Farms and Farm Land

Farms.—In the 1950 Census, places of 3 or more acres were counted as farms if the value of agricultural products in 1949, exclusive of home gardens, amounted to $150 or more. The agricultural products could have been either for use on the farm or for sale. Places of less than three acres were counted as farms only if the value of sales of agricultural products in 1949 amounted to $150 or more.

Farms in 1950 numbered 5,382,162 and were dispersed throughout the United States. However, one-half of them were in the South, slightly more than two-fifths in the North, and only one-twelfth in the West. About three-fifths of the farms were east of the Mississippi River.

The greatest density occurred in cotton and tobacco areas of the South and in irrigated areas of the West. In many parts of the West, except in the irrigated valleys, farms were large and were often widely separated.

Land in farms.—The United States has a land area of about 3 million square miles or 1,904 million acres. Some of this land is rough, high, and mountainous. Some of it is low marshland that cannot be drained in a practical way. Not all of this land is in farms—highways, railroads, cities, commercial forests, deserts, military reservations, parks, and cemeteries, all occupy land.

Farms and ranches occupy about 1.1 billion acres, or 60 percent, of the total land area. Roughly, a third of the land in farms is used for harvested crops and another 12 percent is available for crops but is used for pasture, or is idle or fallow. Slightly more than half of the land in farms is in pasture, about one-fifth of which is woodland that is pastured or grazed. Woodland not pastured, wasteland, farmsteads, roads, etc., comprise approximately 11 percent of the total farm area.

More than half of the land not in farms is used for pasture or grazing, according to estimates of the Bureau of Agricultural Economics of the U. S. Department of Agriculture. About 45 percent of this pasture and grazing land is forest or woodland and 54 percent is open pasture. More than a fourth of the land not in farms is in forests and woodland not pastured and about a fifth is in deserts, mountains, parks, roads, etc.
AGRICULTURE 1950

MAJOR USES OF LAND IN THE UNITED STATES 1950

CITIES, PARKS, ROADS, DESERT, SWAMP, DUNES, ETC.

2.4% OTHER LAND, (HOUSE LOTS, ROADS, WASTELANDS, ETC.) 45 M.A.

60.9% LAND IN FARMS 1,159 M.A.

39.1% LAND NOT IN FARMS 745 M.A.

7.5% OTHER LAND

10.6% WOODLAND NOT GRAZED 260 M.A.

21.0% GRAZING LAND 400 M.A.

4.3% WOODLAND NOT PASTURED 66 M.A.

3.4% CROPLAND HARVESTED 69 M.A.

3.6% CROPLAND USED ONLY FOR PASTURE 66 M.A.

NOT CROPLAND AND NOT WOODLAND

* ESTIMATES BY BUREAU OF AGRICULTURAL ECONOMICS, U.S. DEPARTMENT OF AGRICULTURE

PERCENTAGES SHOWN IN LARGE CIRCLE ARE OF TOTAL LAND AREA OF THE NATION

M. A. = MILLION ACRES
For the United States as a whole, about three-fifths of the land area is in farms. The lack of agricultural use of a large proportion of our land is largely the result of rough terrain, lack of rainfall, low fertility of the soil, inadequate drainage, excessive evaporation, the level of agricultural prices, etc.

The proportion of the land area in farms varies greatly in different parts of the United States. In the more fertile areas of the Midwest, more than nine-tenths of the land area is in farms. In most of the areas of the eastern part of the United States, half or more of the land area is in farms. In the West, land in farms comprises only about two-fifths of the total land area.

Land in farms is not distributed uniformly throughout the United States. In the West, mountains and inadequate rainfall greatly restrict the amount of land in farms. Hilly topography, infertile soil, inadequate drainage, and forests limit the farm land in some parts of the Northeast.

Cropland.—Cropland represents the most important class of land in farms. Kind of soil, topography, presence of forests, precipitation, and length of the frost-free growing season, all affect the distribution of cropland. Half of the total cropland is concentrated in the 12 North Central States—Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas. These States have only one-fourth of the total land area of the United States. Areas of low density of cropland include the relatively infertile areas in States bordering on the Great Lakes and in New England, the mountainous or hilly areas of the Appalachians, the Adirondacks, and the Ozark-Ouachita Mountains, the areas of infertile soils and poor drainage on the Atlantic and Gulf Coasts, and mountainous and semiarid areas of the West.

Total cropland comprises cropland harvested, cropland used only for pasture, cropland not harvested and not pastured, and cultivated summer fallow. Much of the cropland used for pasture is used for crops at some period during the rotation cycle.
The proportion of all cropland from which crops were harvested in 1949 ranged from 88 percent in South Dakota to 44 percent in Kentucky. The acreage of cropland harvested exceeded 70 percent of the total cropland in all States in the North except Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, and Missouri. The percentage of cropland not harvested and not pastured ranged from 36 percent in Montana to 1 percent in Iowa. Cropland used only for pasture was prevalent in Kentucky, Missouri, California, Texas, and Iowa.

Cropland harvested.—Cropland harvested, or land from which crops were harvested in 1949, comprised almost three-fourths of the total cropland. The acreage of the four leading crops—corn, wheat, oats, and cotton—was equal to almost two-thirds of the total acreage of cropland harvested and the areas of high density of cropland include the areas where the growing of these four crops is important.

Cropland not harvested and not pastured.—Cropland not harvested and not pastured includes land in cultivated summer fallow, land in soil-improvement crops, land from which no crops were harvested because of crop failure, and cropland lying idle.

Cultivated summer fallow.—Much of the cropland not harvested and not pastured was in the West and was land in summer fallow. In the West, land is kept in cultivated fallow for a year in order to conserve moisture for the production of a crop the following year.

Cropland used for pasture.—Cropland used only for pasture totaled 69 million acres and comprised one-ninth of all farm land used for pasture. It was widely distributed, with a greater concentration in a few areas like the Blue Grass area of Kentucky.
Pasture.—Pasture and grazing land comprises the second most important class of land in farms. Land pastured or grazed in 1940 totaled 620 million acres or over 33 percent of the total farm area. These 620 million acres do not include all land pastured. A considerable acreage of cropland harvested was pastured during part of the year. About 400 million acres of land not in farms were used for grazing in 1940. Three-fourths of this grazing land was in the West.

Farm pasture land was distributed throughout the United States. The area east of the Rocky Mountains and the west hills of these mountains showed the greatest concentration. Areas with little farm pasture land are largely forested or mountainous areas with only a small amount of land in farms. The quality and the productivity of pasture and grazing land vary greatly both within areas and in different parts of the country.

Pasture other than cropland and woodland.—Pasture other than cropland and woodland comprised more than two-thirds of the total acreage of pasture and grazing land in farms. Over four-fifths of this land was located in the 17 Western States. Limited precipitation and rough topography make most of this land unsuitable for crop production.

In the West, this pasture land comprised land largely in native grasses and other plants. Much of it has never been used for crops, although part of the acreage was formerly used as cropland and later replanted to tame grasses.

Pasture land not suitable for crops and nonforested pasture and grazing land were also distributed throughout the eastern half of the United States in tracts too poor, steep, rough, swampy, or eroded to be other than of limited value for crops. Some of this land had once been, but was no longer being used for crops.
Pasture other than cropland and woodland comprised four-fifths or more of the pasture land in the West. It comprised at least a quarter of the pasture land in 40 out of the 48 States.

Woodland pasture.—Slightly more than one-fifth of all farm pasture land was woodland. Approximately half of the woodland pastured was in the South. This class includes land that has never been cleared because it is poorly drained or rough, and land once cleared but since reforested largely by natural growth. In the 17 Western States, a large part of the farm woodland used for grazing is covered by noncommercial growths of chaparral, mesquite, píñon, juniper, and semiarid shrub growth.

Three-fifths of the farm woodland was used for pasture or grazing. Nearly all the woodland in the 17 Western States was pastured or grazed. Practically all the farm woodland not pas-

tured or grazed was in the eastern half of the United States and was concentrated particularly along the Appalachians. Present woodland pasture in the eastern States represents, in part, pasture lands on which forest vegetation has been reestablished on land previously used for pasture or crops.

Woodland.—Woodland or forest occupied 220 million acres or one-fifth of the total land in farms. However, woodland in farms comprised only 38 percent of the 606 million acres of woodland and forests in the United States. Over three-fifths of this farm woodland is located in the eastern half of the United States. A high percentage is land that was originally forested, later cleared, and has since reverted to forest growth.

Farm woods on the 2,785,761 farms reporting woodland were, typically, small tracts on poor, rough, or steep land, or they consisted of farm wood lots reserved to meet farm needs. The value to farmers of their farm forests and wood lots was $134,509,418 in the sale of forest products in 1949. This amount excluded the annual values of timber and wood used for farm purposes, the

pasturage for livestock, the protection afforded farm lands and farmsteads, and the employment provided by forest-product industries. More than 1.3 million farms reported 17.3 million cords of fire or fuel wood cut in 1949. In the States of Vermont, New York, Pennsylvania, Ohio, Wisconsin, and Michigan, the production of 1,347,761 gallons of maple syrup and 131,127 pounds of maple sugar was reported for 22,761 farms.
The proportion of land in farms represented by farm woodland was highest in New England and the Southern States. There was very little woodland in farms in the States in the Great Plains.

Much of the forest land and woodland in the West was not in farms, but was under public ownership or owned by private lumber companies.
Irrigation.—Irrigation has made possible the successful utilization of areas of arid and semiarid land of the West for agricultural purposes. Irrigation is used to a much smaller extent in numerous areas of the humid East. Although irrigation is not usually essential, it has greatly increased production per acre in those areas of the East where it has been used. Irrigated land in farms in 1940 as reported in the Census of Agriculture totaled 26 million acres of which 94.1 percent was in the 17 Western States; 5.3 percent was in Arkansas, Louisiana, and Florida; and only 0.6 percent in the other 28 States. California was the leading State with a total of 6.4 million acres; Texas was second with 3.1 million acres; and Colorado, third, with 2.9 million acres.

The irrigated acreage was particularly large in the fruit, vegetable, and cotton producing valleys of California, in the Lower Rio Grande Valley of Texas, in southern Idaho, in a few valleys of Colorado, and in Oregon and Washington. Many cattle ranches throughout the West depended on irrigated land to produce hay for use between grazing seasons.

The figures for irrigated crops in the 17 Western States, and Arkansas, Louisiana, and Florida, relate only to irrigated crops harvested on farms where the entire acreage of the crop was irrigated. The acreage and production of crops grown on irrigated land on which only a part of the crop was irrigated were relatively unimportant for most crops. All the rice produced in the 20 States came from irrigated land. Irrigated land produced four-fifths or more of the sugar beets, hops, dry beans (except soybeans), and Irish potatoes; three-fifths of the vegetables; and more than two-fifths of the red clover and alfalfa seed, and alfalfa and clover or timothy hay harvested in the 20 States. Irrigated land provided only a small part of the production of sorghums, wild hay, oats, corn, and winter wheat.

The proportions of the United States total production harvested from irrigated land in the 20 States for some of the more important crops were as follows:

<table>
<thead>
<tr>
<th>Crop</th>
<th>Percent of United States total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>100.0</td>
</tr>
<tr>
<td>Sugar beets</td>
<td>61.4</td>
</tr>
<tr>
<td>Hops</td>
<td>84.8</td>
</tr>
<tr>
<td>Dry beans (excluding soybeans)</td>
<td>54.1</td>
</tr>
<tr>
<td>Irish potatoes</td>
<td>34.4</td>
</tr>
<tr>
<td>Vegetables</td>
<td>36.9</td>
</tr>
<tr>
<td>Cotton</td>
<td>18.5</td>
</tr>
<tr>
<td>Red clover seed</td>
<td>14.5</td>
</tr>
<tr>
<td>Alfalfa hay</td>
<td>28.8</td>
</tr>
<tr>
<td>Alfalfa seed</td>
<td>37.8</td>
</tr>
<tr>
<td>Barley</td>
<td>28.9</td>
</tr>
</tbody>
</table>

In the 20 States where irrigation is important, yields per acre were much higher for crops harvested from irrigated than from nonirrigated land. However, a part of the difference in yield per acre for irrigated and nonirrigated land may be the result of factors other than the use of irrigation water.

Drainage.—When the land in this country was being settled, thousands of acres were too wet to be of much agricultural value. Since that time, much of this land has been drained and it now comprises some of our most productive farm land. In the Census of 1850, about 103 million acres were reported in organized drainage enterprises in the United States. In general, this acreage does not include areas of less than 500 acres of agricultural land regardless of whether they were in an organized enterprise or represented a private operation.

Most of the land in drainage enterprises was located in northern Indiana and Illinois; southern Michigan; Minnesota; parts of Ohio, Iowa, and California; southern Florida; the Mississippi Delta area; the Eastern Shore of Maryland; southern Delaware; and the Coastal Plains of Texas and Louisiana. The smaller acreages of drained land scattered through the West are usually associated with irrigated land.
Farm property.—In 1950, the value of farm property exceeded $101 billion dollars, for the United States as a whole. Farm real estate, that is, land and buildings, was valued at $75 billion dollars and comprised 74.4 percent of the total value of farm property.

Livestock was valued at over $11 billion dollars and represented 11.5 percent of the total, and implements and machinery were valued at over $14 billion dollars and comprised about 14 percent of the total.

The average value of farm land and buildings per acre in 1950 was $64.96. There was a wide range among counties in the average value of farm land and buildings per acre. The Corn Belt States of Iowa, Illinois, Indiana, and Ohio contained the largest contiguous area of farms with distinctly high values per acre. Values per acre were also high near large cities, and along the Appalachian Mountains. The West and portions of the South had large areas of low-valued farm lands.
Ownership of farm lands.—Farm land was owned largely by individuals. Individuals owned 977 million acres or 84 percent of the 1,159 million acres of land in farms. The 49 million acres of farm lands owned by public agencies were mostly grazing land in the West and were almost entirely unappropriated lands owned by the U. S. Government, and school- and State-owned lands. Corporations owned 49 million acres or 4 percent of the farm land, located chiefly in the West and South.

**Mortgaged farms.**—A much larger proportion of all land in mortgaged farms was operated by full owners and part owners than was operated by tenants and managers in 1950.

In June 1950, 1,480,401 farms or 28 percent of all the farms in the United States were mortgaged. The total amount of mortgage debt was $5,579,278,000.

Mortgaged farms contained 28 percent of all land in farms in the United States. The total value of farm land and buildings for mortgaged farms amounted to 30 percent of the total for all farms in the United States.

The amount of mortgage debt on all mortgaged farms was equivalent to 25.3 percent of the value of land and buildings for these farms. The ratio of mortgage debt to value of land and buildings was highest for farms operated by full owners and lowest for farms operated by tenants and managers.

Of the total mortgage debt of $5,579 million in 1950, $965 million was held by Federal Land Banks and the Federal Farm Mortgage Corporation, $189 million by the Farmers Home Administration, $1,172 million by life insurance companies, $837 million by operating banks, and $2,316 million by individuals and other lenders. The average interest rate on farm-mortgage debt in 1950 was 4.5 percent.
Farm People

Farm population, farm labor, and farm living.—The population living on farms is important not only because it furnishes the Nation with its food and a considerable part of its fibers, but also because that part of our population furnishes a significant addition to the urban and nonfarm population. During the last 30 years, the net movement of people from farms has totaled more than 10 million persons, according to estimates of the Bureau of Agricultural Economics of the U. S. Department of Agriculture.

In 1950, the population of the United States was almost 151 million. Of this number 23 million, or 15.3 percent, lived on farms in rural areas. Another 81 million, or 20.7 percent, lived in rural areas but not on farms. The remaining 66 million lived in urban areas—towns and cities.

Persons living on farms are counted as farm population. Such persons include not only farm operators and members of their families, but also the families of farm workers, farm landlords, and others residing on farms. Urban population comprises all persons living in (a) places with 2,500 or more inhabitants incorporated as cities, boroughs, and villages, (b) incorporated towns with 2,500 or more inhabitants except in the few States where “towns” are minor civil divisions of counties, (c) densely settled areas, both incorporated and unincorporated, around cities of 50,000 or more, and (d) unincorporated places of 2,500 or more inhabitants outside densely settled areas. The rural nonfarm population includes persons living outside of urban areas, except those living on farms. Some of the data on farm population and farm families relate only to rural farm population or rural farm families. Rural farm population constituted 98 percent of the total farm population in 1950.

Neither the total nor the farm population was distributed equally by regions. Nearly two-thirds of the urban population resided in the North. More than half of the farm population lived in the South.

Not only has the continued decline of the farm population provided people for nonfarm areas, but also the relatively high birth rate among farm people provides more persons than are necessary to maintain a stationary farm population. Generally, during the last 3 decades, farm youth have become adults at about twice the rate required to maintain a stationary number of farm operators.

Five-tenths of the farm population of the United States lived in the 16 Southern States, four-tenths in the North, and less than one-tenth in the West. Twenty-six percent of the farm population in the South was Negro. The South and North contained about two-thirds of the rural nonfarm families. Rural farm population made up 25 percent of the population in the South, 11 percent of the population in the North, and 10 percent of the population in the West.

Rural farm families totaled 5.0 million in 1950. While about 15 percent of the Nation’s families were rural farm families, they comprised 24 percent of all families in the South and 12 percent of all families in the North, but only 8 percent of all families in the West.

There were significant differences in age distribution between rural farm and urban population. Children under 14 years of age made up a larger proportion of the farm population than of the rural nonfarm and urban population. Children under 14 comprised 32 percent of the rural farm population, 26 percent of the rural nonfarm population, and 25 percent of the urban population. Single persons 20 years old and over comprised 6.8 percent of the farm population as compared with 5.1 percent of the urban population. Single females 20 years old and over made up 7.4 percent of all females 20 years old and over living on farms but in urban areas they comprised 12 percent of all females. Widowed and divorced persons 20 years old and over on farms represented 8.2 percent of the farm population 20 years old and over. In contrast, widowed and divorced persons 20 years old and over made up about 12 percent of the population 20 years old and over in urban areas.
Less than one person out of six lived on farms in 1950. Persons living on farms constituted two-fifths or more of the total population in 3 States. In 12 States, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Illinois, Maryland, Florida, Nevada, and California, people living on farms represented less than one-tenth of the total population.

In 1950, the States of North Carolina, Georgia, Kentucky, Tennessee, Alabama, Mississippi, Oklahoma, Ohio, Missouri, Virginia, Maryland, Massachusetts, and New Jersey, comprising only 17.9 percent of the United States land area, had 42.3 percent of the Nation's rural farm population. The Mississippi Delta with many small tenant-operated cotton farms and the tobacco regions of North Carolina and South Carolina had particularly high farm population densities. There were numerous part-time and residential farms in the southern Appalachians which accounted for a relatively dense farm population where conditions for commercial agriculture are not too favorable. The Southern States also had farm families larger than the average for the United States farm population.

There were 30 million families in the United States in 1950. Only 6 million of these families lived on farms. A much larger proportion of the Nation's children than of its families lived on farms. Only 15 percent of the Nation's families lived on farms, but these families had 20 percent of the children under 18 years of age.

Nearly half of the farm children under 18 were in farm families having four or more children while only a little more than one-fourth of the children of nonfarm families were in families that large. On the other hand, only 13 percent of the children in farm families were in one-child families in 1950 as compared with 21 percent of the children in nonfarm families.
Household facilities.—Information from the 1960 Census of Housing provides measures of the status of farm housing as compared with rural nonfarm and urban housing. About 28 percent of the farm dwellings as compared with about 10 percent of the rural nonfarm and 1 percent of the urban dwellings, were without electric lights in 1950. Fewer farm dwellings have sanitary facilities than nonfarm dwellings. About 40 percent of the farm families had running water and about 30 percent had flush toilets as compared with 68 percent and 55 percent, respectively, for rural nonfarm families, and 96 percent with running water and about 93 percent with flush toilets for urban families. The proportion of farm dwellings with sewage disposal and with central heating was about half that of rural nonfarm dwellings and one-third that of urban dwellings.

In 1950, 63 percent of the farm families had a mechanical refrigerator as compared with 72 percent of the rural nonfarm and over 82 percent of the urban families. The proportion of families having a radio was not significantly different for farm, rural nonfarm, and urban families in 1950. Approximately two-fifths of the farm families used gas or electricity for cooking in 1950, while 60 percent of the rural nonfarm and 86 percent of the urban families had gas or electric stoves for cooking. Differences in the household facilities and the percentage of the dwellings with household facilities varied greatly among regions not only for farm dwellings but also in regard to the relationship between age group were compared, a smaller proportion of those living on farms than of those living in rural nonfarm or urban areas had completed elementary school, high school, or college. Among young adults (25 to 34 years of age) less than three-fourths of those living on farms had completed elementary school as compared with over 80 percent of those living in rural nonfarm areas and over 88 percent of those living in urban areas. Similarly, less than a third of the young farm adults had completed high school as compared with over two-fifths of the young rural nonfarm and over half of the urban adults.
Income.—There were significant differences among farm, rural nonfarm, and urban families in their distribution according to net income in 1949. The median net cash income for farm families in 1949 was slightly under $1,600; the median for rural nonfarm families was a little under $3,000; and for the urban families, the median was approximately $3,500. Even if allowances were made for the value of home-produced food and fuel used by farm families and for the rental value of the farm dwellings, the farm family income would be less than that of the rural nonfarm or the urban family. A much larger proportion of the farm families than of the rural nonfarm and urban families, had net cash incomes of less than $2,000. About 56 percent of the rural farm families, as compared with 37 percent of the rural nonfarm and 21 percent of the urban families, had a net cash income of less than $2,000 in 1949. If all families were divided into 3 groups on the basis of net income, farm families would be much more numerous in the lower income group than in the upper income group. Rural farm families comprised about a fourth of the lower income third (families with incomes under $2,500), and only 5 percent of the highest income third (families with incomes over $4,200). On the other hand, urban families made up only about half of the lowest income third and three-fourths of the highest income third.
AGRICULTURE 1950

NUMBER OF WORKERS ON FARMS: CENSUSES OF 1935 TO 1950

Farm workers.—Farmers and members of their families comprised more than four-fifths of the persons who worked on farms in 1950. Regular hired workers (hired workers employed 150 days or more) comprised about one-eighth of all farm workers, and seasonal hired workers comprised about 1 out of 16 farm workers in 1950. On about half to three-fourths of the farms, farming is essentially a family enterprise. On these farms, the workers are not paid wages.

During the week preceding the census enumeration in April 1950, hired workers accounted for about one-fifth of the persons working on farms. Regular hired workers constituted two-thirds, and seasonal hired workers, one-third, of all hired labor. The number of seasonal hired workers varies considerably during the year. Only on about one out of eight farms were any hired farm workers employed. On one out of four farms less than $200 was expended for hired labor. About 5 percent of the farms employed over 70 percent of all hired workers.

The number of hired workers was greatest in the areas of more intensive agriculture and specialized crops. Relatively large numbers of hired workers were employed on the cotton and tobacco farms of the South, on the fruit and vegetable farms of California, and on the livestock and dairy farms of the North.

In 1949, hired workers were reported on 13.1 percent of all farms and the average expenditure for hired labor was $906 per farm reporting.

The hiring of machinery with operators is becoming increasingly important in many areas. In effect, this custom work or machine hire reduces the amount of hired labor required for farming operations.

Hired farm workers were employed on about 1 out of 8 farms in 1949. However, the expenditure for hired farm labor was $500 or more for only 1 out of 7 farms and $2,500 or more for only 1 out of 33 farms.
LIVESTOCK

Livestock and poultry on farms are important parts of our agricultural resources. Over half of the land area of the United States is used for pasture or grazing of livestock. From two-thirds to three-fourths of the cropland is used to grow feed for animals.

Cattle.—Cattle constituted the leading kind of livestock on the basis of value in 1950. On the basis of the inventory value, hogs comprised the second most important class of livestock; sheep, the third; horses and mules, the fourth; and poultry, the fifth.

Cattle and calves are more evenly distributed throughout the United States than any other kind of livestock. The densest areas for cattle were in Iowa, Illinois, Minnesota, Nebraska, and Wisconsin. Three out of four farms in the United States had cattle or calves in 1950.

Milk cows.—About three-fifths of the cows in the United States were milk cows and over three-fifths of the milk cows were in the North. Areas of concentration included Minnesota, Wisconsin, Michigan, New York, Vermont, Massachusetts, Pennsylvania, Maryland, Delaware, Ohio, Illinois, and California.

Chickens.—Nearly one-third of the chickens in the United States were located in the important corn-producing States of Iowa, Missouri, Illinois, Indiana, Ohio, and Minnesota.

Hogs.—The distribution of hogs in the United States was very similar to the distribution of corn production, as corn is the principal feed for hogs. Half of the hogs were in the important corn-producing States of Iowa, Illinois, Ohio, Indiana, and Minnesota. Hogs were reported on approximately three out of five farms in 1950.

Sheep.—Almost two-thirds of the sheep and lambs in the United States in 1950 were in the 11 Western States and Texas. There, they graze on more arid areas than do any other livestock. The principal sheep-producing areas in the East were central Ohio, the Blue Grass area of Kentucky, southwestern Pennsylvania, northeastern Missouri, and southern Iowa.
FARM POWER, EQUIPMENT, AND ROADS

Farm work power.—No other development during the present century has influenced agricultural production as much as the mechanization of farms. The change from horses and mules to tractors for farm work, trucks for hauling, and automobiles for travel, has speeded up the rate at which farm work is done and has increased the productivity of farm workers. The tractor, by bringing more power to farming operations, has made possible the performance of work at higher speeds and the use of farm equipment of greater working width than was feasible with horses or mules. Tractors have made possible the use of larger and more effective equipment for many of the ordinary farm operations. The power take-off has increased the efficiency and dependability of harvesting equipment such as mowers, combine harvesters, corn pickers, etc. Small tractors and rubber tires both for tractors and for other farm equipment have made possible the widespread mechanization of farms, especially farms having an area of 100 or more acres.

The substitution of tractors for animal power has been completed on one and a quarter million farms, or nearly one farm out of four. These mechanized farms were located largely in the Corn Belt States and are the most fertile and productive farms of the Nation.

About one and a quarter million farms had both tractors and horses or mules in 1950. These farms were highly mechanized, but horses and mules were not being entirely replaced. Farms that were almost fully mechanized were concentrated in the Midwest and in the other more productive farm areas.

Mechanization, as measured by the use of tractors, had not been accomplished on 2,854,000, or 33 percent, of the farms. Nearly 70 percent of these farms were in the South.

The slow mechanization of operations on small cotton and tobacco farms was the primary reason for the existence of such a large number of farms without tractors.

Almost a quarter of all the farms had neither tractor nor animal work power in 1950. This group comprised two types of farms: (1) tenant-operated cotton and tobacco farms in the South for which the work animals or power were kept on the farm of the farm owner and (2) part-time and residential farms on which there was no work power or on which the scale of agricultural operations was too small to justify the use of either animal or mechanical work power. Some of these farms depend upon hired work power to perform the major farming operations.

Mules comprised 29 percent of all work animals on farms in 1950. They were concentrated in the cotton and tobacco areas of the South.
For more than a century, horses and mules provided the main source of work power on farms of the United States. However, their importance has declined rapidly since 1920. In 1950, the number of horses and mules on farms was slightly more than seven and one-half million.

Horses and mules, largely mules, are concentrated in the cotton and tobacco-producing areas of the South. Horses are still in use on the cattle and sheep ranches of the West. In the North, horses and mules have been largely replaced by the tractor and the motortruck.

Almost half of the farms in the United States were equipped with tractors. From three- to four-fifths of the farms in the Midwest had tractors. However, in many parts of the South, less than a fourth of the farms had tractors.

Tractors are important because they combine added power with machinery that can do work that is not possible with horses or mules. They make possible the use of larger and more effective farm equipment at a higher speed than is feasible with work animals. The power take-off increases the efficiency and dependability of harvesting equipment like mowers, combines, corn pickers, and silage cutters. More than 3.0 million tractors were on farms in 1950.

Tractors were used throughout the United States, but the highest degree of adoption was on the fertile lands of the Midwest. Tractors were also numerous in the irrigated areas of the West, in the Northeast, in parts of Texas, and in the Mississippi Delta.

Machines have brought an industrial revolution to our farms. They have become almost as important as men in agricultural production. Mechanization has brought a large variety of labor-saving machinery to a large number of farms.

Automobiles.—Automobiles were reported on three out of every five farms in 1950. Outside of the South, 80 out of 100 farms had automobiles. The farm automobile is used for both business and pleasure.

Motortrucks.—More than a fourth of the motortrucks in the United States were on farms in 1950. One farm out of three had a truck. Motortrucks are used for hauling dairy products, livestock, grain, cotton, fruits, and vegetables to the market. They are also used to transport farm supplies, feed, fertilizer, lime, machinery repairs, etc., from the town or city to the farm.

Roads.—Improved roads and the use of automobiles and trucks have made it possible for the farmer to live satisfactorily at a considerable distance from railroads or from water transportation, and still be able to sell and buy products easily. In 1950, almost one farm out of three was located on a hard-surface road. In the North, a little over one-third of the farms were located on hard-surface roads.
Almost a third of the farms were on dirt or unimproved roads in 1950. Almost two-thirds of the farms on dirt or unimproved roads were in the South.

Gravel, shell, or shale roads are improved roads and are usable throughout the year in most areas. More than 1 out of 3 farms were on gravel, shell, or shale roads in 1950. Most of the farms on this type of all-weather road were located in the Midwest.

Electricity.—Electricity is used for the performance of farm work as well as for lighting and other purposes in the farm home. It may be used to operate a water pump that supplies water for the farm home as well as for livestock, electrical equipment in the farm home, a milking machine, a milk cooler, an electric motor to run a feed grinder or other farm equipment, irrigation equipment, radios, washing machines, fans, etc.

In 1950, almost 4 out of 5 farms were using electricity. In large areas of the North and West, at least 9 out of 10 farms had electricity. Less than three-fourths of the farms in the South used electricity.

The average electric bill for farms with electricity from central power stations in 1950 was $7.39. In many areas of the West, large amounts of electricity were used for operating irrigation pumps. In 1950, 58,807 farms with their own irrigation works had 95,138 electric motors.
Machines have brought increased efficiency, production, and leisure to farms in the United States. The 1950 Census obtained information for only a few of the more important types of machines.

**Milk machines.**—Milk machines reduce the amount of chore time in the morning and evening for the production of milk. Their use has shortened the work day on many dairy farms. Over 600,000 farms had milking machines in 1950. More than 8 out of 10 of these farms were in the North, an area in which the production of milk is concentrated. In 1950, 659,759 farms in the United States had 10 or more milk cows. The farms with milking machines were equivalent to 96.5 percent of the farms having 10 or more milk cows.

**Corn pickers.**—Mechanical corn pickers reduce the man hours required for the harvesting of corn by as much as 80 percent, shorten the time required to complete the corn harvest, and make the job much easier than if hand methods were used. Mechanical corn pickers were reported on 447,000 farms. Most of the corn pickers were on farms in the Midwest, where four-fifths of the corn crop is harvested. In the South and West, corn was grown on about 1.8 million farms that did not have a corn picker.

**Grain combines.**—Grain combines, used for the harvesting of wheat, flax, rye, oats, barley, soybeans, seeds, etc., are the most important harvesting equipment on farms of the United States. In 1950, grain combines were reported on 695,000 farms. However, because of the use of combines for custom work on other farms, the area of use of grain combines was greater than that indicated by the number and location of farms with combines. The distribution of farms with grain combines is similar to the distribution of the acreage of wheat, flax, rye, oats, barley, soybeans, and other small grains and seeds.

**Pick-up hay balers.**—Hay, on the basis of acreage, is the third most important crop in the United States and occupied 70 million acres or about one-fifth of the land from which crops were harvested in 1949.

The use of the pick-up hay baler has reduced the time element and weather risk in hay production. The pick-up hay baler has been adapted to general farm use only recently and it was reported in 1950 on 192,000 farms, or on 1 out of about every 14 farms cutting hay.