomenal increase in broiler production during recent years has contributed greatly to the doubling of the number of chickens sold during the last decade.

The increase in egg production and egg sales during the 50 years was much greater than the increase in the number of chickens because of the increased egg production per laying hen. In 1909, less than a billion dozens of eggs were sold; in 1949, more than two and a third billion dozens were sold.



DOZENS OF CHICKEN EGGS SOLD AND CHICKEN EGGS PRODUCED, FOR THE UNITED STATES: 1879-1949