U.S. CENSUS OF AGRICULTURE : 1959

Final Report—Vol. V—Part 6—Chapter 1—Special Reports

A Graphic Summary of Land Utilization

(A Cooperative Report)

SPECIAL REPORTS

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PREFACE

"A Graphic Summary of Land Utilization, 1959," is a Special Report, 1959 Census of Agriculture. The report presents in graphic form some of the significant facts regarding the major uses of land; regional patterns of land resources and uses; conservation, improvement, and development of land: and farm resources and production.

This report was prepared cooperatively by the Bureau of the Census, U.S. Department of Commerce, and the Farm Economics Division, Economic Research Service, U.S. Department of Agriculture, under the supervision of Ray Hurley, Chief of the Agriculture Division of the Bureau of the Census. George F. Jenks, Professor of Geography, University of Kansas assisted in the preparation of maps. The maps were prepared under the supervision of William T. Fay, Chief, Geography Division, Bureau of the Census.

The report was written by James R. Anderson, formerly Agricultural Economist, Farm Economics Division, Economic Research Service, U.S. Department of Agriculture, now Head of the Geography Department, University of Florida, in cooperation with Hugh H. Wooten, Agricultural Economist, Farm Economics Division, Economics Research Service.

July 1962

UNITED STATES CENSUS OF AGRICULTURE: 1959

FINAL REPORTS

Volume I—Counties—A separate part for each State, Puerto Rico, Guam, Virgin Islands, and American Samoa. Statistics on number of farms; farm characteristics; acreage in farms; cropland and other uses of land; land-use practices; irrigation; farm facilities and equipment; farm labor; farm expenditures; use of commercial fertilizer; number and kind of livestock; acres and production of crops; value of farm products; characteristics of commercial farms, farms classified by tenure, size, type, and economic class; and comparative data from the 1954 Census.

Part	State or States	Part	State or States	Part	State or States	Part	State or States
	New England States:		West North Central:		East South Central:		Mountain—Con.
1	Maine.	15	Minnesota.	30	Kentucky.	44	Utah.
2	New Hampshire.	16	Iowa.	31	Tennessee.	45	Nevada.
3	Vermont.	17	Missouri.	32	Alabama.		Pacific:
4	Massachusetts.	18	North Dakota.	33	Mississippi.	46	Washington.
5	Rhode Island.	19	South Dakota.		West South Central:	47	Oregon.
6	Connecticut.	20	Nebraska.	34	Arkansas.	48	California.
	Middle Atlantic States:	21	Kansas.	35	Louisiana.	49	Alaska.
7	New York.		South Atlantic:	36	Oklahoma.	50	Hawaii.
8	New Jersey.	22	Delaware.	37	Texas.		Other Areas:
9	Pennsylvania.	23	Maryland.		Mountain:	51	American Samoa.
	East North Central:	24	Virginia.	38	Montana.	52	Guam.
10	Ohio.	25	West Virginia.	39	Idaho.	53	Puerto Rico.
11	Indiana.	26	North Carolina.	40	Wyoming.	54	Virgin Islands.
12	Illinois.	27	South Carolina.	41	Colorado.		
13	Michigan.	28	Georgia.	42	New Mexico.		
14	Wisconsin.	29	Florida.	43	Arizona.		

Volume II—General Report—In 1 volume and also as 13 separates (for the Introduction and for each chapter). Statistics by subjects for 1959 and prior censuses. Statistics are presented for the United States, geographic regions, and divisions, and for the States.

Chapter	Title	Chapter	Title
	Introduction.		
I	Farms and Land in Farms.	VII	Field Crops and Vegetables.
II	Age, Residence, Years on Farm, Work Off Farm.	VIII	Fruits and Nuts, Horticultural Specialties, Forest Products.
III	Farm Facilites, Farm Equipment.		
IV	Farm Labor, Use of Fertilizer, Farm Expenditures, and Cash Rent.	IX	Value of Farm Products.
		X	Color, Race, and Tenure of Farm Operator.
V	Size of Farm.	XI	Economic Class of Farm.
VI	Livestock and Livestock Products.	XII	Type of Farm.

Volume III—Irrigation of Agricultural Lands—Data from the Irrigation Censuses of 1959 and 1950, by drainage basins, for the conterminous United States and for each of the 17 western States and Louisiana. Separate maps are available. Report also includes data from the 1959 Census of Agriculture for land irrigated and acres and production of crops on irrigated land in the 18 conterminous States and Hawaii.

Volume IV—Drainage of Agricultural Lands—Statistics for States and counties and for the conterminous United States, presenting 1960 data on number, area, physical works, and costs for drainage projects of 500 or more acres by size, type, and year organized. Maps are included.

Volume V—Special Reports

Part 1.—Special Census of Horticultural Specialties—Statistics for States, except Alaska and Hawaii, and for the conterminous United States, presenting 1959 data on number and kinds of operations, gross receipts and/or sales, sales of specified products, inventories, employment, and structures and equipment.

Part 2.—Irrigation in Humid Areas—Statistics for 30 eastern States showing 1960 data on acres irrigated, number of constructed ponds and reservoirs, source and method of applying water, type of pumping power, acreage of individual crops irrigated, and frequency of irrigation by States and counties.

Part 3.—Ranking Agricultural Counties—Statistics for selected items of inventory and agricultural production for the leading counties in the United States.

Part 4.—Farm Taxes and Farm Mortgage—A cooperative report by the Economic Research Science, U.S. Department of Agriculture and the Bureau of the Census, U.S. Department of Commerce, presenting 1961 data by States on taxes on farms, number of mortgaged farms operated by full owners and part owners, amount of mortgage debt held by principal lending agencies, and amount of interest paid.

Part 5.—1960 Sample Survey of Agriculture—Statistics by economic class and type of farm, showing 1960 data on farm-operator-family income from farm and off-farm sources; inventory and use of selected types of farm equipment, tractors by year made and fuel used; number, size, and materials used for new buildings constructed 1958 to 1960; number of farmers having contracts with dealers, processors, or others for the production and marketing of 15 farm products; and real estate and non-real-estate debts of farm operators and farm landlords by lending agencies.

Part 6.—A Graphic Summary of Agriculture, 1959—A cooperative report by the Economic Research Service, U.S. Department of Agriculture and the Bureau of the Census, U.S. Department of Commerce, presenting graphically for 1959 and prior census years some of the significant uses of agricultural land; the extent and nature of the various kinds of tenure under which farms are held and operated; and changes and developments in the use of agricultural resources and production of agricultural products.

Special Publication—Principal Data-Collection Forms and Procedures: United States Census of Agriculture, 1959, and Related Surveys—Facsimiles of the enumeration forms used, showing variations for the 50 States, Puerto Rico, American Samoa, Guam, and the Virgin Islands, together with brief descriptions of the census field procedures for the census and the related surveys.

Chapter I

LAND UTILIZATION

CHARTS AND MAPS

INTRODUCTION

The uses made of the land resources of this country are the subject of this graphic summary. Using data available from the 1959 Census of Agriculture and information collected from other Federal agencies, it is possible to present graphically the land use situation in the Nation as it exists today and to evaluate some of the changes that are taking place. Compilation and summarization of information about the use of land resources that is available from the several Federal agencies has been completed by the Farm Economics Division, Economic Research Service, of the United States Department of Agriculture in conjunction with the Agriculture Division, Bureau of the Census. These summaries of the major uses of land have also been made in earlier years by the Farm Economics Division.

The historical continuity in the collection, compilation, and interpretation of data about the uses of land in the United States has proved invaluable in the study of present land-resource problems. Planning for future growth is also aided by the existence of reasonably uniform information about major land uses in the past 50 years.

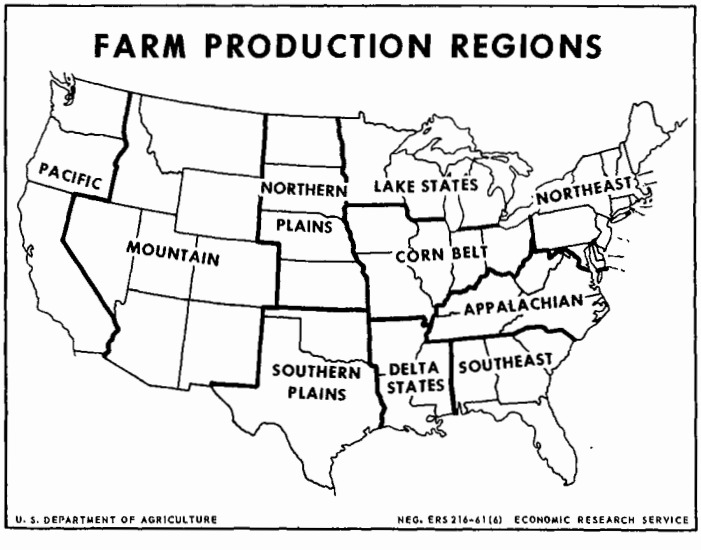
The present extent, location, and productivity of land used for different purposes is graphically presented in this report. Such information is needed for the analysis of present and prospective agricultural and general economic conditions for the country as a whole and also for different areas of the country. The present attention being given to area redevelopment in the United States is an example of the need for careful examination of areal differences in the utilization of resources. A graphic presentation of land use data can serve effectively in bringing about a better understanding of the basic facts about land resources and their use.

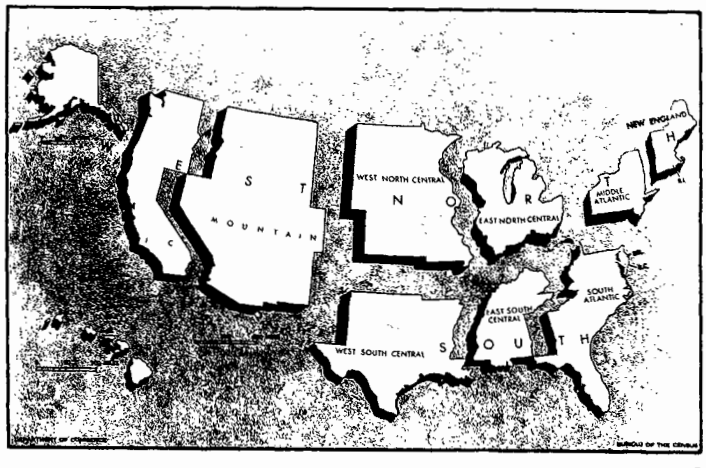
Competition for the use of land is a topic which is currently attracting much attention. Urban development; the creation of more recreational areas, particularly near large centers of population; and the preservation of wilderness areas and natural habitats for wildlife are matters frequently discussed among those interested in resource use. Along with these uses of land for living space, recreation, and wildlife we have the basic uses made of land resources in producing food and fiber and wood products. Our agricultural and forestry requirements must be effectively defined if we are to have adequate land resources to meet the long-term demands for the products of our farms and forests made by an expanding population desiring an improved level of living.

The land resources of our Nation are not inexhaustible. Ours has been a rich heritage of land well suited for the production of crops, the grazing of livestock, the growing of trees, and the enjoyment of life. Our great technological progress has made possible a high level of productivity from these resources. Hardly in world history has a nation been faced by such chronic problems of surplus production of basic agricultural products as have existed in the United States during the past decade. We shall need to strive for solutions to these problems that will be in keeping with the realization that the future welfare of the people not only of our own country but of the whole world will be vitally affected by the decisions that are made now relative to use of our land resources. Such decisions must be based upon the study of many facts, among which are some that are graphically analyzed in this report.

In the maps, charts, and text, terminology consistent with the various definitions contained in the 1959 Census of Agriculture is used. In describing and locating areas, commonly accepted geographical terms are used. In presenting data by States, farm production regions or divisions are used in order to obtain more agriculturally related combinations of States than the geographic divisions used by the census. Use of farm production regions permits the presentation of significant regional differences in land use that are often obscured in census data. Unless otherwise stated, the farm production regions are used throughout this graphic summary. In order to avoid confusion, the comparative grouping of census geographic divisions and farm production regions is shown by the accompanying two maps. In order that Alaska and Hawaii may be included, separate data for these two States have been presented in several instances where it was appropriate to do so.

Since the last graphic summary was published, Alaska and Hawaii have joined the family of States. In recognition of the fact that information about these States has generally been reported separately in previous censuses, particular attention is given to the land-resource characteristics of these States in this report. It is appropriate to do this, since there is need on the part of many who use statistics dealing with land utilization to become acquainted with the impact that inclusion of data for these States will have upon the total statistical picture presented on a 50-State basis rather than the 48-State basis which has been used for nearly 50 years.





A GRAPHIC SUMMARY

MAJOR USES OF LAND

As a country, the United States is large in terms both of its area and the number of its inhabitants. It has 6.9 percent of the world's land area and 6.4 percent of the world's population. Only three countries have more land area and more people. The Soviet Union with 8.6 million square miles of area, China with 3.9, and Canada with 3.8 are larger than the United States with its 3.6 million square miles. Brazil is slightly smaller with 3.3 million square miles. In 1960, China with an estimated 680 million people, India with 430 million, and the Soviet Union with 210 million outranked the United States with its 180 million inhabitants.

This report presents a graphic story about the uses made of their land resources by the 180 million people living in the United States. It is not only a story about the present major uses of land; historical changes are also discussed, since the present patterns of use can be more fully appreciated if the past is reviewed at least briefly.

The 50 States and the District of Columbia have a total area of 3,615,211 square miles, of which 3,548,974 square miles or 2,271,343,000 acres are classified as land area. The remaining 66,237 square miles, or 42,391,680 acres, are inland water areas such as lakes, reservoirs, streams, estuaries, canals, and deeply-indented embayments and sounds and other coastal water behind or sheltered by headlands or islands.

When European colonists began to settle along the Atlantic seaboard early in the 17th century, the United States as it exists today, a nation of 50 States, had a natural cover of vegetation approximately as follows:

	Million acres	*Percent of land area*
Forest and woodland	1,065	47
Grassland	726	32
Desert shrub	266	12
Tundra	214	9
Total	2,271	100

In 1959, more than 350 years after the settlement at Jamestown, Va., the major uses of the entire land area of the 50 States as reported by the Economic Research Service, U.S. Department of Agriculture, were:[1]

	Million acres	*Percent of total land*
Cropland[2]	458	20
Grassland pasture and range	633	28
Forest and woodland (excluding reserved forest areas)	746	33
Special-use areas[3]	157	7
Miscellaneous other land (including 214 million acres of tundra)	277	12
Total	2,271	100

[1] Includes all land, both in farms and not in farms.
[2] The cropland acreage reported by the Bureau of the Census was revised upward slightly by the Economic Research Service to compensate for some under-enumeration.
[3] Includes reserved forest areas in National and State parks, wildlife refuges, and wilderness areas.

A considerable transformation has taken place. Nearly 320 million acres of virgin forest and woodland have been converted to cropland, pasture, and other uses. The total grassland area has diminished considerably, with millions of acres of the native grasses now used as cropland. Some of the present 633 million acres of pasture and range were originally desert shrub. Some of the deserts have also become highly productive areas of irrigated cropland. Nearly all of the original tundra and other unforested area in Alaska has its original vegetative cover.

Definitions of the major uses of land are as follows:

Cropland includes cropland harvested, crop failure, cultivated summer fallow, soil improvement crops, idle cropland, and cropland used only for pasture.

Grassland pasture and range (excluding cropland used only for pasture) is land in grass or other long-term forage growth that is used primarily for grazing. Shade trees or scattered timber trees with less than 10-percent canopy may be present, but the principal plant cover is such as to identify its use primarily as permanent grazing land. The term "pasture" is frequently used to designate areas primarily covered with introduced grasses. The terms "range" or "rangeland" are generally used to designate areas covered predominantly by native grasses; however, in some range areas introduced grasses such as crested wheat grass are replacing native range species.

Forest and woodland includes all lands that are at least 10-percent stocked by forest trees of any size and capable of producing timber or other wood products, or capable of exerting an influence on the water regime. Also included are lands from which the trees have been removed to less than 10-percent stocking, and which have not been developed for other use. Afforested (planted) areas and chaparral areas are also included.

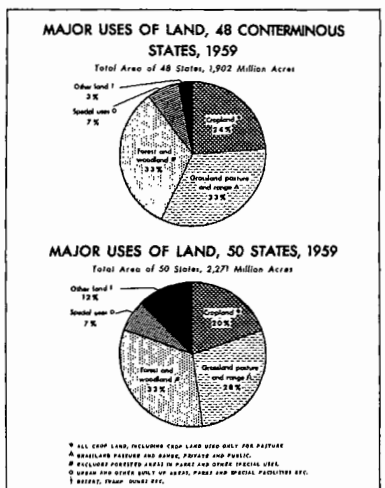
Special uses of land vary widely. This category includes land used for urban areas, highways, railroads, airports, parks, national defense areas, wildlife refuges, farmsteads, farm roads and lanes, and so on.

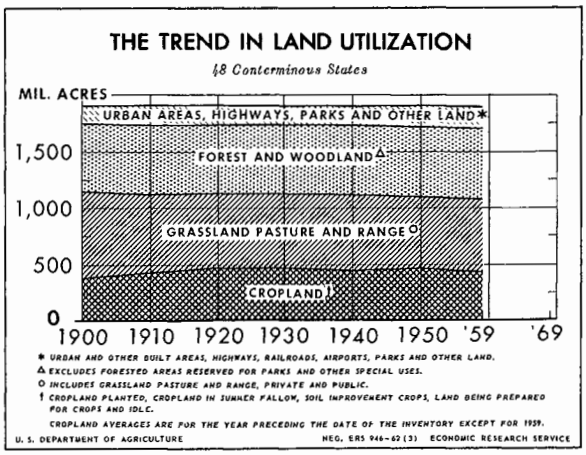
Miscellaneous other land includes areas in marshes, sand dunes, bare rock areas, deserts, and tundra.

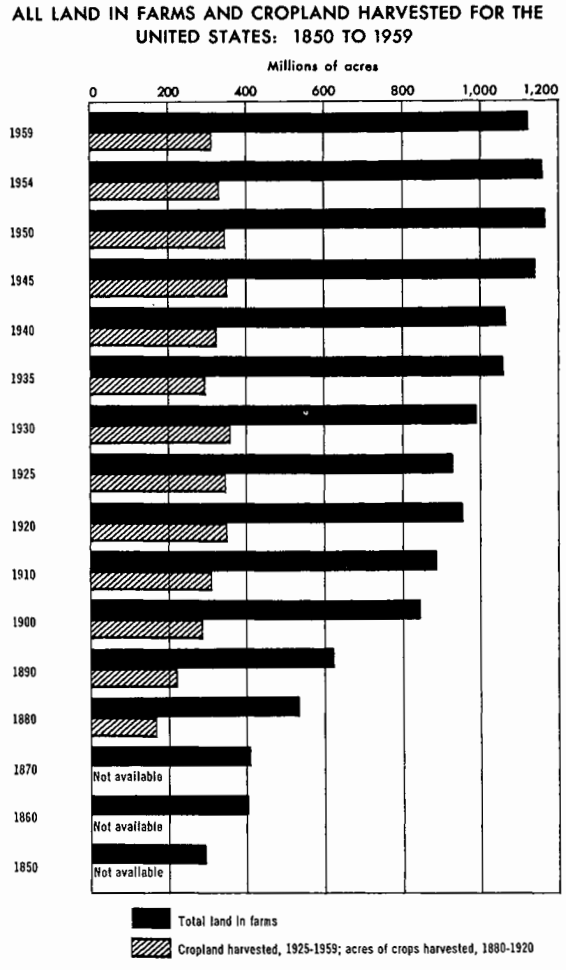
MAJOR USES OF LAND

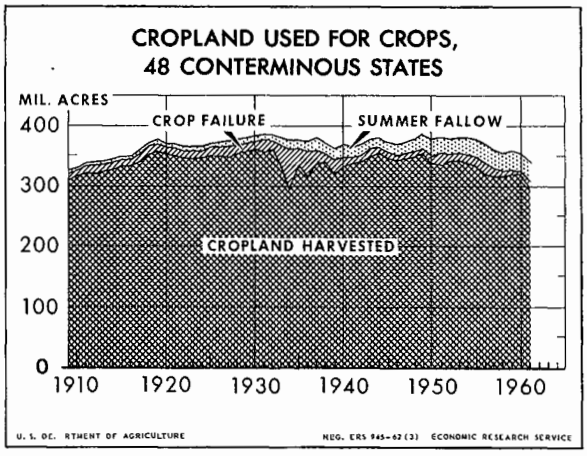
In order to understand the "statistical transition" which has occured with the attainment of Statehood by Alaska and Hawaii, the percentage distribution of major land uses in the 48 contiguous States is compared with that for the new 50-State total. Percentages shown on the accompanying chart are based on the 50-State total.

Major use	*Percent of 48-State total land area*	*Percent of 50-State total land area*
Cropland	24	20
Grassland pasture (excluding cropland used only for pasture)	33	28
Forest and woodland	33	33
Special uses of land	7	7
Miscellaneous land	3	12
Total	100	100
	Million acres	*Million acres*
Total land area	1,902	2,271









THE TREND IN LAND UTILIZATION

The overall or total changes in the major uses of land since 1900 are shown in the accompanying chart and tabulation. Briefly summarized, the following significant changes have occurred: (1) Cropland increased by more than 90 million acres from 1900 to 1920, remained stable during the decade of the 1920's, and since has fluctuated at a level somewhat below the peak of 480 million acres. (2) Grassland pasture and range other than cropland used only for pasture has declined by about 130 million acres. A considerable part of this decline occurred during the first two decades of the present century when large acreages of native grasslands were plowed up for crops before and during World War I. (3) The acreage in forest and woodland has remained fairly stable. The clearing of forest land for crop, pasture, urban, and other uses has been counterbalanced by the natural reversion and, in recent years particularly, the replanting of areas formerly used as cropland and pasture to trees. (4) The increase in the acreage of other land is accounted for to a large extent by the increased demands for land as space for residential, recreational, transportational, military, and other related uses.

TRENDS IN MAJOR LAND USES, 48 CONTERMINOUS STATES, 1900–1959 [1]

Land use [2]	1900	1910	1920	1930	1940	1950	1959
	Million acres	*Million acres*	*Million acres*	*Million acres*	*Million acres*	*Million acres*	*Million acres*
Cropland	389	431	480	480	467	478	457
Available pasture and range (nonforested)	761	693	652	652	650	631	630
Forest and woodland	600	600	602	601	608	612	614
Other land	153	179	169	170	180	183	201
Total	1,903	1,903	1,903	1,903	1,905	1,904	1,902

[1] Exclusive of Alaska and Hawaii. For example, excluded in 1959 are the combined totals for Alaska and Hawaii of less than 1 million acres of cropland, and 3 million acres of grassland pasture and range.
[2] For definitions of the major uses see the preceding page of this report.

LAND IN FARMS AND CROPLAND HARVESTED, 1850–1959

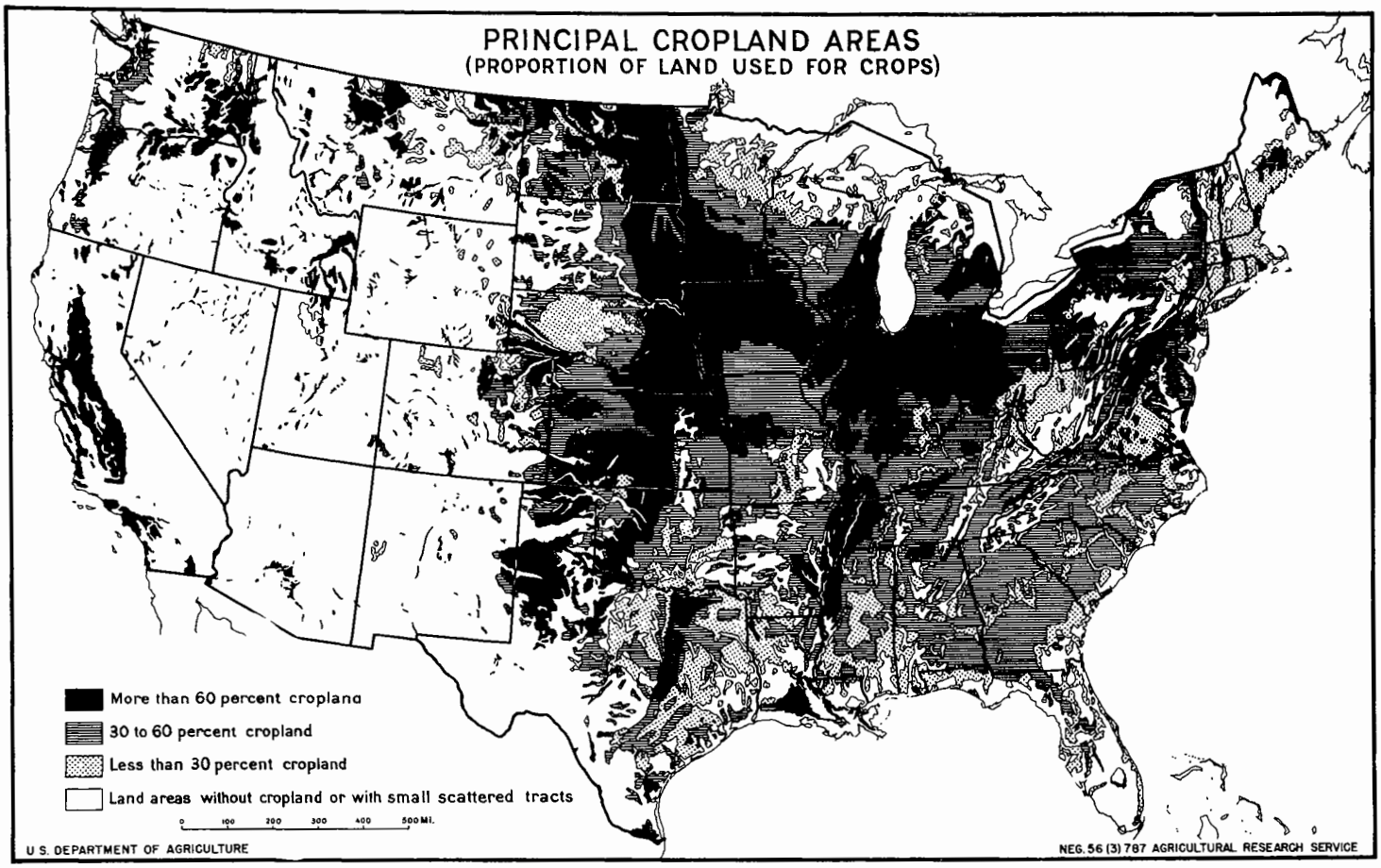
The acreage of land in farms was 1,123 million acres in 1959, which was about 38 million acres less than the acreage reported in 1954. About 5 to 6 million acres of this decrease was due to a change in the definition of a farm for the 1959 Census of Agriculture. The remaining decrease can be attributed to several conditions. Whole farms that had been placed in the Soil Bank Program of the U.S. Department of Agriculture were not enumerated in the 1959 Census. Urban expansion and the building of new highways account for some of the loss. Also, the spread of factories and nonfarm residences, often occupying a number of acres, into rural areas has been increasing considerably. In the 345 counties that include standard metropolitan statistical areas, land in farms declined by 7 million acres.

The 1959 Census of Agriculture reported 311 million acres of cropland harvested, compared with 333 million acres reported in 1954. Except for 1934, when crop failure was extremely high because of the severe drought of that year, the acreage of cropland harvested in 1959 was the lowest since 1909, when the Nation also had 311 million acres.

CROPLAND USED FOR CROPS

In 1959 and 1960, about 60 million acres of harvested cropland were used for the production of export products. This acreage accounted for about 18 percent of the 330 million and 328 million acres of crops harvested, as reported by the Economic Research Service, in 1959 and 1960, respectively. Only during and following World War I, during the Korean conflict, and in 1956 was the acreage as large.

Only about 6 million acres of harvested cropland are now used to produce feed for horses and mules both on and off the farm. This compares to 81 million acres used for that purpose in 1918 and 1919. Thus, about 75 million acres formerly used for the production of energy for use on the farm are now used for the production of human food. The substitution of the tractor for the horse and mule as the major source of energy accounts for this remarkable shift in use of cropland harvested.



PRINCIPAL CROPLAND AREAS

Cropland is the major source of America's food and fiber production. The distribution of the major crop-producing areas of the country is therefore of considerable importance in understanding the Nation's agricultural economy.

In order that the distribution of cropland acreage shown in the map of "Principal Cropland Areas" may be better understood, a brief tabulation of acreages of cropland and the percentages of total land area occupied by all cropland is given here by farm production regions used by the Economic Research Service in studies of American agriculture.

THE MAJOR USES OF CROPLAND, AND ALL CROPLAND AS A PERCENTAGE OF TOTAL LAND AREA, BY FARM PRODUCTION REGIONS, 1959 [1]

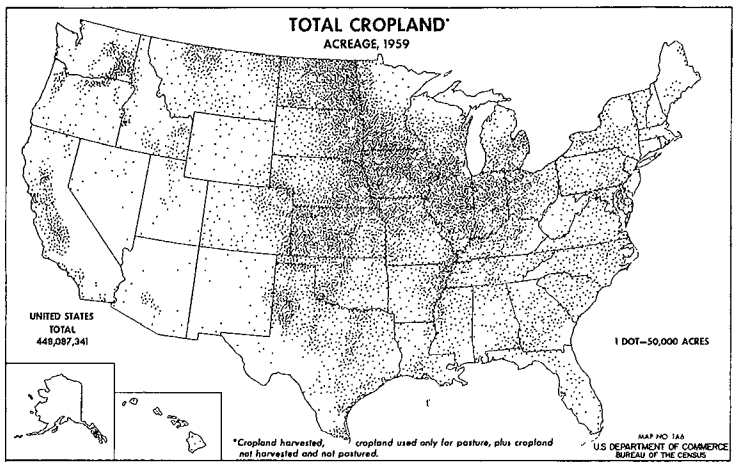
Region	Cropland used for crops	Cropland used for soil improvement crops and idle	Cropland used only for pasture	Total cropland	Total cropland as percentage of total land area
	1,000 acres	*1,000 acres*	*1,000 acres*	*1,000 acres*	*Percent*
Northeast	15,189	2,567	3,217	20,973	19
Lake States	36,668	4,170	4,657	45,495	37
Corn Belt	78,814	3,454	12,822	95,090	58
Northern Plains	90,199	6,160	4,695	101,054	52
Appalachian	17,431	3,061	9,498	29,990	24
Southeast	14,566	2,208	4,297	21,071	17
Delta States	13,070	1,806	5,932	20,808	22
Southern Plains	37,651	5,479	10,786	53,916	26
Mountain	34,404	3,710	4,838	42,952	8
Pacific	20,464	971	4,699	26,134	13
48 conterminous States	358,456	33,586	65,441	457,483	24
Alaska	16	4	4	24	[2]
Hawaii	320	13	167	500	12
United States (50 States)	358,792	33,603	65,612	458,007	20

[1] The cropland acreage reported by the Bureau of the Census was revised upward slightly by the Economic Research Service to compensate for some under-enumeration.
[2] Less than 0.05 percent.

From this tabulation it may be seen that the Corn Belt and Northern Plains States have the highest proportion of the total land areas in crops of any of the farm production regions. The acreage of cropland in these two regions accounts for 43 percent of the total cropland of the country (50 States), yet the nine States which comprise these two regions have only 16 percent of the total land area. In contrast, the 13 Western States (Mountain and Pacific regions, Alaska, and Hawaii) have 50 percent of the total land area but only 15 percent of the cropland.

In addition to this major concentration of cropland in the north central part of the United States, in other smaller but highly significant areas a high proportion of the total land area is used as cropland. In the Northeast, the Aroostook area in Maine, the southern shores of Lake Ontario and Lake Erie, and the rolling lands of southeastern Pennsylvania are worthy of note. In the Southern States, parts of the lower Mississippi Valley and the Blacklands of east Texas, the High Plains of west Texas, and western Oklahoma have a heavy concentration of cropland. In the Western States, the nonirrigated wheat-producing areas of north-central Montana and of the Columbia Plateau, the Willamette Valley of Oregon, the Central Valley of California, and many smaller irrigated areas have important concentrations of productive cropland.

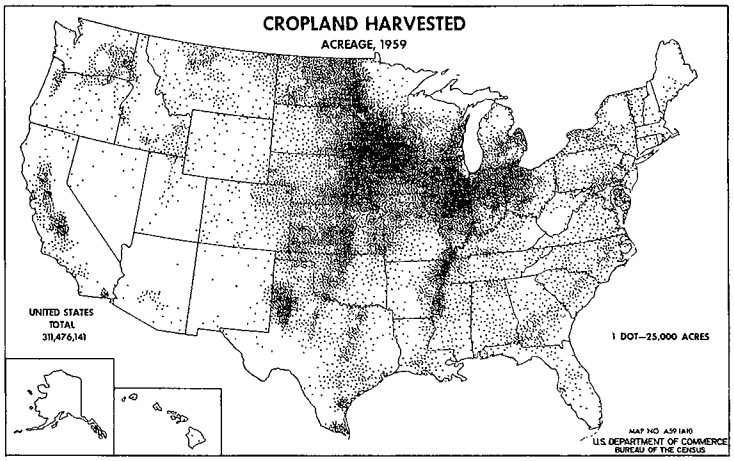
On the other hand, there are large parts of the United States that have practically no cropland. This is particularly evident in the Western States where the availability of water is vital to the use of land for crop production. In Alaska very little development of agriculture has taken place yet, and cropland for the whole State totals 24,000 acres of the 365 million acres of land in that State. Coldness will be a major limiting condition in using much of northern and central Alaska in the near future for crop production. In Hawaii, topography is a major limitation to the expansion of the cropland acreage.



TOTAL CROPLAND

The 1959 Census of Agriculture reported 448 million acres of cropland for the 50 States. (In recognition of some underenumeration, the U.S. Department of Agriculture estimates a total cropland acreage of 458 million acres.)

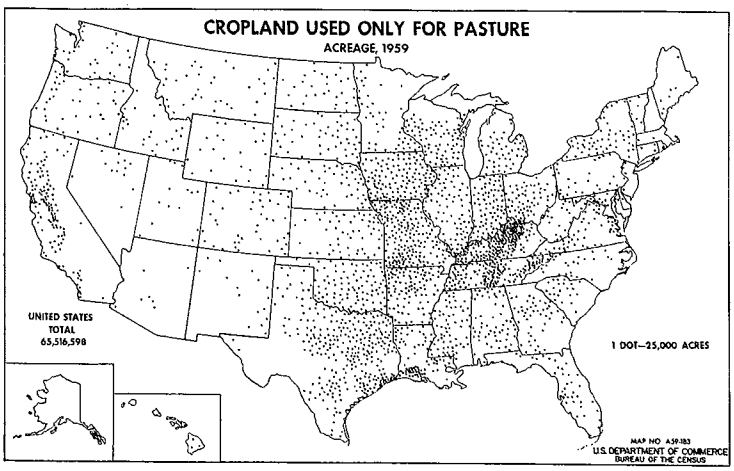
The heaviest concentration of cropland is found in the Corn Belt, lower Lake States, and Northern Plain States where more than half of the Nation's cropland is located, although these States have only a fifth of the land area. The States of Alaska, Arizona, Nevada, New Mexico, Utah, and Wyoming, which have 31 percent of the land area, have less than 10 million acres or only about 2 percent of the cropland area. The new State of Hawaii has about 0.5 million acres of cropland, while Alaska has only about 24,000 acres. Several fairly extensive areas in the Northeastern and Southern part of the United States have very little cropland acreage.



CROPLAND HARVESTED

In comparing the map showing the distribution of cropland harvested with the map showing total cropland, the number of acres represented by each dot should be noted carefully. The pattern of cropland harvested is, of course, very similar to the pattern for total cropland, since cropland harvested represents 70 percent of total cropland. Cropland harvested includes all land from which any crops were harvested in 1959, whether for home use or for sale. It includes land from which hay (including wild hay) was cut, land in berries and other small fruits, and land used for orchards, vineyards, nurseries, and greenhouses. Matured crops hogged off or grazed were considered to have been "crops harvested" and were reported here. Land from which two or more crops were harvested in 1959 was counted only once in the land-use classification.

The high density of cropland harvested in the Corn Belt, the lower Lake States, the Northern Plains States, the lower Mississippi Valley, and the High Plains of Texas, and in irrigated valleys in the Western States is especially conspicuous.

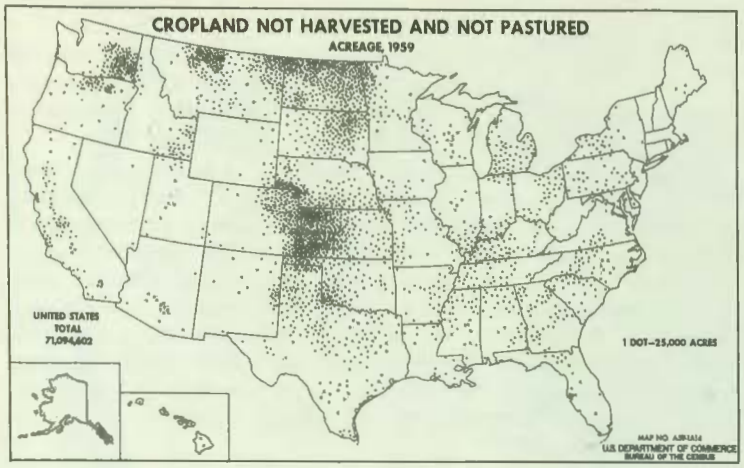


CROPLAND USED ONLY FOR PASTURE

Cropland used only for pasture has been a difficult category of land use to enumerate consistently in the Census of Agriculture because of the difficulty of interpreting the definition uniformly from area to area and from year to year. Rotation pasture is included in this category. Also included is land used only for pasture or grazing, if the operator considered that it could have been used for crops without additional improvement. Permanent open pasture may have been reported either for this item or for "other pasture" depending on whether or not the operator considered it as cropland.

Using pasture in rotation with crops is a fairly common practice in the Corn Belt, Lake States, and Northern and Southern Plains States, and in some of the irrigated areas of the Western States.

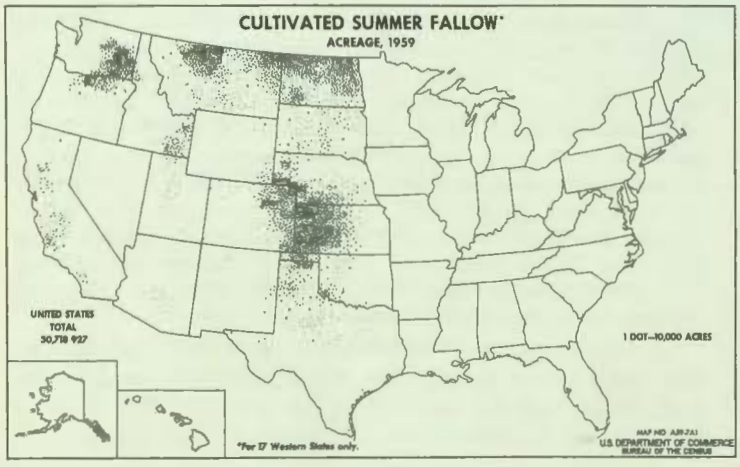
In some areas, in Kentucky and Tennessee for instance, there is a tendency for farmers to report permanent pasture as cropland used only for pasture, since these farmers thought such pasture land was capable of being used as cropland. In southern Louisiana, pasture is commonly used in rotation with rice.



CROPLAND NOT HARVESTED AND NOT PASTURED

Cultivated summer fallow; land in soil improvement grasses and legumes; idle cropland; land in crops intended for harvest after 1959 (Hawaiian sugarcane for example); and cropland not harvested because of complete crop failure, low prices, labor shortage, or for other reasons, are all included in the category of cropland not harvested and not pastured. The total acreage reported in this land-use category in 1959 was 71 million acres.

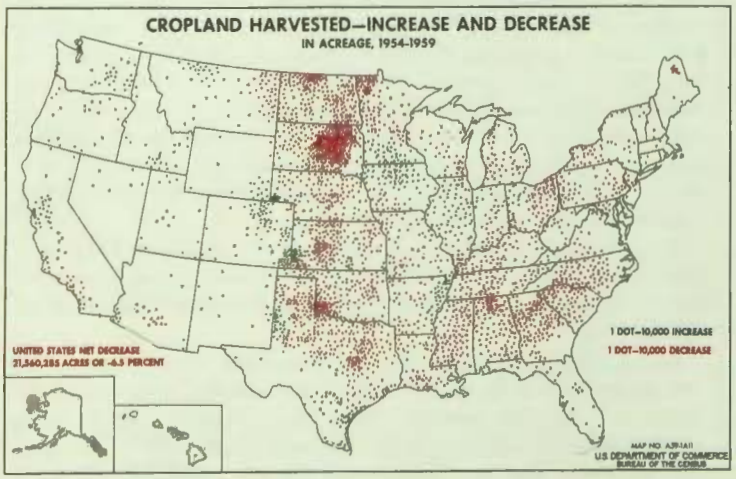
The most important single use in the category was cultivated summer fallow, which accounted for about 31 million acres in the 17 Western States. The acreage planted to soil-improvement grasses and legumes amounted to 16 million acres. Crop failure, as estimated by the Economic Research Service of the U.S. Department of Agriculture, has averaged about 10 million acres annually in recent years. The remaining acreage in this category is largely cropland that is temporarily idle or that may be in the process of being retired from cropland use.



CULTIVATED SUMMER FALLOW

Cropland that was plowed and cultivated but left unseeded for the 1959 harvest in order to control weeds and conserve moisture was reported in the Census of Agriculture as cultivated summer fallow. Although the Census of Agriculture reports the acreage of cultivated summer fallow only for the 17 Western States, it should be emphasized that this practice is of little importance in other States. The practice is used mainly in the production of wheat, although some land upon which barley is grown is left fallow for a year in order that improved yields can be obtained through the accumulation of more moisture.

During the 10 years from 1949 to 1959, the wheat acreage in the 17 Western States dropped from 58 million to 38 million acres, and the acreage in cultivated summer fallow increased from 26 million to 31 million acres. Farm program limitations on the acreage that may be planted to wheat encouraged farmers to fallow their land more regularly in order to improve the yields on the remaining acreage they were permitted to plant.

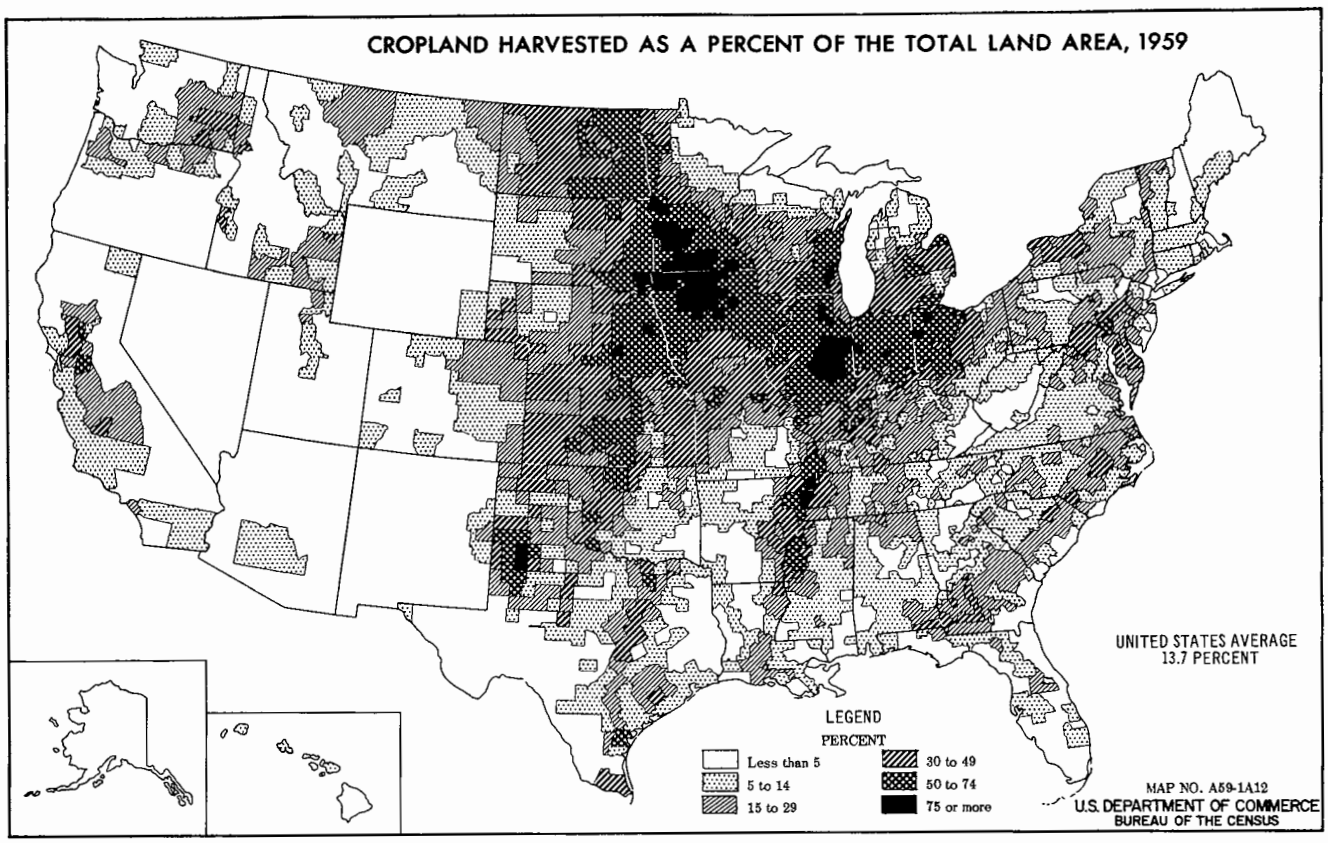


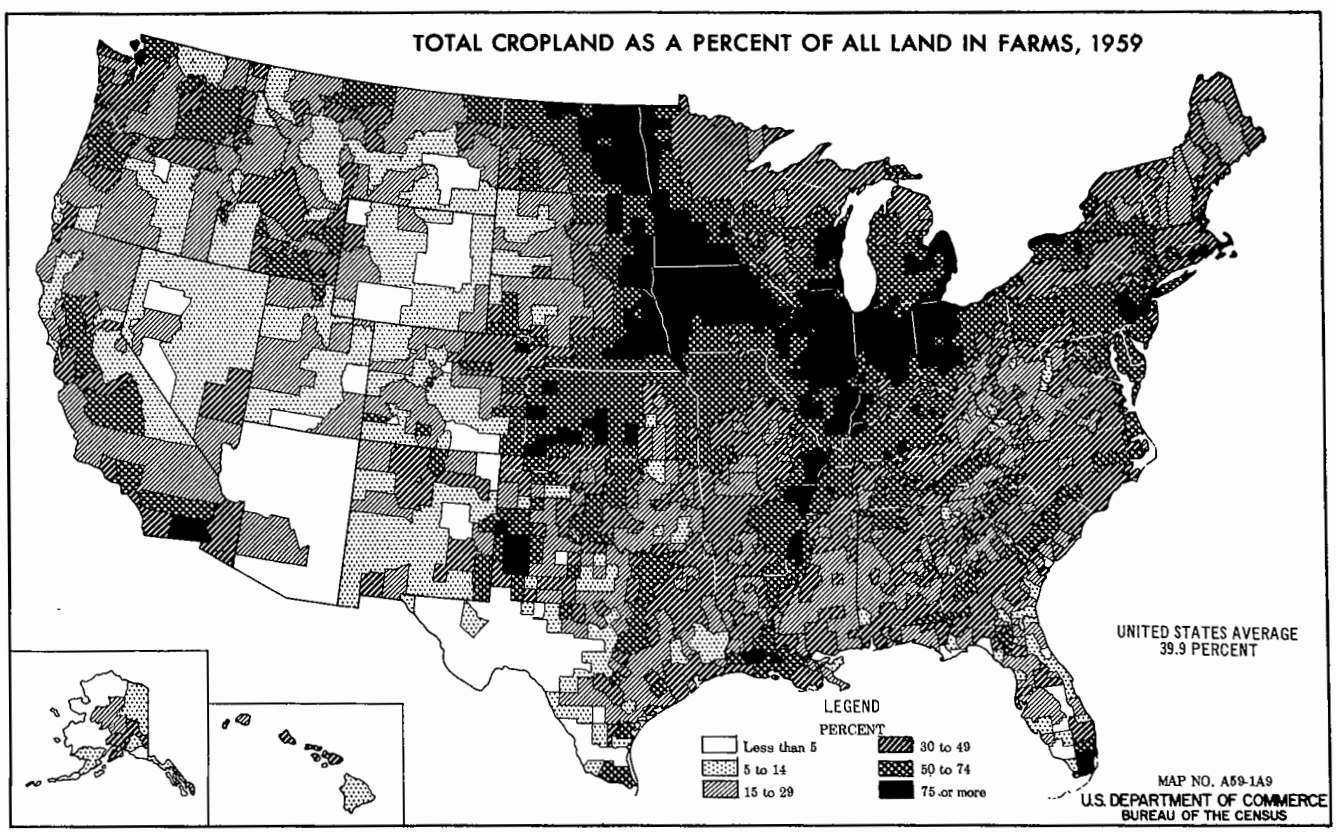
CROPLAND HARVESTED—INCREASE AND DECREASE IN ACREAGE, 1954–59

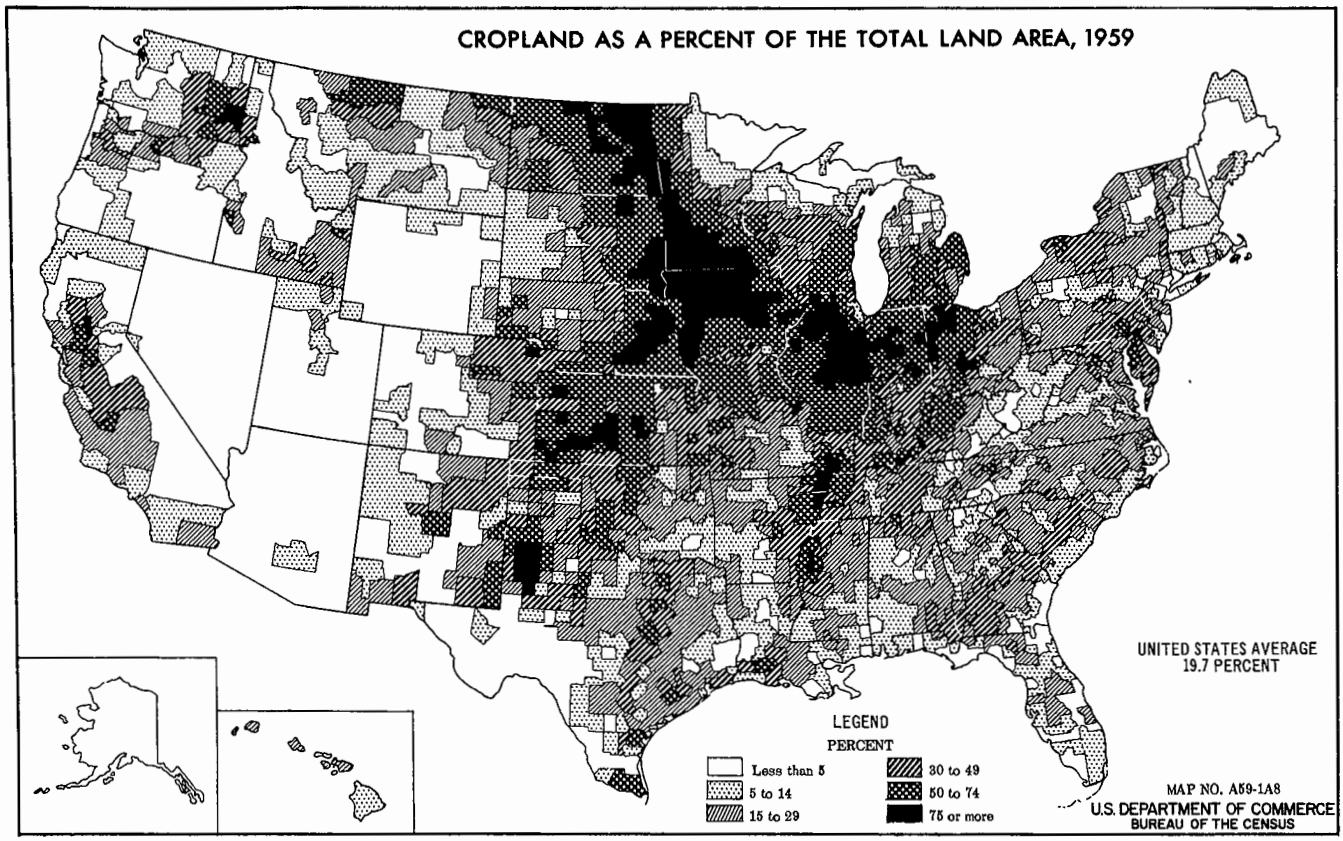
From the accompanying map it may be seen that both significant increases and decreases in the acreage of cropland harvested occurred between 1954 and 1959. The net decrease was about 22 million acres, or about 6 percent.

A major part of the decrease has occurred in the six Great Plains States where wheat acreage allotments have had a striking influence and in the Southern States where cotton allotments and a continuing decline in small farms account for the decrease. The Northeast and the Lake States and some areas in the Western States have also experienced decreases.

The increases in the acreage of cropland harvested have come mainly in the Corn Belt, where further improvement in drainage in some areas has been taking place, in the lower Mississippi Valley where land clearing and drainage has continued at an appreciable rate, and in the Western States where irrigated acreage has increased in several areas.


CROPLAND HARVESTED AS A PERCENT OF THE TOTAL LAND AREA, 1959
UNITED STATES AVERAGE
13.7 PERCENT
LEGEND
PERCENT
Less than 5
5 to 14
15 to 29
30 to 49
50 to 74
75 or more
MAP NO. A59-1A12
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS


TOTAL CROPLAND AS A PERCENT OF ALL LAND IN FARMS, 1959
UNITED STATES AVERAGE
39.9 PERCENT
LEGEND
PERCENT
Less than 5
5 to 14
15 to 29
30 to 49
50 to 74
75 or more
MAP NO. A59-1A9
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS



CROPLAND AS A PERCENTAGE OF TOTAL LAND AREA

The proportion of the total land area actually used as cropland is an important, though not the only, indicator of the significance of agriculture in a particular county or part of the country.

On the map two extremes are obvious. In the North Central States there is a relatively compact area in which nearly all of the counties have 60 percent or more of their total area in cropland. Counties with less than 20 percent of the total land area in cropland are at the other extreme. These counties are more widely scattered than are counties having high proportions of cropland. Very few counties in the Western States have more than a fifth of their total area in cropland. This is partly because of their large size and partly because of widespread climatic limitations to crop production. In the East, counties with a low proportion of the total area in cropland are found in most States. The largest areas are associated mainly with rough topography, poor soils, and inadequate natural drainage. In some areas of contiguous counties such as those in southern New England, and in many scattered counties, urbanization has proceeded so far that cropland has become a minor use of land.

Since this map is on a county-unit basis, several important details are obscured. For example, the high proportion of cropland in irrigated areas in the Western States is not clearly indicated. Small areas of rough forested land and poorly drained areas in the Eastern States cannot always be distinctly associated with the physical conditions that limit their use for crop production.

TOTAL CROPLAND AS A PERCENTAGE OF ALL LAND IN FARMS

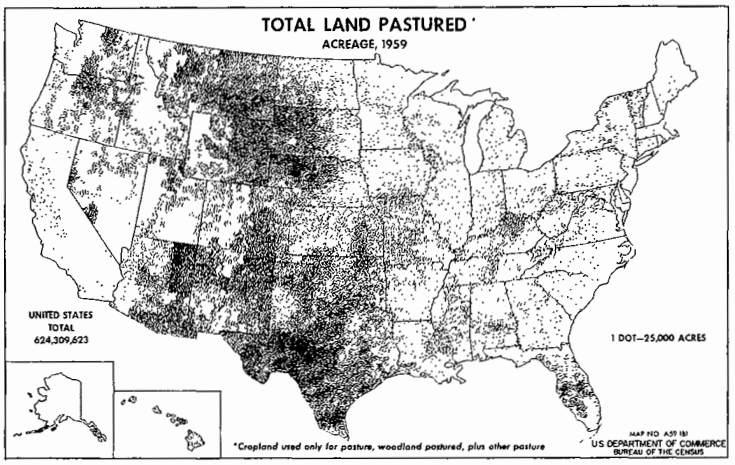
The same overall pattern is found represented in this map as in that showing cropland as a percentage of total land area. However, the map indicates more directly the importance of cropland relative to other uses of farmland.

In the West, ranches with large acreages used for pasture tend to obscure the much higher proportions of cropland on most irrigated farms. In the Southern, Northeastern, and Lake States, much land in farms remains in forest. In some type-of-farming situations, the high proportion of forest land is associated with production of crops with high labor requirements such as tobacco or cotton, which are often concentrated on a few acres of the best farmland. In such instances, little attention is given to the rest of the farm.

CROPLAND HARVESTED AS A PERCENTAGE OF TOTAL LAND AREA

Counties with 75 percent or more of the total land area used for harvested cropland are found mainly in the North Central States. Surrounding these high-density counties are most of the counties with 50 to 74 percent of the total land area in cropland harvested.

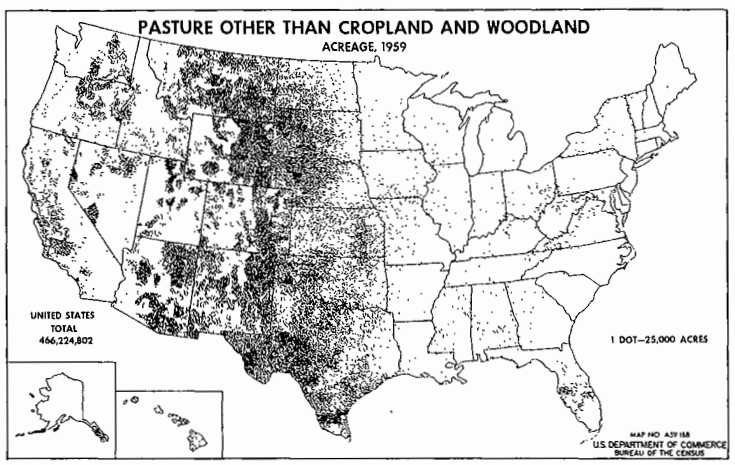
Counties with less than 5 percent of the total land area in harvested cropland are numerous in the Western States, the mountainous and hilly areas of the Eastern States, and the Coastal Plain flatwoods, and in the heavily forested counties of northern New England, the northern parts of the Lake States, and Alaska. Over these extensive areas agriculture is often of little significance except for the grazing of livestock in some of the western areas and in parts of the Southern States.



TOTAL LAND PASTURED

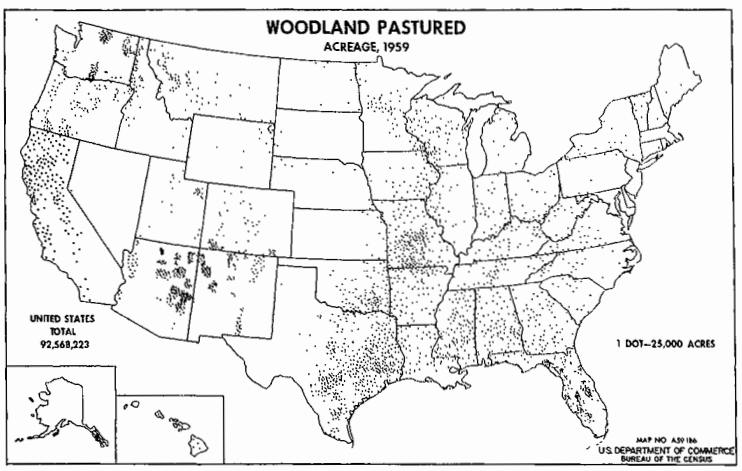
The total acreage of pasture and range in 1959 reported by the Economic Research Service is 944 million acres, including 66 million acres of cropland used only for pasture and 245 million acres of woodland and forest pasture and range. This map shows the distribution of only 624 million acres of pasture that was reported as a part of the acreage of land in farms. A considerable acreage of privately-owned forest land that is grazed in the Southern States and much federally-owned land in the Western States that is grazed by permit rather than by lease is not included in the acreage of pasture reported in the Census of Agriculture.

The regional distribution of the 944 million acres of pasture and range including cropland used only for pasture and forest and woodland grazed was as follows: Northern States (Northeast, Corn Belt, Lake States, and Northern Plains)—168 million acres; Southern States (Appalachian, Southeast, Delta, and Southern Plains)—264 million acres; and Western States (Mountain, Pacific, Alaska, and Hawaii)—512 million acres.



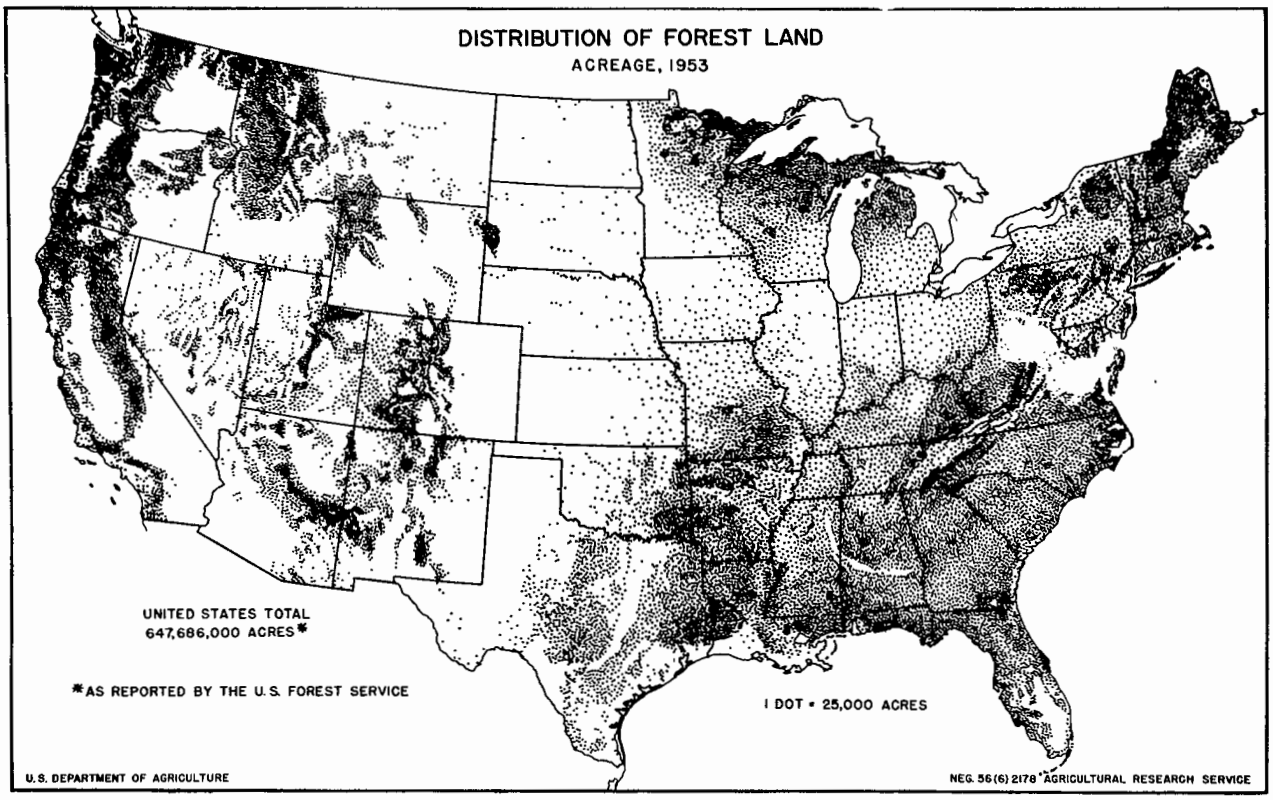
PASTURE OTHER THAN CROPLAND AND WOODLAND

The 466 million acres of pasture other than cropland and woodland reported in the 1959 Census of Agriculture amounts to about three-fourths of the total of 633 million acres of grassland pasture reported by the Economic Research Service. Most of the acreage of grassland pasture not included in the Census of Agriculture is located in the Western States and is federally-owned land grazed under a permit rather than a lease. If this additional grassland pasture and range were indicated on the accompanying map, many of the areas in the Western States in which relatively few dots are found would show a considerably higher acreage. For example, in Utah 9.2 million acres of pasture other than cropland and woodland was reported in the 1959 Census. The Economic Research Service reports 24.7 million acres of grassland pasture and range in Utah for 1959. A county distribution of this 15.5 million acres of grassland pasture and range not reported in the Census of Agriculture is difficult to obtain.



WOODLAND PASTURED

The 93 million acres of woodland pasture reported by the 1959 Census of Agriculture constitutes about 38 percent of the total 245 million acres of woodland and forest pasture and range reported by the Economic Research Service. Both in the Southern and Western States a considerable acreage of forest land that is often grazed on a seasonal basis only is not included in the acreage of woodland pasture reported by the Census of Agriculture. A major reason for this difference is the sizable acreage of federally-owned land administered by the U.S. Forest Service that is grazed primarily on a permit basis when grazing is permitted at all. Other public and private forest land is also grazed on a similar basis and therefore was not included in the census acreage.



DISTRIBUTION OF FOREST LAND

The distribution of the total forest area of the 48 States as estimated by the U.S. Forest Service as of 1953 is shown on the accompanying map. This is the most recent map available showing the distribution of the total forest area.

In estimating the acreage of forest land area, the Forest Service used the following definition of forest land:

Forest land area includes (*a*) lands which are at least 10 percent stocked by trees of any size and capable of producing timber or other wood products, or of exerting an influence on the climate or the water regime; (*b*) land from which the trees described in (*a*) have been removed to less than 10 percent stocking and which have not been developed for other use; (*c*) afforested areas; and (*d*) chaparral areas. It does not include orchard land. The minimum area that qualifies as forest land is 1 acre in the East and 10 acres in the West. Roadside, streamside, and shelterbelt strips of timber, in addition to meeting the above requirements, must be at least 120 feet wide to qualify as forest land.

It is important to note that chaparral areas are included under this definition. The chaparral land area is defined by the Forest Service as including "lands supporting heavily branched dwarf trees or shrubs, usually evergreen, the crown canopy of which covers more than 50 percent of the ground and whose primary value is watershed protection."

Approximately three-fourths of the total forest area in the 48 contiguous States was classified as commercial forest land. (Classification of the total forest area of Alaska and Hawaii has not yet been completed.) The noncommercial area is made up mainly of unproductive and unreserved woodland and forest land. However, about 27 million acres (including 11 million unproductive acres) are reserved for special purposes such as parks and wildlife refuges.

Commercial forest land is made up of all forest land which (1) is producing, or physically capable of producing, usable crops of wood (usually sawtimber or pulpwood), (2) economically available now or prospectively, and (3) not withdrawn from timber utilization.

In appraising the commercial value of forest land in different parts of the United States, it is particularly important to recognize the varying rates of growth associated with differences in climate, soil, topography, drainage, and other conditions. The growth rates for forests in central Alaska or northern Maine are strikingly different from those for Georgia and Louisiana, for example. Thus not only total acreage but the productivity of our forest land must be carefully considered in planning for the Nation's long-range needs for wood products.

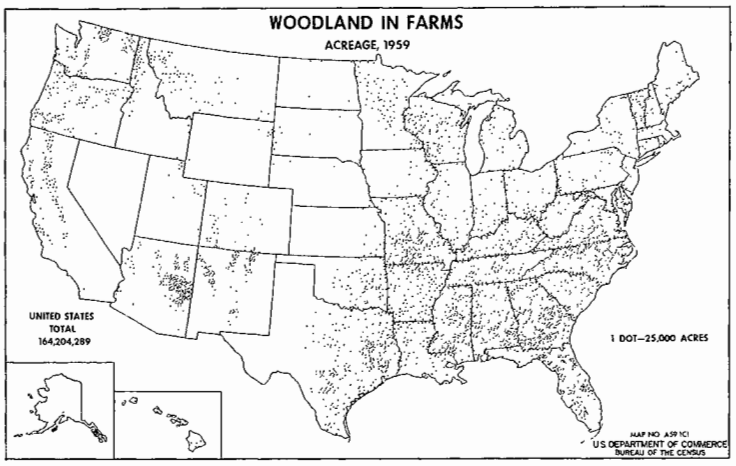
The total forest and woodland area for the 50 States, as of July 1960, was approximately 774 million acres, according to the forest inventory of the U.S. Forest Service. Of this total forest and woodland area, 132 million acres are located in Alaska. Hawaii has about 2 million acres of forest and woodland.

The regional distribution of the forest land area reported by the Forest Service as of 1953 and 1960 is shown by the accompanying table. It should be pointed out that the Forest Service carries out the inventory of forest resources on a continuous basis. Not all parts of the United States have yet had a complete forest inventory. On the other hand, in those States where forest land is of major importance and where marked changes in the acreage and composition of the forest are occurring, two and even three inventories have been completed during the past 25 years.

FOREST LAND AREA IN UNITED STATES, BY REGIONS, 1953 AND 1960 [1]

Region	Forest land	
	1953	1960
	1,000 acres	*1,000 acres*
Northeast	66,365	66,892
Corn Belt	31,229	31,349
Lake States	55,201	54,614
Northern Plains	5,752	5,377
Appalachian	69,307	70,202
Southeast	79,818	77,860
Delta States	51,809	54,170
Southern Plains	48,037	38,150
Mountain	143,498	144,288
Pacific	96,670	96,580
48 conterminous States	647,686	639,482
Alaska	[2]	132,314
Hawaii	[2]	2,000
United States (50 States)		773,796

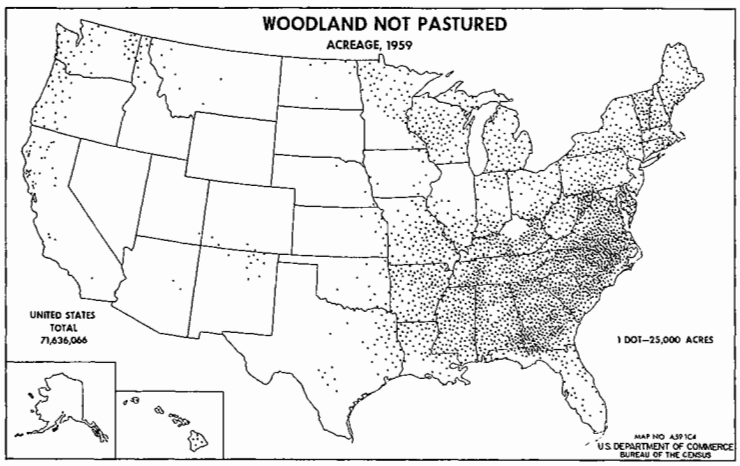
[1] As reported by the U.S. Forest Service. Changes between 1953 and 1960 are in part due to the availability of more detailed surveys for some areas in 1960.
[2] Not available.



WOODLAND IN FARMS

The 1959 Census of Agriculture reported 164 million acres of woodland in farms. The instruction on the questionnaire used in taking the census was as follows: "Include as woodland all wood lots and timber tracts, cutover and deforested land which has value for wood products and has not been improved for pasture." Application of this instruction does not necessarily yield the acreage reported by the U.S. Forest Service, which has gathered its information about forest and woodland acreage through the observations of trained foresters who are applying the definitions cited on the previous page of this report.

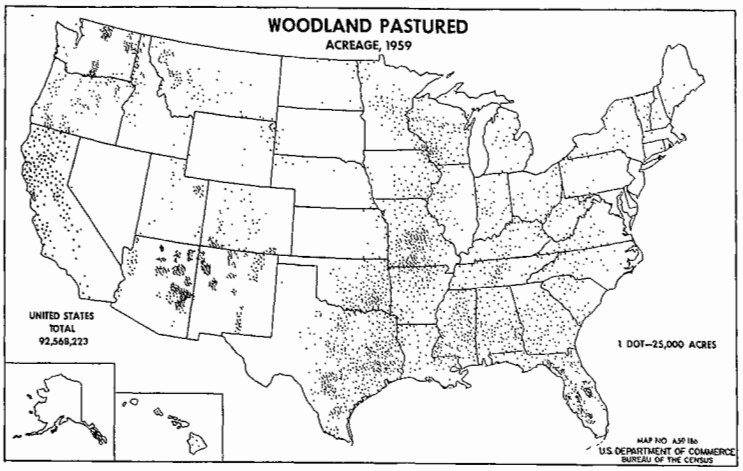
The instructions in the 1959 census questionnaire are somewhat more precise than the corresponding instructions used in the 1954 census. In the 1950 census, no definition of woodland was given apart from an instruction to enumerators to include brush pasture as woodland. It is important to assume in using census data on woodland area that some changes in woodland acreages from one census to another may merely represent differences in interpretation as to what constitutes "woodland."



WOODLAND NOT PASTURED

It is interesting to compare the map showing the distribution of woodland not pastured with the one showing woodland pastured. For that reason the map of woodland pastured is repeated on this page.

The heaviest concentration of nonpastured woodland in farms is located in the Appalachian and Southeastern States. The dominance of such cash crops as cotton, tobacco, and peanuts over extensive parts of these two regions is an important factor accounting for a high proportion of the farm area remaining in forests. Much woodland in this part of the South is physically suitable for crop production. On the other hand, a considerable acreage of woodland in farms in areas of rough topography is not likely to be used for crops or even for pasture. These forest areas are often not operated properly from the standpoint of good forest management.



WOODLAND PASTURED

In some parts of the country, such as the longleaf-slash pine forests of the southeastern Coastal Plain, commercial forest land can be used for grazing livestock with little if any damage to the forest itself, provided of course that harmful practices such as periodic burning are not associated with the grazing operation.

Woodlands of the Southwest, some of which generally have relatively little value for the production of wood products, are among the major woodlands being grazed. There is also some grazing of hardwood forests in the Northeastern and North Central States. Generally the grazing of these hardwood forests is not compatible with good forest management.

REGIONAL PATTERNS OF LAND RESOURCES AND USES

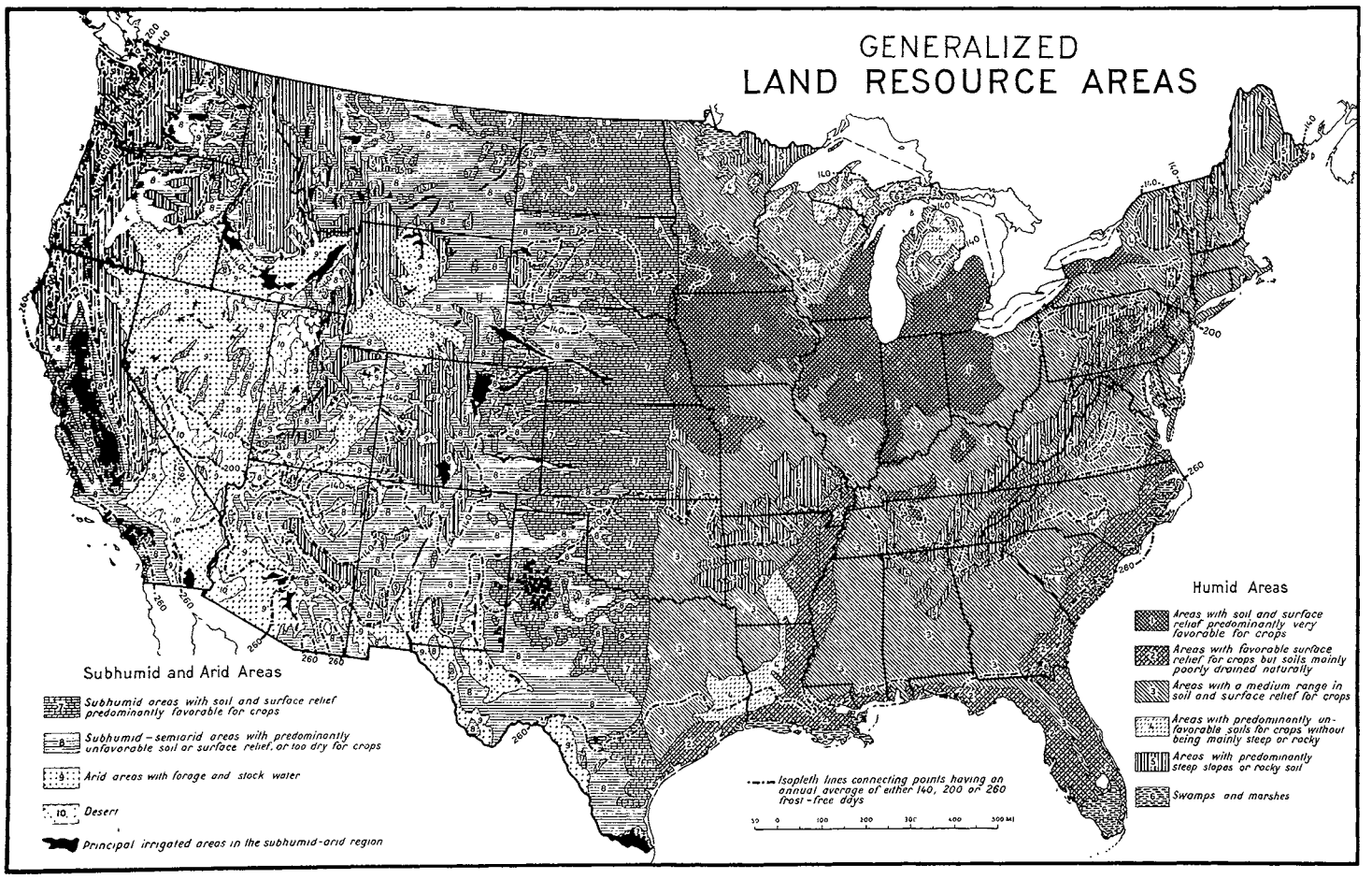
Areal differences in the physical character and the uses made of land resources have always been of great significance in understanding the patterns of such major activities as agriculture and forestry in this country. Major physical characteristics of the land particularly affecting its use for agriculture and forestry are: (1) Annual amount and seasonal distribution of precipitation; (2) temperature and the length of the frost-free season; (3) land relief, including degree and direction of slope; (4) soils; and (5) vegetation.

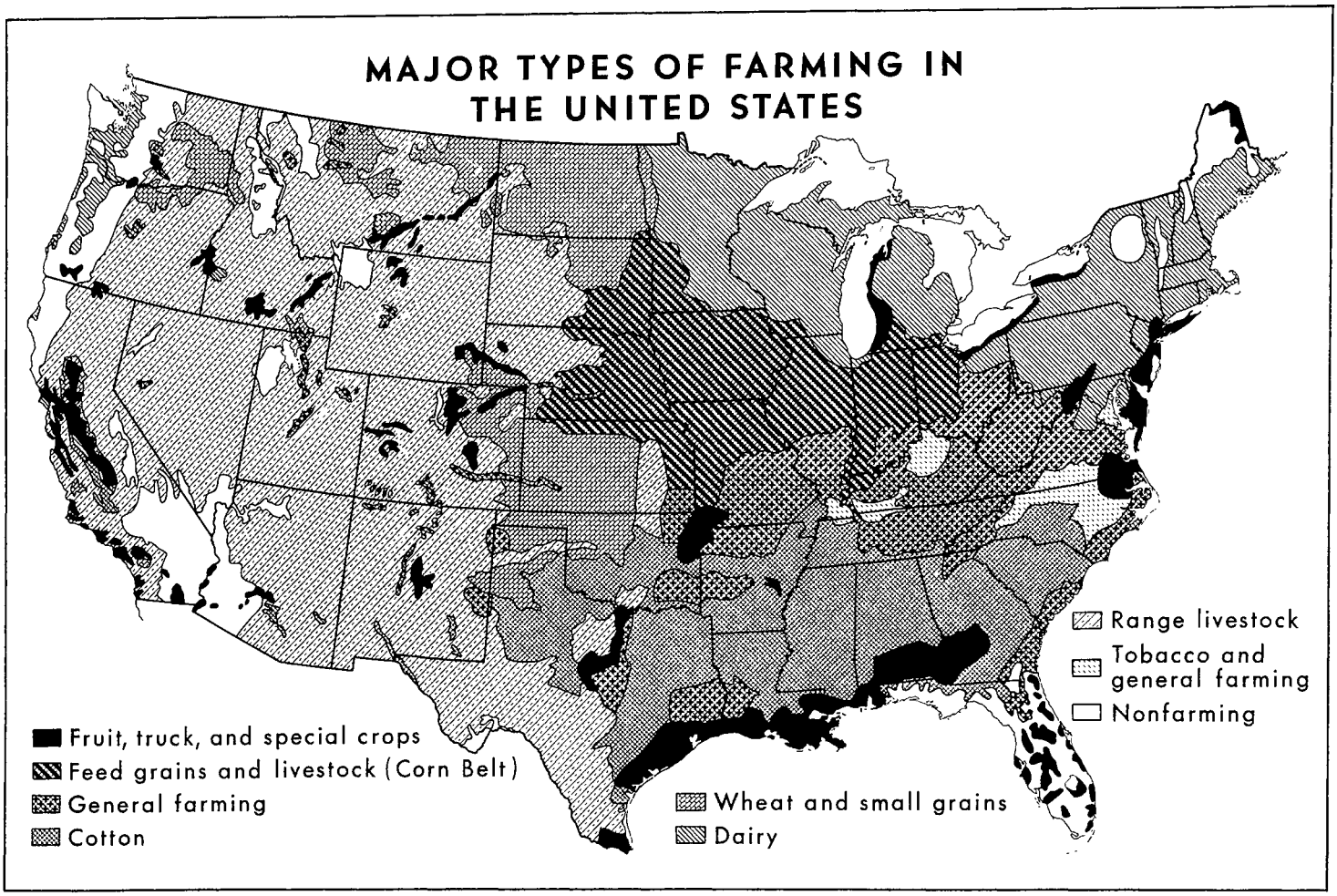
Often the natural environment may be altered in such a way that land resources which in their original condition were not usable for agriculture may become valuable for agricultural production. Land improved by drainage and irrigation falls into this category. Increased use of fertilizer has also proved profitable on land with inherently infertile but efficiently amendable soils.

Numerous other influences also affect the regional patterns of land use. The history of land settlement often plays a very significant role in the present use of resources. Control or ownership of the land may also affect its use. The distribution of population is important too. Changes in the population distribution are occurring, and these shifts of course have a bearing on major changes in the use of land resources. Changing technology is of considerable importance. Improvement in the varieties of grain sorghum, for example, have led to a considerable expansion of land used for that crop. The increasing mechanization of the cotton harvest has played a part in shifting cotton production to more level lands and to larger farms. The presence of mineral production or of manufacturing industries may affect the labor supply and thus play a part in deemphasizing agriculture in a particular area.

Shifts in the use and productivity of land resources among regions have been taking place. The pattern of use may also change within a region. Among some of the changes that have been occurring are (1) the westward migration of cotton production to the Mississippi Delta, to Texas, and to California; (2) increased planting and sustained yield management of forest resources in areas where crop agriculture was formerly important; (3) improvement and expansion of pasture on land formerly used mainly for crop production; (4) introduction and expanded use of such crops as soybeans and grain sorghums in regions where corn or wheat had generally dominated the crop picture for so many years.

The maps in this section of the report are intended to give a general understanding of the differences in the regional distribution of land resources and how they are used. The map of "General Resource Areas" was first published in the 1958 Yearbook of Agriculture as part of a chapter entitled "Our Wealth of Land Resources." The map of "Major Types of Farming in the United States" has served for several years as an effective means of gaining an initial acquaintance with the regional differences in farming found in the several parts of the United States. The map showing the "Major Uses of All Land As Compared With Total Land Area" gives at a glance some of the striking differences in the major uses of land found among the several farm production regions in the United States.





GENERALIZED LAND RESOURCE AREAS

The accompanying map is presented to give an overall view of the combinations of various physical conditions in different parts of the United States. The caption describing the contents of this map in the 1958 Yearbook of Agriculture effectively emphasizes the major points presented by the map, therefore it is cited here: "Our land exhibits a wide range in productive capacity. Climate, surface relief, and soil are the major factors that, through various combinations, have produced the great diversity in the use potentiality of the land. Of these factors, climate is the most important because moisture supply controls land use. The land-resource areas delimited here are therefore first divided according to moisture differences.

"The country is divided into a humid East and a drier West, in which only the higher mountains and the North Pacific Coastal region receive enough precipitation to bring them in the humid category. The line drawn to separate the humid East from the drier West, running almost north and south across the middle of the country, represents no abrupt change, but is placed in the zone of transition between moist and dry. It approximates a line that separates the area where average annual precipitation exceeds average potential evapotranspiration from those where the reverse is true.

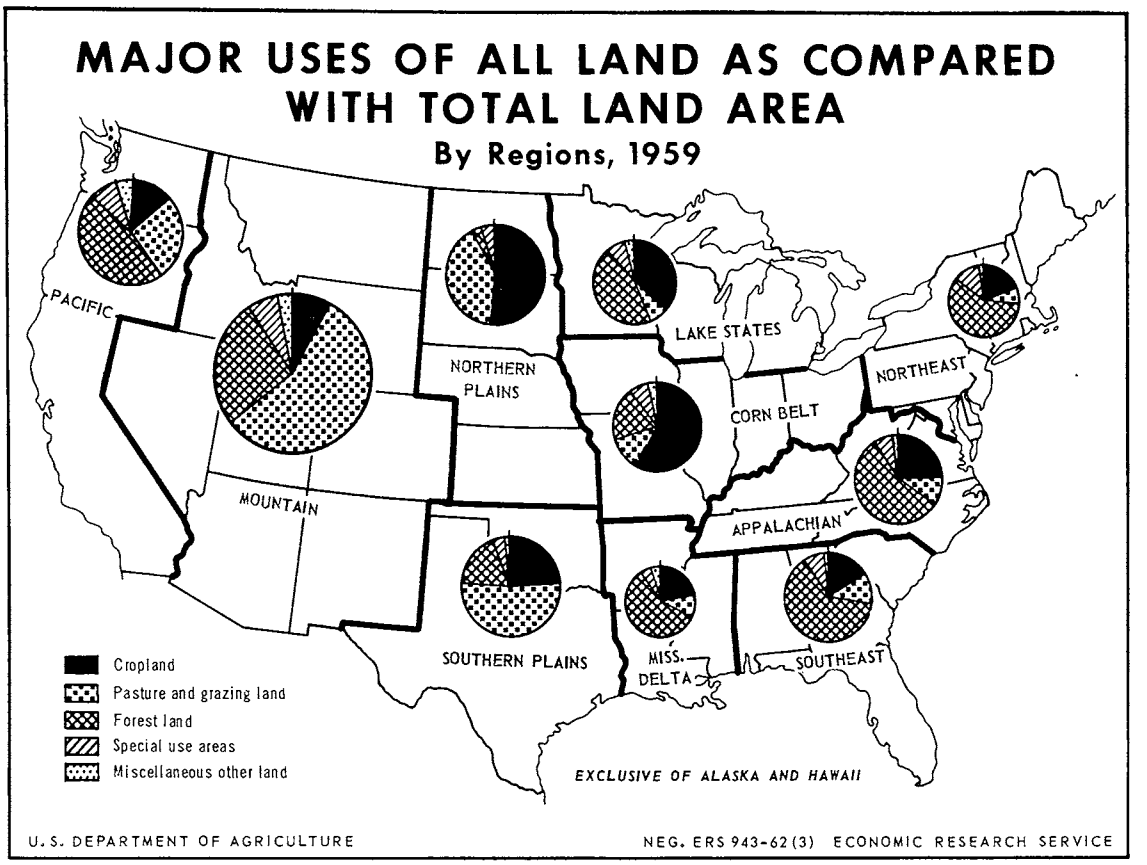
"Broad belts differentiated according to length of frost-free season are used to give some indication of differences in temperature that affect potentialities of land resources. Among the humid areas, differences in surface relief, soils, and drainage account for the different classes of areas shown. Among the subhumid and arid areas, different degrees of aridity overshadow differences in surface relief or soil in all but the moister areas and therefore mainly account for the different classes of drier areas."

MAJOR TYPES OF FARMING

Studies of types of farming in the United States have permitted the periodic assembling of data about the characteristics of American agriculture, including its economic units in terms of crops grown, livestock and livestock products produced, methods used in production, and sources of income. These studies have also aided in explaining the areal differences that have developed in farming in the United States. Type-of-farming studies also provide a classification of the production programs on individual farms into types of farming, which can in turn be generalized by regions and areas.

Types of farming for the United States were first presented in the U.S. Department of Agriculture Yearbook for 1908. Later a map of agricultural provinces in the United States was developed by O. E. Baker and others. By 1930 this map had been refined and the number of provinces, or regions as they were later called, was increased from 10 to 12. As a part of the 1930 Census of Agriculture a detailed study of types of farming was made, and a map was published in 1935. On this map, 514 type-of-farming areas were regionalized into 12 major type-of-farming regions and 100 subregions.

In 1950, the U.S. Department of Agriculture published the results of further study of type-of-farming areas as Agriculture Information Bulletin No. 3. A progressive grouping of State type-of-farming areas, maps of which had been prepared by many of the States prior to and after the 1935 type-of-farming study, gave the most recent generalization of types of farming in the United States. The color map published at that time divides the country into 165 generalized type-of-farming areas, 61 subregions, and 9 major agricultural regions. It is the nine major agricultural regions or major type of farming areas which are presented on the accompanying map.



MAJOR USES OF LAND BY REGIONS

The regional distribution of the major uses of land is shown in the accompanying map and tables. Cropland acreage reported in this table is based on the acreage reported by the Census of Agriculture, adjusted by the Economic Research Service of the U.S. Department of Agriculture for some under-enumeration.

Several striking regional differences in the uses made of land exist. Cropland occupies more than half of the total land area in two of the farm production regions—the Corn Belt and Northern Plains regions. On the other hand, six of the regions have less than 25 percent of the land area used as cropland (Northeast, Appalachian, Southeast, Mississippi Delta, Mountain, and Pacific). Hawaii and Alaska have a relatively small part of the total land area in cropland.

In relation to the other major uses of land, grassland pasture and range dominates the various land uses in the Mountain and Southern Plains States. More than half the total land area of these States is so used. In the Northern Plains, two-fifths of the land area is used for grazing, which combined with the high proportion of land used as cropland (52 percent) gives this region the highest percentage of total land area in agricultural use (93 percent). At the other extreme, only 26 percent of the land area in the Northeast is used for agriculture.

Forest and woodland is the main use of land in 6 of the 10 farm production regions (Northeast, Lake, Appalachian, Southeast, Mississippi Delta, and Pacific States). In the Southeast, 63 percent of the land area is in forest and woodland. More than half the land area is in forest and woodland in the Northeastern, Delta, and Appalachian States. On the other hand, only 3 percent of the land area of the Northern Plains States is in forest and woodland. Most of this is in the Black Hills and along water courses.

Other land includes land in very intensive uses such as urban development and transportation. It also includes some very extensive areas that are being put to relatively little productive use. The large expanse of tundra in Alaska and the desert areas in some of the Western States are examples of such areas.

MAJOR USES OF LAND BY REGIONS, UNITED STATES, 1959

Region	Cropland	Grassland pasture and range	Forest land	Special-use areas	Miscellaneous other land	Total land area
	1,000 acres	*1,000 acres*	*1,000 acres*	*1,000 acres*	*1,000 acres*	*1,000 acres*
Northern:						
Northeast	20,973	7,999	66,892	13,524	2,936	112,324
Lake States	45,495	8,266	54,614	10,445	3,889	122,709
Corn Belt	95,090	21,806	31,349	12,018	5,021	165,284
Northern Plains	101,054	79,743	5,377	8,218	485	194,877
Total	262,612	117,814	158,232	44,205	12,331	595,194
Southern:						
Appalachian	29,990	12,984	70,202	8,525	2,849	124,550
Southeast	21,071	13,939	77,860	9,939	1,259	124,068
Mississippi Delta	20,808	9,358	54,170	4,890	3,464	92,690
Southern Plains	53,916	109,239	38,150	9,104	1,897	212,306
Total	125,785	145,520	240,382	32,458	9,469	553,614
Western:						
Mountain	42,952	312,832	144,288	29,901	18,475	548,448
Pacific	26,134	53,965	96,580	17,839	9,982	204,500
Alaska	24	2,350	132,314	17,090	213,703	365,481
Hawaii	500	646	2,000	376	584	4,106
Total	69,610	369,793	375,182	65,206	242,744	1,122,535
48 States	457,483	630,131	639,482	124,403	50,257	1,901,756
United States (50 States)	458,007	633,127	773,796	[1] 141,869	264,544	2,271,343

[1] Excludes wilderness areas.

MAJOR USES OF LAND BY REGIONS, UNITED STATES, 1959

Region	Percentage in major uses of total land area				
	Cropland	Grassland pasture and range	Forest and woodland	Other land	Approximate land area
	Percent	*Percent*	*Percent*	*Percent*	*Percent*
Northern:					
Northeast	19	7	59	15	100
Lake States	37	7	44	12	100
Corn Belt	58	13	19	10	100
Northern Plains	52	41	3	4	100
Total	44	20	27	9	100
Southern:					
Appalachian	24	11	56	9	100
Southeast	17	11	63	9	100
Mississippi Delta	22	10	59	9	100
Southern Plains	26	51	18	5	100
Total	23	26	43	8	100
Western:					
Mountain	8	57	26	9	100
Pacific	13	26	47	14	100
Alaska	(1)	1	36	63	100
Hawaii	12	16	49	23	100
Total	6	33	33	28	100
48 States	24	33	34	9	100
United States (50 States)	20	28	34	18	100

[1] Less than one-half of 1 percent.

SPECIAL USES OF LAND, BY REGIONS

Special uses of land vary widely. They include such uses as those for urban areas, highways, railroads, airports, parks, national defense areas, wildlife refuges, farmsteads, and farm roads and lanes. For the most part, these uses are nonagricultural. Recent interest in this group of uses centers around the question of whether or not it is desirable to use good agricultural land for urban sites and other similar purposes when less desirable agricultural land suitable for such uses is available. Competing demands for the use of land are particularly acute in good farming areas where urban and industrial expansion has been rapid.

The total acreage occupied by the special uses of land (exclusive of wilderness areas), totaled 142 million acres for all 50 States in 1959. For the 48 States the total was 124 million acres, which compares with 110 million acres estimated to have been in these same uses in 1954. In 1945 and 1950 it was estimated that approximately 100 and 105 million acres respectively were in these uses. Thus during the past 15 years, after allowance is made for some differences in definition, more than 20 million acres have been transferred to this special category of land use.

Use of land for artificial reservoirs is not shown in the above table. As reservoirs are deducted from the land area when completed, they are not included among the special uses of land. Excluding most natural lakes with controlled water levels, such as Lake Okeechobee in Florida, artificial reservoirs occupied approximately 9 million acres in 1959. The water area of reservoirs that were completed between 1950 and 1960 occupies about 2.1 million acres. In addition to the large reservoirs, which are excluded from the land area, there were nearly 7 million acres of water area in small ponds, lakes, and reservoirs of less than 40 acres in size and in small, narrow streams. This acreage has not been deducted from the land area.

SPECIAL USES OF LAND, BY REGIONS, 1959

Region	Urban areas	Rural highways, railroads, and airports	Rural parks	Wildlife areas	National defense, flood control, and industrial areas	State-owned institutions and miscellaneous other uses	Farmsteads, farm roads, and lanes	Total
	1,000 acres	*1,000 acres*	*1,000 acres*	*1,000 acres*	*1,000 acres*	*1,000 acres*	*1,000 acres*	*1,000 acres*
Northeast	5,821	2,100	3,137	1,234	599	84	549	13,524
Lake States	2,653	2,892	832	2,323	400	101	1,244	10,445
Corn Belt	4,354	3,651	284	392	814	140	2,383	12,018
Northern Plains	615	3,874	430	457	1,548	38	1,256	8,218
Appalachian	2,178	1,911	1,196	575	1,405	220	1,040	8,525
Southeast	2,904	2,030	1,172	788	2,156	318	571	9,939
Delta States	1,118	1,122	80	841	942	71	716	4,890
Southern Plains	3,006	2,110	824	538	1,539	64	1,023	9,104
Mountain	1,254	3,540	8,316	1,321	14,643	137	690	29,901
Pacific	3,218	1,899	6,289	918	4,814	63	638	17,839
48 States	27,121	25,129	22,560	9,387	28,860	1,236	10,110	124,403
50 States	27,217	25,219	29,723	17,216	31,122	1,236	10,136	[1] 141,869

[1] Excludes wilderness areas.

DEVELOPMENT AND CONSERVATION OF LAND RESOURCES

Present development and improvement of land is not comparable to the large-scale pioneering and homesteading of new areas that were so important during the settlement period in American history. However, considerable development and improvement of land, much of it on existing farms, is still taking place. The development of land includes the preparation of unimproved or presently nonarable land for crops and improved pastures by carrying out such practices as installing drainage, clearing woodland or brush, removing stones or old stumps, and leveling, ditching, or terracing unimproved land for irrigation. Improvement of land refers to the application of these various measures to land that is presently used as cropland or improved pasture, but that can be made more productive by carrying out additional land improvement.

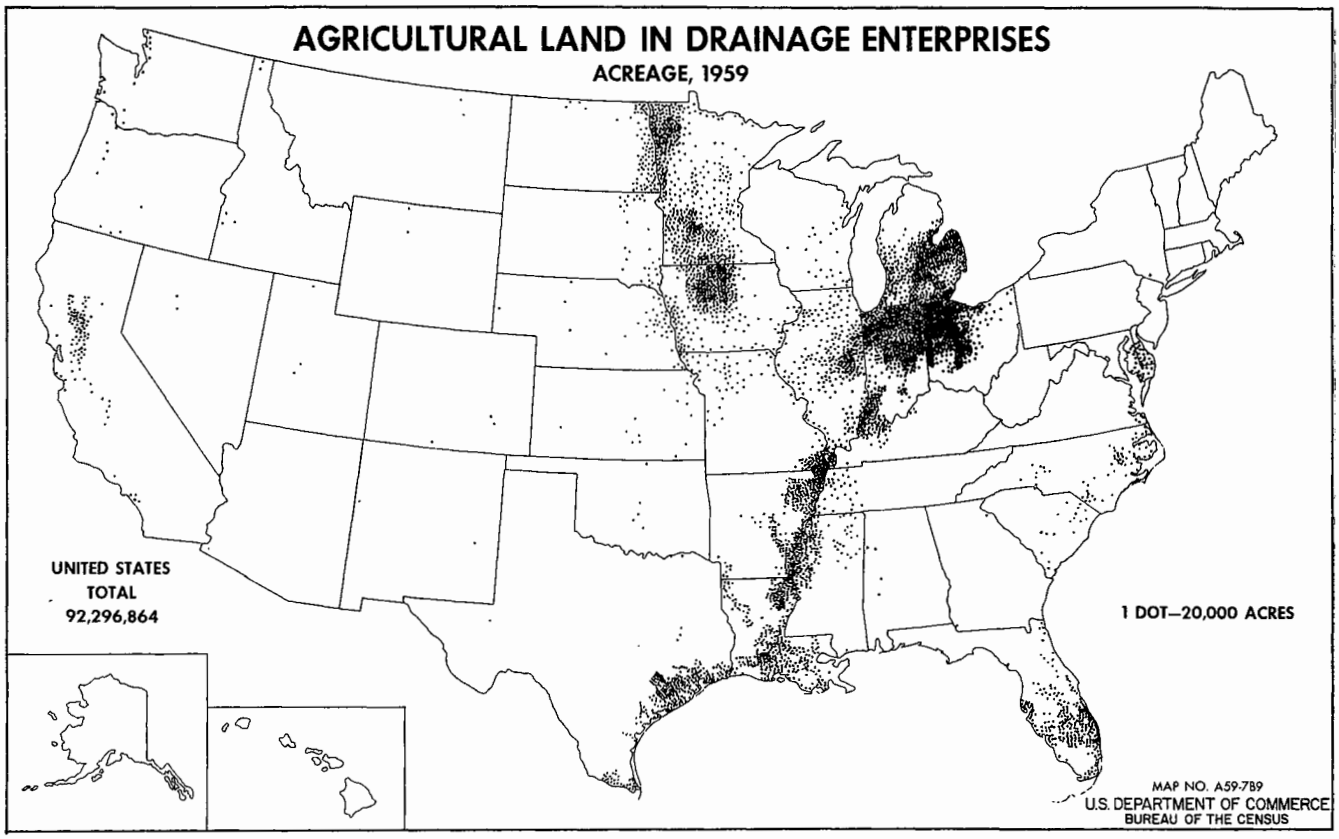
Many farmers have only limited acreages of cropland available with which to expand the farm business. On many small farms on which capital and land resources are limited, more effective use of existing land resources in the farm unit may be possible by carrying out certain development or improvement measures. Operators of large farms may have a choice of making more intensive use of the existing acreage of improved land or of developing additional land in the farm.

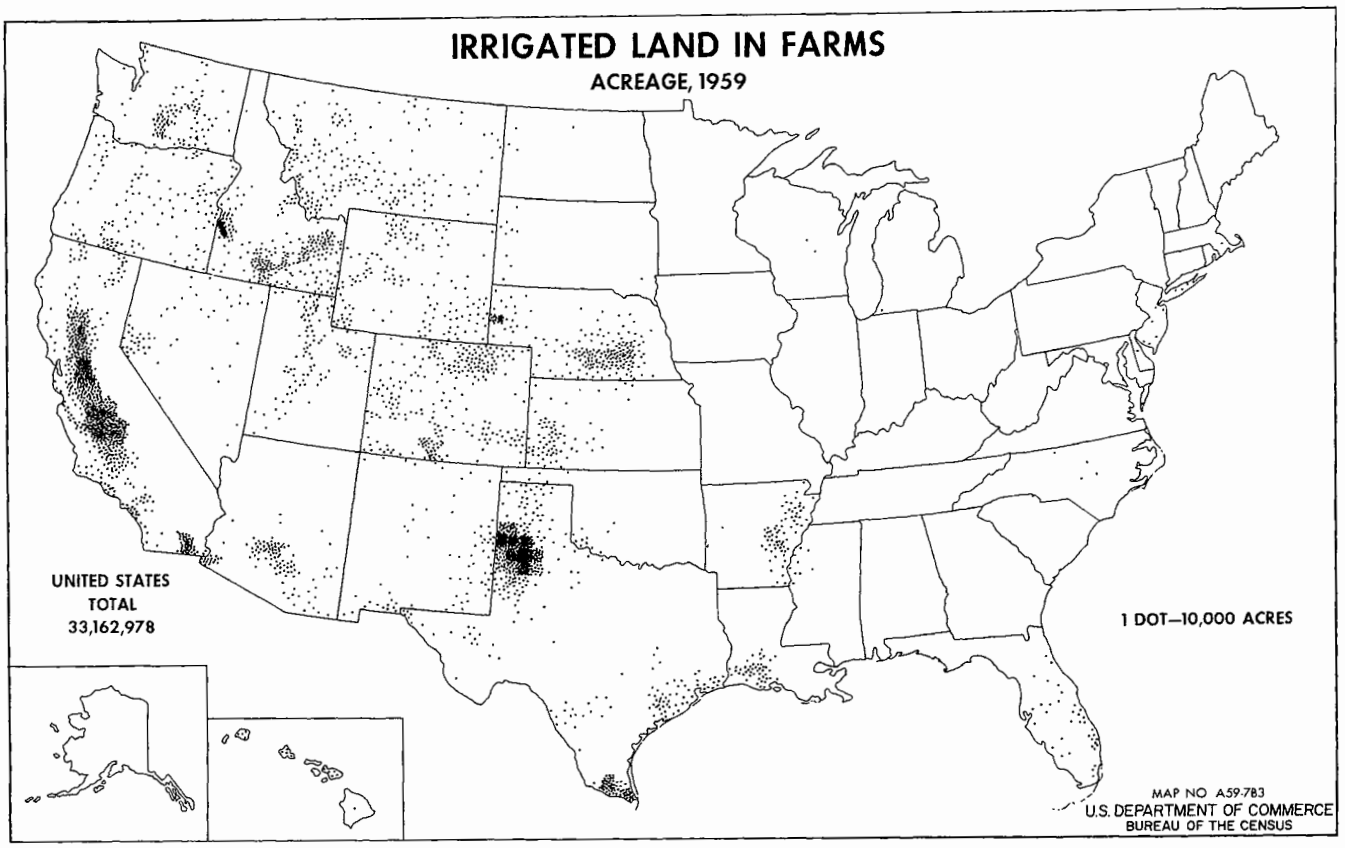
Development and improvement of land by irrigation continues to expand. During the last decade, the acreage irrigated has increased by 7 million acres. About half of this increase represents the development of new cropland. The remainder results from irrigation of dry cropland in the West and the supplemental irrigation of cropland in the humid Eastern States. The productivity of some of the land already being irrigated in the West also may be increased by supplementing the existing sources of water with additional water from new irrigation works. Leveling and releveling of land is an important aspect of development and improvement of land by irrigation in some areas.

The drainage of land for agricultural uses has been a major practice in the development and improvement of land for many years. Approximately 65 million acres were in organized drainage enterprises at the time of the first census of drainage taken in 1920. Land in organized drainage enterprises in 1959 totaled 102 million acres.

The appreciation of the need to conserve such basic resources as soil, water, forests, grassland, and wildlife has resulted in the development of programs aimed at the wise use of natural resources that are a vital part of the Nation's wealth. Recently, several agencies of the U.S. Department of Agriculture working together have completed a National Inventory of Soil and Water Conservation Needs. This inventory contains comprehensive data tabulated to present the major soil and land-use characteristics of the country. This basic information was used in analyzing the present and prospective conservation needs of the country. The results of this inventory are in process of publication.

In this section of the graphic summary, some selected maps and graphs are presented to illustrate the present status and significant changes taking place in the development and conservation of land resources.





AGRICULTURAL LAND IN DRAINAGE ENTERPRISES

In 1960, the area reported in organized drainage districts by the Bureau of the Census was 102 million acres. This was practically no change from the total acreage reported in drainage districts since 1950, when 103 million acres were reported. However, these data should not be construed to mean that very little drainage activity occurred during this period within the existing enterprises and on other land not included in them. Perhaps another 70 million acres had been drained by individual farmers outside drainage districts. Under the Agricultural Conservation Program of the U.S. Department of Agriculture, payments were made for installation of either open or enclosed drains or for shaping of land for drainage on nearly 17 million acres of land. This of course does not include land drained by farmers without Federal assistance.

Approximately 92 million acres of the land within organized drainage districts which had been drained was being used for agricultural production in 1960. The distribution of this acreage by farm production regions is shown in the accompanying text table:

Region	*1,000 acres*	*Percent*
Northeast	752	0.8
Lake States	21,022	22.8
Corn Belt	35,395	38.4
Northern Plains	3,412	3.7
Appalachian	2,893	3.1
Southeast	5,353	5.8
Delta States	14,832	16.1
Southern Plains	5,825	6.3
Mountain	390	0.4
Pacific	2,423	2.6
Total	92,297	100.0

IRRIGATED LAND IN FARMS

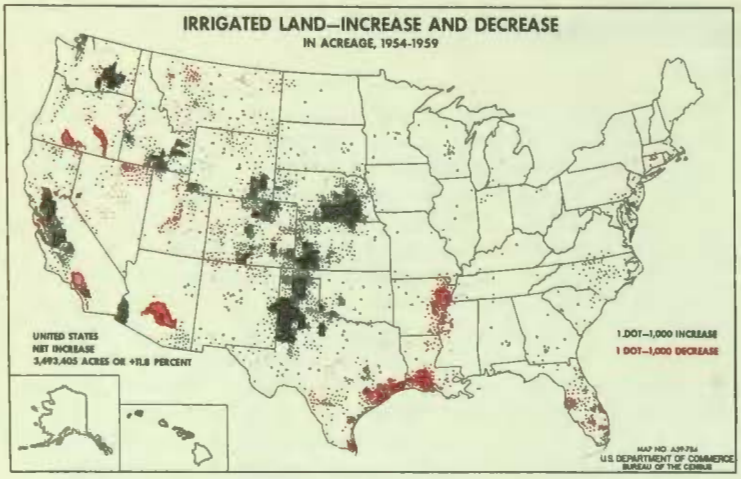
The distribution of the acreage of irrigated land in farms in 1959 is shown in the above map. Most of the irrigated acreage was in the 11 Western States, Texas, and Nebraska. California and Texas together had 13 million acres of the 33 million irrigated in 1959 in the United States.

The accompanying table shows the distribution of the acreage of irrigated land in 1949, 1954, and 1959 by farm production regions. The net change in acreage between 1949 and 1959 is also shown by regions.

IRRIGATED LAND IN FARMS, BY REGIONS, 1949–59

Region	Irrigated land in farms [1]			
	1959	1954	1949	Increase or decrease, 1949–59
	1,000 acres	*1,000 acres*	*1,000 acres*	*1,000 acres*
Northeast	206	188	87	119
Lake States	87	51	28	59
Corn Belt	87	69	16	71
Appalachian	118	85	7	111
Southeast	490	490	375	115
Delta States	1,296	1,698	1,004	292
Eastern States	2,284	2,581	1,517	767
Northern Plains	3,003	1,631	1,128	1,875
Southern Plains	5,853	4,815	3,166	2,687
Mountain	12,095	11,208	11,643	452
Pacific	9,787	9,317	8,334	1,453
17 Western States	30,738	26,971	24,271	6,467
Hawaii	141	[2]	117	24
Total United States [3]	33,163	[4] 29,552	25,905	7,258

[1] Totals do not add because of rounding.
[2] Not available.
[3] Excludes Alaska. Irrigated acreage in Alaska in 1959 was estimated at only 358 acres by the Alaska Agricultural Experiment Station.
[4] Excludes Hawaii in 1954.

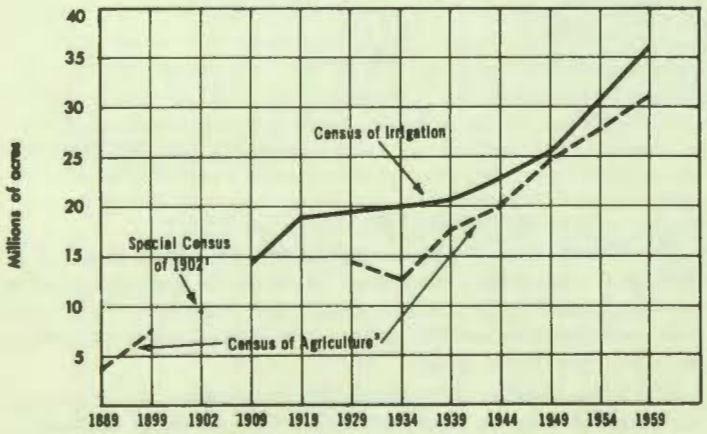


IRRIGATED LAND—INCREASE AND DECREASE

The accompanying map shows several areas with major increases of irrigated land, particularly in the High Plains of Texas, south-central Nebraska and southwestern Kansas, the Columbia Plateau area of Washington, the Central Valley of California, and southern Idaho. Reasons for the increases shown on the map vary with the several areas. The increases either reflect actual expansion of the total irrigated acreage, as in the Columbia Plateau, or in several instances, a recovery from drought conditions existing in 1954.

Decreases in irrigated acreage shown on the map are associated with four main factors: (1) Less acreage of rice in 1959 than in 1954 in Texas, Louisiana, and Arkansas with no substitution of another irrigated crop; (2) urbanization of irrigated areas, particularly in Arizona and California; (3) drought conditions in parts of the West in 1959, which meant less water for irrigation than was available in 1954; (4) adequate or more nearly adequate rainfall in eastern humid areas, which reduced the supplemental irrigated acreage in these areas.

ACREAGE OF IRRIGATED LAND FOR THE 17 WESTERN STATES AND LOUISIANA

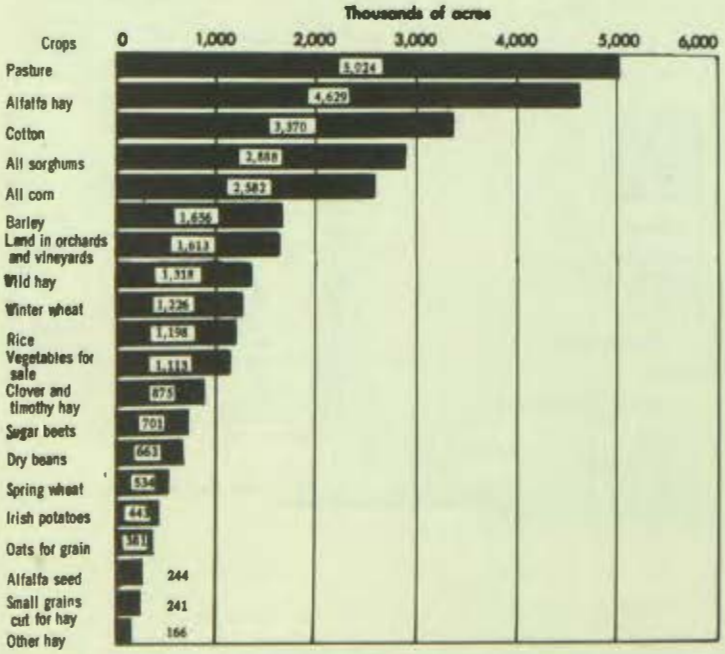


[1]Total irrigated land, all States.
[2]In 1889, 1899 and 1944 through 1959, all irrigated land in farms; 1929 and 1934, acreage of irrigated crops only; 1939, acreage of irrigated crops plus irrigated pasture. Data for 1909 and 1919 not available.

ACREAGE OF IRRIGATED LAND

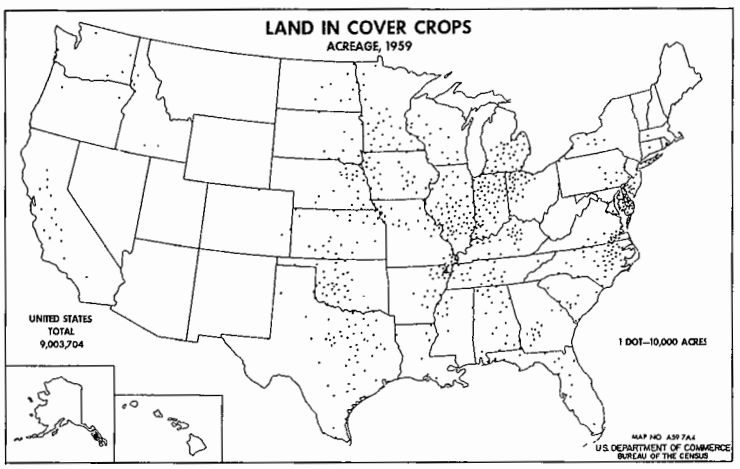
The acreage of irrigated land continued to increase in the United States between 1954 and 1959. The acreage of irrigated land in farms reported in 1959 was 33.2 million acres compared with 29.6 million acres in 1954 and 25.9 million acres in 1949. Thus during the 10 years, 1949–59, there was an increase of 7.3 million acres, or 28 percent in irrigated land in farms. The greatest increase for this 10-year period occurred in Texas, with an increase of 2.5 million acres. Nebraska was second with 1.2 million acres and California was third with 1.0 million acres. Colorado, Nevada, and Utah reported less irrigated land in farms in 1959 than in 1949. The percentage increase in irrigated land in farms in the 31 Eastern States amounted to 51 percent. The acreage was 1.5 million acres in 1949 and 2.3 million acres in 1959. Actually, more acreage was irrigated in the Eastern States in 1954, when 2.6 million acres were irrigated, than in 1959.

IRRIGATED ACREAGE OF SPECIFIED CROPS AND PASTURE IN THE 17 WESTERN STATES AND LOUISIANA: 1959



IRRIGATED ACREAGE OF SPECIFIED CROPS AND PASTURE IN THE 17 WESTERN STATES AND LOUISIANA

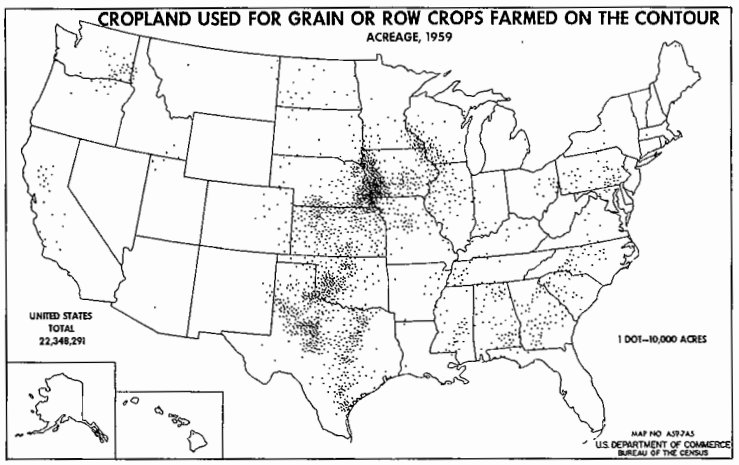
In 1959 irrigated land in the 17 Western States totaled 30.7 million acres. Louisiana had 0.5 million acres. Of this total of 31.2 million acres, the land used for pasture accounted for about 5 million acres, or one-sixth of the total. Hay of different kinds—alfalfa hay, wild hay, clover and timothy hay, small grains cut for hay, and other hay—accounted for about 6.8 million acres. Cotton was a major crop produced on irrigated land, since it occupied about 2.9 million acres. Sorghums, corn, barley, and oats, which are among the major feed grains, occupied about 5.9 million acres. Land in orchards, vineyards, and planted nut trees, winter wheat, rice, and vegetables harvested for sale each were produced on more than 1 million acres of irrigated land. Sugar beets, dry beans, and Irish potatoes accounted for a total of about 1.8 million acres. Altogether the specified crops shown on the accompanying graph accounted for nearly 30 million acres of the total 31.2 million acres of irrigated land in the 18 States indicated.



LAND IN COVER CROPS

About 9 million acres of land were planted in cover crops in 1959. Most of this acreage was found in the North Central and Southern Plains States and in the Southeastern and Appalachian States.

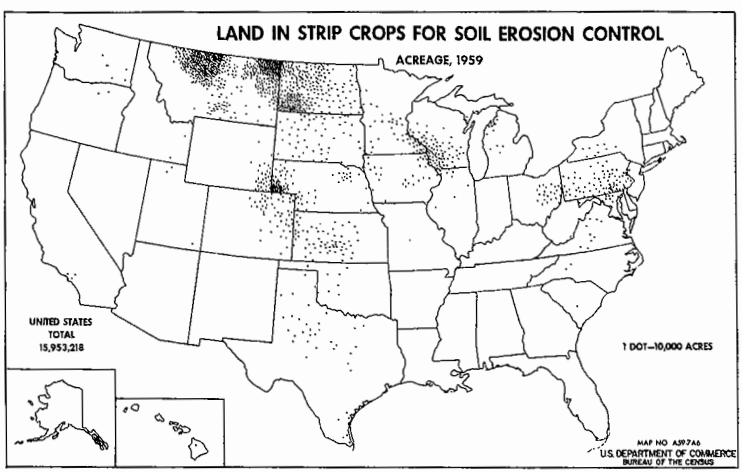
Cover crops are used as a means of enriching and protecting soil resources. Some cover crops are plowed under while still green, to provide organic matter. Other cover crops are more permanent and may occupy the land for a number of years. Annual crops grown for their cover value are generally planted in the fall to furnish cover during the winter months, or in some instances in the spring for protection of land during the summer months when cash and feed crops are not being grown.



CROPLAND USED FOR GRAIN OR ROW CROPS FARMED ON THE CONTOUR

The planting of grain or row crops on the contour has become a major conservation practice in the United States during the past 25 years. More than 22 million acres were reported in the 1959 Census of Agriculture as being farmed on the contour. Crops are planted on the contour when the rows or strips are laid out at right angles to the natural slope of the land. Farming land on the contour generally means that alternating strips or bands of different crops are also used in order to retard soil and water loss. Row crops alternating with close-sown crops is a common arrangement. The different crops commonly grown are also rotated among the different strips of land.

This practice is used especially in the Great Plains States and in the western part of the Corn Belt and Lake States. A considerable acreage is also found in Pennsylvania and eastern Ohio and in parts of the Southern States.



LAND IN STRIP CROPS FOR SOIL EROSION CONTROL

The practice of planting strips of wheat, barley, or oats alternating with strips of cultivated summer fallow at right angles to the prevailing wind direction has been especially common in the northern and central parts of the Great Plains. This practice was in use on approximately 16 million acres in 1959.

Along the dry margin for wheat production in the Great Plains there is a considerable hazard of soil blowing, especially in dry years. Wind stripcropping, stubble mulching, and other conservation practices help to control soil blowing. Some of the land on which these practices are currently being employed are from a physical standpoint better suited for the grazing of livestock than for the production of wheat.

FARM RESOURCES

FARM RESOURCES

Land, labor, and capital are the major inputs used in the production of agricultural commodities. The accompanying table from the U.S. Department of Agriculture Technical Bulletin No. 1238 entitled *Productivity in Agriculture* presents the changes in composition of inputs in agriculture from 1870 to 1957.

CHANGES IN COMPOSITION OF INPUTS, UNITED STATES AGRICULTURE, 1870–1957

Year	Percentage of total inputs [1]			
	Labor	Land real estate	Capital [2]	Total
Inputs Based on 1935–39 Price Weights				
	Percent	*Percent*	*Percent*	*Percent*
1870	65	18	17	100
1880	62	19	19	100
1890	60	18	22	100
1900	57	19	24	100
1910	53	20	27	100
1920	50	18	32	100
1930	46	18	36	100
1940	41	18	41	100
Inputs Based on 1947–49 Price Weights				
1940	56	14	30	100
1950	40	15	45	100
1957	31	15	54	100

[1] The use of different price weights prohibits direct comparison of composition percentages for the periods before and after 1940. However, changes in composition within the two price-weight periods, 1870–1940 and 1940–57, serve to indicate the magnitude of changes in composition of input. Comparisons of periods before and after 1940 substantiate the trend in changes of input mix.

[2] All inputs other than labor and real estate.

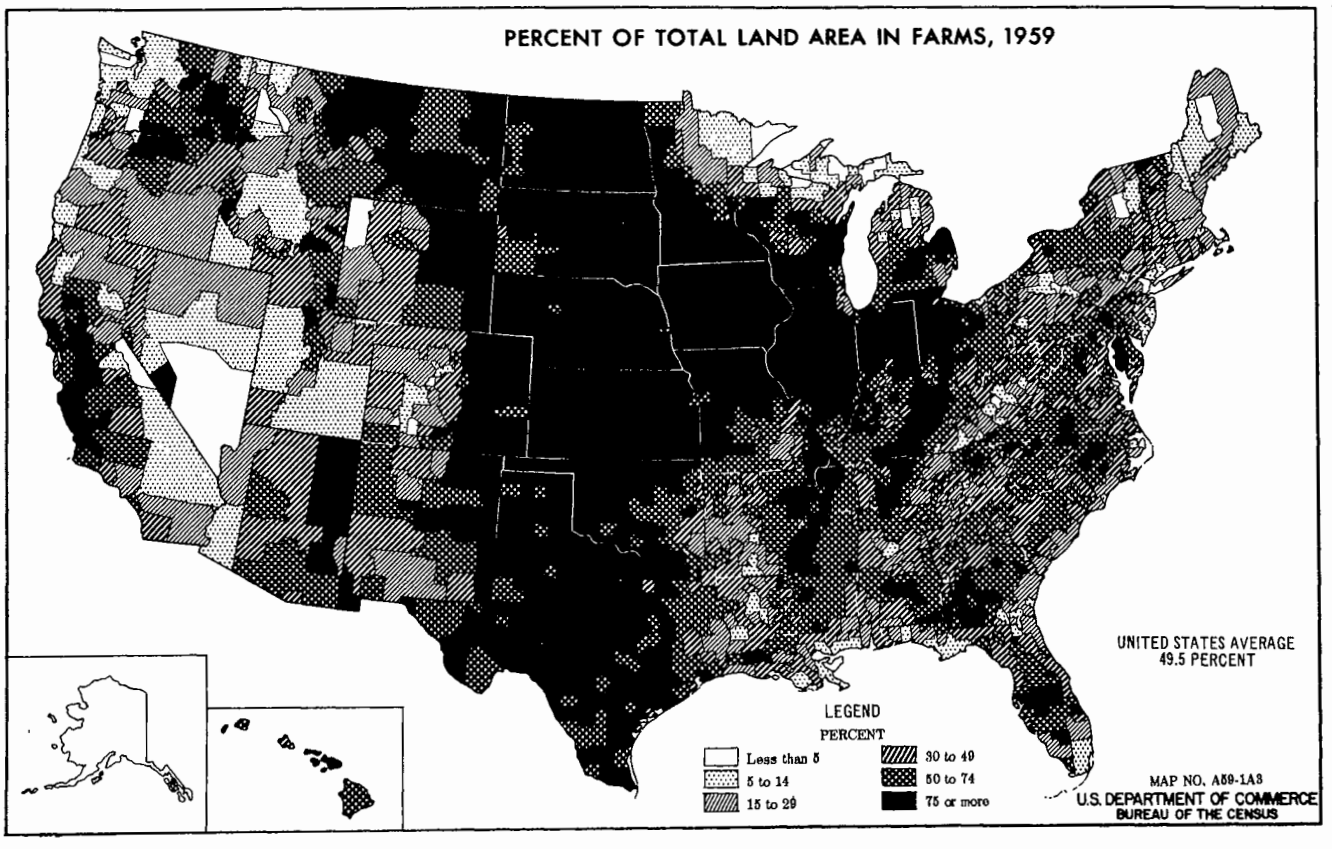
From this table three major conclusions are apparent: (1) Labor inputs have declined considerably as a part of the total inputs; (2) land has remained remarkably constant as an input; (3) capital has now become the dominant input in American agriculture.

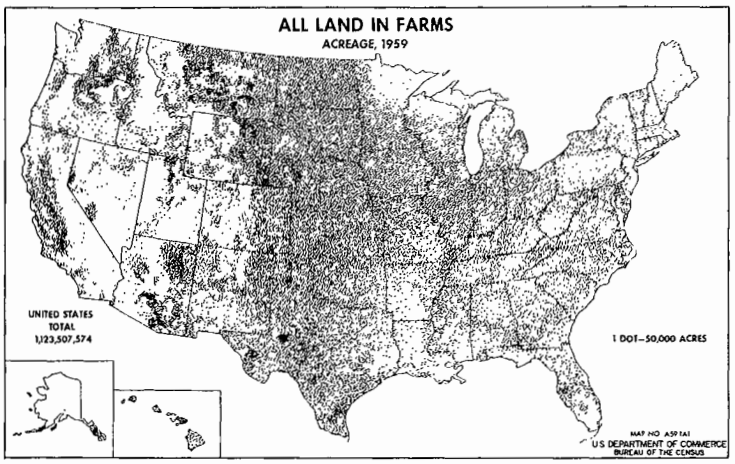
The maps and charts that follow in this section will graphically substantiate the trend indicated in the above table.

The first of the maps shown below indicates the percentage of total land area in farms in 1959 on a county unit basis. This map gives a fairly clear indication of where the major farming areas of the country are located. Not shown on the map is the significant change in the acreage of land in farms that has taken place between 1954 and 1959.

The acreage of land in farms, including that reported for the new States of Alaska and Hawaii, dropped from 1,161 million acres in 1954 to 1,123 million acres in 1959. This drop of 38 million acres was due to several factors. In the first place, a change was made in the definition of a farm between the census of 1954 and that of 1959. However, the decrease in land in farms resulting from this change in definition amounted to only 6 million of the 38 million-acre decrease. Part of the decrease can be attributed to the expansion of urban areas, since 7 million acres of the 38-million-acre decrease was in counties included in standard metropolitan areas. The Soil Bank program, which retired many whole farms from agricultural production, has also been a significant factor. Furthermore, the improvement in highways and the high degree of mobility of the labor force has meant that many farmers have just quit farming and are working full time in industrial jobs while commuting from the home on the farm that they no longer operate.

The retirement of this large acreage from agriculture along with the continued decline in farm population of course indicates that capital is being substituted for land and labor in the production of farm products in practically all parts of the United States.





ALL LAND IN FARMS

The distribution of land in farms is shown in the accompanying map. Land in farms is located in the major divisions of the country as follows:

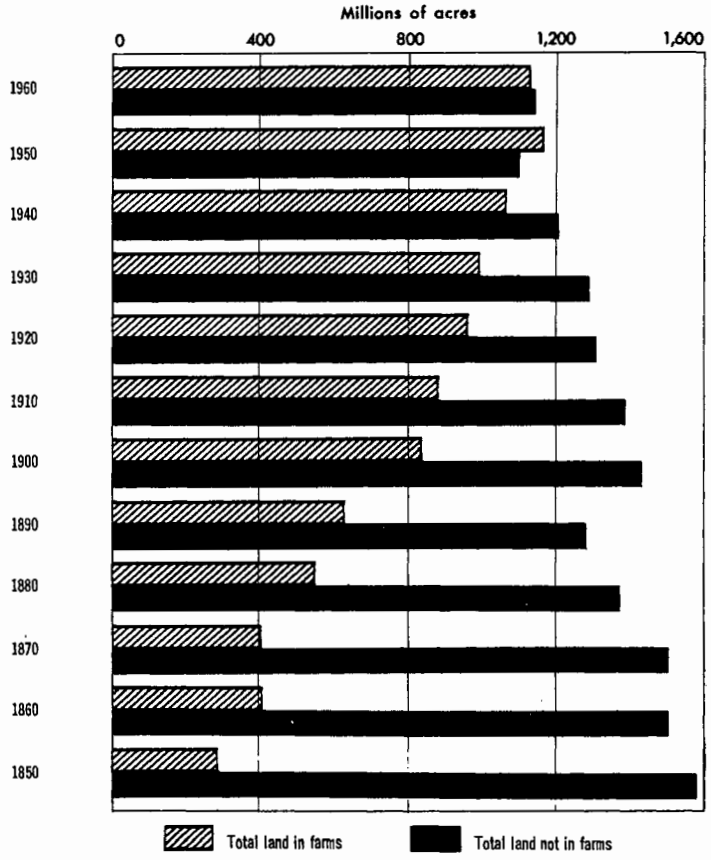
Region	Million acres	Percent of total land area
Northeast	40.3	36
North Central	385.4	80
South	353.2	64
West	341.2	45
Alaska and Hawaii	3.4	1
Total	1,123.5	49

North Central States include those in the Corn Belt, Lake States, and Northern Plains farm production regions.

The South includes those States in the Applachian, Southeast, Delta, and Southern Plains farm production regions.

The West includes the Pacific and Mountain States.

ACREAGE OF LAND IN FARMS AND NOT IN FARMS, FOR THE UNITED STATES: 1850 TO 1960

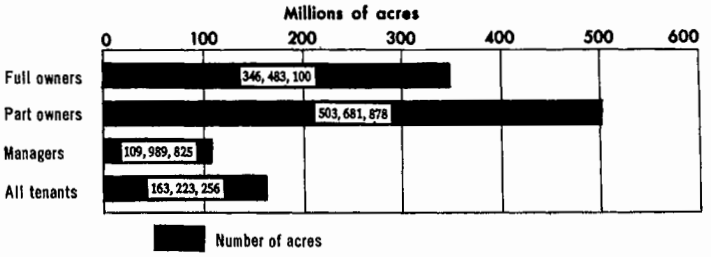


ACREAGE OF LAND IN FARMS AND NOT IN FARMS

From 1954 to 1959, there was a decline of approximately 38 million acres of land in farms in the United States. This was the third and largest decline in the acreage of land in farms since the first census of agriculture was taken in 1850. Furthermore, the acreage of land reported in farms was less than that which was not in farms. As a result primarily of including statistics for the new State of Alaska, the acreage of land in farms as a percent of the total land area declined from 60.8 in 1954 to 49.5 in 1959. The inclusion of data for Alaska was the first addition of territory in the agricultural census since the addition of New Mexico and Arizona as the 47th and 48th States in 1912.

Some of the reasons underlying the 38-million-acre decrease in land in farms between 1954 and 1959 are cited in the general text for this section of the report.

LAND IN FARMS, BY TENURE OF OPERATOR, FOR THE UNITED STATES: 1959

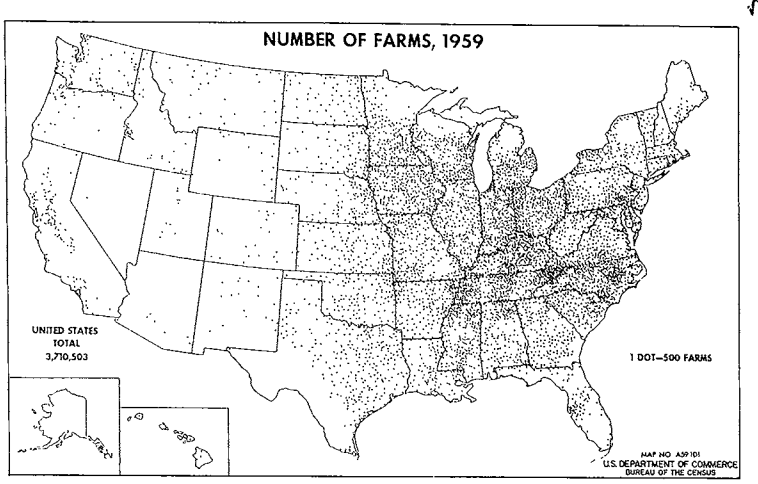


LAND IN FARMS BY TENURE OF OPERATOR

Of the four major tenure groups of farm operators, part owners operate about 44 percent of the total acreage. Full owners account for 31 percent of the total, and land operated entirely by tenants and that operated by managers accounts for about 15 and 10 percent respectively.

	Million acres	Percent of land in farms
Full owners	348.6	31
Part owners	498.3	44
Managers	109.8	10
All tenants	166.8	15
Total	1,123.5	100

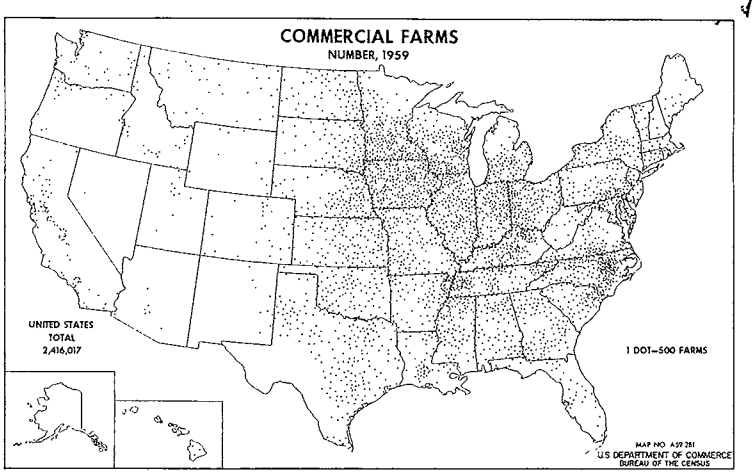
In 1954, full owners were operating 34 percent of the land in farms; part owners, 41 percent; all tenants, 16 percent; and managers, 9 percent.



NUMBER OF FARMS

In the 1959 Census of Agriculture 3.7 million farms were reported, 1.1 million fewer than were reported in 1954. Of this decrease, about 232,000 units that would have been counted as farms in 1954 did not meet the new definition of a farm adopted for the 1959 Census. However, even excepting the reduction in number of farms attributable to a change in the definition of a farm, the change in the number of farms was the greatest ever recorded for any 5-year period by the census of agriculture.

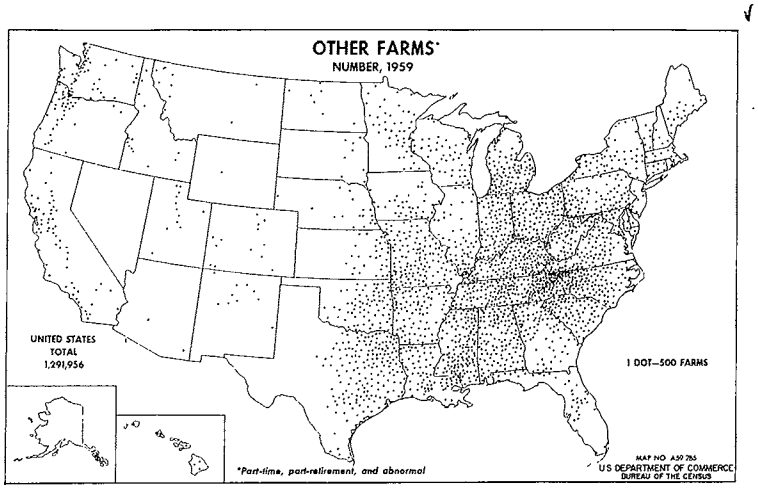
More than two-fifths of all the farms were located in the Southern States, which account for only a fifth of the total land area of the 50 States. On the other hand, the 11 Western States, Alaska, and Hawaii, which have one-half of the total land area, have only about a tenth of all farms. Farms are most evenly distributed among counties in the Corn Belt States. In parts of the Northeast, Southeast, and the Western States there are large areas where practically no farms may be found.



COMMERCIAL FARMS

Nearly two-thirds of all farms reported by the 1959 Census of Agriculture were classified as commercial farms. In general, all farms with a value of sales amounting to $2,500 or more were classified as commercial. Farms with a value of sales of $50 to $2,499 were classified as commercial if the farm operator was under 65 years of age and (1) he did not work off the farm 100 or more days during the year and (2) the income received by the operator and members of his family from nonfarm sources was less than the value of all farm products sold.

Almost half of all commercial farms in the United States were located in the Corn Belt, Lake States, and Northern Plains States. The Corn Belt States alone had nearly a fourth of all commercial farms. Among the States, Iowa had the largest number of commercial farms with 154,329.

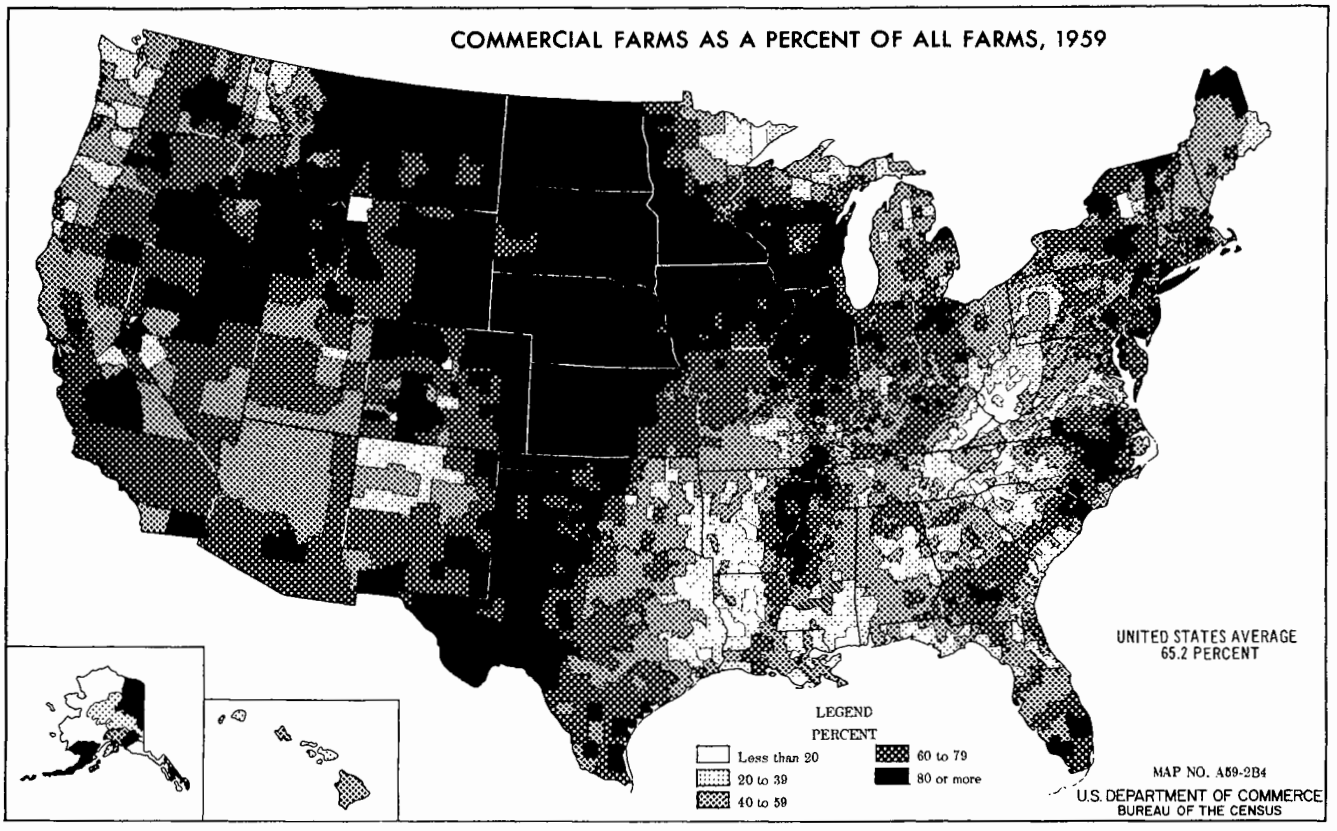


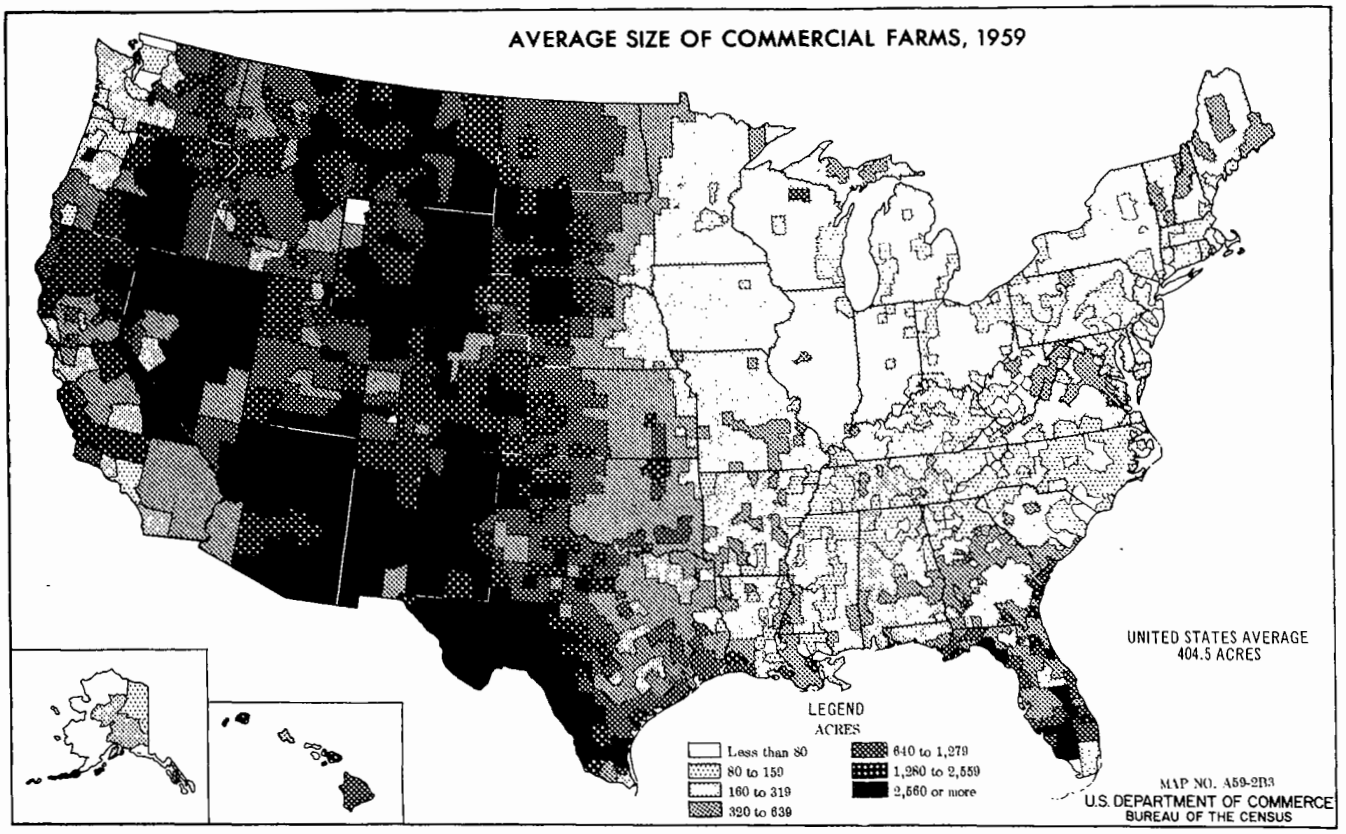
OTHER FARMS

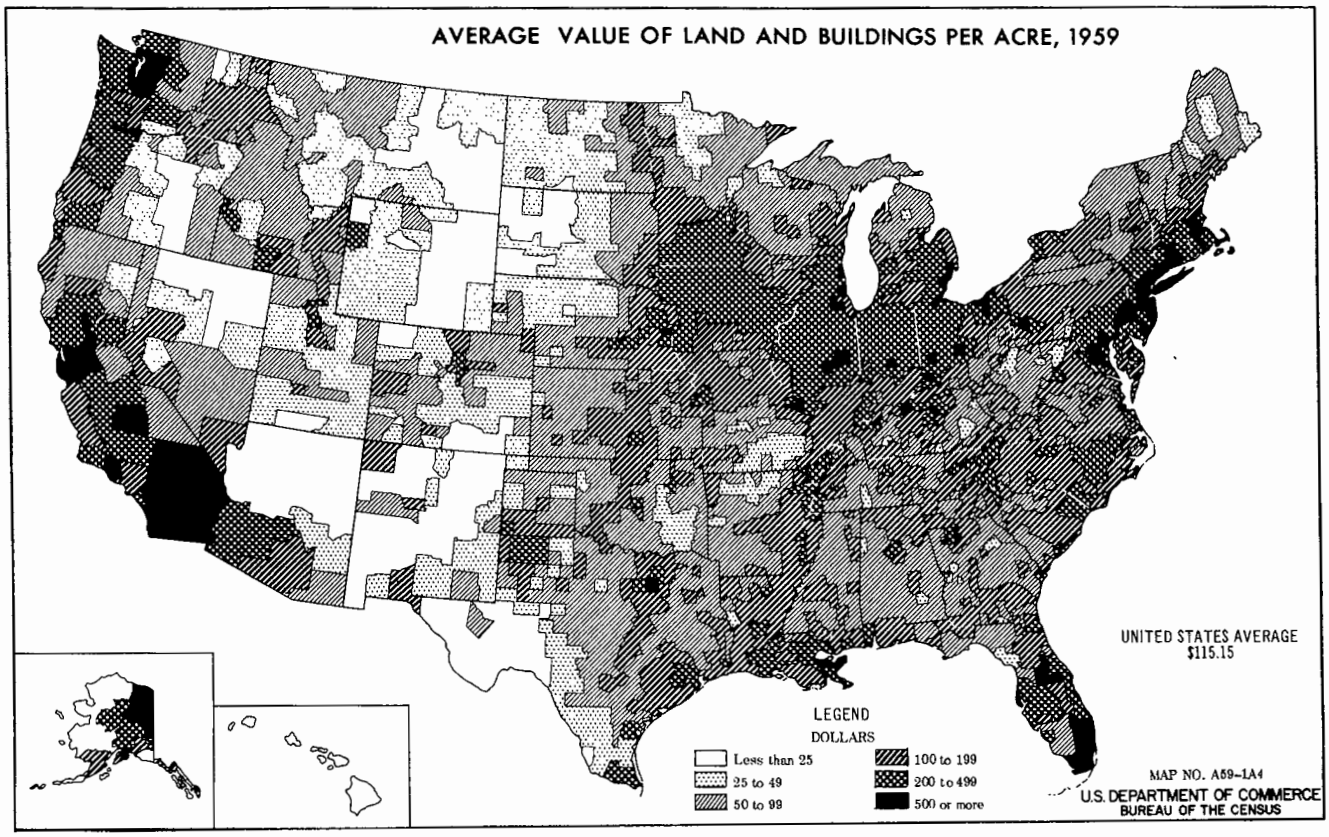
Part-time, part-retirement, and abnormal farms are classed as other farms. They constituted about one-third of all farms in 1959. For the first time the census of agricuture recognized the part-retirement farm in a separate economic class. The operators of these farms were 65 years old or over and the value of sales of farm products was $50 to $2,499. Abnormal farms include all institutional farms and Indian reservations.

The heaviest concentration of such farms is found in the Appalachian States, particularly in the mountainous parts of those States. Numerous part-time farms are scattered about this area. Employment in nearby towns or in the mills located in rural areas is fairly common in the southern Piedmont and Appalachian Mountain regions.

On the other hand there are very few other farms in the Northern Plains States. About 13 percent of all farms in these States were classed as other farms in 1959, whereas from two-fifths to nearly one-half of all farms in the Appalachian, Southeast, and Delta States were so classified.


COMMERCIAL FARMS AS A PERCENT OF ALL FARMS, 1959
UNITED STATES AVERAGE
65.2 PERCENT
LEGEND
PERCENT
Less than 20
20 to 39
40 to 59
60 to 79
80 or more
MAP NO. A59-2B4
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS


AVERAGE SIZE OF COMMERCIAL FARMS, 1959
UNITED STATES AVERAGE
404.5 ACRES
LEGEND
ACRES
Less than 80
80 to 159
160 to 319
320 to 639
640 to 1,279
1,280 to 2,559
2,560 or more
MAP NO. A59-2B3
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS



COMMERCIAL FARMS AS A PERCENTAGE OF ALL FARMS

In the Great Plains States, adjacent parts of the Mountain States, and the western part of the Corn Belt and Lake States a very high percentage of all farms were classified as commercial. Elsewhere, smaller areas of contiguous counties with high proportions of all farms in the commercial class were found mainly in the lower Mississippi Valley and in eastern North Carolina. There were numerous counties, mainly in the Eastern States, where commercial farms constituted less than a fifth of all farms.

AVERAGE SIZE OF COMMERCIAL FARMS

Commercial farms vary greatly in size. In the Western States where grazing of livestock is a common activity, farms or ranches are large. Florida also has some counties in which the average size of commercial farms exceeds 2,560 acres. Partically no counties have commercial farms averaging less than 80 acres per farm; however, numerous counties in areas where tobacco and cotton are grown have commercial farms that average between 80 and 159 acres in size. In the Corn Belt and the Lake States, the average size of commercial farms is between 160 and 319 acres for nearly all counties. This is also a common range in size of farm for many counties in the Northeast, Southeast, and Delta States.

When the average sizes of all farms are compared on a State basis, the range is from 83 acres per farm in North Carolina to 5,558 acres in Arizona. In North Carolina, many small farms producing mainly tobacco are a major factor in the small average size of farm; in Arizona, large Indian reservations make for a high average size.

The average size of all farms in the United States was 302 acres in 1959. This compared with 242 acres per farm in 1954 and 155 acres in 1935. Thus, American farms have approximately doubled in size during the past 25 years.

AVERAGE VALUE OF LAND AND BUILDINGS PER ACRE

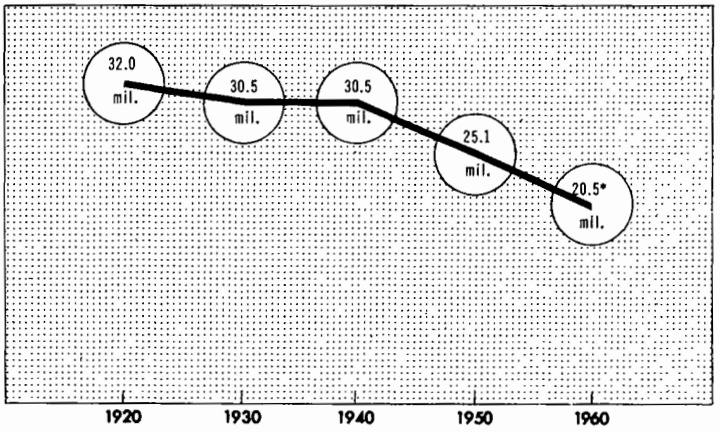
The average value of land and buildings per acre in 1959 varied widely throughout the United States. Among the States, New Jersey had the highest average values with $520 per acre and Wyoming the lowest with $21 per acre. Average values per acre in the Northeast ranged from $81 and $83 in Vermont and Maine to the State high in New Jersey and to $380 and $444 in Rhode Island and Connecticut. In the Lake States the State averages ranged from $132 to $193. In the Corn Belt the range was between $245 and $320, except for Missouri where the State average was only $112. In the Northern and Southern Plains States, $51 to $100 was the overall range by States. In the Appalachian, Southeastern, and Mississippi Delta States, average per-acre values ranged from $74 in West Virginia to $218 in Florida. Among the Western States, California had by far the highest land values with $353 per acre.

An example of the variations in land values associated with the production of different crops may be found in the May 1961 issue of the *Farm Real Estate Market*, in which some of the current developments are summarized. In California and Florida particularly, market values of farmland per acre vary greatly because of the special crops grown and also because of strong demand for land for such nonfarm uses as subdivisions and industrial and commercial sites.

The very high value of irrigated land in California was stressed in this report.

Land in avocado groves had the highest average value per acre ($4,500) in 1961. Orange groves were second, with average values per acre ranging from $3,750 for navel oranges to $3,900 for valencia oranges. Land on which prunes, peaches, apricots, almonds, and walnuts were being grown had average values per acre ranging from $1,600 to $2,375. Land used under irrigation for the production of vegetables averaged between $800 and $2,500 per acre in value, with $1,500 as an overall average. Land on which field crops such as cotton, sugar beets, rice, beans, barley, and alfalfa were being grown under irrigation had values ranging from an average of about $800 per acre for the more intensively used land to $600 for that used mainly for beans, barley, and alfalfa.

UNITED STATES FARM POPULATION 1920 TO 1960

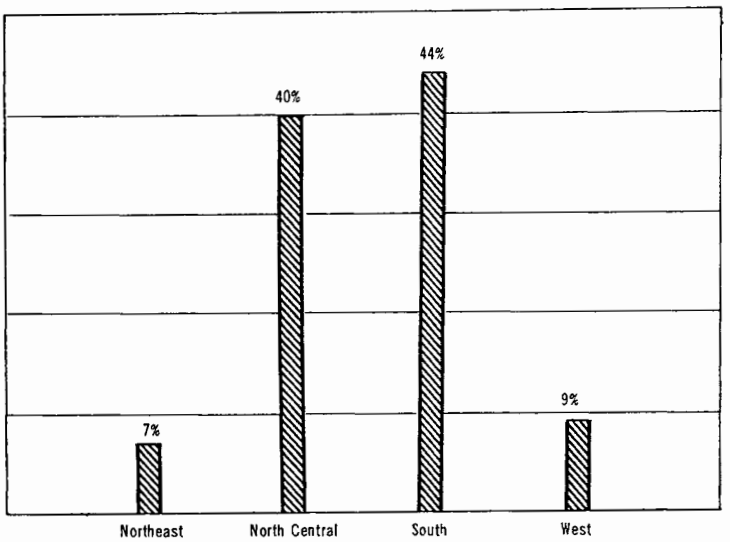


(Estimates from Population Surveys)

*Farm population according to the old definition of current population surveys. Farm population in 1960 estimated by the new definition is 15.6 million.

UNITED STATES FARM POPULATION BY REGIONS, 1960

Percentage of total farm population



U.S. FARM POPULATION

Farm population continued to decline sharply during the decade 1950 to 1960. Using the old definition of farm population in order to obtain comparable figures for 1950 and 1960, one finds that the reduction amounts to 4.6 million, or a 22-percent decrease. In 1950 the 25.1 million persons living on farms constituted 16.6 percent of the total population. The comparable estimate of farm population in 1960 is 20.5 million persons, or 11.4 percent of the total population. Under the new definition, the estimated farm population is only 15.6 million, which comprises only 8.7 percent of the total population.

All of these totals include the rural farm population of Alaska and Hawaii.

PERCENTAGE OF TOTAL POPULATION REPRESENTED BY FARM POPULATION

A change in the definition of farm population was made for the 1960 Census of Population. For this census, farm residence was determined by using the new definition of a farm. It was formerly determined by asking a person whether or not his house was located on a farm or ranch. The number of people living in the open countryside whose livelihood is not gained from farming has been increasing in recent years. Many of these people in replying to questions asked under the old definition tended to report themselves as living on farms. Therefore the effect of applying the new definition was to reduce the farm population sharply by eliminating many persons who sold little or no farm produce but who previously reported themselves as living on farms.

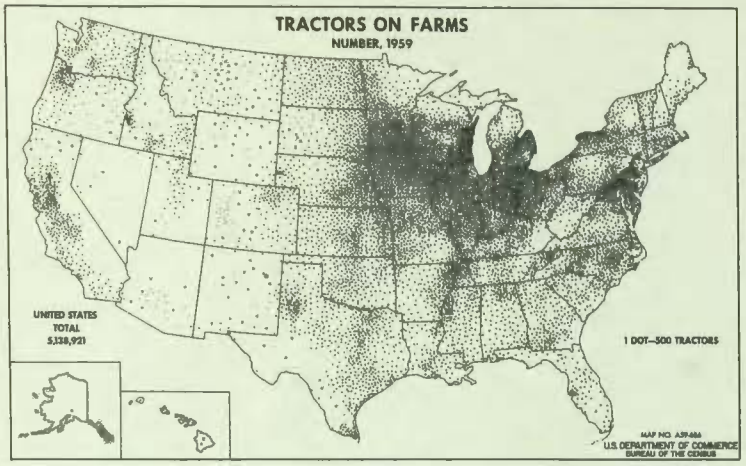
The comparison of the farm population as reported under the old and new definitions is as follows:

New definition: 1960 farm population—15.6 million, or 8.7 percent of the total population.

Old definition: 1960 farm population—20.5 million, or 11.4 percent of the total population.

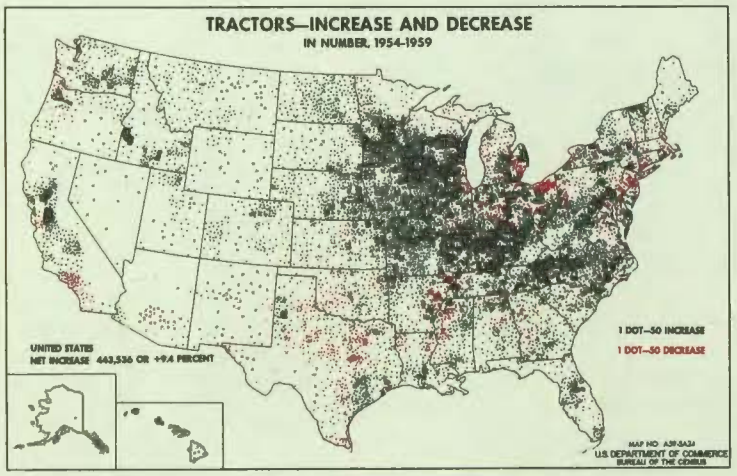
The overall pattern of farm population did not change very much between 1950 and 1960. The greatest concentration of farm population still remains in the South. In areas where tenant-operated cotton and tobacco farms are still numerous and where there are many part-time and residential farms, the percentage of the total population living on farms is relatively high. Of the counties with a relatively small part of the total population living on farms, many are highly urbanized. Mining and forestry are more important activities than farming in numerous other counties with very few farm people.

The regional distribution of the farm population has changed only slightly during the past 40 years. In 1920, the regional distribution was as follows: Northeast, 8 percent; North Central, 32 percent; South, 53 percent; and West, 7 percent. In 1960, the census of population indicated that the Northeast had 7 percent of the farm population; the North Central States, 40 percent; the South, 44 percent; and the West, 9 percent.



TRACTORS ON FARMS

The 5.1 million tractors reported on farms in 1959 represent an increase of nearly a half million in 5 years. Approximately a fourth of all tractors were found on farms in the Corn Belt States in 1959. More than half (52 percent) of all tractors were located in the Corn Belt, Lake States and Northern Plains regions. Many farms of course have more than one tractor, particularly in the highly commercialized agricultural areas. When the distribution of tractors on farms is compared with the distribution of cropland harvested, a close similarity exists, as would be expected, since so much of the tractor power is used in the production of crops. Approximately a half million tractors were reported on farms in both the Northeast and the Appalachian regions. The Southeast, Delta, and Mountain regions each reported about a quarter of a million tractors. The Delta States reported 0.4 million and the Pacific States 0.3 million tractors.

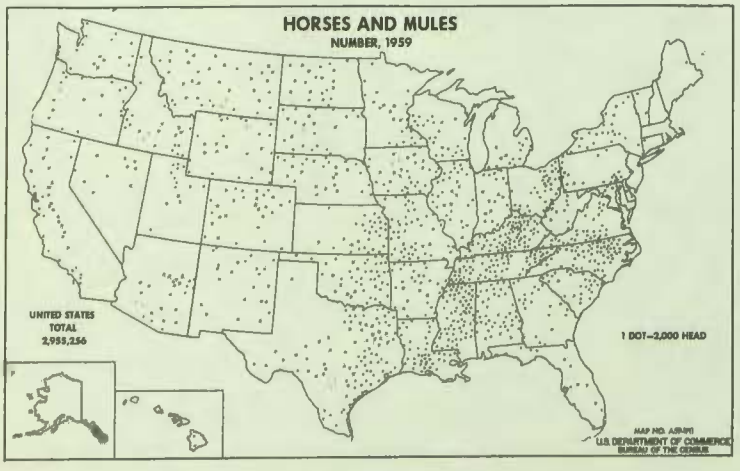


TRACTORS—INCREASE AND DECREASE IN NUMBER

The overall increase in the number of tractors on farms between 1954 and 1959 was about 9 percent. Many counties, however, reported decreases in the number of tractors while others reported increases considerably in excess of the overall 9 percent increase.

The major decreases in the number of tractors occurred mainly in those counties where rapid urbanization was underway and in counties where considerable acreages of cropland were being transferred to pasture and forestry uses.

Major increases took place in many counties of the Appalachian region and in the relatively hilly parts of such States as Ohio, Indiana, and Illinois. The small tractor was undoubtedly becoming popular to farmers growing tobacco and other crops on relatively small farms. Several areas in the West where the irrigated acreage increased sharply also had increases in the number of tractors. Sizable increases also occurred in the productive Corn Belt and in the lower parts of Minnesota and Wisconsin.

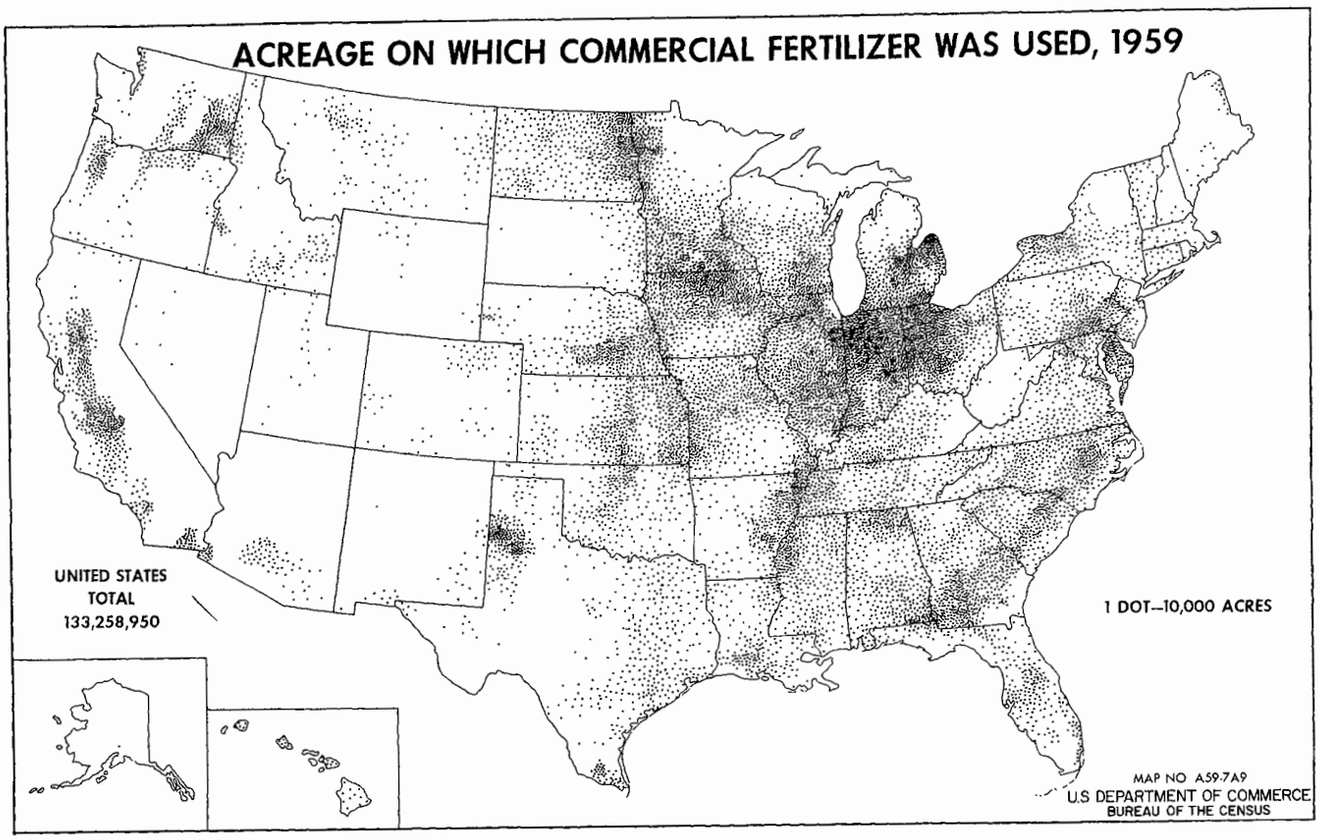


HORSES AND MULES

The number of horses and mules reported on farms in 1959 was less than 3 million. A considerable part of these were cow ponies on western ranches. More than a third of all horses and mules reported on farms were located in the Great Plains, Mountain, and Pacific States where crop production for the most part is highly mechanized.

Another third of the horse and mule population was found in the Appalachian, Southeast, and Delta States regions, where on many small farms horses and, more often, mules are still used for draft purposes.

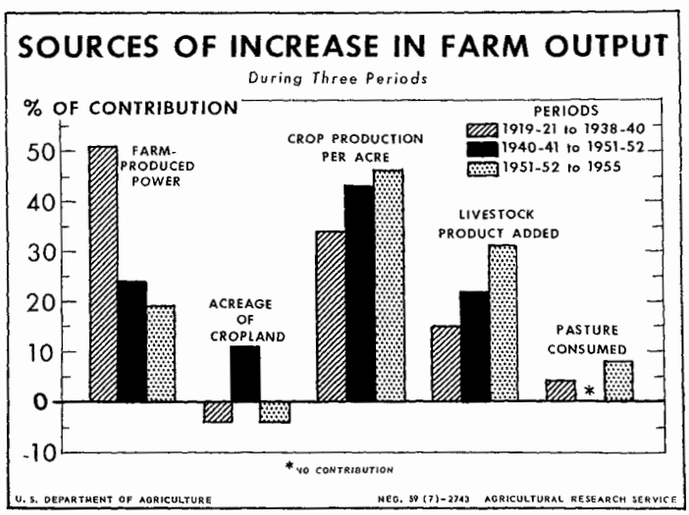
The remaining third of the horses and mules were found in the Corn Belt, Lake States, and Northeast regions. Many of the horses on these farms were used for riding purposes or had been retired from active use on the farms where they were enumerated. In some of the more hilly parts of these regions, however, some draft use of horses and mules may still be found.



ACREAGE ON WHICH COMMERCIAL FERTILIZER WAS USED

Commercial fertilizers were being used on 133 million acres of land in 1959. This represented an increase of 10 million acres over the acreage fertilized in 1954. The principal crops on which fertilizer was being used were:

Crop	*Million acres*	*Percent of total acreage fertilized*
Corn	51.0	38.3
Wheat	17.5	13.1
Hay and cropland pasture	13.4	10.0
Cotton	8.5	6.4
Other pasture (not cropland)	4.5	3.4
Soybeans	2.7	2.0
Sorghum	2.4	1.8
All other crops	33.3	25.0
Total	133.3	100



SOURCES OF INCREASE IN FARM OUTPUT

Three major and two minor sources of increase in farm output since 1920 may be noted on the accompanying graph. During the period of the 1920's and 1930's the substitution of the tractor for farm-produced power (horses and mules) accounted for 51 percent of the increase of livestock and crops available for direct human use. During this same period, a change in crop production per acre accounted for 34 percent of the increase in farm output. The increase in farm output attributed to livestock product amounted to 15 percent. Increased consumption of pasture contributed 4 percent, which was counterbalanced by a 4-percent decrease in the acreage of cropland.

During the decade of the 1940's, the major source of increase in farm output was the greatly accelerated crop production per acre (43 percent). Reduction in farm-produced power and an increase in livestock product added contributed 24 and 22 percent respectively. Acreage used for cropland increased 11 percent.

More recently, during the 1950's, the substitution of inanimate power for animate power on the farm has continued to drop as a source of the increase in farm output (19 percent). Increased crop production per acre accounted for 46 percent of the total increase in farm output for the period from 1951–52 to 1955. Change in product added by all livestock amounted to a 31-percent increase. Pasture consumed by livestock was up 8 percent in 1955 over 1951–52 and cropland used was down 4 percent.

FARM PRODUCTION

From colonial times to about 1920, the major increases in farm production were attributable to the expanding acreage that was being used for agriculture. New farms were created on the frontier of settlement and virgin forests and grassland were cleared and plowed for crops. Later, farmers began to apply manures, rotate crops, put on lime, and carry out other practices in order to maintain production on established farms on which the inherent fertility of the virgin soils had been depleted. Yet the application of these practices was subordinate to the expansion of the total cropland acreage in bringing about increases in production on American farms.

About 1920, or following World War I, a remarkable shift in farming began to take place. The total cropland acreage was to become stabilized at acreages ranging from 480 million acres to about 460 million acres during the next 40 years. Yet during these 40 years the population of the United States increased from 106 million to 181 million people, who now enjoy a level of living superior to that available in 1920. How has agricultural production been increased during the past 40 years so that an additional 75 million persons could be fed better on about the same acreage of cropland? No major changes in farm imports have occurred during this period, except for increased per capita consumption of some foreign agricultural commodities such as coffee and bananas, which are not produced in the 48 original States.

The mechanization taking place on farms has played a significant role in expanding the farm output available for human consumption. About a fourth of the expanded output for human use was a result of the substitution of the tractor for horses and mules on the farms of this country. The other three-fourths of this increase was brought about by a remarkable increase in the per-acre productivity of the land used and also by the increased productivity of the livestock. The development of new techniques and materials through agricultural research and the application of this technology in the farming operation have been highly significant in accounting for this major change.

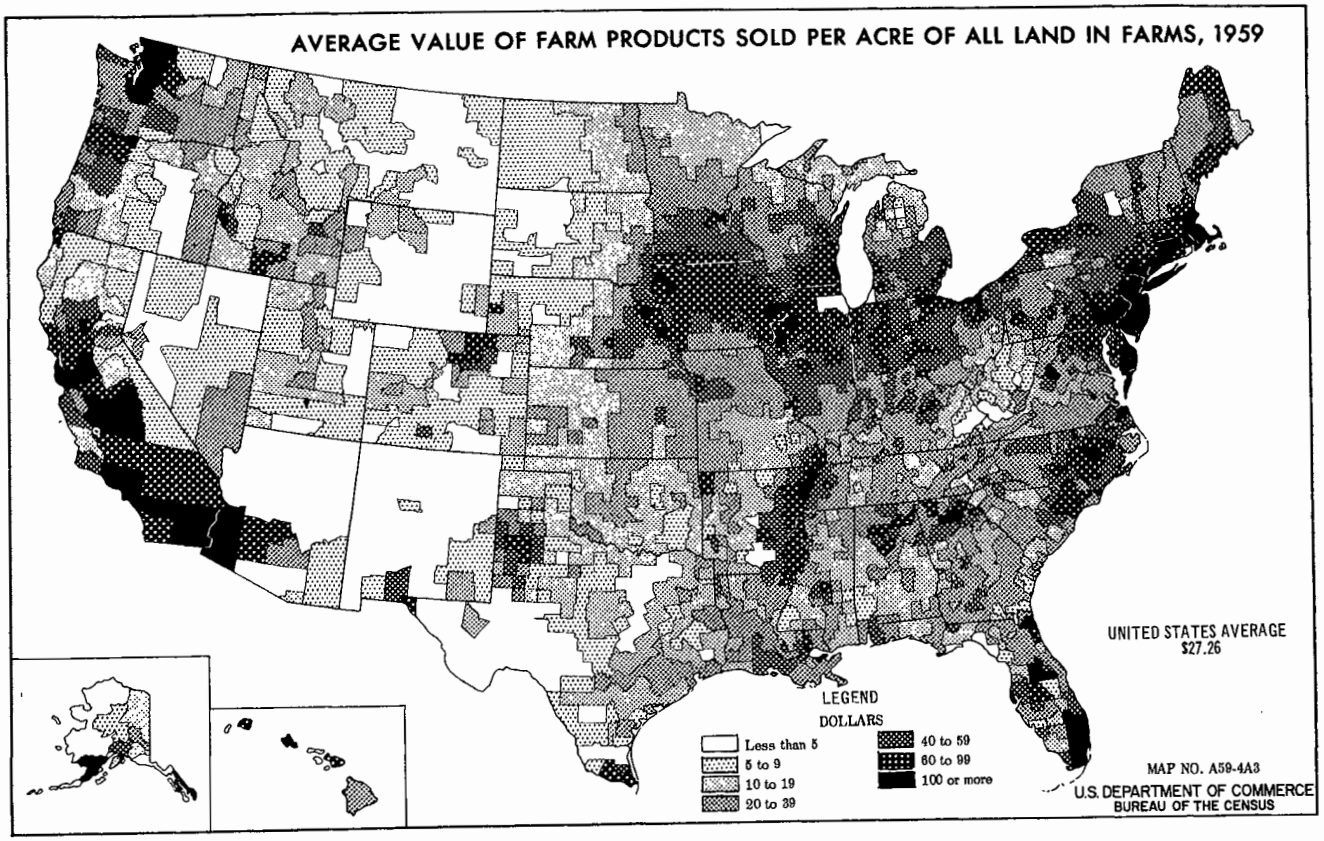
The yields per harvested acre of some of the principal crops indicate how striking this increased productivity of the cropland has been. In the table below, yields of corn, wheat, cotton lint, and hay crops are shown for the 1920's and for the 1950's along with the percentage increases in those yields:

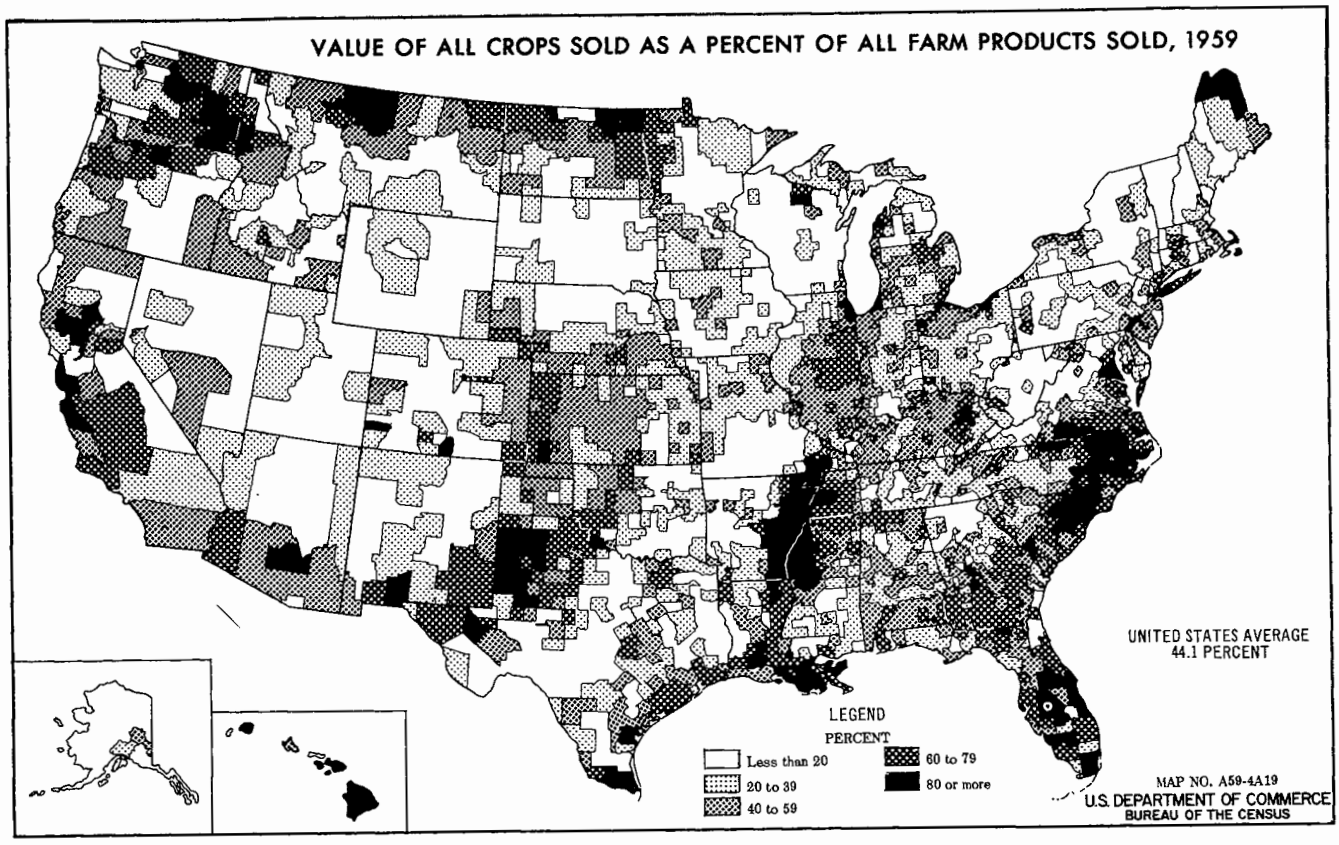
Item	Yield per harvested acre		
	1920	1950	Change (percent)
Corn, bushels	27	43	59
Wheat, bushels	14	20	43
Cotton (lint), pounds	162	363	124
Hay, tons	1.22	1.51	24

The increases in livestock production per breeding unit have also been very striking. This production per breeding unit increased by more than 50 percent between the decades of the 1920's and the 1950's. Milk production per cow increased by nearly 1,400 pounds, which amounts to an increase of one-third over the average for the 1920's. The average laying chicken produced 6 dozen more eggs in the 1950's than were produced per layer in the 1920's.

Striking increases in production also occurred for other crops and other types of livestock, as well as those cited briefly above.

The maps and graphs that follow depict the distribution of the major crop and livestock components of American agriculture and some of the changes that have taken place in recent years. Particularly in the captions that accompany the maps, attention has been given to a brief description of major changes in the distribution of the production of crops and livestock as well as to major changes in the total acreage of crops or number of livestock units which have occurred.





AVERAGE VALUE OF FARM PRODUCTS SOLD PER ACRE OF ALL LAND IN FARMS

The values shown on this map were computed by taking the total dollar value of all farm products sold and dividing this by the acreage of land in farms. Thus the overall average for the United States was 27 dollars per acre and the range was from less than 5 dollars per acre to average values of more than 100 dollars in many counties.

The average value of farm products sold per acre of all land in farms was highest in those areas with inherently fertile soils and with a high proportion of the land in farms used as cropland, and in those areas where it has been profitable to apply large inputs of capital and in some cases labor to produce farm products. Counties in which average values of farm products sold per acre was low were numerous in the Western States where extensive areas are used for grazing.

Counties in the Corn Belt, parts of California and Florida, the lower Mississippi Valley, eastern North Carolina, and counties around large cities throughout the country account for most of the counties with the highest average value of farm products sold per acre of all land in farms. In the Corn Belt and lower Mississippi Valley, a high proportion of inherently fertile cropland per farm is being used in producing relatively high value livestock and cotton, respectively. In California and Florida, citrus fruits and off-season vegetables and—particularly in California—cotton, deciduous fruits, nuts and some dairying and other livestock production contribute high average values of farm products sold. In eastern North Carolina tobacco is a dominant high-value crop. Around the large cities, dairy products and some vegetable production are major factors contributing to the high per-acre values of farm production.

In parts of the Western States, where large acreages of pasture and grazing land are needed for livestock production, the average values of farm products sold per acre are naturally very low. In the Eastern States, rough topography and poor soils are commonly associated with a low value of production per acre in many places.

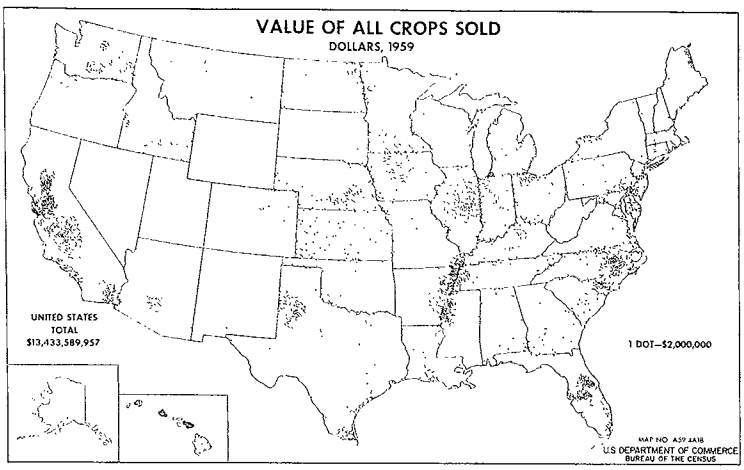
In Alaska and Hawaii, a generally intensive agricultural pattern of use prevails if the land is used at all for agriculture. Some dairying and vegetable products grown on Alaskan farms bring high prices in local markets. In Hawaii, sugarcane and pineapples, which are the two major crops, have a relatively high value per acre grown.

VALUE OF ALL CROPS SOLD AS A PERCENTAGE OF ALL FARM PRODUCTS SOLD

In 1959, the total value of all farm products sold amounted to more than 30 billion dollars. Of this total about 13 billion dollars, or 42 percent of the total value of all farm products sold, was accounted for by crops. Livestock products accounted for most of the remaining value of farm products, although some forest products were sold by farmers.

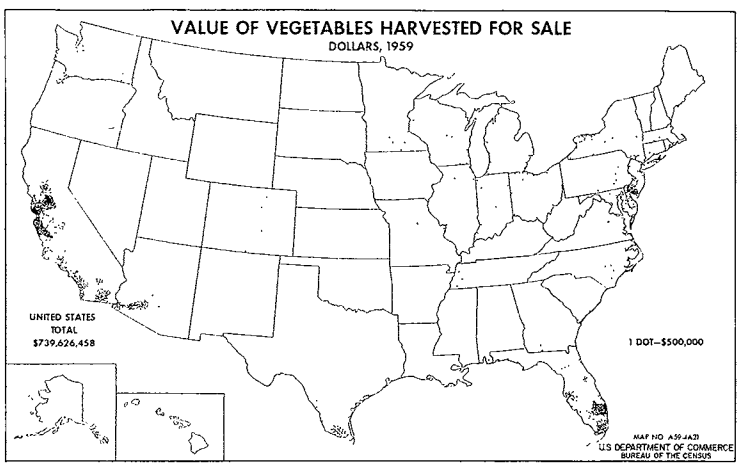
Areas where crop production accounts for 80 percent or more of the total farm production include the Middle Atlantic and Southeastern Coastal Plain where crops such as tobacco, cotton, vegetables, and fruit are important; the lower Mississippi Valley and Texas High Plains cotton areas; and the Columbia River Basin and north-central Montana wheat areas. In parts of the Corn Belt and in many of the irrigated valleys of the West, the value of livestock and crop production is more nearly equal. Over large areas of the West which are suited mainly for grazing there is very little crop production.

The Corn Belt States and Pacific States as groups, account for about 36 percent of the total value of all crops sold.



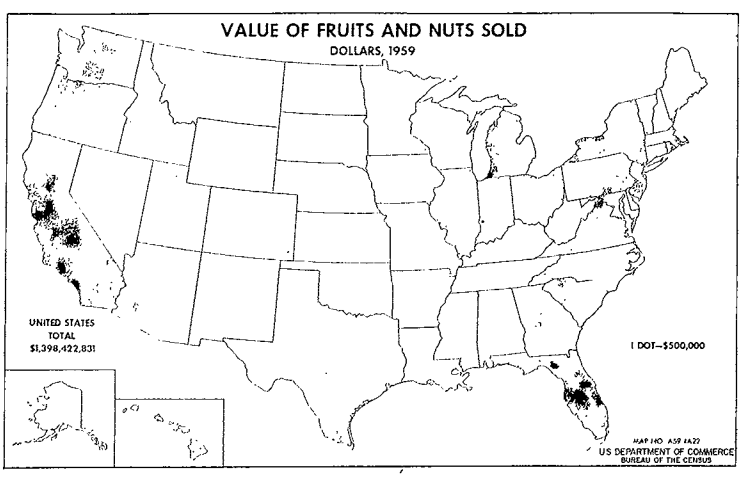
VALUE OF ALL CROPS SOLD

In several parts of the United States, the production of crops for sale is the major agricultural enterprise. On the accompanying map the following are particularly evident: the Central and Imperial Valleys of California with their fruits, nuts, vegetables, cotton, rice, wheat, and other cash crops; the lower Mississippi Valley and the High Plains of Texas where cotton is the leading crop; the central part of Florida with its citrus and vegetables; the lower Rio Grande Valley with its vegetables and citrus; the tobacco and cotton areas of eastern North Carolina and South Carolina; the Salt River Valley of Arizona with its cotton, vegetables, and citrus; the Columbia Plateau wheat area; the Aroostook County, Maine, potato area; the eastern and southern shores of the Great Lakes with important fruit production; and the more widespread cash grain producing areas of the Great Plains and the Corn Belt.



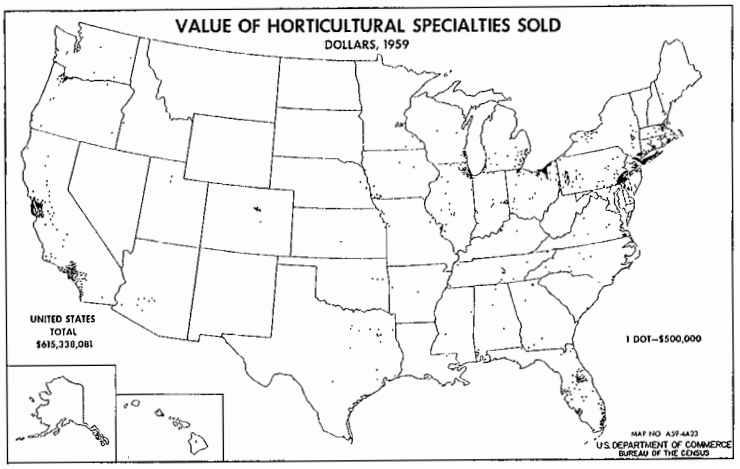
VALUE OF VEGETABLES HARVESTED FOR SALE

The production of vegetables harvested for sale is much more highly concentrated than production on farms for home use. In 1959, four areas had a particularly high dollar value of vegetables harvested for sale: (1) The irrigated areas of California, including parts of the Central Valley, the Imperial Valley, and the Santa Clara and other coastal valleys, some of these areas producing during late fall, winter, and early spring; (2) the south Florida vegetable areas where most of the production takes place during late fall, winter, and early spring when areas farther north are unable to produce vegetables; (3) the lower Rio Grande Valley of Texas which also produces vegetables during the off seasons for northern areas; and (4) the Middle Atlantic Coastal Plain which produces both for processing and for the fresh market.



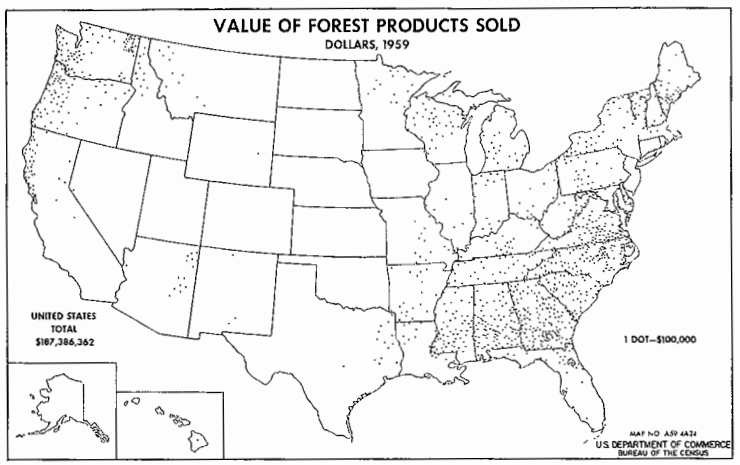
VALUE OF FRUITS AND NUTS SOLD

Fruits bring a relatively high return per acre and their production is highly localized. To a major degree climatic conditions play an important role in the selection of areas for fruit production. California and Florida were the leading fruit producing States in 1959. Two-thirds of the total value of all fruits and nuts sold was contributed by these two States. Both citrus and deciduous fruits are of major importance in California as well as nuts, particularly walnuts and almonds. In Florida citrus fruits dominate, although some small fruits such as strawberries and some pecans are produced. Other important fruit-producing areas contributing a high value of fruits are the irrigated valleys of Washington and Oregon where apples and pears are especially important; the eastern and southern shores of the Great Lakes, and the valley slopes of Virginia and Maryland where apples and peaches are grown.



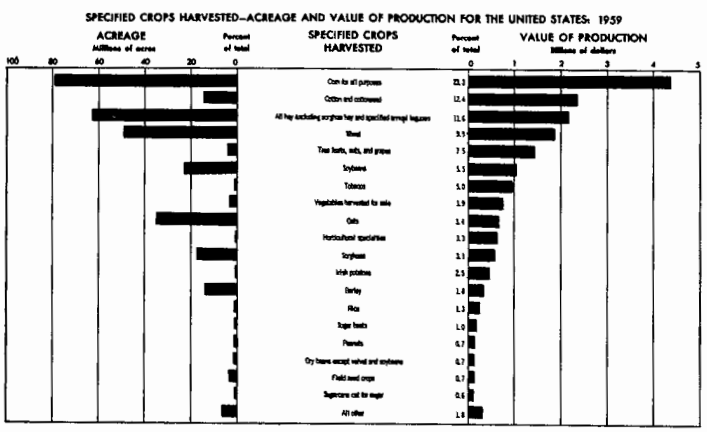
VALUE OF HORTICULTURAL SPECIALTIES SOLD

Horticultural specialties include nursery products such as trees, shrubs, vines, and ornamentals; cut flowers, potted plants, florist greens, and bedding plants; and vegetables grown under glass, flower seeds, vegetable seeds, vegetable plants, bulbs, and mushrooms. More than $600 million worth of these products were produced in 1959. California, Pennsylvania, Ohio, Florida, and New York, in that order, were the leading producing States. From the accompanying map it is obvious that the major producing areas are strongly oriented toward large urban centers. Particularly heavy concentrations are associated with Chicago, Cleveland, New York, and Philadelphia. Mushroom production in southeastern Pennsylvania contributes to the high value of horticultural specialties sold in that area. Other areas of specialization are also characteristic of this type of agricultural production.



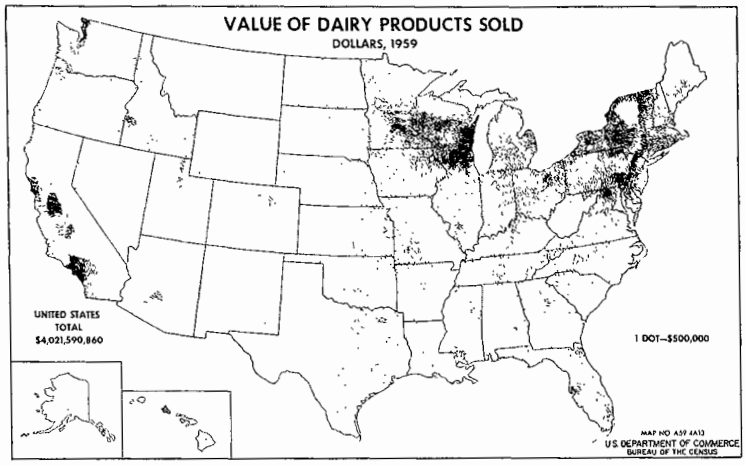
VALUE OF FOREST PRODUCTS SOLD

Some forest products are sold from many farms, hence in contrast to the high degree of concentration found in the production of fruits, vegetables, and horticultural specialties the value realized from the sale of forest products is widely distributed. The value of forest products shown on this map pertains only to those produced on farms, therefore commercial logging operations are generally excluded. Individual forestry products sold from farms include firewood and fuelwood, mine timbers, poles and piling, fence posts, sawlogs, veneer logs, pulpwood, Christmas trees, and maple syrup. The total value of forest products sold in 1959 amounted to 187 million dollars. In some areas such as the Appalachian, Southeast, and Delta States for example, the sale of pulpwood contributes substantially to the income of farms in some years. Naval stores contribute significantly in parts of the Southeast. In general, however, forests located on farms are contributing far below their full potential to the total supply of forest products in this country.



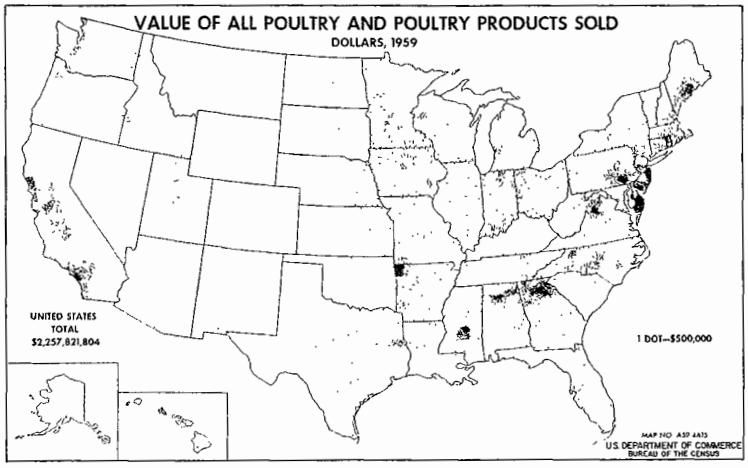
SPECIFIED CROPS HARVESTED: ACREAGE AND VALUE OF PRODUCTION

As in 1954, corn was the leading crop in American agriculture both on the basis of value of production and on the basis of acreage harvested. Cotton, hay crops, wheat, and tree fruits, nuts and grapes continued in that order to be leading crops on a value-of-production basis. Changes in rank of crops according to value of production are particularly interesting to note. Soybeans moved from eighth to sixth in rank between 1954 and 1959, moving ahead of tobacco and oats in value of crop output. Horticultural specialties, which accounted for only 0.7 percent of the total value of crop production in 1954, made up 3.3 percent of the total crop production in 1959—a change from seventeenth to tenth place. Vegetables harvested for sale, sorghums, Irish potatoes, sugar beets, and sugarcane also accounted for a higher percentage of the total value than they did in 1954.



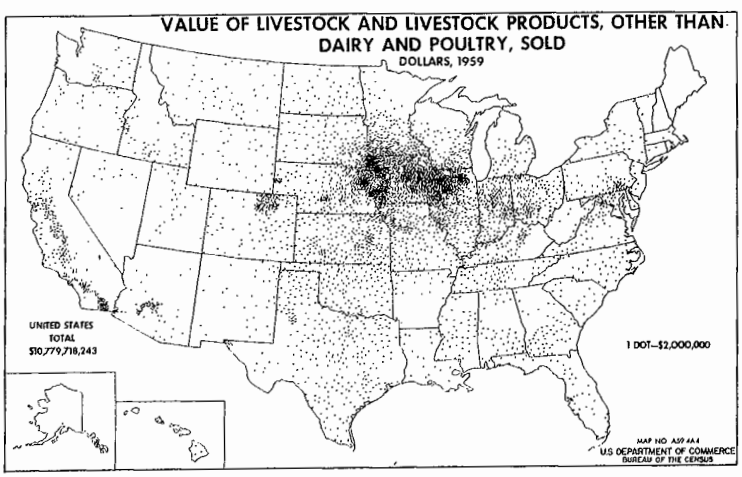
VALUE OF DAIRY PRODUCTS SOLD

When one compares this map showing the distribution of the value of dairy products sold with a map of generalized farming regions, it is very easy to find the Dairy Belt of the United States. It is also worth noting that California is a major dairy State. In the Pacific Northwest and in other parts of the country lesser or secondary areas of dairy production may be noted. Several of these are found near urban centers. Six States account for approximately half the total value of dairy products sold in the United States. These are Wisconsin ($517 million), New York ($409 million), California ($324 million), Pennsylvania ($279 million), Minnesota ($259 million), and Ohio ($167 million). Among the smaller States, Vermont with $83 million worth of dairy products sold, and Maryland with $64 million are especially worthy of note.



VALUE OF POULTRY AND POULTRY PRODUCTS SOLD

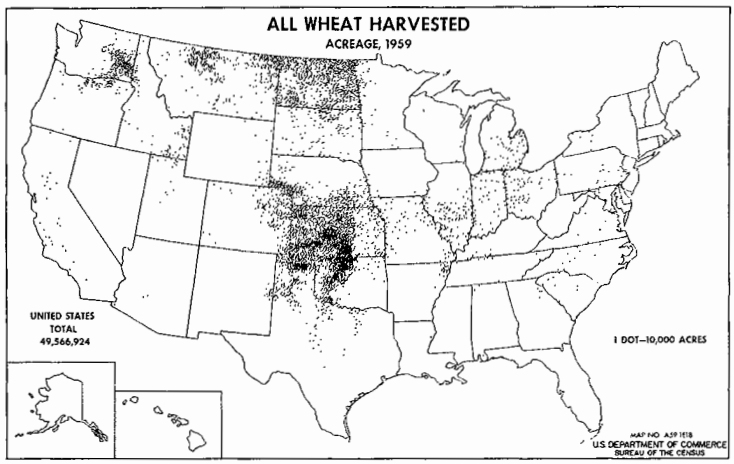
Poultry products sold in this country have increased greatly in total value in recent years. There has also been a marked tendency for specialized areas of production to develop in a few States. In 1959 nearly $2.3 billion worth of poultry and poultry products were sold from American farms. The Northeast farm production region accounted for one-fifth of this total value, the Corn Belt and Southeast regions for about 15 percent each, and the Pacific and Appalachian regions for about 12 and 10 percent respectively. Among the States, California was the leading producer of poultry and poultry products with $210 million worth sold; Georgia was second with $166 million sold, followed by Pennsylvania with $115 million and Texas with $101 million worth sold. Several other States in the farm production regions named above also are major producers.



VALUE OF LIVESTOCK AND LIVESTOCK PRODUCTS OTHER THAN DAIRY AND POULTRY SOLD

In comparing the scale of the maps on this page it is very important to note that the dollar value of each dot varies considerably among the three maps. Thus of the $17 billion of livestock and/or livestock products sold including poultry and poultry products, $10.8 billion worth of livestock and livestock products other than dairy and poultry were sold. Beef cattle, hogs, and sheep (for both wool and meat) were the major sources of the value realized from this group of livestock and livestock products.

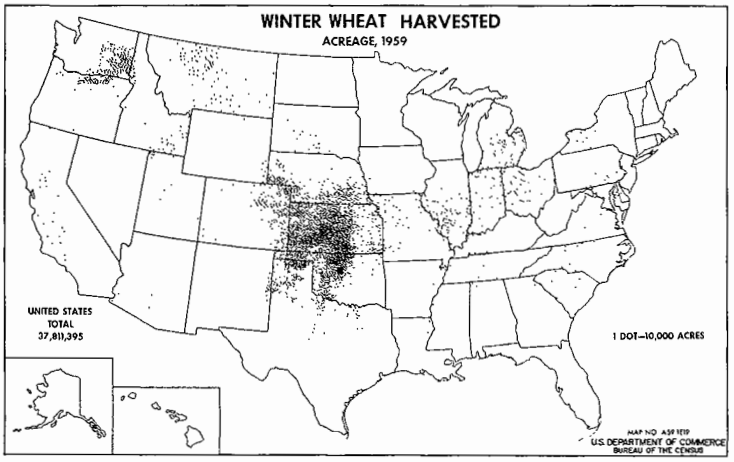
It may be seen from the accompanying map that the Corn Belt has the heaviest single concentration of high value realized from the sale of livestock and livestock products other than dairy and poultry. This concentration is particularly striking in Iowa, northwestern Illinois, and eastern Nebraska. Cattle feeding operations in several of the irrigated areas of the West also may be noted, such as the area in Weld County, Colorado.



ALL WHEAT HARVESTED

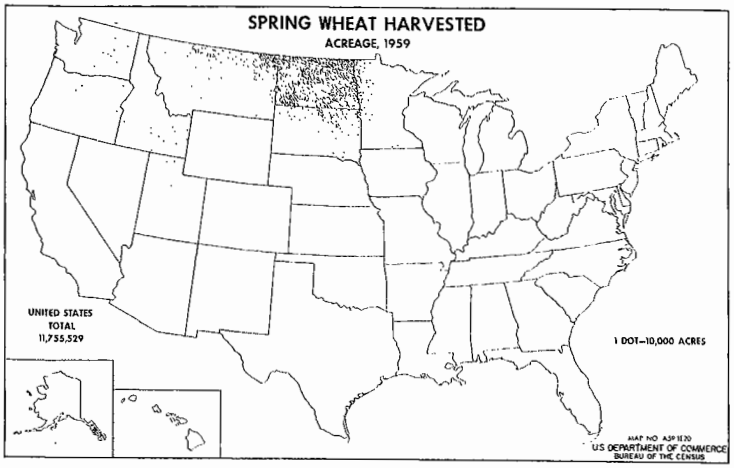
Nearly 50 million acres of wheat were harvested in 1959. This is a major decline from the 71 million acres harvested in 1949. However, 73 million acres were harvested in 1919. Acreage allotment programs have greatly limited the acreage of wheat being planted and harvested in recent years.

Almost three-fourths of the total acreage of wheat harvested in 1959 was in the Great Plains. Another major wheat producing area is located on the Columbia Plateau of Washington, Idaho, and Oregon, where nearly 4 million acres were harvested in 1959. Among the States, Kansas led in acreage harvested with nearly 10 million acres, or almost one-fifth of the total U.S. crop. North Dakota had 6.4 million harvested acres, followed by Oklahoma with 4.3.



WINTER WHEAT HARVESTED

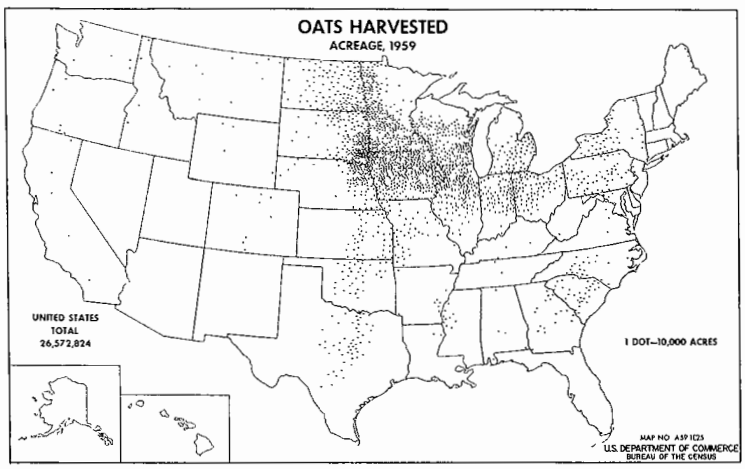
Of all wheat harvested, the acreage of winter wheat accounted for approximately 76 percent of the total. Winter wheat is more widely grown than spring wheat, which is produced mainly in only 6 states. Winter wheat is planted in the fall of the year and is harvested in early summer. Particularly in the southern and central parts of the Great Plains, it is important to get wheat matured before hot dry southwest winds begin to affect yields. Generally, winter wheat yields are higher than spring wheat yields. For the 10-year period 1950–59 the average yield for winter wheat for all of the United States was 20.9 bushels per harvested acre. For the same 10-year period the spring wheat yields averaged 16.4 bushels per harvested acre. Therefore, one finds that winter wheat is more widely grown than spring wheat, which is limited primarily to the northern part of the Great Plains and to the Columbia Plateau where climatic conditions are not favorable for winter wheat production.



SPRING WHEAT HARVESTED

Spring wheat is planted in the late spring and harvested late in summer. In the areas where it is grown a high proportion of the total rainfall comes during the summer months. Evapotranspiration rates are not as high in areas where spring wheat is grown as in the southern Great Plains where much winter wheat is produced, therefore the favorable seasonal distribution and greater effectiveness of the precipitation make it possible to produce wheat with a smaller total annual precipitation.

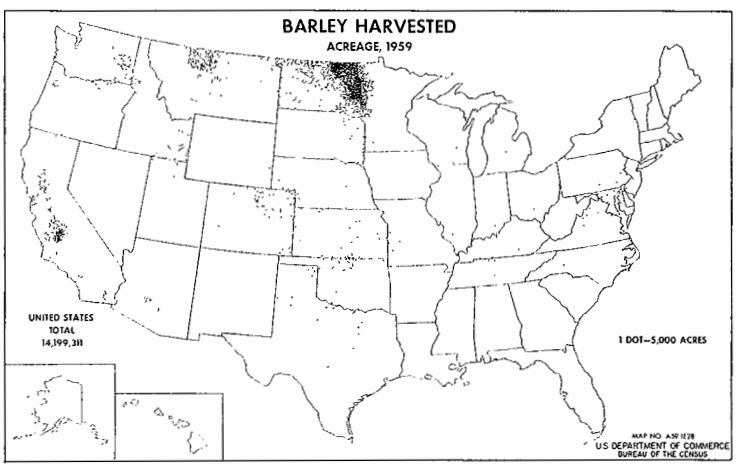
Only about a fourth of the total wheat crop is spring wheat. North Dakota has more than half of the 11.8 million acres of spring wheat that were harvested in 1959. Montana is the second leading State in spring wheat acreage with more than 2 million acres. Durum wheat used in making macaroni and spaghetti has generally been harvested from about 2 million acres in the spring wheat area in recent years.



OATS HARVESTED

Next to wheat, oats have long been the second major small grain produced on American farms. The peak acreage of oats harvested was in 1921 when more than 45 million acres were harvested. This peak acreage nearly coincides with the peak horse and mule population on American farms. Between 1950 and 1959, the acreage of oats harvested ranged from a high of 37.9 million acres in 1954 to 26.6 million acres in 1959. Generally in the last 5 years oats acreage has declined. The decline of about 14 million acres between 1954 and 1959 amounted to a significant change in American agriculture. In part, this decline was related to the use of other surplus grains being fed to livestock and in part to the growing importance of other crops, particularly soybeans in areas where oats have mainly been grown.

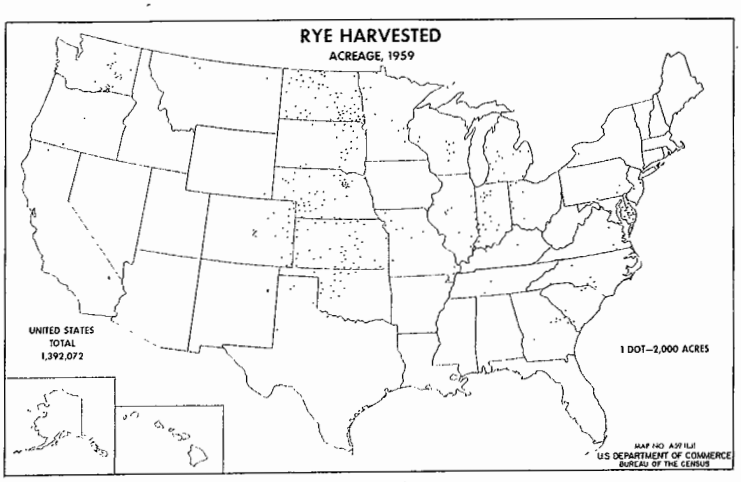
The Corn Belt, Lake States, and Northern Plains are the leading oats-growing areas among the farm production regions. Nearly three-fourths of the total harvested acreage was located in these regions in 1959. Relatively few oats are produced in the southern part of the United States, partly because of climate and partly because they have not been used as a major feed grain there.



BARLEY HARVESTED

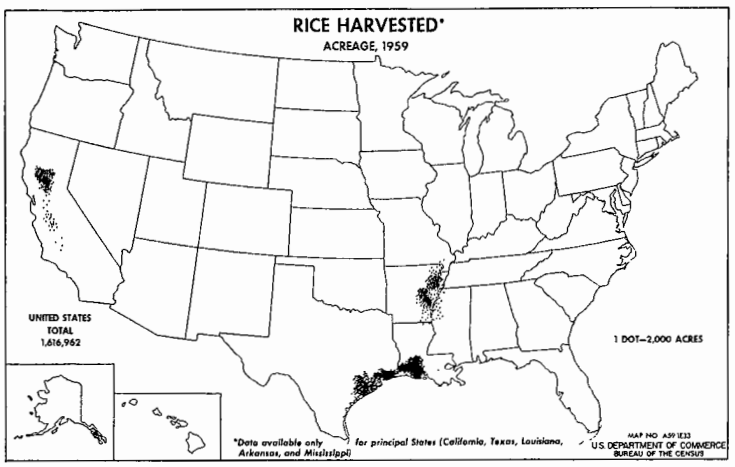
About 14 million acres of barley were harvested in 1959. In contrast to the substantial decrease in acreage of oats, the 1959 harvested acreage of barley was the highest reported by the U.S. Department of Agriculture during the 1950–59 period. Generally, the increases in the acreage of barley harvested have occurred in areas other than where oats acreage has declined.

The major barley State is North Dakota, where in 1959 3.8 million acres were harvested, about one-fourth of the total U.S. crop. The Red River Valley area of eastern North Dakota has an especially heavy concentration of barley acreage. Montana with 1.7 million harvested acres and California with 1.5 million acres were the second and third ranking States in 1959. Very little barley is grown in the eastern or southern parts of the United States.



RYE HARVESTED

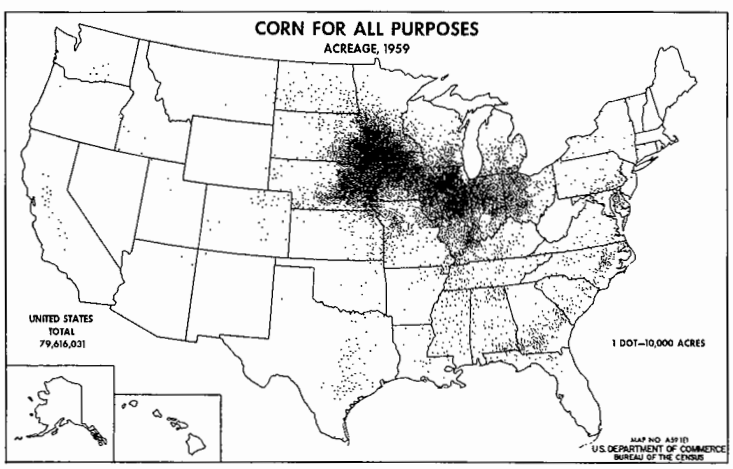
In northwestern Europe and in the Soviet Union rye is a much more important crop than it is in the United States. Only 1.4 million acres of rye were harvested in the United States in 1959. It should be emphasized that in addition to this harvested acreage many acres of rye are planted as a winter cover crop. This often serves as pasture and then is turned under as a green manure crop. About two-fifths of the total acreage of rye harvested in 1959 was located in the Northern Plains farm production region. Washington is the leading State outside the Northern Plains in the acreage of rye harvested. As in the case of oats and barley, very little rye is grown for grain in the eastern and southern parts of the United States.



RICE HARVESTED

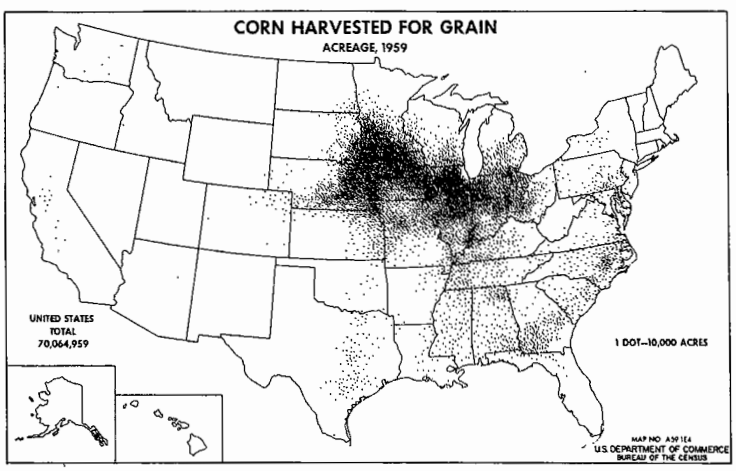
The production of rice in the United States is highly concentrated in three major producing areas. These are (1) the coastal prairies of Louisana and Texas, which grew about 55 percent of the total U.S. acreage harvested in 1959; (2) the Arkansas-Mississippi area, which produced about 25 percent of the total; and (3) the Central Valley of California (particularly the Sacramento Valley), which produced about 20 percent. Historically, the coastal areas of South Carolina and Georgia were important rice-producing areas.

The acreage of rice harvested in this country has increased during the past 60 years. During the first decade of the century the average annual acreage harvested was 0.5 million acres. During the decade of the 1920's the acreage was 1.0 million acres. During the 1950's the average acreage was 1.8 million acres. The peak year in the acreage of rice harvested came in 1954 when 2.5 million acres were harvested. During the first 5 years of the 1950's the average yield per acre was 2,411 pounds. For the last 5 years of the decade the average per acre yield was 3,192 pounds.



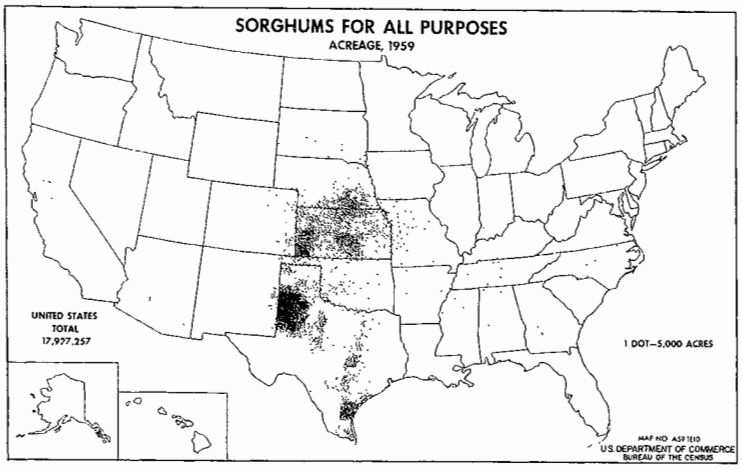
CORN FOR ALL PURPOSES

Corn is the leading crop in American agriculture both in terms of value and of the acreage grown each year. In 1959 nearly 80 million acres were harvested. The peak acreage occurred in 1917, when 111 million acres were harvested for all purposes; this was followed very closely by the year 1932. During the decade of the 1950's, the acreage of corn for all purposes averaged slightly more than 80 million acres a year. About 45 percent of the total corn crop was grown in the Corn Belt. More than three-fourths (77 percent) of the total U.S. acreage was harvested in the Corn Belt, Northern Plains, and Lake States. Although in 1959 the acreage of corn harvested was 31 million acres less than that harvested in 1917, the 80 million acres harvested produced approximately 3.7 billion bushels compared with the 2.9 billion bushels produced on 111 million acres in 1917. Yields averaged 26 bushels per acre in 1917 compared with 53 bushels per acre in 1959.



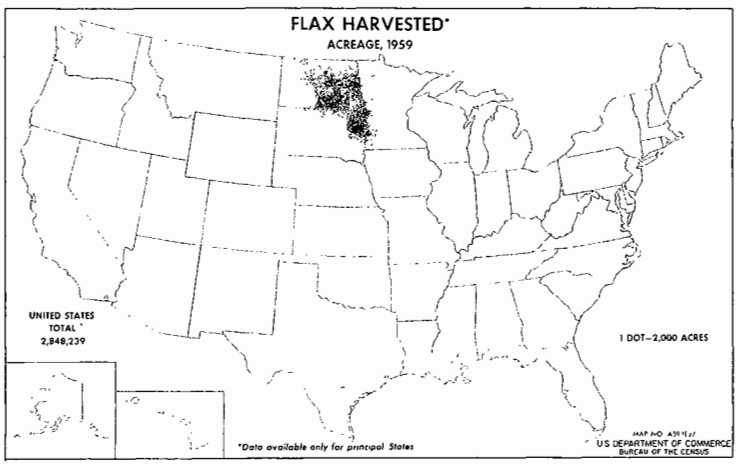
CORN HARVESTED FOR GRAIN

About 88 percent of the total U.S. corn crop was harvested for grain in 1959. Almost half of this acreage was in the Corn Belt. The acreage of corn cut for silage was located principally in the northern parts of the corn-producing areas, where it is often not possible to mature corn for grain. In addition to the 6.8 million acres of corn cut for silage, some corn is "hogged off" of the fields where it is grown. Of course, most of the total corn crop is fed to livestock in one way or another. In contrast to the direct use of corn in the human diet in several parts of Latin America, very little corn is consumed directly in the United States. As compared with the Soviet Union, the United States has been able to produce far more corn and hence has had a consistently reliable feed crop as a basis for its livestock production.



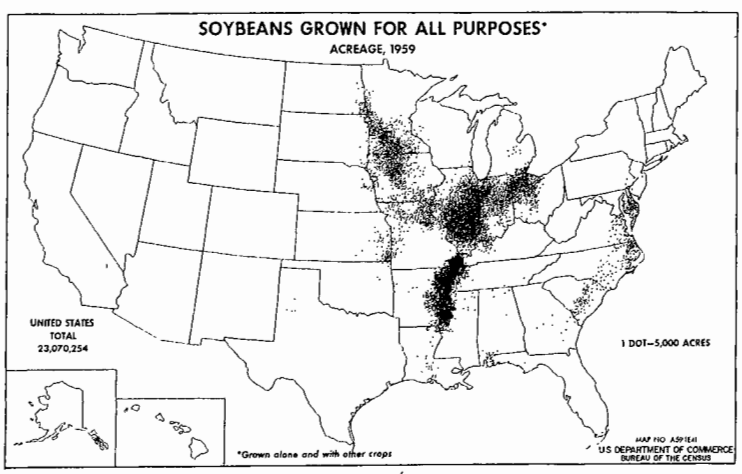
SORGHUMS FOR ALL PURPOSES

In 1959, sorghums grown for all purposes totaled 17.9 million acres, compared with 8.7 million acres reported in the 1919 Census of Agriculture. Thus in 40 years the acreage of this crop has approximately doubled. It has proved to be a particularly valuable feed grain in the southern Great Plains where most of the acreage is concentrated. As yet, varieties of sorghums suitable for the Northern Plains have not been developed. Of the total acreage grown in 1959, approximately half was located in Oklahoma and Texas. Kansas and southern Nebraska had about 6.3 million acres. About 84 percent of the total sorghum crop was produced in these four States. Particularly heavy concentrations of sorghum production are found in the High Plains of West Texas, in southwestern and south-central Kansas, in south-central Nebraska, and in the Corpus Christi-Blacklands area of southern and eastern Texas.



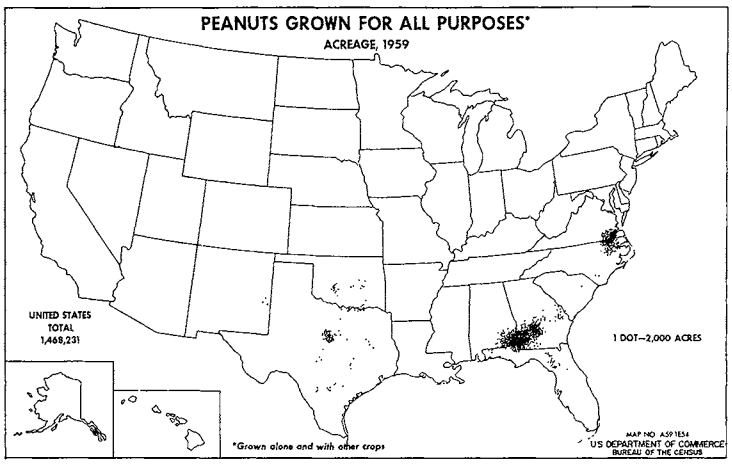
FLAX HARVESTED

Most of the flax grown in the United States is located in three States—North Dakota, South Dakota, and Minnesota. Small acreages are found in Texas, California, and Montana. The total acreage harvested in 1959 was 2.8 million acres, of which three-fifths was located in North Dakota. Flax in this country and in adjacent parts of Canada is grown primarily for the seed, which yields linseed oil used in the manufacture of paints and other industrial products. Yields per acre declined slightly between the 1900–1909 period and the period from 1950 to 1959. The yields averaged 8.3 bushels per harvested acre during the latter period compared with 9.2 bushels during the first decade of the century.



SOYBEANS GROWN FOR ALL PURPOSES

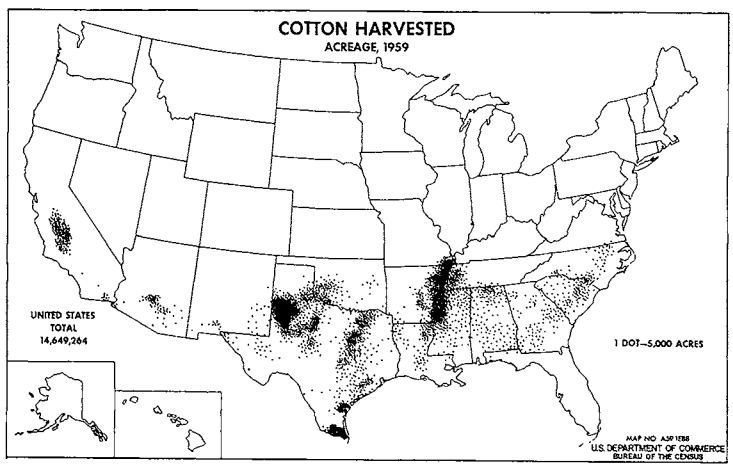
In 1929 the census of agriculture reported 2.9 million acres of soybeans grown for all purposes. By 1939 the total had reached 11.5 million acres, and in 1949 it stood at 12.3 million acres. During the period from 1949 to 1959 an increase of more than 10 million acres occurred; in the latter year 23.1 million acres of soybeans grown for all purposes were reported. Of this acreage, 22.1 million acres were harvested for beans. This phenomenal rise in acreage used for soybeans has been one of the major changes in the composition of crops in recent years in American agriculture. About 56 percent of the soybean acreage is found in the Corn Belt States. The lower Mississippi Valley is another important producing area, followed in the Southeastern Coastal Plain, with an appreciable production.



PEANUTS GROWN FOR ALL PURPOSES

With the increase in acreage of soybeans, the acreage used for the production of peanuts has declined—from 2.4 million acres in 1929 to 1.5 million acres in 1959. In 1939 the Census of Agriculture reported 3.6 million acres grown for all purposes.

Three major areas of production can be noted on the accompanying map. The largest producing area is in southeastern Alabama and southwestern Georgia. Together, these two States account for about half the total acreage. Adjacent parts of north Florida account for about 85,000 acres. Georgia is the leading producing State in the country, with nearly a half million acres. Another major peanut area is located in southeastern Virginia and in northeastern North Carolina, where the acreage totals about 268,000 acres. Texas and Oklahoma, the third area, where acreage is more scattered than in the other two, account for 353,195 acres.

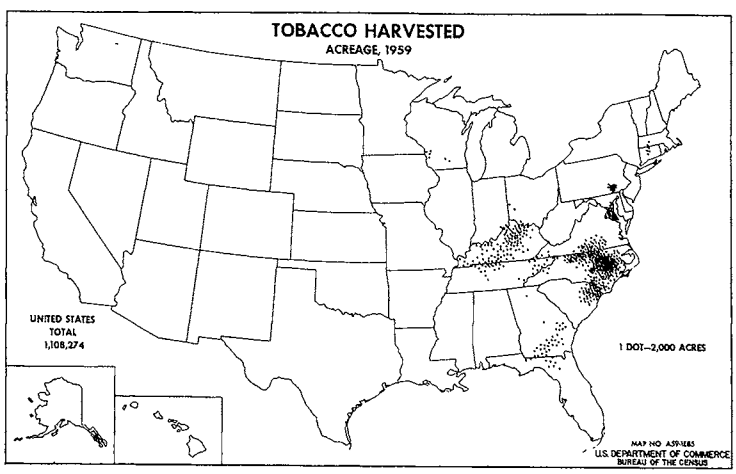


COTTON HARVESTED

The following brief table tells a significant story about cotton production in the United States during the past 100 years:

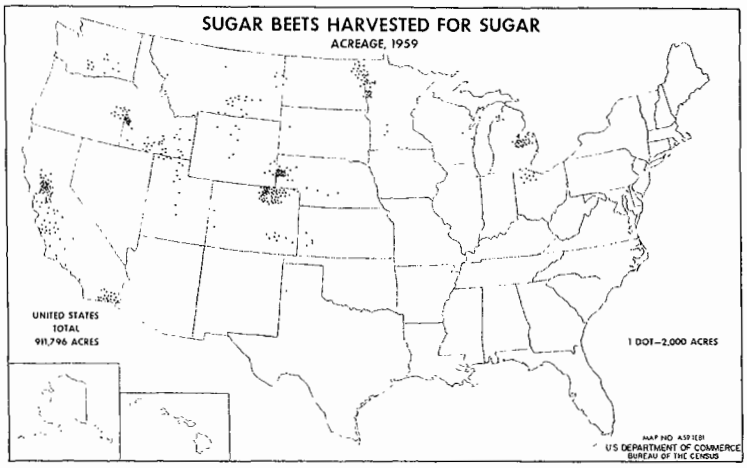
	Acreage harvested, million acres	*Yield per harvested acre, pounds*
1866	7.7	122
1900	24.9	195
1925	44.4	174
1950	17.8	269
1959	14.6	461

The peak year for acreage of cotton was 1926, when 44.6 million acres were harvested. Not only has this remarkable historical change in the total acreage of cotton occurred, but also of major significance is the fact that a strong westward migration of cotton production has taken place. In 1959 the Mississippi Delta and Southern Plains States along with California, Arizona, and New Mexico accounted for 76 percent of the total acreage of cotton harvested. In 1900 these States accounted for only 57 percent of the total.



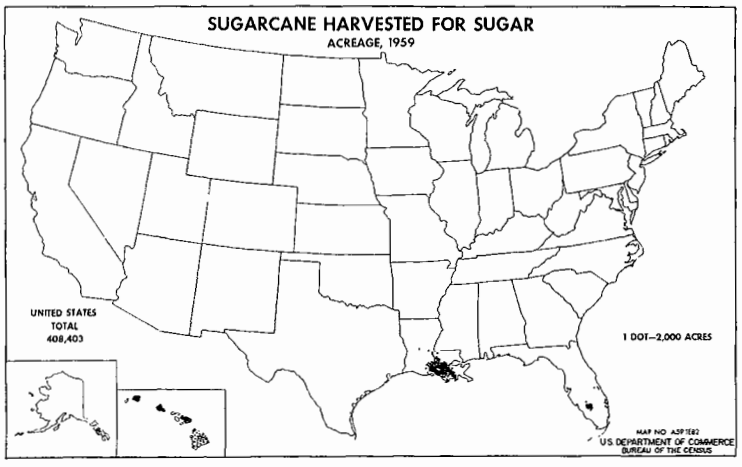
TOBACCO HARVESTED

The acreage of tobbaco harvested has ranged between 1 and 2 million acres since 1900 except for the year 1930, when a peak acreage of 2.1 million acres was reported. During the first decade of the century, yields averaged 825 pounds per harvested acre. In the decade of the 1950's the average yield was 1,418 pounds. North Carolina and Kentucky are leading producing States and together account for three-fifths of the total acreage. Virginia, South Carolina, Tennessee, and Georgia in that order are the next four ranking States. Maryland and Pennsylvania also have sizable acreages. Tobacco production is highly specialized, and each of the major areas has its special type of tobacco, which generally has a rather specific use in the manufacturing of tobacco products.



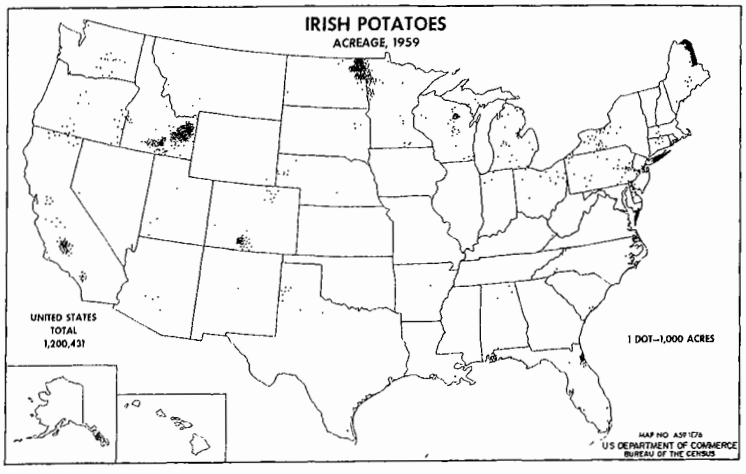
SUGAR BEETS HARVESTED FOR SUGAR

Sugar beets are produced in several of the irrigated areas of the West. In the Saginaw Bay area of Michigan and in other areas of production in the Eastern States, sugar beets are generally produced without irrigation. The leading producing State is California, which has about 23 percent of the total U.S. acreage. Both the Central and Imperial Valleys now grow sugar beets, with the heaviest concentration located in the lower Sacramento Valley. Colorado is the second State in acreage harvested. About 16 percent of the total U.S. crop is grown in Colorado, particularly in Weld County in the northeastern part of the State. The Snake River Valley and its tributary areas and the Red River Valley of North Dakota and Minnesota are other major producing areas. Idaho has about 10 percent of the U.S. crop and the Red River Valley produces about 15 percent of all sugar beets harvested in the U.S.



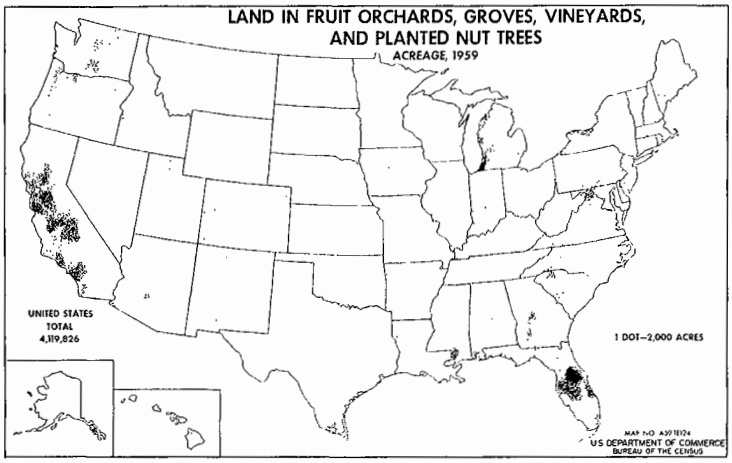
SUGARCANE HARVESTED FOR SUGAR

Sugarcane is harvested for sugar in only three States—Hawaii, Louisiana, and Florida. These are all tropical or subtropical areas, since sugarcane does best in a moist tropical climate. In acreage, Louisiana is the leading State with about three-fifths (61 percent) of the total acreage. Hawaii has 27 percent and Florida 12 percent of the total acreage. Although Hawaii has less than half as much acreage as Louisiana it produces nearly twice as much sugarcane. In Hawaii the yield in 1959 was 85 tons per acre, which is one of the highest yields reported anywhere in the world. In Florida the 1959 yield was 37 tons per acre and in Louisiana it was 22 tons per acre. Fertile volcanic soils in Hawaii, alluvial soils in Louisiana, and muck and peat soils in south Florida are used for sugarcane.



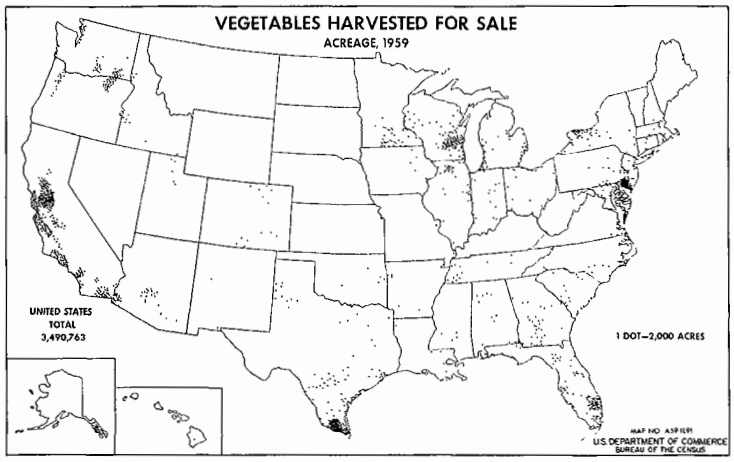
IRISH POTATOES

The acreage of Irish potatoes shown on the accompanying map is primarily for the commercial crop. Not included are the small acreages grown on many farms throughout the Northern States in particular. Idaho and Maine are leading States in the commercial production of potatoes; Idaho accounted for about one-sixth of the 1959 crop and Maine for about a tenth (11 percent) of the total. North Dakota and Minnesota are the next ranking States with 8 and 7 percent of the total crop respectively. California and New York also have nearly 7 percent each of the total crop. Colorado, Wisconsin, and Michigan are other important producers. Scattered areas of production are found in Pennsylvania, and a very concentrated area of production may be noted on the Eastern Shore of Virginia. In Florida, early potatoes are produced in the Hastings locality to be shipped north in advance of maturing of the crops in the leading commercial areas.



LAND IN FRUIT ORCHARDS, GROVES, VINEYARDS, AND PLANTED NUT TREES

The acreage of land in fruit orchards, groves, vineyards, and planted nut trees is heavily concentrated in two States—California and Florida, which together account for more than half the total acreage used for these crops in 1959. California alone had a third of all acreage in fruits and nuts. In California a wide variety of fruits and nuts are grown including citrus fruits, deciduous fruits, grapes, walnuts, and almonds. Florida is principally important for its citrus production. Michigan is the third ranking State in acreage in orchard land, and is particularly known for its cherries, apples, and peaches. It is closely followed by Georgia with its peaches and pecans, Texas with its citrus and some pecans, and New York with its vineyards and its several other deciduous fruits. Washington and Oregon are important producers of apples and some of the other deciduous fruits such as pears. Pennsylvania has a less concentrated but significant fruit production, particularly apples.

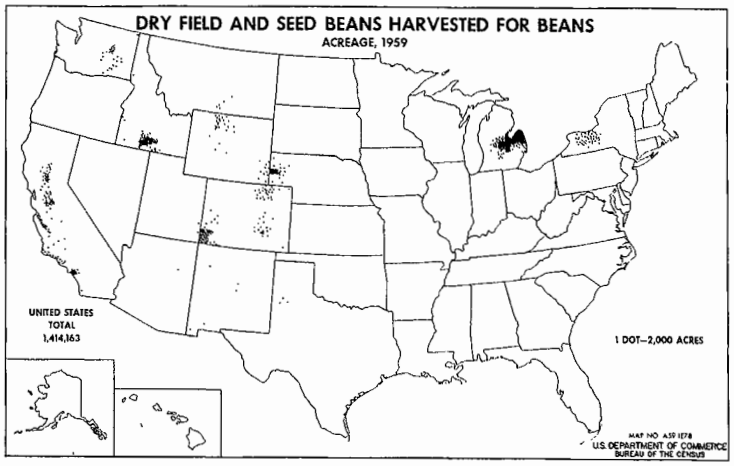


VEGETABLES HARVESTED FOR SALE

About 43 percent of the total acreage of vegetables harvested for sale is found in four leading States: California, 657,000 acres; Texas, 326,000 acres; Florida, 274,000 acres; and Wisconsin, 243,000 acres. Other States having more than 100,000 acres each are, in order of rank, New York, Minnesota, New Jersey, Illinois, Washington, Michigan, and Oregon. The major vegetables harvested for sale in 1959 in the Nation as a whole were as follows:

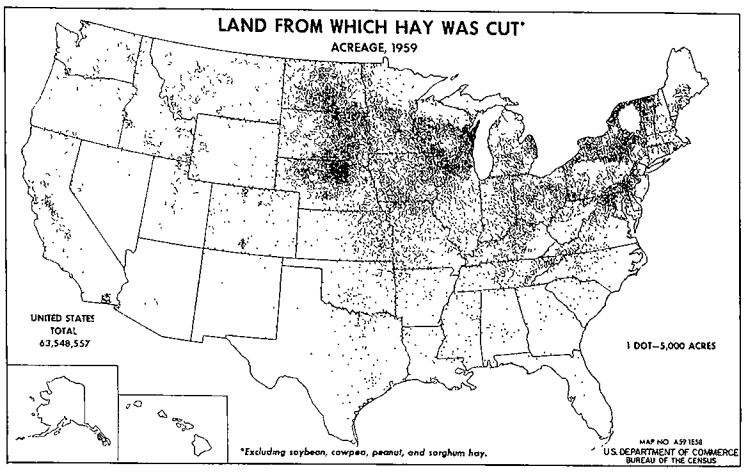
	1,000 acres
Sweet corn	618
Tomatoes	445
Snap beans	244
Cabbage	112
Cucumbers and pickles	104

A considerable variety of other vegetables grown for fresh market and processing were widely distributed among the major vegetable producing areas.



DRY FIELD AND SEED BEANS HARVESTED FOR BEANS

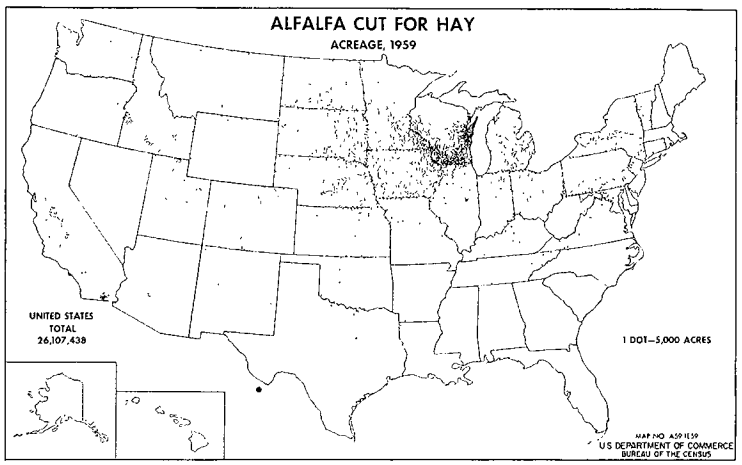
Several areas produce dry field and seed beans, and most of these are concentrated in extent. In the Eastern States, the acreage is heavily concentrated in the Saginaw Bay region of Michigan and in the western part of New York. Michigan alone has nearly a half million acres of dry beans. Together these two States account for 41 percent of the total U.S. crop. Colorado, California, and Idaho are leading States in acreage harvested in the West. These three States have 41 percent of the total acreage produced. In the Western States, dry field beans are produced both with and without irrigation. Most of the dry beans are produced where the mean August temperature does not exceed 70° F.



LAND FROM WHICH HAY WAS CUT

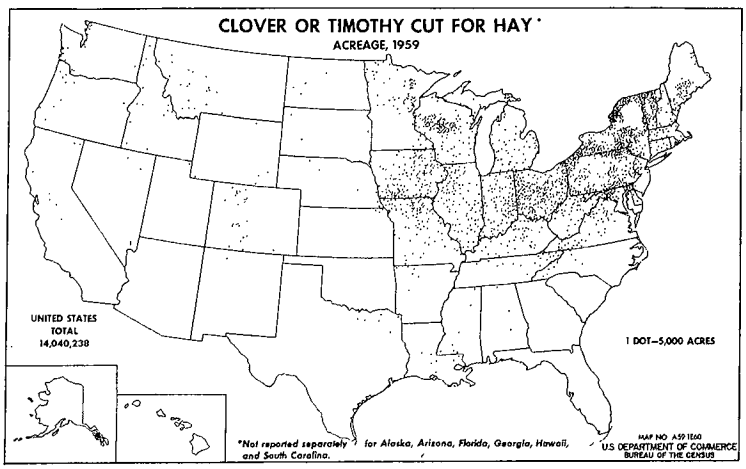
The land from which hay was cut amounted to 63.5 million acres in 1959. This was the lowest acreage reported by the Census of Agriculture since 1939, when 58.8 million acres were cut for hay. In 1954 the peak acreage since 1924 was reported—69.9 million acres. Generally, however, the acreage of hay cut has fluctuated between 60 and 70 million acres since 1900. Some of the variation is probably due to slightly different ways of reporting the acreage cut.

The Northern Plains reported the most hay cut—15 million acres, or nearly a fourth of the total U.S. acreage. About half of the hay acreage cut in this region was wild hay. The next most important hay-producing region was the Corn Belt with 11.5 million acres, followed by the Lakes States with 9.1 million acres and the Northeast with 7.5 million acres. It is significant to note that hay is a major crop in the dairy areas of the Northeast and the Lake States.



ALFALFA CUT FOR HAY

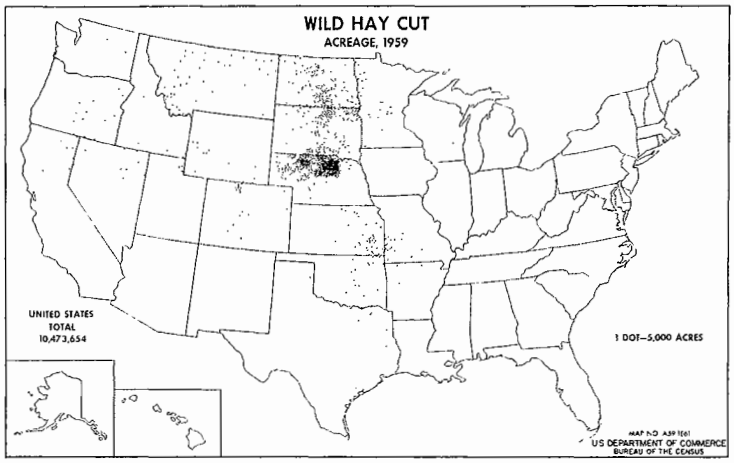
About 41 percent of the total acreage in hay crops is in alfalfa hay, which includes alfalfa and alfalfa mixtures used for hay and for dehydrating. Of all the major hay crops, alfalfa is the most widely grown. Only in the Southeast, where a humid climate and sandy soils are not favorable for its production, is it completely absent from the hay crops grown. Soils with adequate lime are the most favorable for growing alfalfa. In the West it is a major irrigated crop. Annual yields are particularly high in the Southwest, where several cuttings each year are possible because of the long growing season and the use of irrigation water. California in 1959 reported average yields of 5 tons per acre and Arizona had 4.8 tons per acre. In Wisconsin 2.7 tons per acre were reported. Four States each reported more than 2 million acres of alfalfa hay in 1959—Wisconsin, Iowa, Minnesota, and South Dakota. Six other States each reported more than a million acres cut—Nebraska, Michigan, North Dakota, Illinois, Kansas, and California.



CLOVER OR TIMOTHY CUT FOR HAY

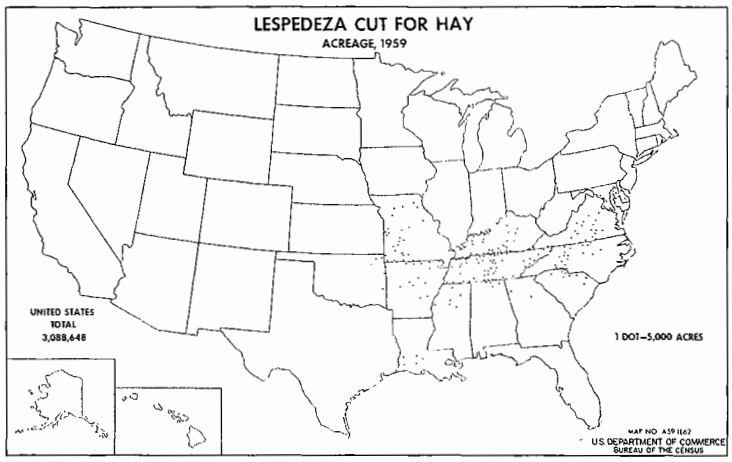
Clover and timothy was formerly a much more important hay crop than it is today. In 1909, nearly 37 million acres of clover and timothy were cut compared to 4.7 million acres of alfalfa hay. Fifty years later only 14 million acres of clover and timothy hay were cut compared with 26.1 million acres of alfalfa hay which was cut. Less emphasis on timothy as a hay crop is definitely noticeable. Part of the decline in the acreage of timothy is associated with the decrease in number of horses used as draft animals.

The major producing areas for clover and timothy hay have always been in the north central and northeastern States. In 1959 the Corn Belt had 4.7 million acres, the Northeast reported 4.1 million acres, and the Lake States 2.1 million acres. Seventy-eight percent of the total acreage of clover and timothy was located in these three farm production regions.



WILD HAY CUT

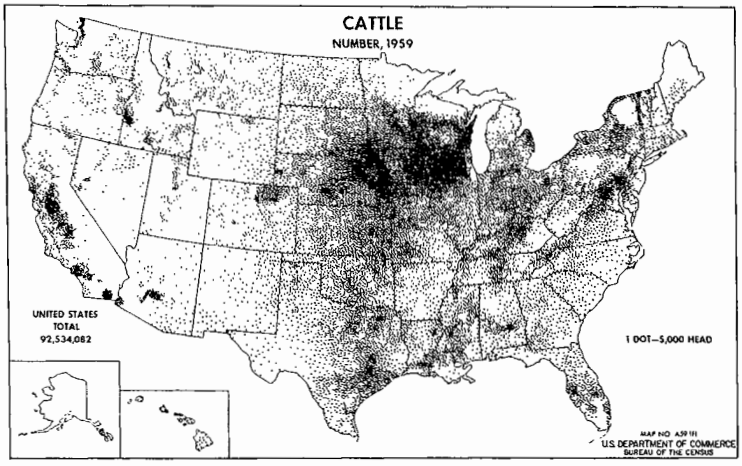
The Northern Plains is the major region in which wild hay is cut. In 1959 wild hay was cut from 10.5 million acres in the United States. Of this total 7.2 million acres, or about 70 percent of all wild hay was cut in the Northern Plains. Nebraska was the leading State with 2.7 million acres cut. It is a particularly important source of roughage feed in the Sand Hills of Nebraska, where ranchers place considerable emphasis on it as a source of winter feed. Often, selected areas of pasture or range are cut for hay wherever the grass yields are best. Generally, however, many of these wild hay producing areas are associated with depressions where moisture accumulates or along streams. In the Western States wild hay is often irrigated, sometimes merely by spreading water over the rangeland adjacent to an available water source.



LESPEDEZA CUT FOR HAY

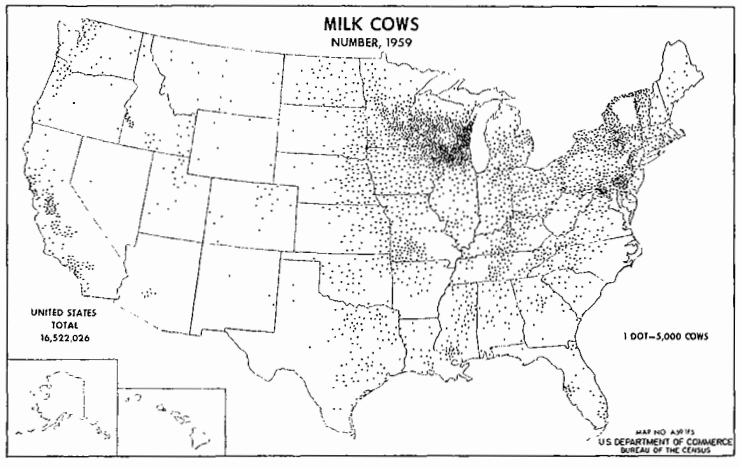
Lespedeza is a comparatively new crop among the hay and forage crops in widespread use in the United States. As a legume it has found ready acceptance in the mid-South where soils are not too favorable for the production of alfalfa. In 1939 the Census of Agriculture reported 4.7 million acres of lespedeza cut for hay. The peak acreage of 6.9 million acres was reported in the 1949 census. Less than half as much was reported 10 years later in 1959—only 3.1 million acres. Tennessee and Kentucky each reported a half million acres cut in 1959. North Carolina, Arkansas, and Virginia each had about a quarter of a million acres cut in 1959.

Compared with alfalfa, yields of lespedeza are not spectacular. Most States reported from 1 to 1.5 tons per acre as average yields. Yet this yield compares favorably with the yields of clover and timothy, which generally average between 1 and 2 tons per acre.



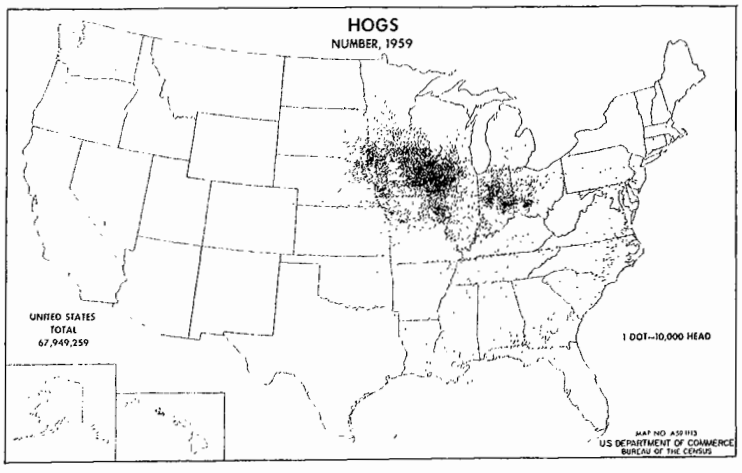
CATTLE

Cattle are more widely raised than any of the other livestock produced in the United States. In 1959 the Census of Agriculture reported the cattle population as 92.5 million. The heaviest concentration comprises southern Wisconsin, northern Illinois, Iowa, eastern Nebraska, and southern Minnesota. This area of heavy concentration includes both the concentration of dairy cattle in the Dairy Belt and the concentration of large numbers of beef cattle in the western part of the Corn Belt. In the Western States, where cattle are grazed on the extensive rangelands, the highest densities coincide with areas of irrigated agriculture where cattle are fattened for market, or near the main centers of population where dairying is important. In terms of total numbers, Texas was the leading cattle producing State in 1959 with 8.5 million cattle. Iowa had 6.5 million.



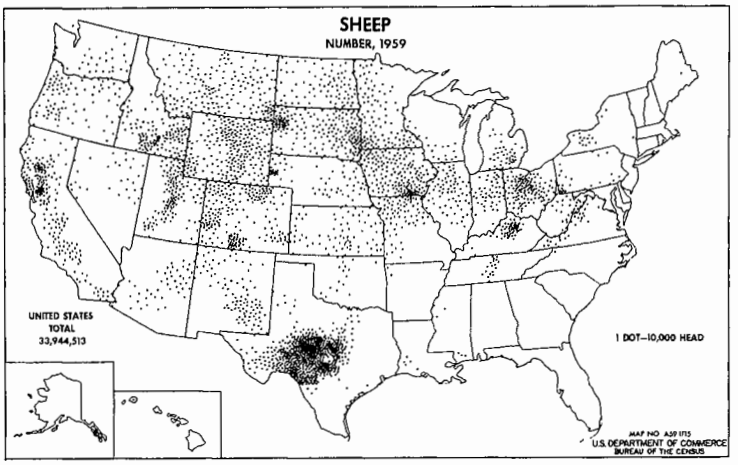
MILK COWS

About one-sixth, or 18 percent, of the total cattle population could be classified as primarily used for dairy purposes in 1959. In the distribution of milk cows, the dairy belt centered in Wisconsin and Minnesota in the Lake States and in New York in the Northeast stands out prominently. In California the influence of large urban centers on dairying is readily apparent. Elsewhere, the leading concentrations are associated with the distribution of urban population or with physical conditions favorable for dairy production. Wisconsin reported 2.1 million milk cows in 1959. Minnesota and New York each reported 1.2 million head. Iowa, Pennsylvania, and California in that order were the next most important States in the number of milk cows reported. In 1959, milk cows numbered about 3.7 million fewer than in 1954.



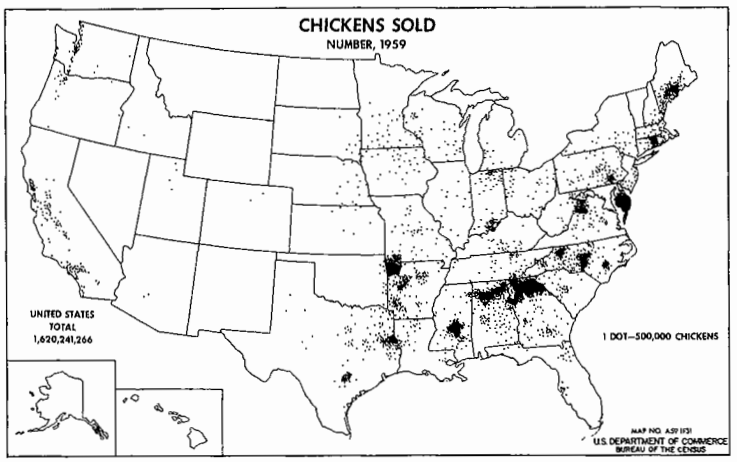
HOGS

The hog population in 1959 was about 10.8 million more than reported by the census of agriculture in 1954. The heavy concentration of hog production in the Corn Belt and Lake States is shown on the accompanying map. This concentration also spills over into the eastern part of the Northern Plains States. The Corn Belt alone had 53 percent of the total number of hogs reported on farms in 1959. The Corn Belt, Lake States, and Northern Plains regions combined accounted for 76 percent of all hogs reported. Although production of hogs is not as widespread as that of cattle, a considerable number are grown throughout most of the Southern States in addition to the farm production regions mentioned above. Relatively few hogs are raised in the Northeast or in the West, largely because these areas do not produce large quantities of corn.



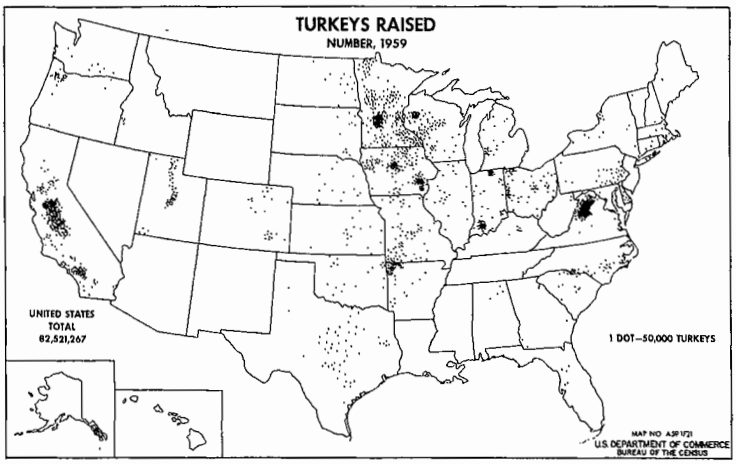
SHEEP

In contrast to the distribution of hog production, most sheep are found in the Western and Great Plains States. The Corn Belt has an appreciable concentration and interesting concentrations are found in the Bluegrass region of Kentucky and in the Nashville Basin of Tennessee. Parts of West Virginia and southern Ohio formerly were major areas of sheep production. Today these areas are of little importance. In 1959, Texas reported 6.1 million head of sheep. Wyoming had 2.4 million, and California and Colorado each had 2.1 million. South Dakota was the next leading producer with 1.9 million followed closely by Montana with about the same number. Iowa had 1.8 million followed by Utah with 1.3 million, Ohio and Idaho with 1.2 million, and Minnesota with 1.1 million.



CHICKENS SOLD

The distribution of chickens sold is characterized by a high degree of very heavy concentration within rather localized parts of several States in the South and the Northeast. The increase in mass production of broilers as a highly specialized enterprise is one of the striking changes that has been taking place in the supply of poultry meat. In 1954 the Census of Agriculture reported slightly less than 1 billion chickens sold. By 1959, this had risen to 1.6 billion chickens sold. Georgia is now the leading broiler-producing State with 237 million chickens sold in 1959. Arkansas is the second most important broiler State, selling 153 million chickens in 1959, followed by Alabama with 143 million, and North Carolina with 114 million. In Delaware and eastern Maryland and the Eastern Shore of Virginia there is a very striking concentration of broiler production. This area, known as the Delmarva Peninsula, produced about 154 million broilers in 1959 in an area considerably smaller than the north Georgia broiler area.

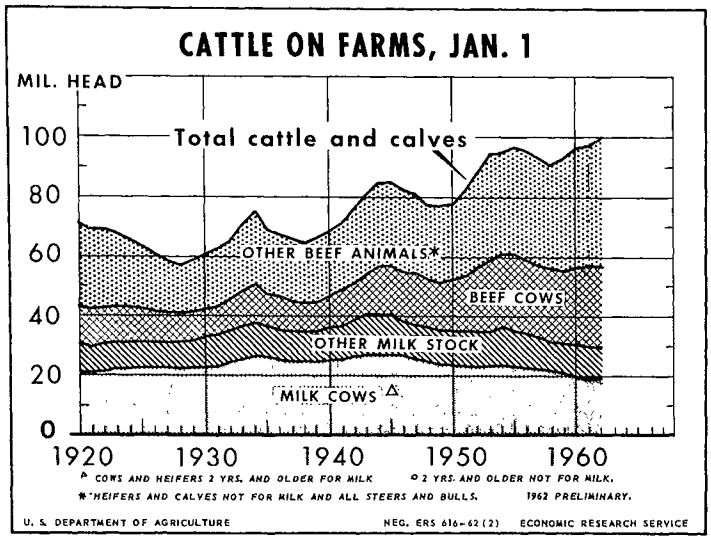


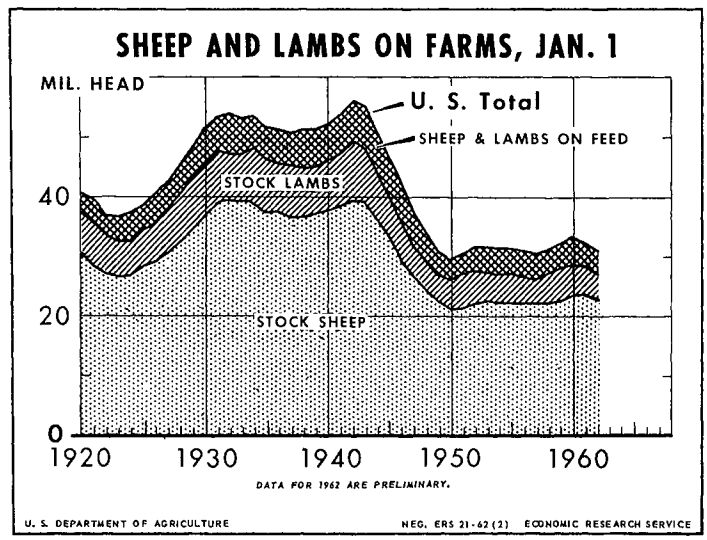
TURKEYS RAISED

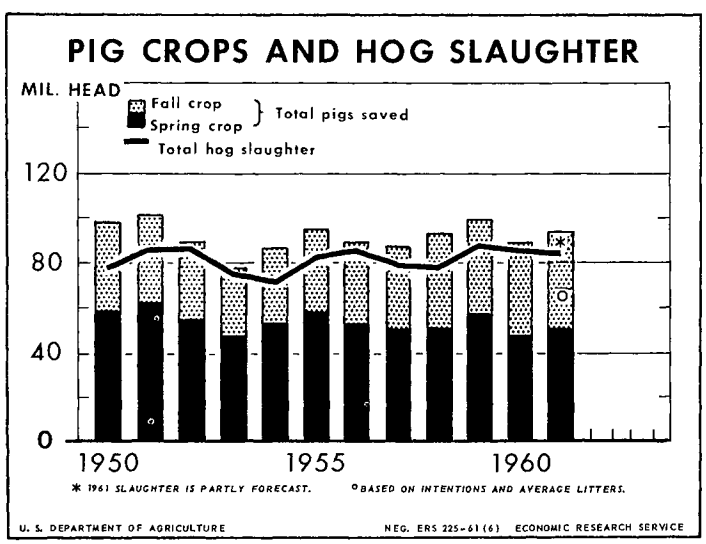
As in the case of chickens sold, a very localized pattern of production for turkeys raised is shown by the accompanying map. Whereas the South and Northeast were the major producers of broilers in 1959, turkeys were more heavily grown in the Lake States and the Corn Belt, and in California and Virginia. The heavy concentration of turkeys in the northwestern part of Virginia is the single major exception in which turkey production is concentrated in an area where broiler production is important.

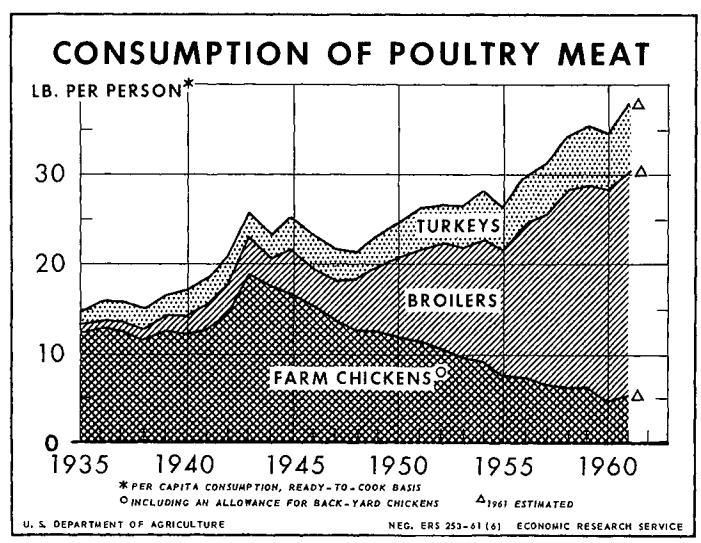
The leading State in the raising of turkeys is California (12.9 million) followed closely by Minnesota with 12.5 million. Iowa raised 8.2 million turkeys in 1959 and Virginia 6.6 million.

Like broiler production, turkey production has expanded greatly in the past decade. In 1949 the Census of Agriculture reported only 36 million turkeys raised. By 1954 this had increased to 63 million and by 1959 to 83 million.









CATTLE ON FARMS

Year	Cattle and calves on farms January 1	Beef production	Per capita consumption of beef
	1,000 head	*Million pounds*	*Pounds*
1950	77,963	9,534	63.4
1951	82,083	8,837	56.1
1952	88,072	9,650	62.2
1953	94,241	12,407	77.6
1954	95,679	12,963	80.1
1955	96,592	13,569	82.0
1956	95,900	14,462	85.4
1957	92,860	14,202	84.6
1958	91,176	13,330	80.5
1959	93,322	13,580	81.4
1960	96,236	14,725	85.2

PIG CROPS AND HOG SLAUGHTER

Year	Pigs saved			Hog slaughter	Pork production	Per capita consumption of pork
	Spring	Fall	Total			
	1,000 head	*1,000 head*	*1,000 head*	*1,000 head*	*Million pounds*	*Pounds*
1950	57,958	39,423	97,381	79,263	10,714	69.2
1951	61,298	39,288	100,586	85,540	11,481	71.9
1952	55,135	33,694	88,829	86,572	11,527	72.4
1953	47,940	29,974	77,914	74,368	10,006	63.5
1954	52,852	33,978	86,830	71,495	9,870	60.0
1955	57,610	38,119	95,729	81,051	10,990	66.8
1956	53,124	36,302	89,426	85,064	11,200	67.3
1957	51,263	36,099	87,362	78,636	10,424	61.1
1958	51,354	42,179	93,533	76,822	10,454	60.2
1959	56,620	42,775	99,395	87,606	11,993	67.6
1960	47,191	41,301	88,492	84,375	11,630	65.3

SHEEP AND LAMBS ON FARMS

Year	Sheep and lambs on farms January 1	Lamb and mutton production	Per capita consumption of lamb and mutton
	1,000 head	*Million pounds*	*Pounds*
1950	29,826	597	4.0
1951	30,633	521	3.4
1952	31,982	648	4.2
1953	31,900	729	4.7
1954	31,356	734	4.6
1955	31,582	758	4.6
1956	31,157	741	4.5
1957	30,654	707	4.2
1958	31,217	688	4.2
1959	32,606	738	4.8
1960	33,170	768	4.8

CONSUMPTION OF POULTRY MEAT

Year	Per capita consumption				
	Broilers	Farm and non-farm chickens	Total chickens	Turkeys	Total poultry
	Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*
1950	8.7	11.9	20.6	4.1	24.7
1951	10.4	11.3	21.7	4.4	26.1
1952	11.7	10.4	22.1	4.7	26.8
1953	12.3	9.6	21.9	4.8	26.7
1954	13.7	9.1	22.8	5.3	28.1
1955	13.8	7.5	21.3	5.0	26.3
1956	17.3	7.1	24.4	5.2	29.6
1957	19.1	6.4	25.5	5.9	31.4
1958	22.0	6.2	28.2	5.9	34.1
1959	22.8	6.1	28.9	6.3	35.2
1960	23.5	4.8	28.3	6.3	34.6

* U.S. GOVERNMENT PRINTING OFFICE : 1962 O—648534

U.S. CENSUS OF AGRICULTURE : 1959

Final Report—Vol. V—Part 6—Chapter 2—Special Reports

A Graphic Summary of Farm Tenure

(A Cooperative Report)

SPECIAL REPORTS

Prepared under the supervision of
RAY HURLEY, Chief
Agriculture Division

U.S. DEPARTMENT OF AGRICULTURE
Orville L. Freeman, *Secretary*

ECONOMIC RESEARCH SERVICE
Nathan M. Koffsky, Administrator

U.S. DEPARTMENT OF COMMERCE
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BUREAU OF THE CENSUS
Richard M. Scammon, Director (From May 1, 1961)
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U.S. Government Printing Office, Washington, D.C., 1962

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PREFACE

This report presents in graphic form the principal features of the current tenure system and shows the changes and developments that have taken place in farm tenure, especially since the agricultural census of 1950. Also shown is the relation of the major tenures to farm production and income distribution.

This report was prepared cooperatively by the Bureau of the Census, U.S. Department of Commerce, and the Farm Economics Division, Economic Research Service, U.S. Department of Agriculture, under the supervision of Ray Hurley, Chief of the Agriculture Division, Bureau of the Census.

The report was written by Roger Strohbehn, Agricultural Economist, Farm Economics Division, Economic Research Service, U.S. Department of Agriculture.

November 1962

UNITED STATES CENSUS OF AGRICULTURE: 1959

FINAL REPORTS

Volume I—Counties—A separate part for each State, Puerto Rico, Guam, Virgin Islands, and American Samoa. Statistics on number of farms; farm characteristics; acreage in farms; cropland and other uses of land; land-use practices; irrigation; farm facilities and equipment; farm labor; farm expenditures; use of commercial fertilizer; number and kind of livestock; acres and production of crops; value of farm products; characteristics of commercial farms, farms classified by tenure, size, type, and economic class; and comparative data from the 1954 Census.

Part	State or States	Part	State or States	Part	State or States	Part	State or States
	New England States:		West North Central:		East South Central:		Mountain—Con.
1	Maine.	15	Minnesota.	30	Kentucky.	44	Utah.
2	New Hampshire.	16	Iowa.	31	Tennessee.	45	Nevada.
3	Vermont.	17	Missouri.	32	Alabama.		Pacific:
4	Massachusetts.	18	North Dakota.	33	Mississippi.	46	Washington.
5	Rhode Island.	19	South Dakota.		West South Central:	47	Oregon.
6	Connecticut.	20	Nebraska.	34	Arkansas.	48	California.
	Middle Atlantic States:	21	Kansas.	35	Louisiana.	49	Alaska.
7	New York.		South Atlantic:	36	Oklahoma.	50	Hawaii.
8	New Jersey.	22	Delaware.	37	Texas.		Other Areas:
9	Pennsylvania.	23	Maryland.		Mountain:	51	American Samoa.
	East North Central:	24	Virginia.	38	Montana.	52	Guam.
10	Ohio.	25	West Virginia.	39	Idaho.	53	Puerto Rico.
11	Indiana.	26	North Carolina.	40	Wyoming.	54	Virgin Islands.
12	Illinois.	27	South Carolina.	41	Colorado.		
13	Michigan.	28	Georgia.	42	New Mexico.		
14	Wisconsin.	29	Florida.	43	Arizona.		

Volume II—General Report—In 1 volume and also as 13 separates (for the Introduction and for each chapter). Statistics by subjects for 1959 and prior censuses. Statistics are presented for the United States, geographic regions, and divisions, and for the States.

Chapter	Title	Chapter	Title
	Introduction.		
I	Farms and Land in Farms.	VII	Field Crops and Vegetables.
II	Age, Residence, Years on Farm, Work Off Farm.	VIII	Fruits and Nuts, Horticultural Specialties, Forest Products.
III	Farm Facilites, Farm Equipment.		
IV	Farm Labor, Use of Fertilizer, Farm Expenditures, and Cash Rent.	IX	Valúe of Farm Products.
		X	Color, Race, and Tenure of Farm Operator.
V	Size of Farm.	XI	Economic Class of Farm.
VI	Livestock and Livestock Products.	XII	Type of Farm.

Volume III—Irrigation of Agricultural Lands—Data from the Irrigation Censuses of 1959 and 1950, by drainage basins, for the conterminous United States and for each of the 17 western States and Louisiana. Separate maps are available. Report also includes data from the 1959 Census of Agriculture for land irrigated and acres and production of crops on irrigated land in the 18 conterminous States and Hawaii.

Volume IV—Drainage of Agricultural Lands—Statistics for States and counties and for the conterminous United States, presenting 1960 data on number, area, physical works, and costs for drainage projects of 500 or more acres by size, type, and year organized. Maps are included.

Volume V—Special Reports

Part 1.—Special Census of Horticultural Specialties—Statistics for States, except Alaska and Hawaii, and for the conterminous United States, presenting 1959 data on number and kinds of operations, gross receipts and/or sales, sales of specified products, inventories, employment, and structures and equipment.

Part 2.—Irrigation in Humid Areas—Statistics for 30 eastern States showing 1960 data on acres irrigated, number of constructed ponds and reservoirs, source and method of applying water, type of pumping power, acreage of individual crops irrigated, and frequency of irrigation by States and counties.

Part 3.—Ranking Agricultural Counties—Statistics for selected items of inventory and agricultural production for the leading counties in the United States.

Part 4.—Farm Taxes and Farm Mortgage—A cooperative report by the Economic Research Science, U.S. Department of Agriculture and the Bureau of the Census, U.S. Department of Commerce, presenting 1961 data by States on taxes on farms, number of mortgaged farms operated by full owners and part owners, amount of mortgage debt held by principal lending agencies, and amount of interest paid.

Part 5.—1960 Sample Survey of Agriculture—Statistics by economic class and type of farm, showing 1960 data on farm-operator-family income from farm and off-farm sources; inventory and use of selected types of farm equipment, tractors by year made and fuel used; number, size, and materials used for new buildings constructed 1958 to 1960; number of farmers having contracts with dealers, processors, or others for the production and marketing of 15 farm products; and real estate and non-real-estate debts of farm operators and farm landlords by lending agencies.

Part 6.—A Graphic Summary of Agriculture, 1959—A cooperative report by the Economic Research Service, U.S. Department of Agriculture and the Bureau of the Census, U.S. Department of Commerce, presenting graphically for 1959 and prior census years some of the significant uses of agricultural land; the extent and nature of the various kinds of tenure under which farms are held and operated; and changes and developments in the use of agricultural resources and production of agricultural products.

Special Publication—Principal Data-Collection Forms and Procedures: United States Census of Agriculture, 1959, and Related Surveys—Facsimiles of the enumeration forms used, showing variations for the 50 States, Puerto Rico, American Samoa, Guam, and the Virgin Islands, together with brief descriptions of the census field procedures for the census and the related surveys.

CONTENTS

CHARTS

CONTENTS

CHARTS—Continued

MAPS

INTRODUCTION

This report is designed to illustrate some of the regional differences and changes over time in the tenure arrangements of farmers in the United States. *Section I.—Land*, is concerned with the rights individuals hold in the agricultural land they operate. In *Section II.—Production*, the tenure system is related to the process of utilizing resources to produce farm products. *Section III.—People*, indicates the relationship between tenure and farm income distribution as well as some personal characteristics of farm operators.

Land tenure is concerned with the many man-made relationships that govern the rights of individuals in the use and control of designated tracts of land. Because land is a scarce resource, the competition among individuals for rights in the use of land creates tenure problems.

The varying degrees of land-use rights extends from fee simple, debt-free ownership which permits maximum independence of land use, to sharecropping with greatly limited legal rights to land. Superseding all private rights are those reserved by society—the rights of eminent domain, taxation, and police power. Among the common rights in agricultural land are individual fee simple ownership; co-ownership, such as joint tenancy, tenancy-in-common, or tenancy by entireties; life estate; estate; trust; corporate ownership; public ownership; leasing arrangements, such as cash, share, or a combination of the two; and easements and covenants.

In the census of agriculture, tenure classifications are restricted to the rights of operatorship of the person performing the farming operations. The enumeration and tabulation of all rights and interests in agricultural land would be complex and impractical. Therefore, the tenures listed in this report are the broad categories of full owner, part owner, manager, and tenant. These tenure groups do not recognize the degree of equity in ownership arrangements. Heavily encumbered ownership, such as a low downpayment land contract, may impose far more restrictions on land use than tenancy. Part owners include farm operators who own part of their land and rent additional acreage. Thus, this tenure group is composed of a wide range of ownership and tenancy combinations extending from 99 percent ownership and 1 percent tenancy, to 1 percent ownership and 99 percent tenancy. Obviously, the degree of independence of control can vary almost as much within part-ownership arrangements as between full ownership and complete tenancy.

A tremendous reorganization in agriculture has taken place in the last few decades. A rapid technological advance has greatly increased farm output in spite of a sharp decline in the amount of labor employed on farms and a slight decrease in the total number of acres in farms. Specialization and commercialization in the production of farm products have been greater during the last 5 years than during any comparable period since the first agricultural census. Change in production techniques has accompanied adjustments in the tenure pattern of agriculture.

Output per farmworker has expanded faster than the demand for farm products, with the result that fewer farm operators are needed to produce the required farm products. Consequently, farm operators seek to make adjustments in their operations that will permit them to remain in business. Many of the adjustments have involved expansion of farm size and change in tenure status.

Tenure adjustments frequently occur when farmers seek to expand their operations by gaining access to more resources. Many farmers wish to use their limited capital for improved equipment or for fertilizer and prefer to rent rather than buy additional land. While the total number of farms has declined sharply in recent years, the proportion of farms operated by part owners has steadily increased, so that by 1959 part owners actually outnumbered tenant farmers. The proportion of farms operated by full owners has remained between 46 and 57 percent.

In addition to changing their tenure status, more and more farmers are seeking to increase their income through off-farm work. In 1959 almost half of all farm operators had full- or part-time off-farm jobs and over one-third of all farm operators reported that their total family income from off the farm exceeded the gross sales of their farm products.

DEFINITIONS AND EXPLANATIONS

The terminology used in this report is identical with that used in the reports for the various censuses of agriculture. In the several censuses, it has been necessary to make minor adjustments in the definition of a farm and in the procedures for enumeration, but it is believed that these adjustments have not been of sufficient magnitude to affect tenure trends appreciably. In the census of 1959, a small change in the definition of a farm resulted in a decrease of 232,000 in the number of farms which would have been included if the 1954 definition had been retained.

The census classification of farms by tenure of operator is based on data reported for land owned, land rented from others or worked for others on shares, land managed for others, and land rented to others or worked on shares by others. The same basis of classification was used in 1959 as in 1954.

Full owners operate only land they own

Part owners operate land they own and also land rented from others.

Managers operate land for others and are paid a wage or salary for their services.

Tenants rent from others (or work on shares for others) all of the land they operate.

Cash tenants pay cash as rent, such as $10 per acre or $1,000 for the use of the entire farm, and pay no share of crops or livestock.

Share-cash tenants pay cash for a part of the rent and a share of the crops or of the livestock or livestock products or both.

Share tenants pay a share of either the crops or the livestock or livestock products, or a share of both. Share tenants are further classified as:

Crop-share tenants if they paid a share of the crops and no share of the livestock or livestock products.

Livestock-share tenants if they paid a share of the livestock or livestock products. They may also have paid a share of the crops.

Croppers are tenants to whom all workpower is furnished.

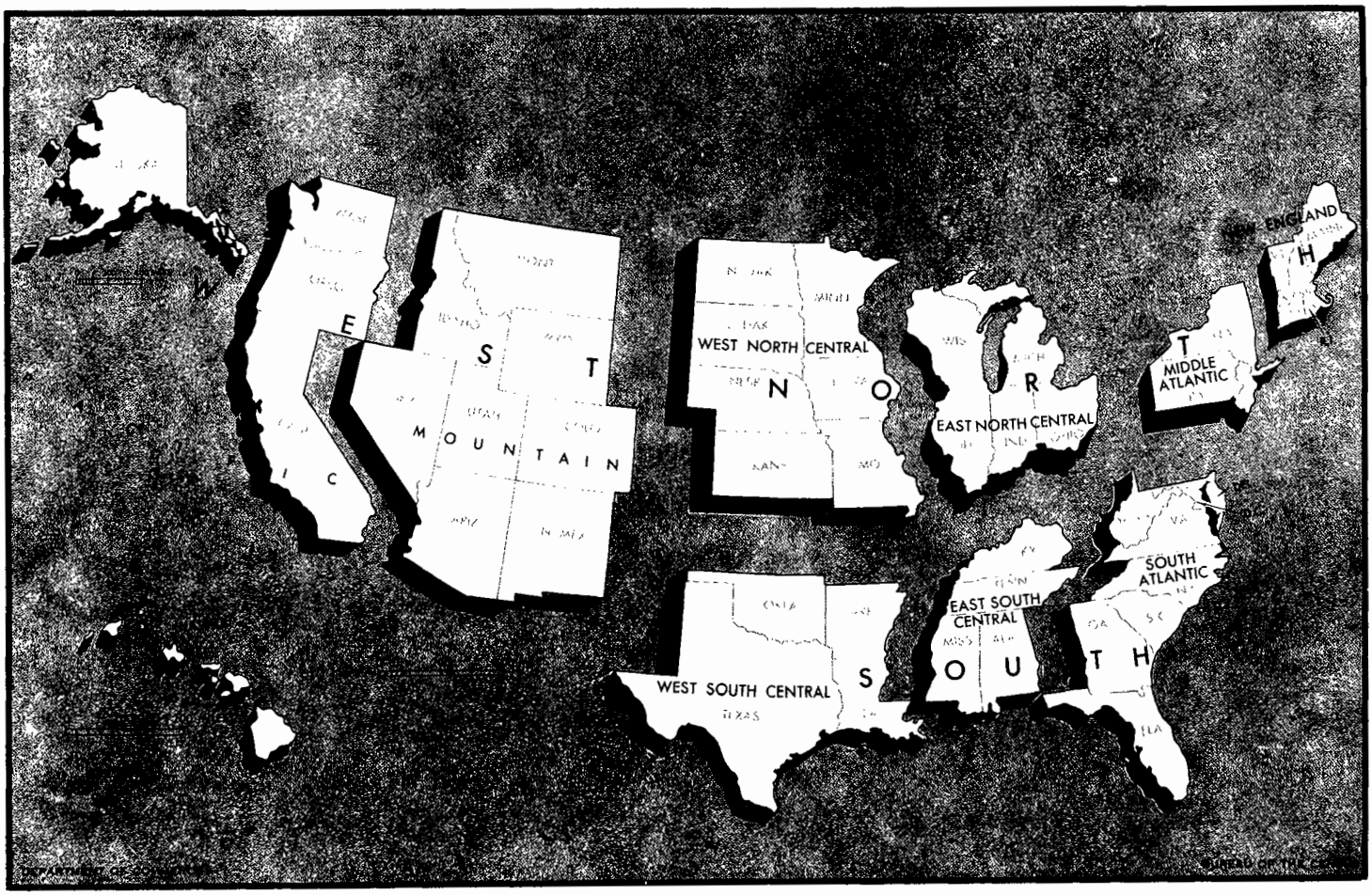
Other tenants include those who pay a fixed quantity of any product; those who pay taxes, keep up the land and buildings, or keep the landlord in exchange for the use of land; those who have use of the land rent free; and all others whose rental arrangements require payments other than cash or a share of the products.

Unspecified tenants include those tenants whose rental arrangement was not reported or could not be determined from the information given.

The four geographic regions used in this report are: (1) the Northeast, including the 9 States in the New England and Middle Atlantic divisions; (2) the North Central, including the 12 States in the East North Central and the West North Central divisions; (3) the South, including the 16 States in the South Atlantic, East South Central, and West South Central divisions; and (4) the West, including the 11 States in the Mountain and Pacific divisions plus Alaska and Hawaii.

Some of the data used herein, particularly those for commercial farms only, are estimates based on reports for a sample of farms. In order to present data for several classifications of farms, generally the data used for 1959 and 1954 represent estimates based upon a sample of approximately 20 percent of the farms. These estimates differ only slightly from the figures obtained by tabulations for all farms. A description of the sampling technique and the reliability of sample data is given in the Introduction to Volume II, General Report, of the 1959 Census of Agriculture.

Commercial farms are, in general, those with a value of sales of farm products amounting to $2,500 or more. Farms with a value of sales of $50 to $2,499 were classified as commercial if the farm operator was under 65 years of age and (1) if he did not work off the farm 100 or more days during the year and (2) if the income he and members of his family received from nonfarm sources was less than the value of all farm products sold.

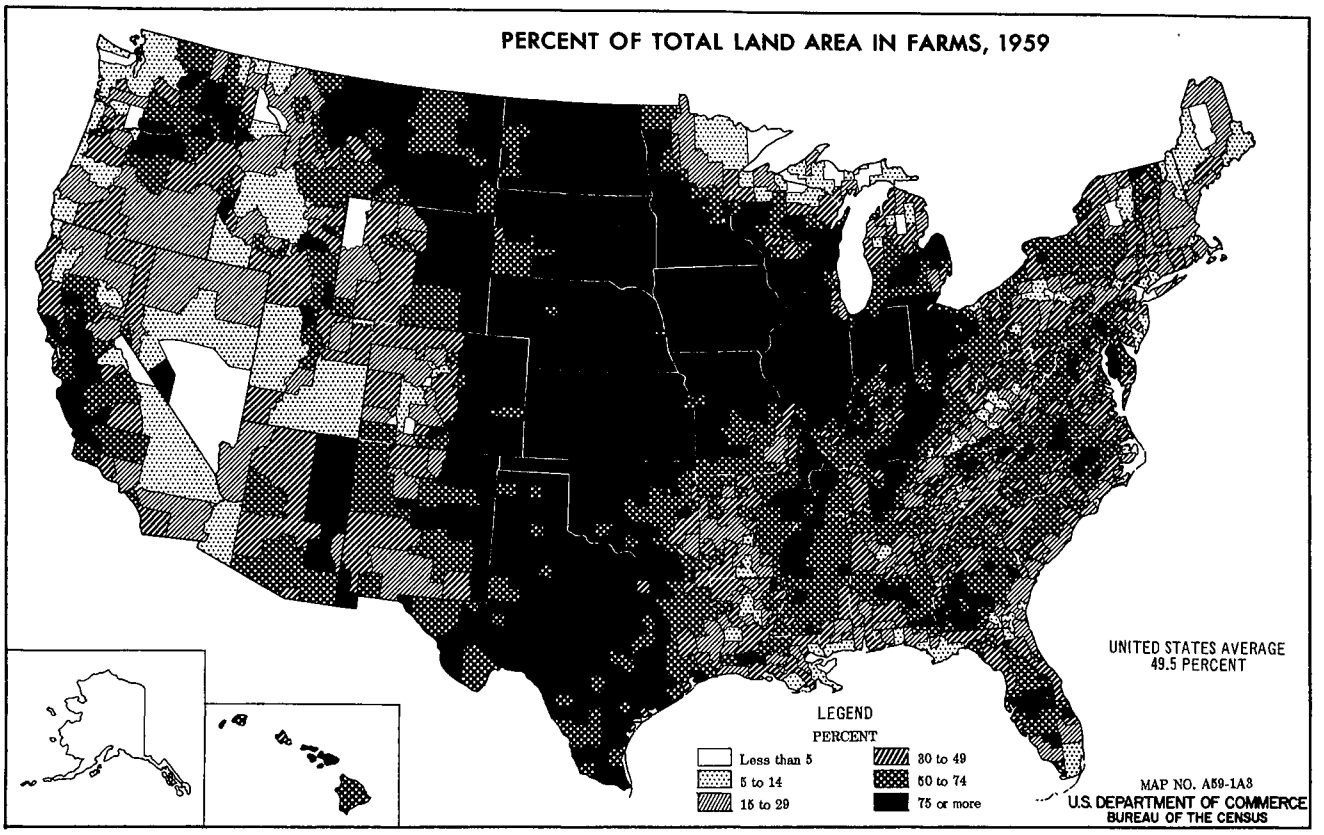


Section I.—LAND

LAND IN FARMS

The admission of Alaska and Hawaii to statehood in 1959 greatly enlarged the land area of the United States. Total land area grew from 1,903,824,640 acres in 1954 to 2,271,343,360 acres in 1959, an increase of neary 20 percent. However, because only a small portion of Alaska is used for agricultural purposes, the proportion of land in farms for the entire United States declined significantly. In 1959 only 49.5 percent of the total land area in the United States was included as land in farms compared with 60.8 percent in 1954. This does not mean that 50.5 percent of the land area was used entirely for nonagricultural uses. Millions of acres of public lands were grazed under a permit system, and some land that was in the Conservation Reserve Program was not included as farmland even though it would come under the general classification of agricultural land.

Within the conterminous portion of the United States—that is, that part excluding Alaska and Hawaii—the proportion of land in farms increased continuously from 1880 to 1950. Most of the increase was directly related to the rapid growth of the Nation around the turn of the century and to the high demand for farm products during the emergency periods of the two world wars. Between 1949 and 1959, however, a net decrease of 3.3 percent of land in farms took place.



Part of the decrease in land in farms can be attributed to whole farms being placed in the Conservation Reserve Program. Part resulted from urban expansion, with both factories and homes being established in rural areas; part from the conversion of crop and pasture land to woodland and forest land; and a small part from agricultural land being taken for new highway construction. Also, the change in the census definition of a farm contributed in a minor way to the reduction of land in farms.

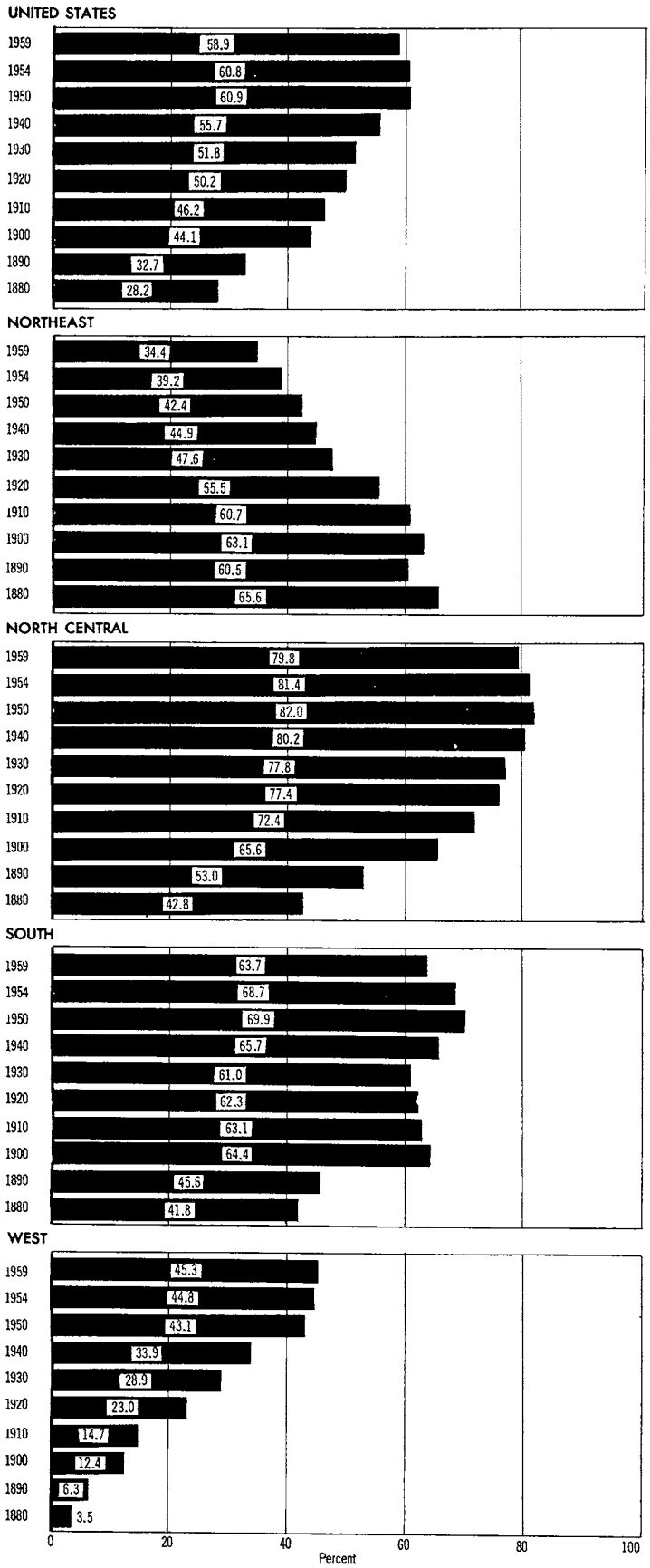
Many factors affect the location of agricultural production. Some of the more important ones that encourage locational shifts of production are changes in the relative efficiency of production in different areas as a result of new technology; improvements in processing, marketing, and transportation of farm products; and shifts in population. All of these factors have had an effect upon the differences between regions in the changing proportions of land area in farms.

In the Northeast, a general downward trend in the proportion of land in farms has persisted since 1880, the decline being especially rapid between 1910 and 1930. Between the peak year of 1880 and 1959, 31.9 million acres of farmland were allocated to other uses. Thus 47 out of every 100 acres in farmland in 1880 were used for some other purpose in 1959. This region now has 3.2 percent of the total United States farmland.

In the North Central region the proportion of land in farms increased by an average of 8.6 percent each decade from 1880 to 1920. The upward trend continued at a slower rate until about 1940, when 80.2 percent of the land area was reported as farmland. Since then a slight decline has occurred, so that by 1959, only 79.8 percent of the land area was devoted to agricultural purposes. This region now contains one-fifth of the total land area in the United States and one-third of the farmland.

The 16 States of the South now account for one-fourth of the total land area of the United States and nearly one-third of the farmland. This region has had a more uneven trend in the proportion of land in farms than any other region. Between 1880 and 1900, 127.1 million acres of land were added to the farm total. In the next 25 years, a gradual decline took place, which was followed by an upward trend from 1925 to 1950. By 1950 a peak had been reached in the proportion of land in farms with 393.2 million acres of land in farms. Then another downward trend began, and 35.8 million acres were shifted from farms to some other use by 1959.

LAND IN FARMS AS A PERCENT OF TOTAL LAND AREA, FOR THE UNITED STATES AND REGIONS: 1880 TO 1959



In 1959, 63.7 percent of the total land area in the South was in farms. Primary reasons for the decline include the reversion of farmland to woodland, abandonment of farmland and its subsequent overgrowth of brush and scrub timber, and the conversion of farmland into urban and forest uses.

Within the conterminous West, farmland expansion was continuous at a fairly even rate from 1880 to 1950, with about 5.7 percent of the total land area added to land in farms in each decade. Since 1950, however, only 2.2 percent of the total area has shifted to farmland, and most of this change took place before 1954. Thus, the West was the only region to show an increase in the proportion of total land area devoted to land in farms in the last decade.

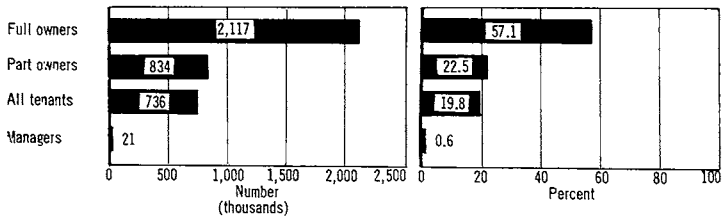
A similar pattern of farmland expansion has taken place in the entire western region, but the percentage of the total area added to farmland is smaller owing to the low proportion of land in farms in Alaska.

Large grazing areas of the West are held in the public domain and are grazed under a permit system. When these permit lands have multiple users they are excluded from enumeration as land in farms, but in recent years, more of the public land has been leased to single users, and this land is included in the farmland area. Thus, much of the increase in the proportion of land in farms is not really new land for agricultural production. About 17 million acres of land were leased to single users under the Taylor Grazing Act in 1959 compared with 13 million in 1950 and 7.4 million in 1940.

TENURE OF FARM OPERATORS

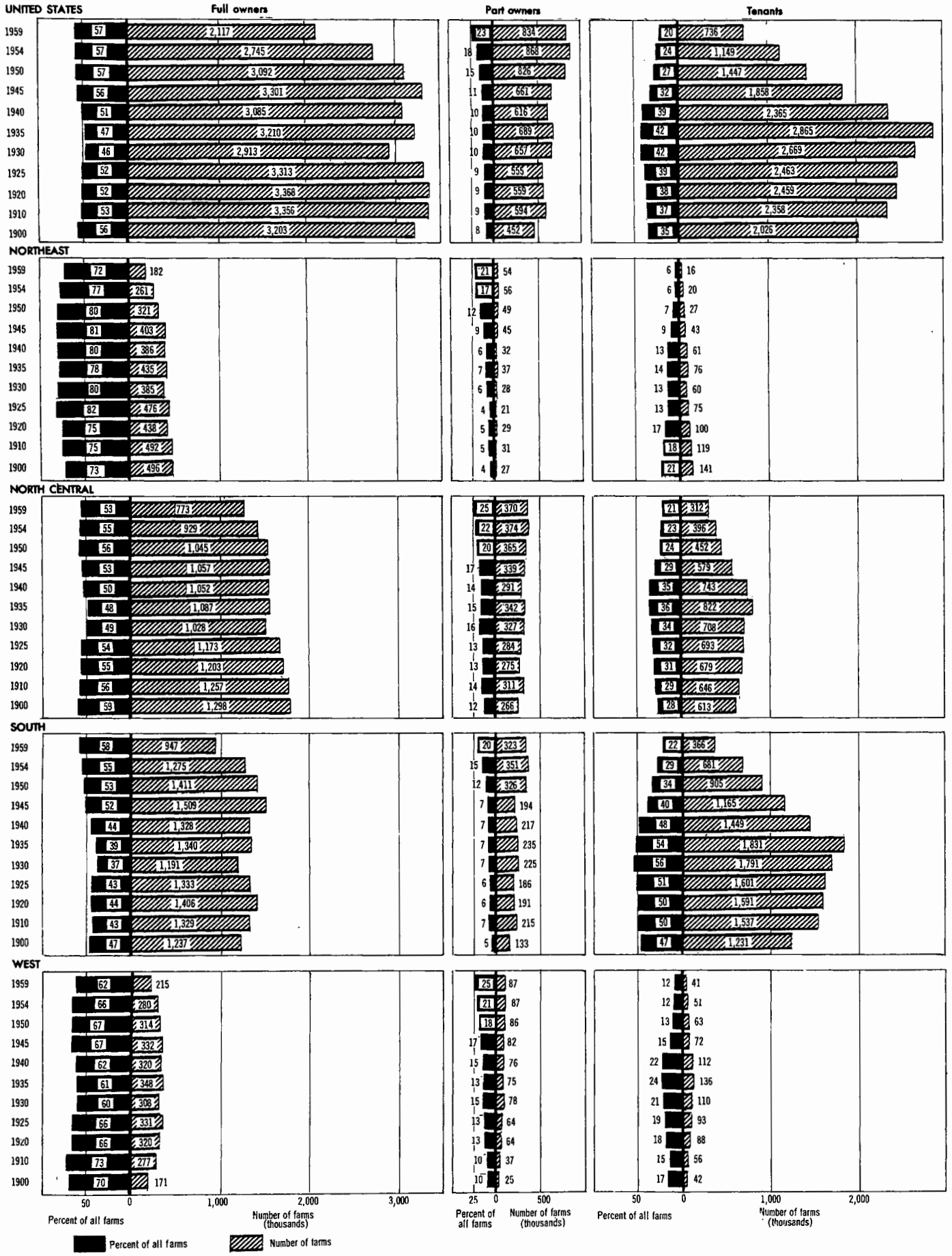
Opportunities for farm operation.—Total farming opportunities, as indicated by number of farms, increased in the United States until 1920. During the last four decades, farm numbers have declined continuously with the exception of the depression years from 1930 to 1935. Farm numbers reached an all-time peak of 6.8 million in 1935. The decline has been progressively greater since 1940, as more labor-saving equipment and techniques have been used, permitting farmers to operate larger tracts of land. In 1959 there were 3,707,973 farms in the entire Nation, or nearly 50 percent less than the peak number of farms in 1935. This is the least number of farms since 1880. Number of farms in the conterminous United States decreased by 1,081,657 between 1954 and 1959, and less than a fourth of this decrease can be ascribed to the more restrictive definition of a farm used in the 1959 census. Most of the places that were excluded by the change in farm definition were owner occupied.

NUMBER OF FARMS, BY TENURE OF OPERATOR, FOR THE UNITED STATES: 1959



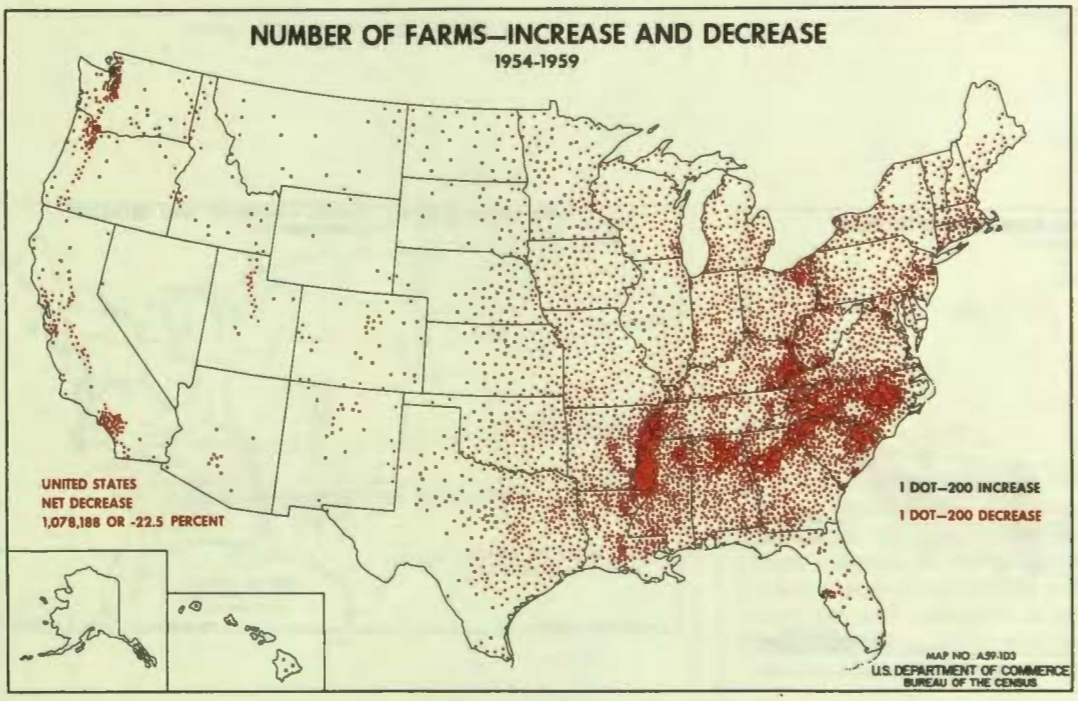
All regions have experienced a sharp decline in number of farms since 1935. The South and the Northeast, in particular, have undergone substantial off-farm migration. In the Northeast, number of farms decreased 54 percent between 1935 and 1959; in the South the decrease was 52 percent. The decline was less rapid in the conterminous West and the North Central region, where number of farms decreased 40 percent and 35 percent, respectively.

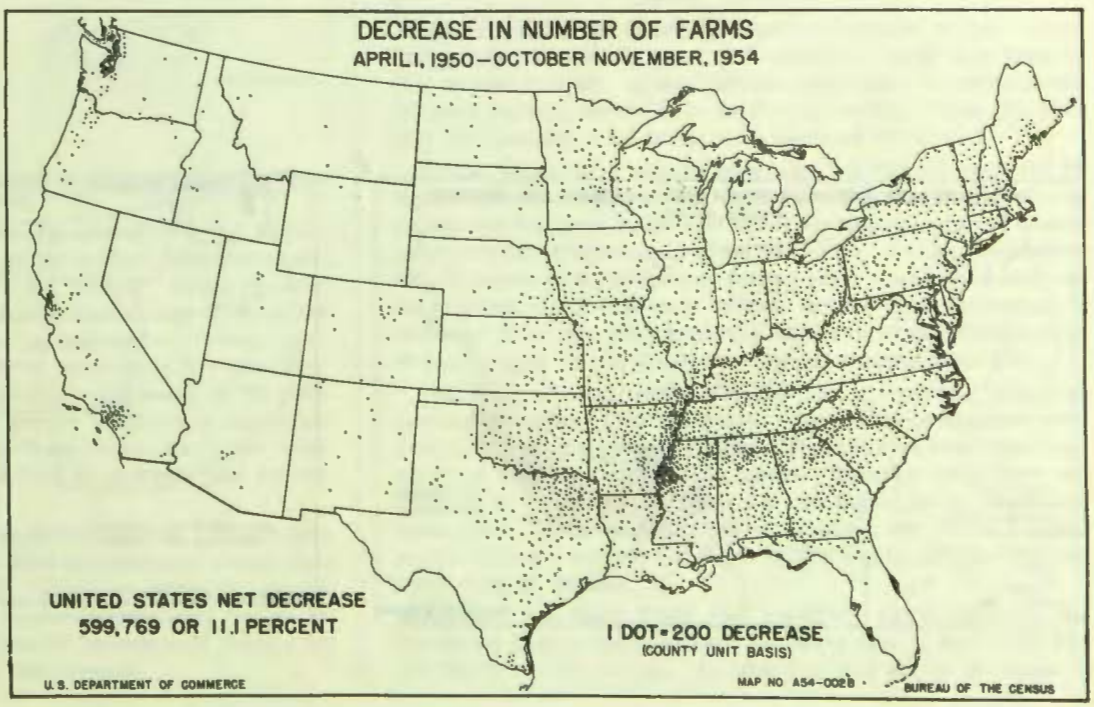
NUMBER AND PERCENT DISTRIBUTION OF FARMS, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1900 TO 1959

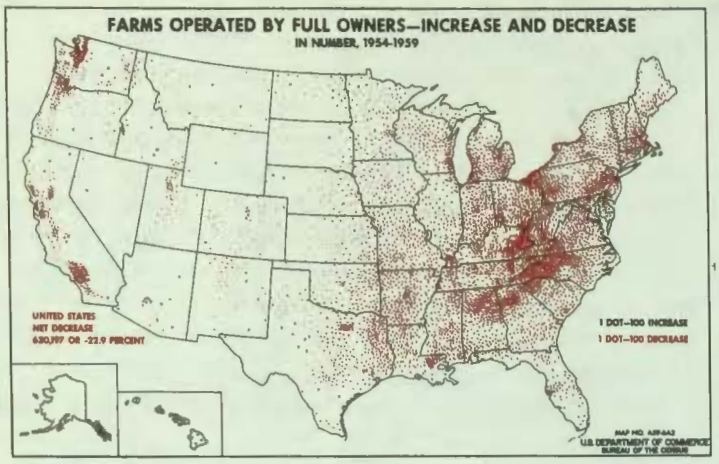


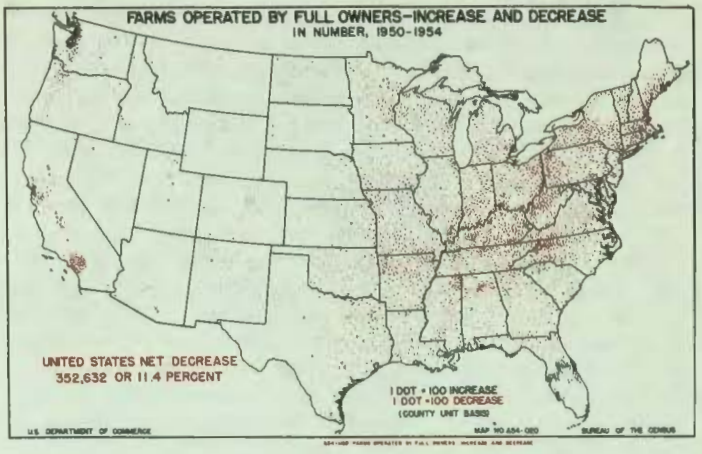
Changes in the tenure of farm operators.—The goal of full ownership has been achieved by a majority of the farmers throughout the history of the United States. However, shifts have occurred among tenure groups as conditions favoring certain tenure arrangements have developed. The proportion of farmers in the full-owner group decreased from 1900 to 1930, while the proportion of tenant operators increased until the two groups were nearly equal. After 1930 this trend was reversed until, by 1959, full owners outnumbered tenants nearly three to one. Another significant trend is the growing proportion of farmers who are part owners (farmers who own part of the land they operate and rent additional land from others). The proportion of all operators classified as part owners increased from 10 percent in 1940 to 23 percent in 1959. Part owners outnumbered tenants for the first time in 1959 to become the second largest tenure group. Full owners numbered 2,116,594, part owners 834,470, all tenants 735,849, and managers 21,060.

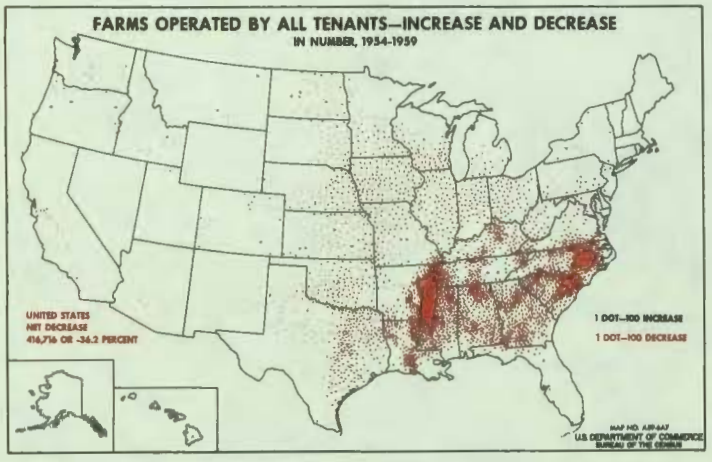
Race of farm operators.—Farm operators are classified as "white" or "nonwhite" by the census. The nonwhite category includes Negroes, Indians, Orientals, and all other nonwhite races. In 1959 there were only 284,612 nonwhite farm operators in the United States, or half as many as in 1950. Ninety-three percent, or 265,621, of all nonwhite operators were in the South. In the West, most of the nonwhite farm operators were Orientals and Indians. Detailed information on nonwhite farm operators is available only for the 16 Southern States. In this region they are concentrated in the Mississippi Delta and the Coastal Plain. Between 1954 and 1959, the percentage of tenancy among the nonwhite operators of the South dropped from 61.0 to 52.0. A little more than half the nonwhite tenants in the South were croppers.

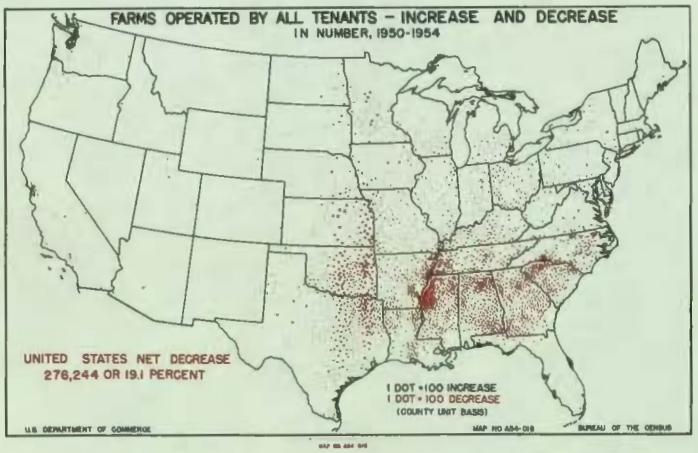


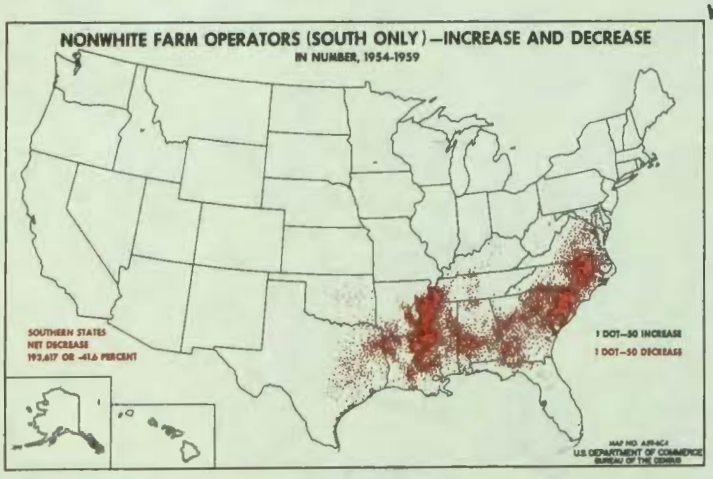


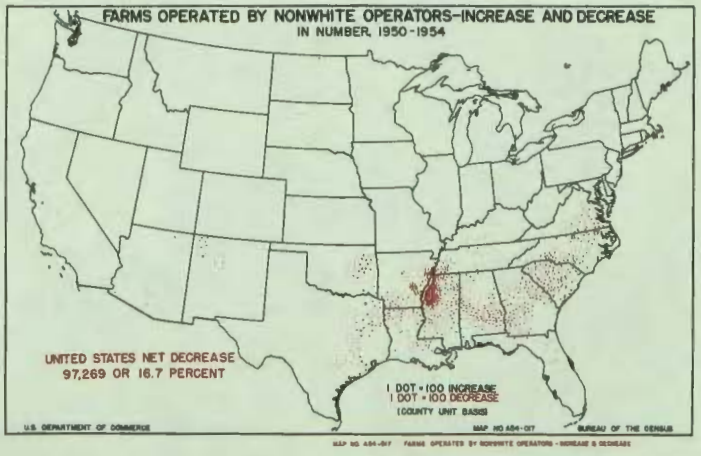

FARMS OPERATED BY FULL OWNERS—INCREASE AND DECREASE
IN NUMBER, 1954-1959
UNITED STATES
NET DECREASE
630,197 OR -23.9 PERCENT
1 DOT—100 INCREASE
1 DOT—100 DECREASE
MAP NO. A59-643
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

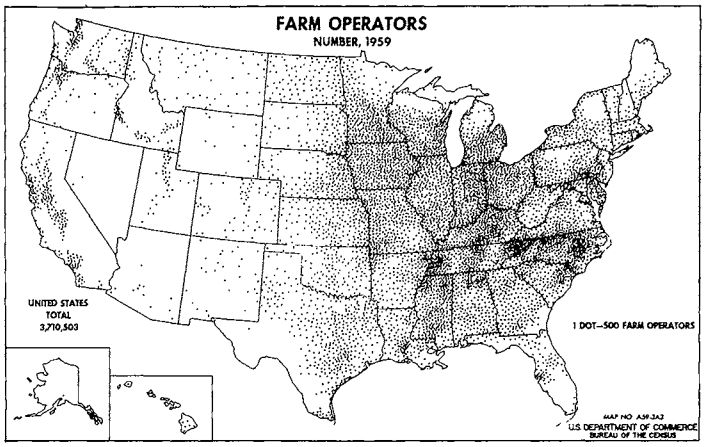

FARMS OPERATED BY FULL OWNERS—INCREASE AND DECREASE
IN NUMBER, 1950-1954
UNITED STATES NET DECREASE
352,632 OR 11.4 PERCENT
1 DOT = 100 INCREASE
1 DOT = 100 DECREASE
(COUNTY UNIT BASIS)
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

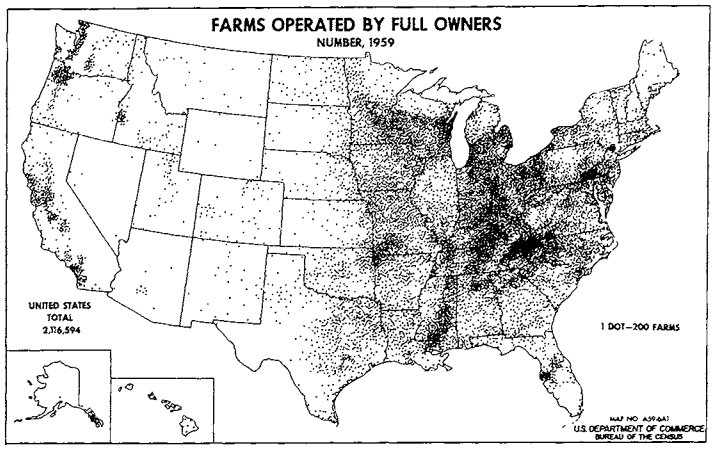

FARMS OPERATED BY ALL TENANTS—INCREASE AND DECREASE
IN NUMBER, 1954-1959
UNITED STATES
NET DECREASE
416,716 OR -36.2 PERCENT
1 DOT—100 INCREASE
1 DOT—100 DECREASE
MAP NO. A59-647
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

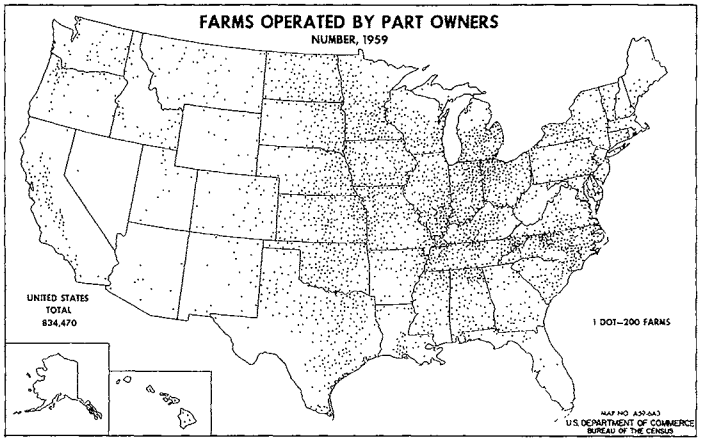

FARMS OPERATED BY ALL TENANTS – INCREASE AND DECREASE
IN NUMBER, 1950-1954
UNITED STATES NET DECREASE
276,244 OR 19.1 PERCENT
1 DOT = 100 INCREASE
1 DOT = 100 DECREASE
(COUNTY UNIT BASIS)
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

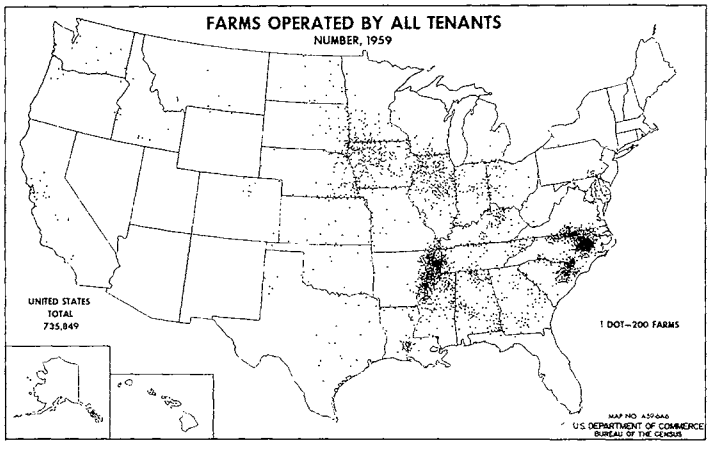

NONWHITE FARM OPERATORS (SOUTH ONLY)—INCREASE AND DECREASE
IN NUMBER, 1954-1959
SOUTHERN STATES
NET DECREASE
193,617 OR -41.6 PERCENT
1 DOT—50 INCREASE
1 DOT—50 DECREASE
MAP NO. A59-654
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

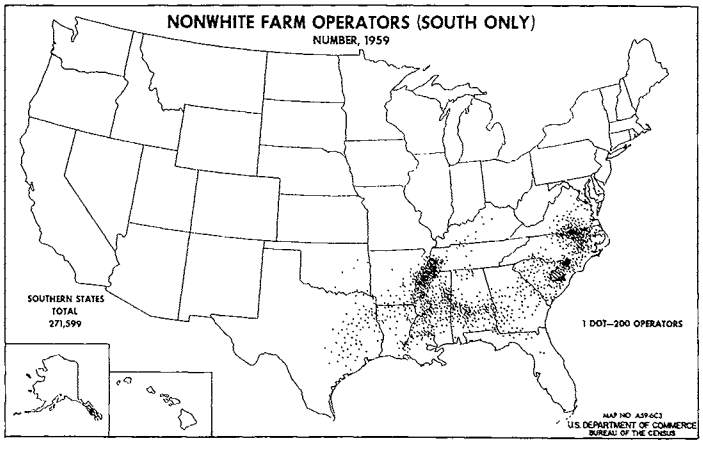

FARMS OPERATED BY NONWHITE OPERATORS—INCREASE AND DECREASE
IN NUMBER, 1950-1954
UNITED STATES NET DECREASE
97,269 OR 16.7 PERCENT
1 DOT = 100 INCREASE
1 DOT = 100 DECREASE
(COUNTY UNIT BASIS)
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS











Geographic distribution of tenure groups.—Full-owner farms, which constitute 57.1 percent of all farms in the United States, are quite uniformly distributed across the Nation. There is some concentration, however, in the southern Appalachian area and in the eastern portion of the North Central region. Farm operators working off their farms 100 or more days are also concentrated in these areas. This indicates that many of the full-owner farms in these areas may also be classified as part-time farms. The operators of some of these farms may view their farms primarily as residences and rely on nonfarm jobs for the major source of their income.

Part-owner farms are also uniformly distributed. Farm units containing both owned and rented land are generally larger than either full-owner or tenant farms. They are generally created in either of two ways: (1) Full owners become part owners by renting additional land, or (2) tenants become part owners by purchasing a portion of the land they operate.

The South and the North Central region account for 92 percent of all tenant farms—50 percent of them in the South and 42 percent in the North Central region. In the South, tenancy is most common on the small cotton- and tobacco-growing farms, where the amount of hand labor required per acre is high. Tenants are also numerous in areas of high land productivity and high land value, as in northern Illinois, northern Iowa, and the eastern edge of the Great Plains.

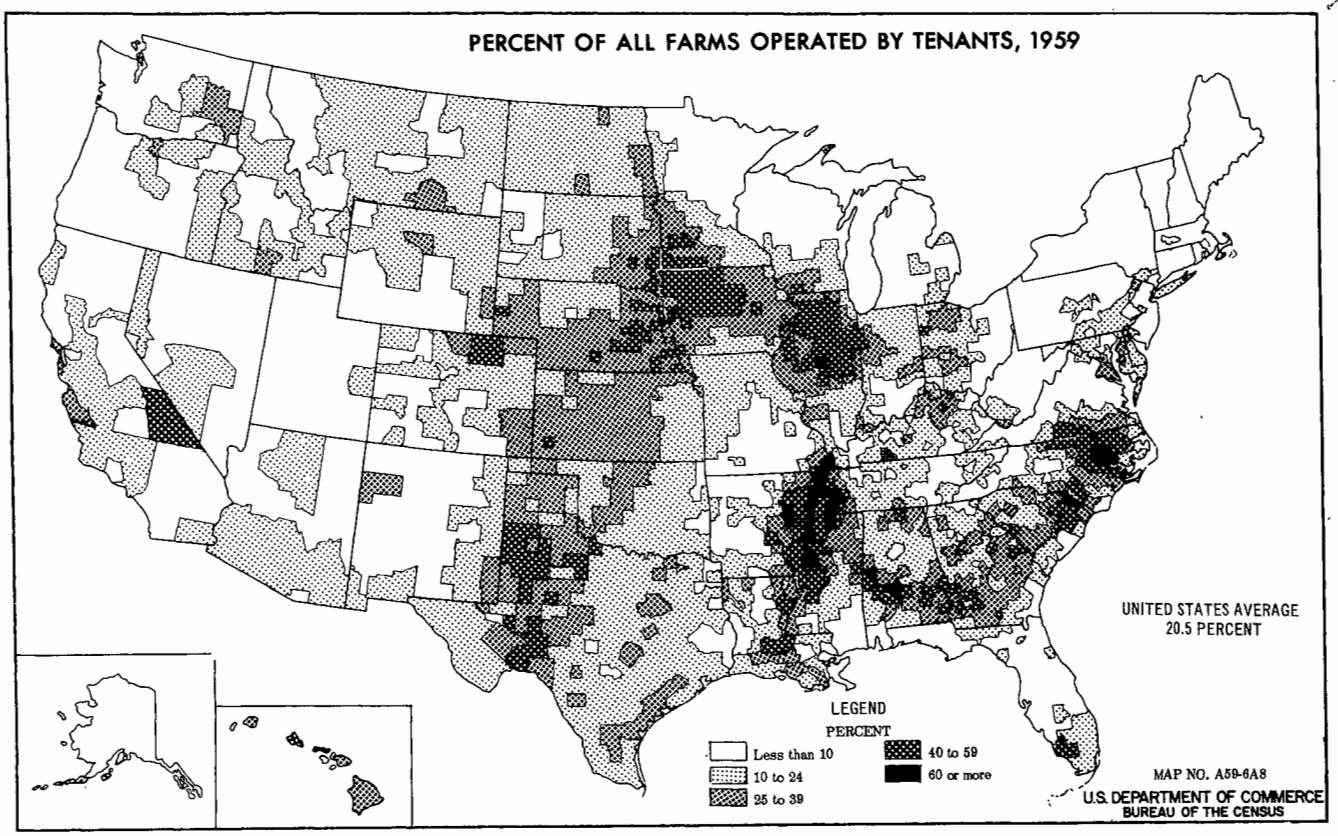
FARM TENANCY

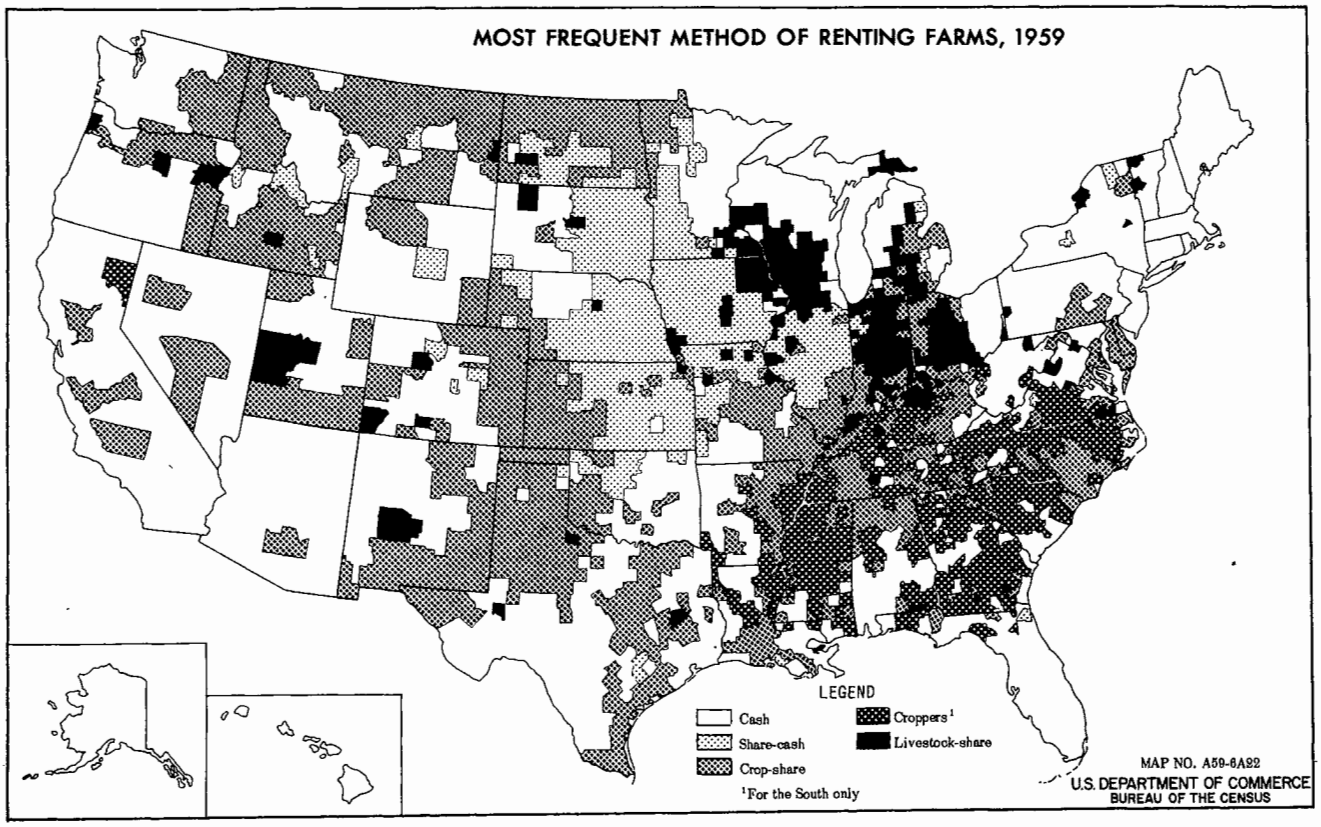
The proportion of farms operated by tenants in the United States climbed steadily from 25.6 percent in 1880 to a high of 42.4 percent in 1930. After 1930 the percentage of tenant farms declined rapidly, especially in the forties and the fifties. By 1959 only 19.8 percent of all farms were operated by tenants.

Tenant farms have always been most heavily concentrated in the cotton- and tobacco-producing areas of the South, primarily as a result of the large number of small sharecropper farms associated with the production of these two crops. But as the production of cotton and tobacco has become more mechanized and less labor-intensive, farms have grown in size and decreased in number. With the disappearance of many small sharecropper farms, tenancy in the South has dropped sharply since 1935.

The North Central region also has had a relatively high proportion of tenancy over the years. The highly productive cash-grain areas of east-central Illinois and northwest Iowa represent areas of high tenancy in this region. Tenancy rates have not declined as much in the North Central region as in the South since 1935. If the present trends continue, the North Central region will soon surpass the South as the region with the highest proportion of tenancy.

Tenancy has been lower and relatively more stable in the Northeast and in the West over the years than in the South and the North Central region. In 1959 only one out of 16 farms in





the Northeast was a tenant farm, and only one out of eight farms in the West was operated by a tenant.

Most frequent method of renting by tenants.—In selecting a type of lease, landlords and tenants are influenced by the prevailing method of renting in the locality; this is partly determined by such factors as type of farming, resources of tenants and landlord, variability of weather, expectations of production costs and product prices, and customs of the community.

In most counties, a share of the farm products is paid as rent. A system of share rent permits the risk of production to be shared by both the landlord and the tenant. It also is advantageous to the landlord in that share rents permit landlords to gain immediate returns from higher yields as a result of new production methods.

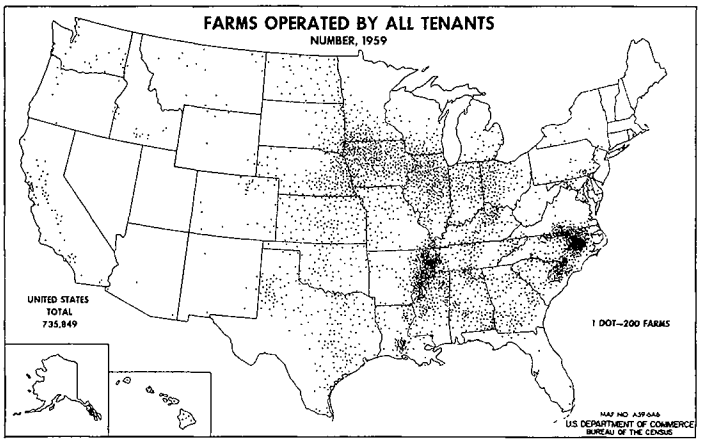
Cash leases are used most frequently for part-time or residential farms, for grazing land, and for crops with relatively stable yield patterns that decrease risk. In 1959 cash renting was the dominant method of renting in the relatively less productive areas and in areas of high industrial activity. It was the most common method in most of the counties of the Northeast and in the adjacent areas of Maryland, West Virginia, and Ohio where the topography is not well suited to crop production; in the Gulf Coast area from Florida to Louisiana; in the cutover timber area of northern Wisconsin and Minnesota; in most counties extending from southwest Texas through the Ozark Mountain area into lower Missouri; and in broad areas throughout the West.

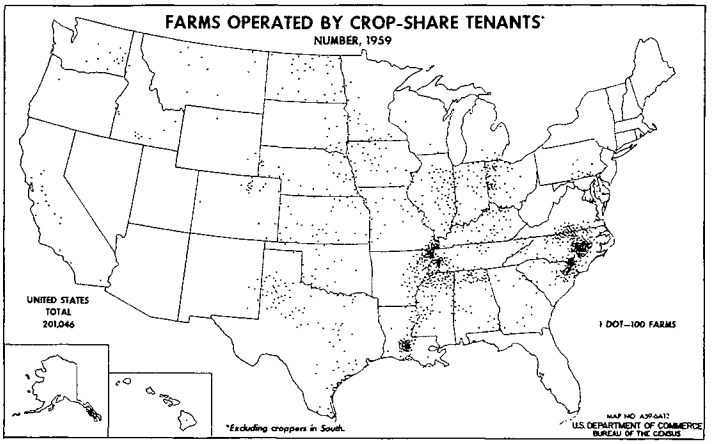
Share-cash leases predominated in most of the counties in areas of high productivity in the North Central region and in a few other widely scattered areas. Share-cash tenants generally engaged in some livestock production and paid a rent comprising a proportion of their grain crops and a fixed cash amount for buildings, pasture, or meadowland.

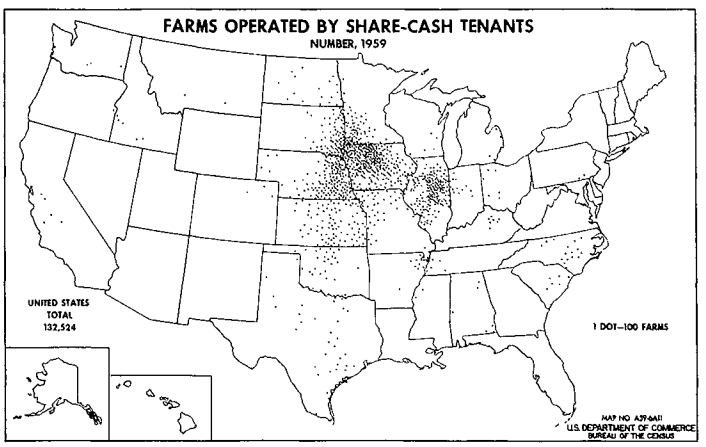
Crop-share arrangements were the most frequently used method of renting farms in which staple crops such as grains, cotton, and tobacco were grown. This type of renting predominated in scattered areas throughout the Southeast and East North Central States, and in broad areas of the Great Plains and the Far West.

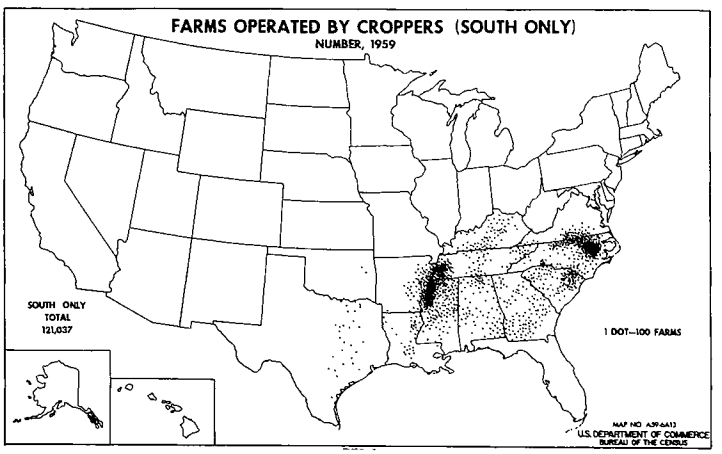
Livestock-share leases are used in areas particularly suited to the production of feed grains and livestock or livestock products. In 1959 this type of lease was dominant in central Ohio, northern Indiana, the dairy area of southwest Wisconsin, and adjacent areas in Illinois, Iowa, and Minnesota.

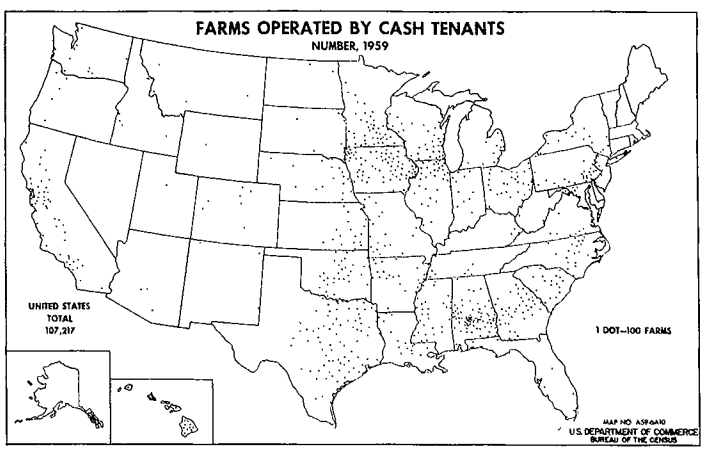
The cropper system developed in the South where soil, climate, and labor supply were particularly suited to the production of cash crops with relatively large labor requirements. In 1959 the cropper system was still the predominant rental arrangement in the tobacco-producing areas of the South, as well as in many of the cotton-producing counties along the Mississippi River and nearby areas.

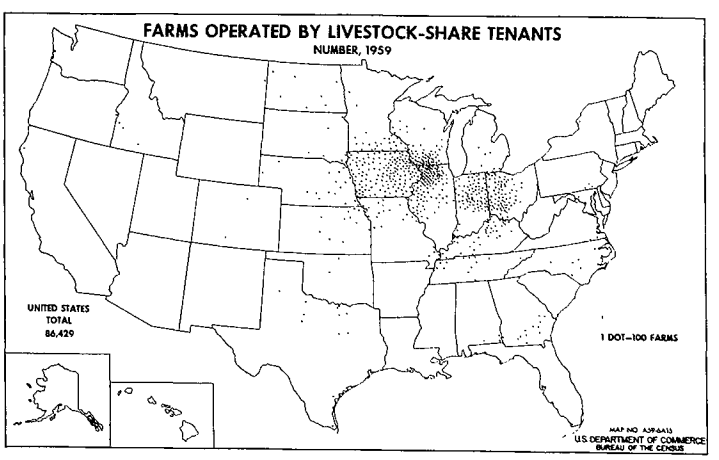










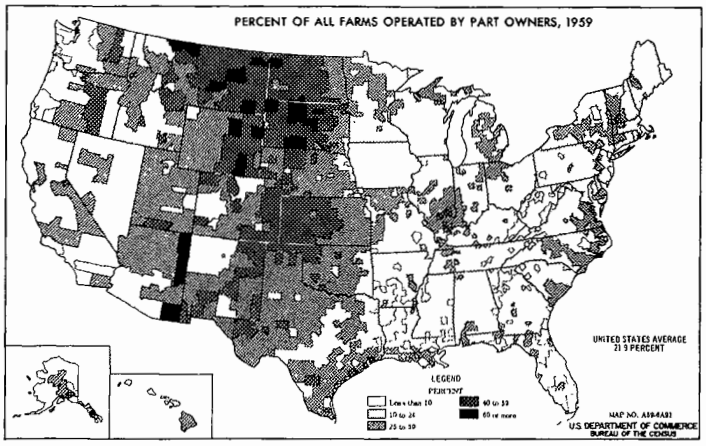


The number of tenant farms.—In 1959 only 735,849 farms in the United States were operated by tenants. This is the smallest number since tenant farms were first enumerated by the census in 1880, and 2.1 million less than the peak number in 1935. Not only is this the smallest number of tenants in the history of the census, but it also represents the smallest percentage of tenant farms.

Crop-share tenants operated 201,046 farms in 1959, or approximately one-fourth of all tenant farms in the entire United States. Share-cash tenants were the second largest tenant class, with 132,524 tenants classified in this group. The cropper system is reported only in the South. The sharp decline in cropper units between 1950 and 1959 moved sharecropper arrangements from second to third position in the class ranking of tenant farms. Cash tenants were the fourth largest class, operating 107,217 farms, or one in seven of all tenant farms. The livestock-share lease was the least used of all rental arrangements. Only 86,429 tenant farms were leased under this arrangement.

Changes in class of tenant.—The improved methods of agricultural production that were adopted during the last decade have contributed to changes in the pattern of rental arrangements. Farms operated by all tenants declined from 1,447,455 in 1950 to 735,849 in 1959, a decrease of nearly 50 percent. The sharp drop in number of tenant farms affected some classes of tenants more than others.

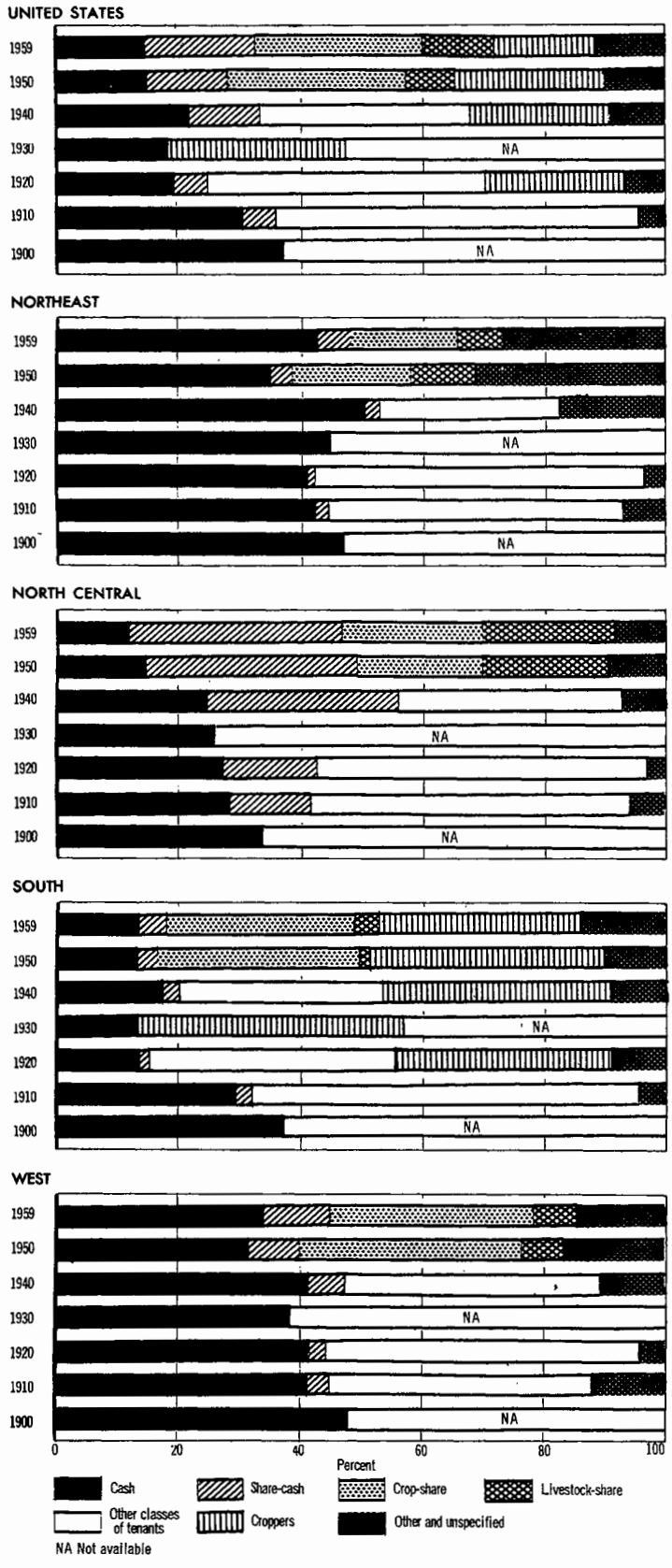
Between 1950 and 1959 the proportion of cash tenants remained almost unchanged at approximately 15 percent. However, the proportion of tenants who paid a share-cash rent increased to 18.0 percent in 1959, a rise of almost 5 percent since 1950. The wide adaptability and popularity of the crop-share lease is evident in the relatively high proportion of tenants using this type of lease. In 1959, 27.3 percent of all tenants used a crop-share lease compared with 29.0 percent in 1950. Livestock-share tenants are becoming relatively more important. The production of tenants using this type of lease increased from 8.0 percent in 1950 to 11.7 percent in 1959. Sharecroppers have decreased to the lowest proportion of all tenants since 1920, the first census this group was separately classified. In 1959 sharecroppers represented only 16.4 percent of all tenants. The decline in sharecropping is even more noticeable when only tenants in the South are considered. There, sharecroppers dropped from 38.3 percent of all tenants in 1950 to 33.0 percent in 1959.



PART-OWNER FARM OPERATORS

Part-owner operations have become the dominant tenure form in U.S. agriculture. Their importance is greater than their number would suggest. Part owners generally operate larger farms than either full owners or tenants; even though they account for only 22.5 percent of all farms, they operate 44.8 percent of all the farmland. This is just 0.6 percent less than the combined acreage of full owners and tenants.

DISTRIBUTION OF TENANT OPERATED FARMS, BY CLASS OF TENANT, FOR THE UNITED STATES AND REGIONS: 1900 TO 1959

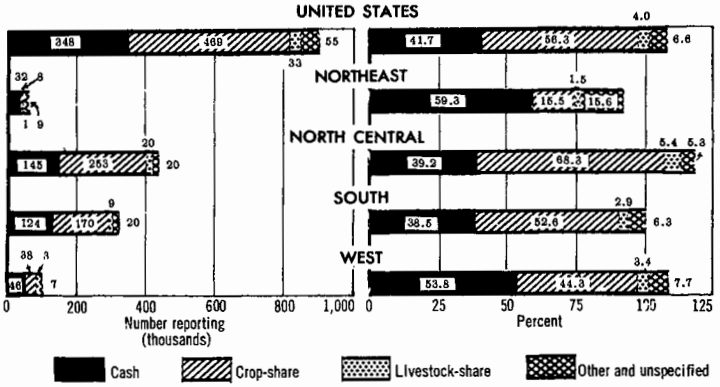


Part ownership is a means by which a tenant with limited capital can seek to increase his security of tenure and begin to acquire some equity in the land he operates. In addition to this use of part-owner arrangements as a first step in owner-operatorship,

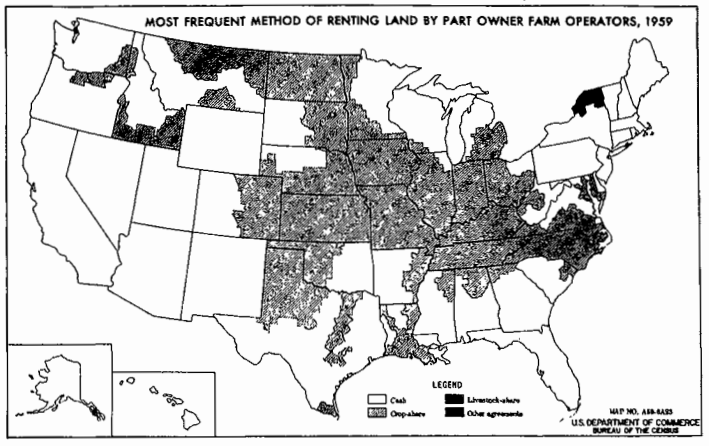
there is another reason which helps explain the growing use of part-owner arrangements. The rapid technological advances in agriculture have permitted many farmers to expand their farm business to make more effective use of land, labor, and capital. This expansion frequently requires a larger amount of equipment and livestock as well as additional land. Some full owners who decide to expand their operations by operating more land may choose to keep their level of working capital high and rent additional land. In this way part ownership becomes a means by which full owners expand their operations without tying up needed funds in real estate. The pressure to expand farm operations affects part owners as well and they may elect to rent additional land instead of completing purchase of their present farms. Thus, the part-owner group grows because of the movement of both tenants and full owners into the group and because part owners remain in it for longer periods of time.

The number of part-owner farms.—Part-owner farms represented about 10 percent of all farms in each census from 1900 to 1940. By 1959, however, the proportion of part-owner farms had increased to about 23 percent. In 1959 there were 834,470 part-owner farms in the United States. This is an increase of 8,800 farms from 1950 but a decrease of about 34,000 from the peak year of 1954. The Great Plains was the area where the highest proportion of farms were operated by part owners.

PART OWNERS REPORTING SPECIFIED RENTAL ARRANGEMENTS, FOR THE UNITED STATES AND REGIONS: 1959



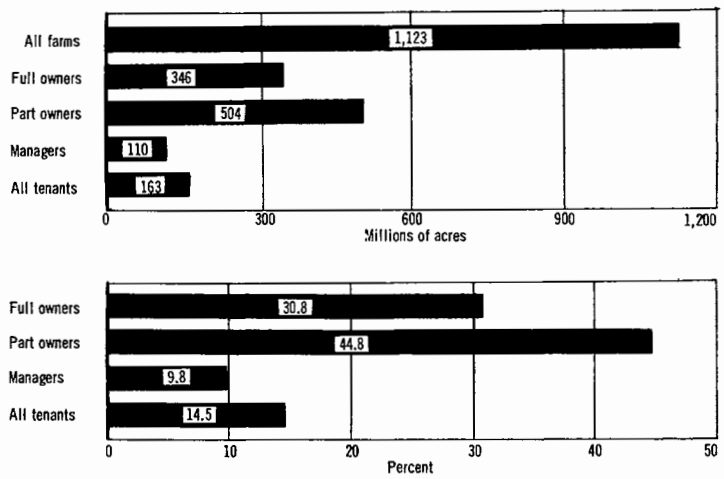
Most frequent method of renting by part owners.—In 1959 cash renting was the dominant method of renting by part owners in the Northeast, in most of the Gulf States in the South, and throughout much of the grazing area in the West. Crop-share leases predominated in the cash-crop producing areas of the South and of the North Central region. The areas in which part owners most frequently used crop-share leases tended to coincide in a general way with the areas in which tenants used either share-cash or crop-share leases.



TENURE OF FARMLAND

Use rights of farmland.—Farm operators may gain access to farmland in three different ways: through ownership, through rental arrangements, or through management contracts. The distribution of land among tenure groups is quite different from the proportion of operators associated with each of the tenure groups. In 1959 full-owner operators accounted for 57.1 percent of all farmers, but they operated only 30.8 percent of the farmland. This wide difference is partly explained by the fact that many of the full-owner farms were part-time or residential farms. Also, 24.0 percent of the full owners were over 65 years of age. Many of these farmers had curtailed their operations and were operating smaller units than part owners or tenants. A different relationship existed for the part-owner group. Part owners accounted for 22.5 percent of all farms, but they operated 44.8 percent of all the land in farms. A large proportion of the part owners were located in the Great Plains, where farms are generally large.

LAND IN FARMS, BY TENURE OF OPERATOR, FOR THE UNITED STATES: 1959



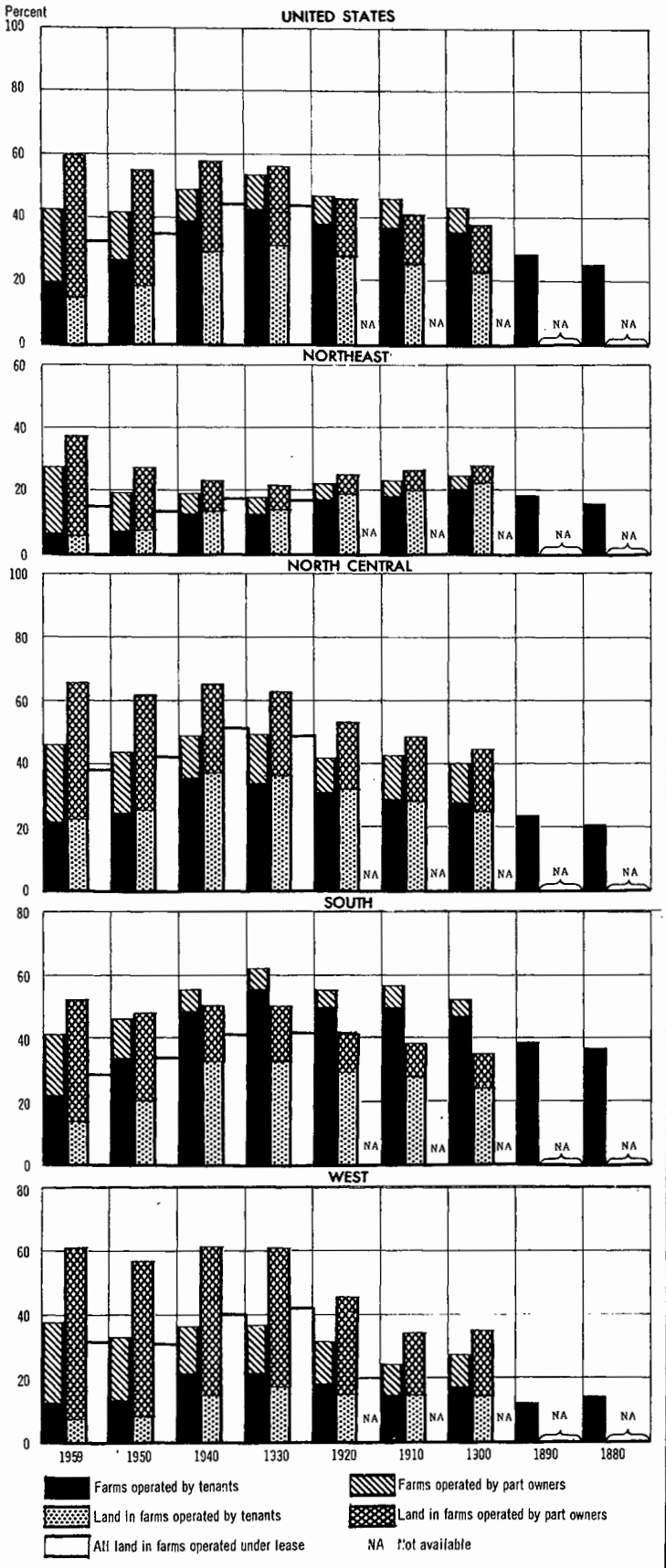
Manager-operated farms also contained a disproportionately large acreage of farmland. Only 0.6 percent of the farm operators were managers, but they operated 9.8 percent of the land. Manager farms tend to be large-scale operations with large acreages. The average size of manager-operated farms was nearly 20 times the average size of all farms.

The tenant group accounted for 19.8 percent of all farms in the United States, but their farms contained only 14.5 percent of the farmland. The heavy concentration of small tenant farms in the cotton- and tobacco-producing areas of the South was primarily responsible for the low proportion of land in tenant farms. The small cropper and crop-share farms of the South, however, were partially offset by the larger than average farms of the cash tenants in the North Central region and the West.

Changes in amount of land under lease.—In spite of the sharp drop in tenancy in the last decade, the decline in the proportion of farmland under lease has been small. Number of tenant farms declined by nearly 50 percent, while land under lease decreased by only 11 percent. In 1959 approximately 382 million acres, or one-third of the farmland, was operated under leasing arrangements.

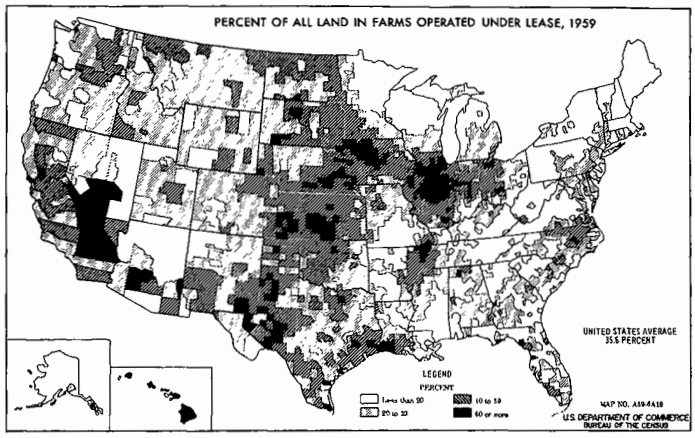
Land in farms operated by tenants increased steadily from less than one-fourth of all farmland in 1900 to nearly one-third in 1935, the peak year for both tenant-operated land and all land operated under lease. After 1935 the land in tenant farms declined, especially during the 1940's. By 1959 only 14.5 percent of the farmland was operated by tenants.

PERCENT OF FARMS AND FARMLAND OPERATED BY PART OWNERS AND TENANTS, AND PERCENT OF TOTAL FARMLAND UNDER LEASE, FOR THE UNITED STATES AND REGIONS: 1880 TO 1959



The growing importance of part owners is observed in the fact that they rented approximately 218.6 million acres compared with 163.2 million acres rented by tenants. In 1959 part owners exceeded tenants for the first time both in number of operators and in acreage rented. From 1930 to 1959 the proportion of all farmland leased and operated by part owners increased from 12.7 to 19.5 percent.

In general the trend within each of the four regions tends to correspond to the trend for the entire United States. In the Northeast, both tenancy and part-owner operations are quite low; together tenants and part owners rented 14.4 percent of the farmland in 1959. The North Central region has a relatively high proportion of tenancy and part-owner operations, with about 38 percent of the farmland in this region operated under some form of leasing arrangement. In the South, tenant farms and land in tenant farms dropped more than 50 percent between 1930 and 1959, but all land under lease declined by only one-third during this period, as part-owner operations became more numerous. Part owners have been the largest operators of leased land in the West since 1930. The proportion of all farmland that they lease remained fairly constant since 1930, at about one-fourth. Thus, the drop in all land under lease in the West is due to the drop in land rented by tenants.

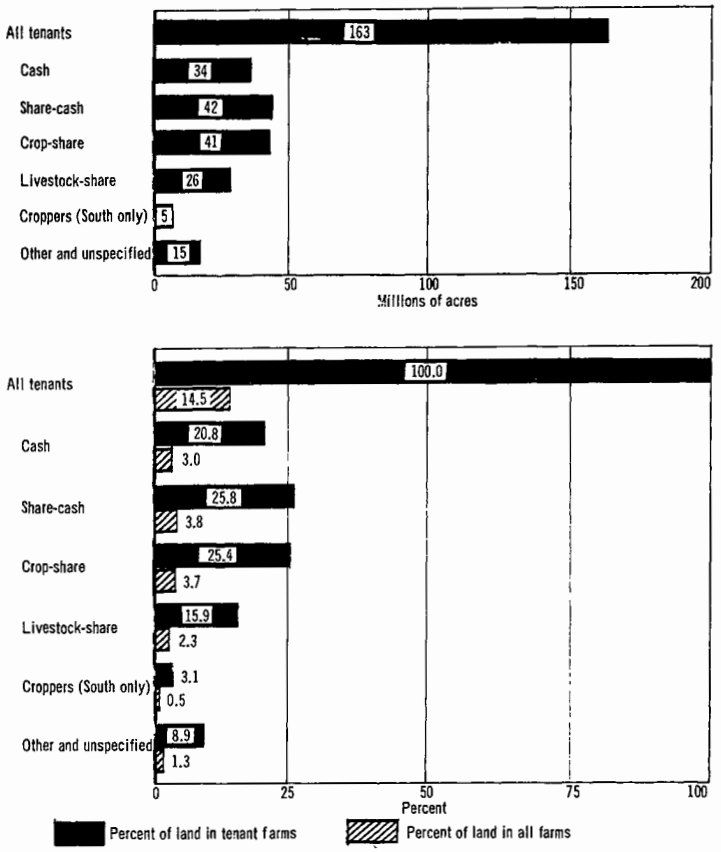


Geographic distribution of leased land.—The proportion of leased land within different areas of the Nation tends to correspond with the relative productivity of the land in the area. In areas of high productivity and high land values, operators with limited capital seek rented land. This permits them to operate more land than would be possible if they chose to own all of their resources and operate smaller farms. The highest proportions of leased land (40 percent or more) are found in the grain-producing, livestock-feeding areas of the North Central region and also in areas of intensive cash-crop production in the other regions. An exception to the direct relationship between, high productivity and high proportion of leased land is noted in the West, where large amounts of low-producing land are rented for grazing purposes.

Land farmed by various classes of tenants.—In 1959 tenants operated approximately 163.2 million acres of farmland, or about 14.5 percent of all farmland in the United States. Most of this land, 70.2 percent, was leased under some form of share arrangement, including share-cash leases, crop-share leases, livestock-share leases, and sharecropper agreements. The proportion of rented land operated by tenants under share leases has remained virtually unchanged from the 70.5 percent recorded in 1950, notwithstanding the sharp drop in number of tenant farms between 1950 and 1959.

Share-cash tenants were the second most numerous class of tenants (18.0 percent), but rented more land than any other

PERCENT OF ALL LAND OPERATED BY TENANTS, BY TYPE OF RENTAL AGREEMENT, FOR THE UNITED STATES: 1959



class. These tenants rented 42.1 million acres of farmland, or 25.8 percent of all tenant-operated land. Share-cash tenants were located primarily in the cash-grain areas of north-central Illinois, northwestern Iowa, and eastern Nebraska, where farm size averaged somewhat larger than in the United States as a whole.

Crop-share tenants rented nearly the same amount of land as the share-cash tenants. About 41.5 million acres were rented under crop-share leases, or 25.4 percent of all land operated by tenants. This type of lease is widely used throughout the United States, but it has been used particularly in the Coastal Plain areas of North Carolina and South Carolina, and along the Mississippi River.

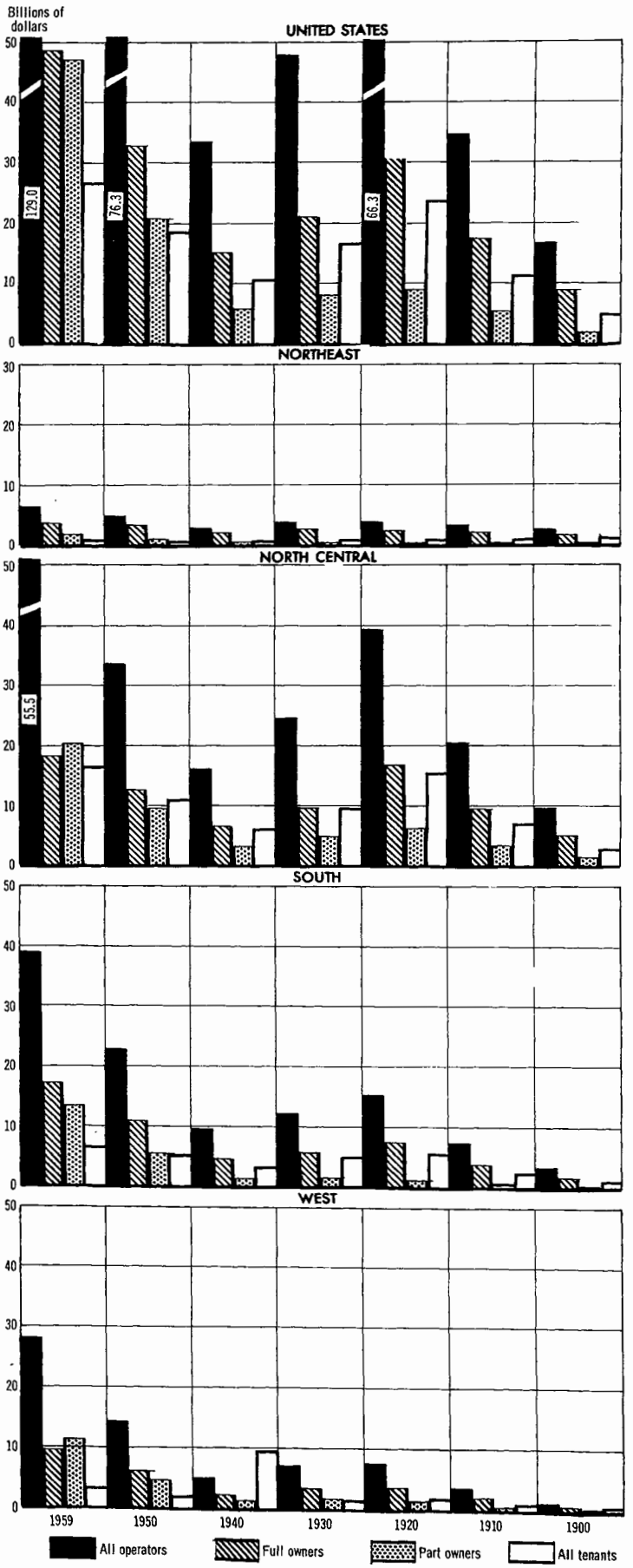
Livestock-share tenants operated 25.9 million acres of farmland, or 15.9 percent of the tenant-operated land. The livestock-share leasing is found almost exclusively in the North Central region.

Sharecroppers in the South farmed 5.1 million acres in 1959. This represents a drop of 9.1 million acres in sharecropper farms since 1950 and is the lowest acreage ever reported by the census for this type of rental arrangement. Land in sharecropper farms declined from 6.7 percent of all tenant-operated land in 1950 to 3.1 percent in 1959. Sharecropper land accounted for less than one-half of one percent of all farmland in the United States in 1959.

Cash tenants rented 34.0 million acres of farmland in 1959, or about one-fifth of all tenant-operated land. Cash tenants were widely distributed across the United States and accounted for about one-seventh of the tenant operators.

Other and unspecified types of leases were not insignificant. They accounted for 8.9 percent of the land operated by tenants, or 14.6 million acres. Tenants in this category include those who paid a fixed quantity of product, those who maintained the land rent-free, and those whose rental payments were unspecified.

VALUE OF LAND AND BUILDINGS, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1900 TO 1959



VALUE OF LAND AND BUILDINGS

Farm real estate value.—The total value of land and buildings rose to an all-time high of $129 billion in 1959. This was almost twice as high as the cyclical peak in 1920 and more than seven and one-half times as great as the total value of $16.7 billion in 1900. The aggregate value of land operated by each tenure group has increased since 1940, but changes in the amount of land operated by the different tenure groups have changed the proportionate value of land controlled by each group.

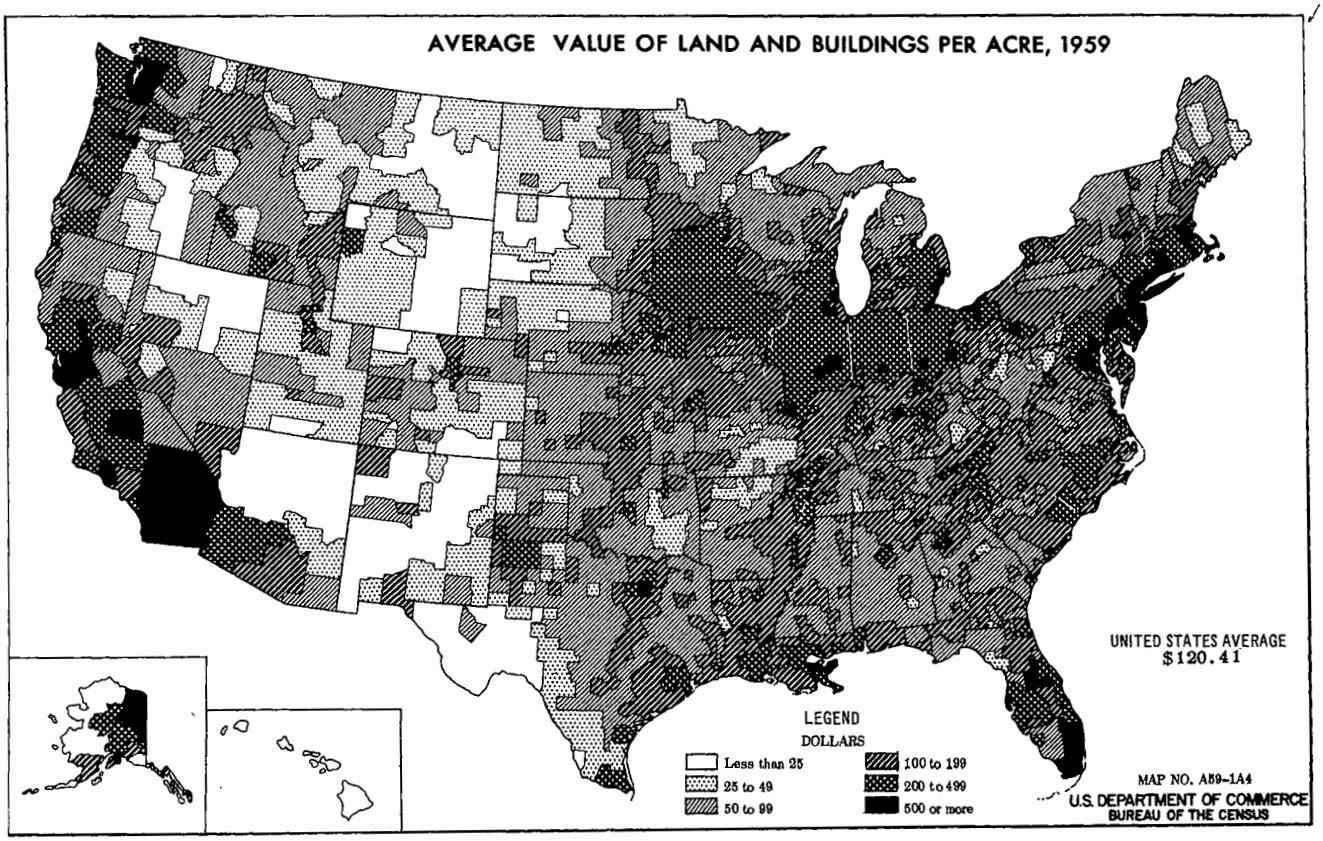
Land operated by full owners continued to account for the largest proportion of total value of land in farms though the proportion declined from 43 percent in 1950 to about 36 percent in 1959. Part owners were nearly equal to the full owners in 1959, an increase from 27 percent in 1950. This is another indication of the growing importance of part owners. The proportionate value of land operated by tenants had decreased from 35.9 percent in 1920 to about 24 percent in 1959.

For the Nation as a whole, the value of land in full-owner farms in 1959 was slightly greater than the value of land operated by part owners. However, in both the North Central region and the West the value of land in part-owner farms exceeded that of land in full-owner farms. If present trends continue, part owners will soon be the tenure group with operational control of the largest proportion of land value as well as of the largest proportion of land area.

Value of land and buildings per acre.—Areas of highest average value per acre of farm real estate were near metropolitan centers, in the more productive areas of the Corn Belt, and in irrigated and specialty-crop areas of the West. Land of lowest value per acre was found in the range areas of the West.

In 1959 the average value of farmland in the United States was $120.41 per acre, an increase of more than 80 percent since 1950. Tenant-operated farms had the highest value of $163.29 per acre; full-owner farms were next with $140.85 per acre, followed by part-owner farms with $94.31; manager farms were last with an average value of $76.34 per acre.

Among the tenant operated farms, the highest average value per acre was $194.37, reported by livestock-share tenants. All tenant classes except cash tenants farmed land with a higher average value per acre than the average of all farmland in the United States.



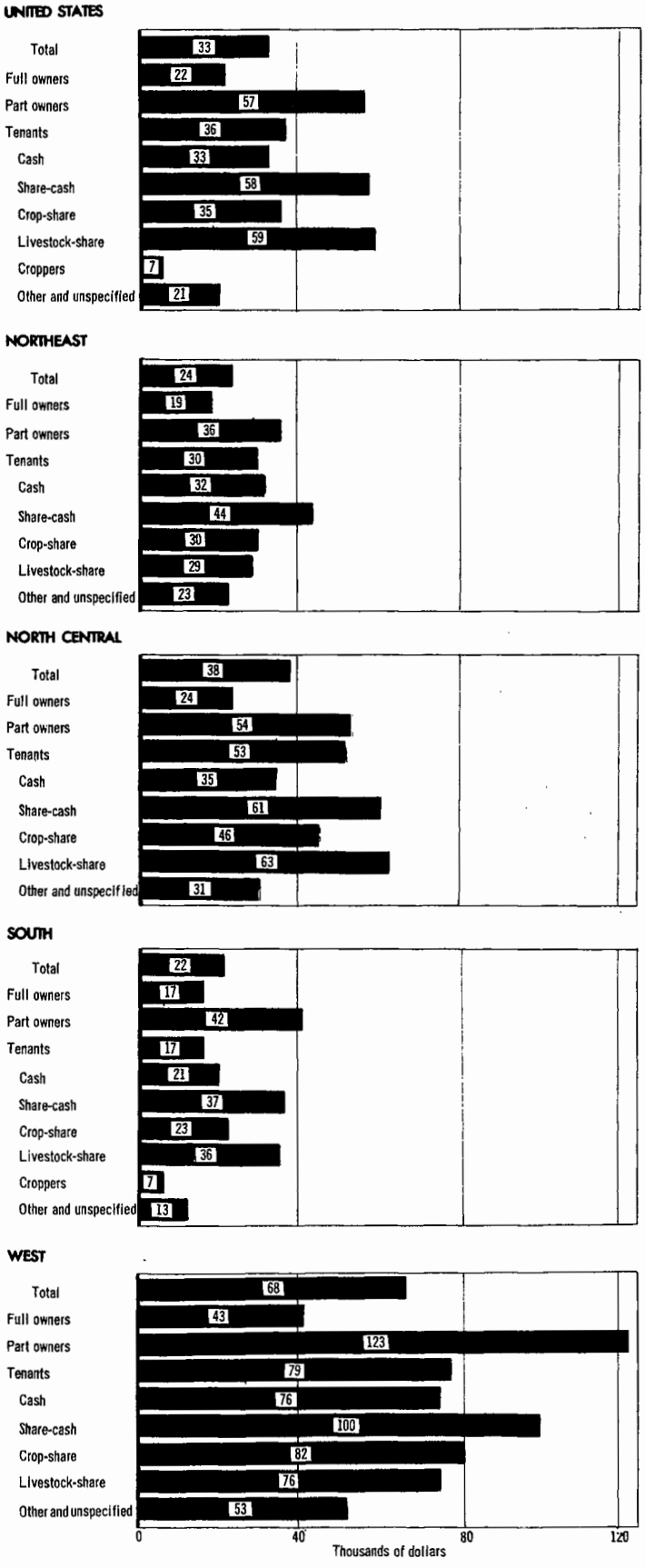
Average value of land and buildings per farm.—The average real estate value per farm varies widely between different tenure groups. These variations are primarily a result of large differences between the average farm size of the various tenure groups. For the Nation, the average value of land and buildings of part-owner farms amounted to $56,700 in 1959. This was 152 percent greater than for full-owner farms and about 57 percent greater than for tenant-operated farms. The average valuation of $36,200 for tenant farms was about 60 percent greater than the average value of full-owner farms. The comparatively low average value of $22,500 for full-owner farms can be partly attributed to the large number of small part-time and part-retirement farms that are included in the full-owner group. The average value of all full-owner farms was about $10,000 less than the average value of commercial full-owner farms.

Another factor which contributes to differences in average farm values among tenure groups is the tendency for the more productive land with high valuation to be operated under a leasing arrangement. This relationship is indicated by the fact that although farms operated by tenants were 36 percent larger than full-owner farms their average value was 60 percent greater. Within the part-owner group, however, farms having relatively low rented acreage with high land valuations are offset by the larger acreages of relatively low-value grazing land that part owners rent in the Great Plains.

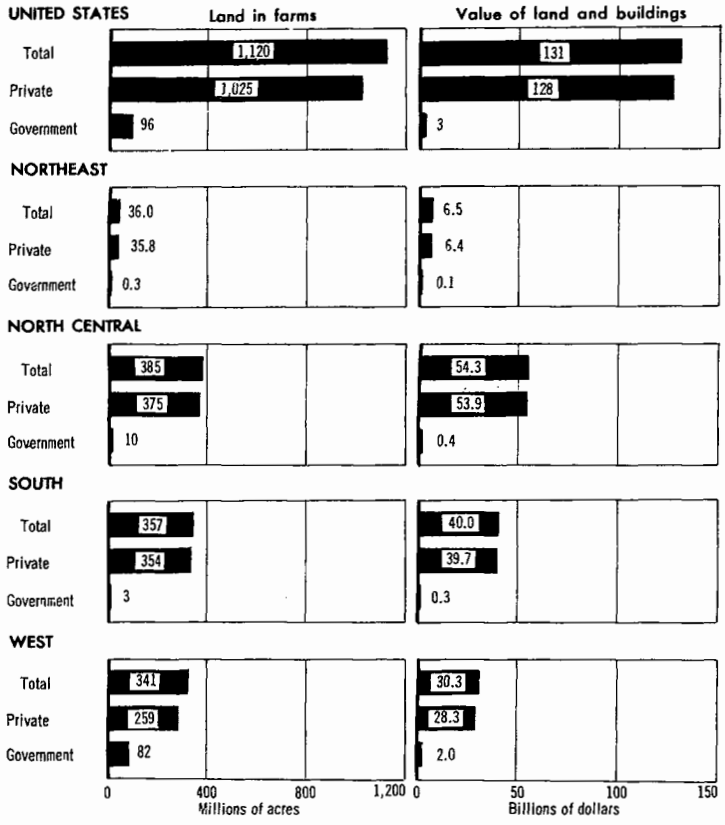
The average value of share-cash farms was greater than the average value of livestock-share farms in all regions except the North Central, where livestock-share farms had the highest average value.

Cropper farms had the lowest average value of all tenure groups, with an average value of $7,000. This reflects the small size of cropper farms and the lack of extensive improvements.

AVERAGE VALUE OF LAND AND BUILDINGS PER FARM, BY TENURE OF OPERATOR, FOR ALL FARMS IN THE UNITED STATES AND REGIONS: 1959



LAND IN FARMS AND VALUE OF LAND AND BUILDINGS, PRIVATELY OWNED AND GOVERNMENT OWNED, FOR THE CONTERMINOUS UNITED STATES AND REGIONS: 1961

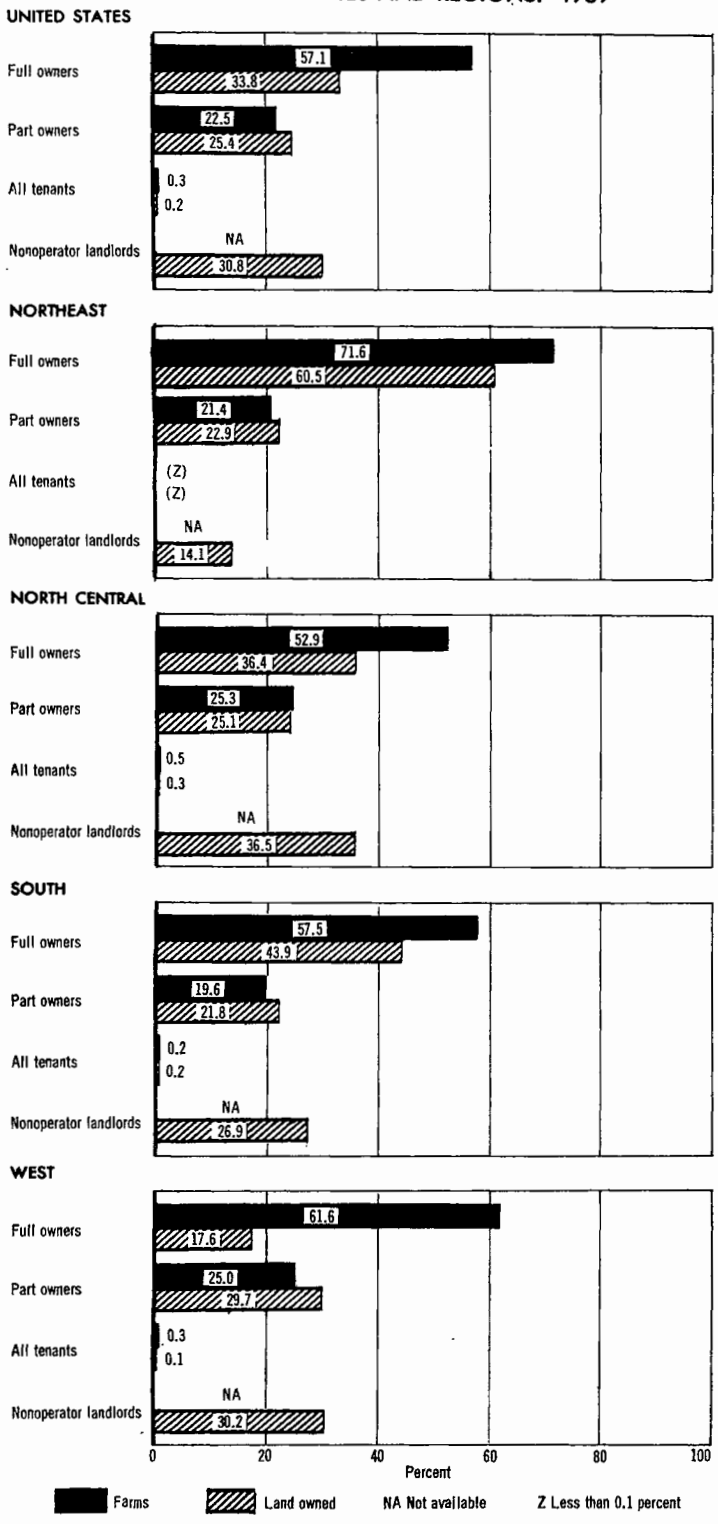


LAND OWNERSHIP

Public ownership.—Most of the land in the United States has at some time been owned by the Federal Government, with the exception of the land of the original Thirteen Colonies, Texas, and Hawaii. Much of this land was disposed of to States, schools, railroads, and individuals to promote the settlement and development of the country, and most of the land now under the direct control of the Federal Government is used for grazing, wildlife, watersheds, and recreation, or is in institutional uses.

Approximately one-third of the 2,271 million acres of land in the entire United States is owned by the Federal Government. However, only 8.5 percent of the farmland in the conterminous United States is publicly owned. Approximately 85 percent of this farmland is located in the West and is devoted almost entirely to grazing.

PERCENT OF FARMS AND LAND OWNED, BY TENURE OF OWNER, FOR THE UNITED STATES AND REGIONS: 1959



Private ownership.—In 1959 slightly over 75 percent of the farms, including 60 percent of the farmland, were owned by owner-operators. The remaining owners were nonoperating landlords, corporations, and a small number of tenants who rented out all of the land they owned. The disparity between the proportion of owner-operators and the proportion of land owned by them is primarily due to the large number of full owners with smaller than average farms used as part-time or part-retirement farms. Full owners accounted for 57.1 percent of the farms, but they owned only 33.8 percent of the farmland. On the other hand, part owners owned a slightly larger proportion of land than of farms. They owned 22.5 percent of the farms and 25.4 percent of the farmland. These general relationships held for each of the four regions as well as for the United States as a whole. The largest difference in proportion of farms owned and land owned was in the West, where full owners accounted for 61.6 percent of the farm operators, but owned only 17.6 percent of the farmland.

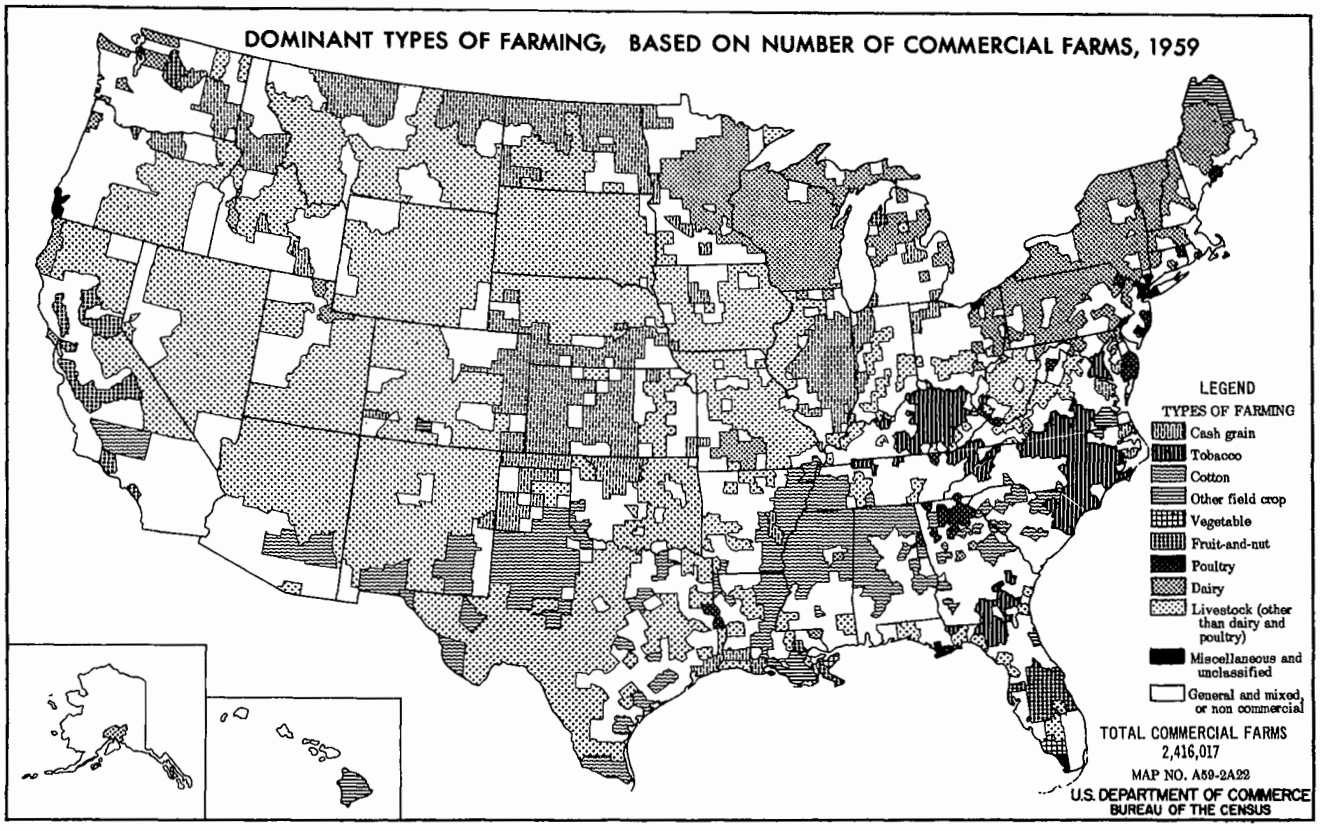
In the 1959 census information about nonoperator landlords was obtained indirectly from the tabulated data of the four major tenure groups. Thus, it was impossible to determine the number of nonoperator landlords because some owned more than one farm and some rented farms had more than one landlord. However, it was possible to obtain the total amount of land owned by nonoperator landlords. For the United States as a whole, nonoperator landlords owned 30.8 percent of the farmland. Among the regions, the proportion ranged from 14.1 percent in the Northeastern region to 36.5 percent in the North Central region.

Section II.—PRODUCTION

TYPE OF FARMING

The type of agricultural production that develops in particular areas is influenced by such physical factors as rainfall, availability of irrigation water, temperature, soil, and topography. The low rainfall and lack of widespread irrigation facilities in the Rocky Mountain States and Great Plains are largely responsible for the dominance of wheat production on the arable land and grazing on land less suited to crop production. Wide variations in temperatures from north to south have caused short-season vegetable crops to be grown in Alaska and citrus fruits to be grown in the subtropical areas of the southern United States. Soils differ widely across the United States from the relatively infertile sandy soils of the Southwest to the rich alluvial soils of the Mississippi Delta.

Economic factors such as population migration, transportation facilities, consumer preference for commodities, and costs of production also influence type of farming. Changes in these economic factors help to explain changes over time in the type of production in particular areas.



Types of farms.—In the 1959 census, farms were classified by type on the basis of the sales of a particular farm product or group of farm products that accounted for 50 percent or more of the total value of all farm products sold. If the sales from one farm product group did not represent 50 percent of the total farm sales, the farm was classified as "general."

Cash-grain farms were located in east-central Illinois, the northern and south-central area of the Great Plains, west-central Idaho, and southeast Washington. The 398,047 commercial grain farms were about evenly divided among tenure groups—full owners operated 30.3 percent, part owners 37.6 percent, and tenants 31.9 percent.

Tobacco farms have traditionally been associated with sharecropper operations, but in recent years full owners have become more important. Of the 190,057 commercial tobacco farms, tenants operated 40.8 percent, full owners 35.3 percent, and part owners 28.8 percent.

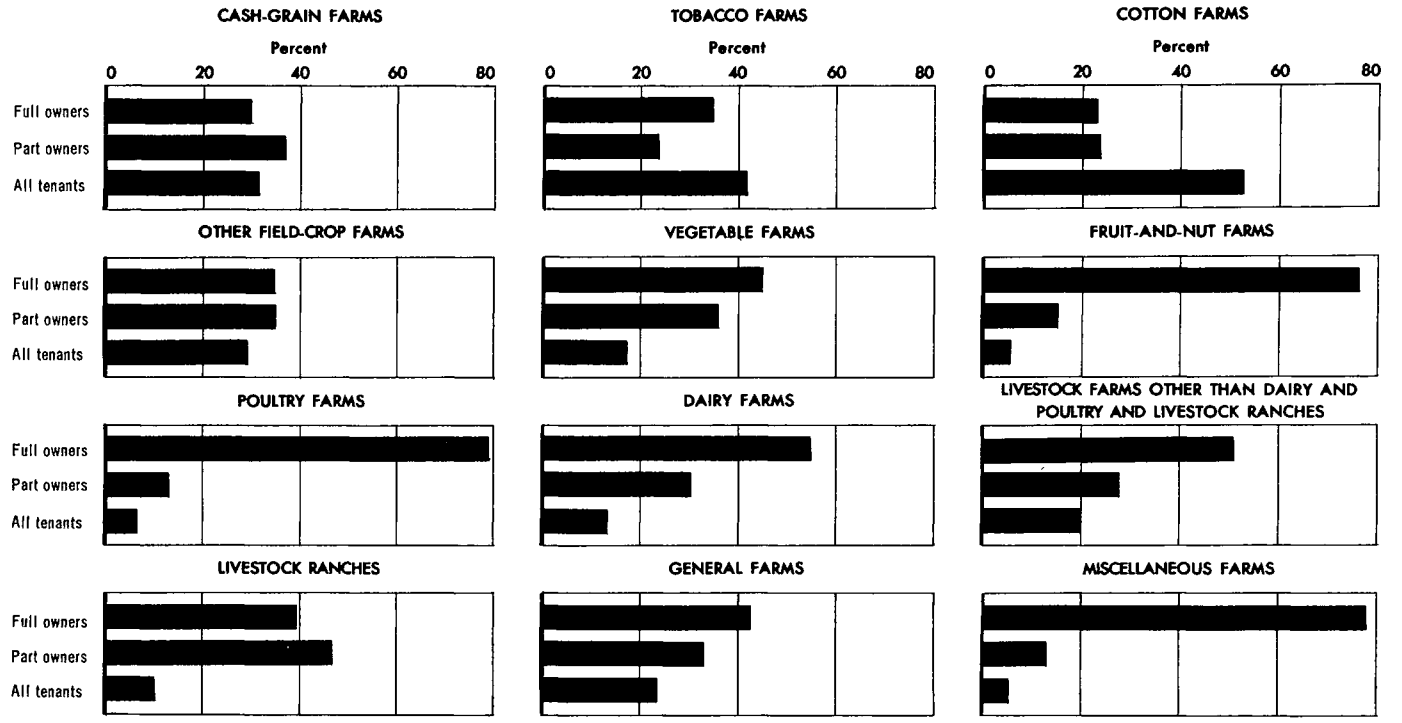
Cotton farms have become greatly mechanized in the past decade. As a result, the number of small cotton farms in the South has been greatly reduced and much of the production of cotton has been shifted to the irrigated areas of the Southwest. In spite of a decline in the number of commercial cotton farms from 1950 to 1959, the proportion of tenant-operated cotton farms remained quite high. In 1959, 52.5 percent of the cotton farms were tenant-operated, 23.2 percent were operated by full owners, and 23.9 percent by part owners.

Other field-crop farms such as potato, peanut, coffee, sugarcane, and sugar beet farms, predominate in relatively small localized areas. Potato farms predominate in northern Maine, peanut farms in southeast Virginia and southwest Georgia, and sugarcane farms in the lower delta area of Louisiana and in Hawaii. Peanut farms are associated with a higher proportion of tenancy, while potato, sugarcane, and sugar beet farms are operated to a greater extent by owners. The variety of these crops creates a mixed tenure pattern. In 1959 full owners and part owners each operated about 35 percent of these farms, and tenants operated nearly 30 percent.

Vegetable farms generally involve intensively operated low-acreage farms that require a high degree of supervision and management. Therefore, most of these farms are operated by owners. Of the 21,912 commercial vegetable farms reported in 1959, full owners operated 44.9 percent, part owners operated 36.0 percent, and tenants operated only 17.6 percent.

Fruit-and-nut farms are another group of specialty farms that require a large amount of close supervision. In addition, a long waiting period is involved between tree planting and the first harvest. For these reasons fruit-and-nut farms are not well adapted to tenant operation. In 1959 only 5.3 percent of these farms were operated by tenants compared with 76.1 percent operated by full owners and 14.9 percent by part owners. Manager-

PERCENT DISTRIBUTION OF COMMERCIAL FARMS FOR EACH TYPE OF FARM, BY TENURE OF OPERATOR FOR THE UNITED STATES: 1959



operated farms accounted for 3.7 percent of the farms and for an even higher proportion of their output.

Dairy farms and livestock farms other than dairy and poultry farms combined account for over two-fifths of all commercial farms in the United States. The tenure patterns of dairy farms and livestock farms other than dairy and poultry are very similar. The large capital requirements in the form of buildings and equipment make them more adapted to owner than to tenant operation. Full owners reported slightly over 50 percent of the dairy and livestock farms and part owners 30 percent of the dairy farms and 28 percent of the livestock farms other than dairy. Tenants reported 13.8 percent of the dairy farms and 20.1 percent of the livestock farms.

Poultry farms predominate in southeastern New Jersey, the Delaware and Maryland parts of the Delmarva Peninsula, north-central Georgia, and a few scattered counties in other States. Because poultry production requires relatively large amounts of capital in relation to the quantity of land, it is to be expected that tenancy would be low in this type of production. In 1959 tenants operated only 6.2 percent of the poultry farms, while full owners operated 79.4 percent and part owners operated 13.1 percent.

There were 67,159 livestock ranches in 1959, located primarily in grazing areas of the Great Plains and the West. As these operations frequently are quite extensive and require large amounts of capital, owners dominate in the tenure pattern. Full owners operated 39.6 percent of the ranches and part owners operated 46.8 percent, while tenants operated only 10.2 percent and managers 3.4 percent.

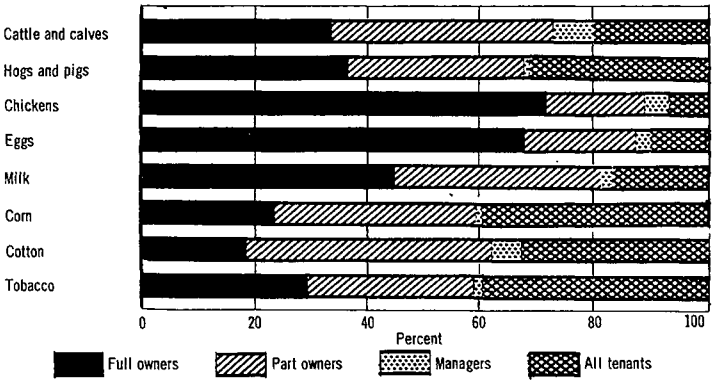
CROP AND LIVESTOCK OUTPUT

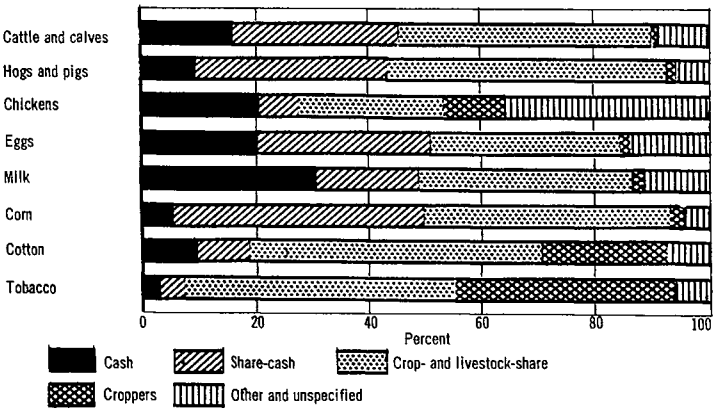
The volume of production.—United States Department of Agriculture estimates indicate that gross cash marketings amounted to $33.2 billion in 1959. According to the Department of Agriculture index (1947–49=100), total farm output rose from 61 index points in 1910 to 101 in 1950 and to an all-time high of 125 in 1959.

The 1959 Census of Agriculture obtained the value of farm products sold, by tenure of operator, for commercial farms, for selected crops and livestock or livestock products. This information provides an illustration of the relationship between the production processes and tenure.

In terms of value, part owners were responsible for nearly two-fifths of the total sales of cattle and calves, full owners for

PERCENT OF VALUE OF SPECIFIED CROPS AND LIVESTOCK SOLD, FOR COMMERCIAL FARMS, BY TENURE OF OPERATOR, FOR THE UNITED STATES: 1959





one-third, and tenants for one-fifth. Managers reported the remaining 7 percent, though they represented only 0.7 percent of all commercial farms.

The value of hog products sold was about evenly divided among tenure groups with the exception of manager farms, which reported less than 1 percent.

Full owners reported over two-thirds of the value of chickens and eggs sold. Manager farms accounted for 4.4 percent of the chicken sales and 2.6 percent of the egg sales.

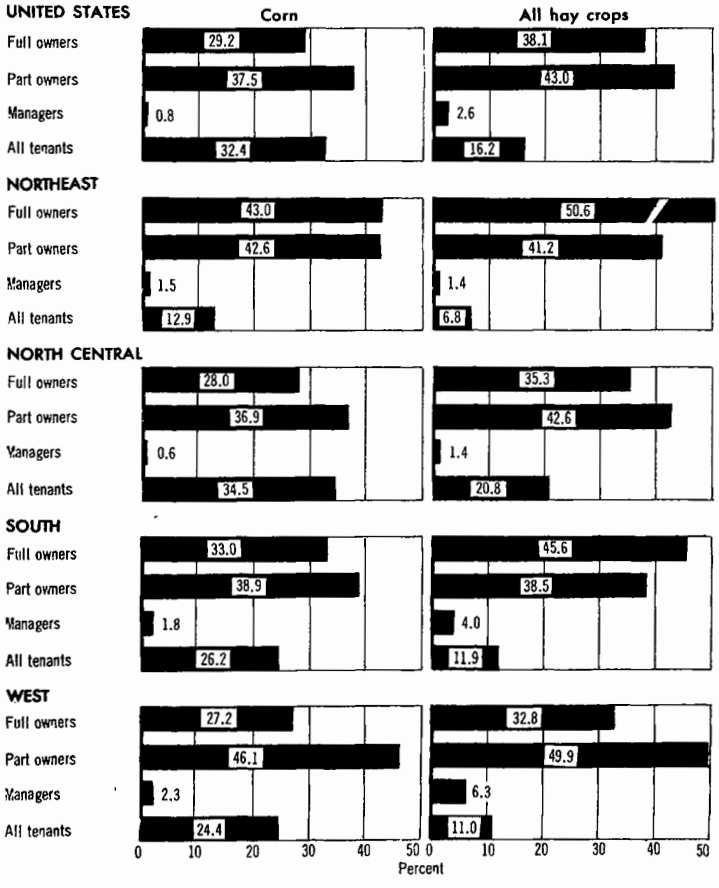
Full owners also reported the highest proportion—44.4 percent—of the value of milk sold, followed by part owners with 36.8 percent and tenants with 17.0 percent.

Tenants accounted for 39.6 percent of the value of corn sold, part owners followed closely with 36.5 percent, and full owners accounted for only 23.2 percent. These percentages, however, should not be confused with the value of corn produced. The greater livestock operations on full-owner and part-owner farms in comparison with tenant farms means that a greater proportion of the corn produced on the owner farms actually was marketed through livestock, whereas more of the corn crop was sold for cash on tenant-operated farms.

Part owners greatly increased their proportion of the value of cotton sold between 1950 and 1959. In 1959 they reported 43.2 percent of the sales, contrasted with 27.5 percent in 1950. On the other hand, tenants reported 44.9 percent of the cotton sales in 1950, but only 32.7 percent in 1959. With the reduction of small cotton farms in the South and the shift of cotton production to irrigated lands of the Southwest and the West, the number of tenant farmers (mainly sharecroppers) has declined sharply and the number of part-owner operators has increased.

Tobacco production is a labor-intensive crop that has traditionally been associated with sharecropper units. In 1959 tenants accounted for 39.6 percent of the value of tobacco sold, and full owners and part owners each reported 29.3 percent.

PERCENT DISTRIBUTION OF ACRES OF CORN AND ALL HAY CROPS HARVESTED, FOR COMMERCIAL FARMS, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959



SIZE OF FARM

Changes in farm size.—One of the most dramatic changes in agriculture during the past 30 years has been the rapid increase in farm size. In 1959 the average farm size in the United States was 303 acres, or nearly twice as large as the average size in 1930. The growth in farm size was especially rapid in the fifties. Between 1950 and 1959 average farm acreage increased by 40.5 percent, only slightly less than the increase during the previous 50 years.

Tenant farms have undergone the largest increase in average size between 1950 and 1959, increasing by nearly one-half, to 219.5 acres. This was due largely to the large reduction of small sharecropper farms in the South. Full-owner, part-owner, and manager farms each increased in size by approximately 20 percent during the decade. In 1959 the average full-owner farm contained 163.7 acres, the average part-owner farm contained 603.6 acres, and the average manager farm contained 5,223 acres.

The principal reason for growth in average farm size is the mechanization of agriculture that permits a farm operator to operate larger acreages of land. This farm expansion can only take place if some farmers leave agriculture. Often it is the small farmer who retires or migrates out of agriculture and the large farmer who consolidates the land vacated by the small farmer with his existing larger unit. Thus the average farm size increases because of the large reduction in number of small farms and the growth of farms above average size.

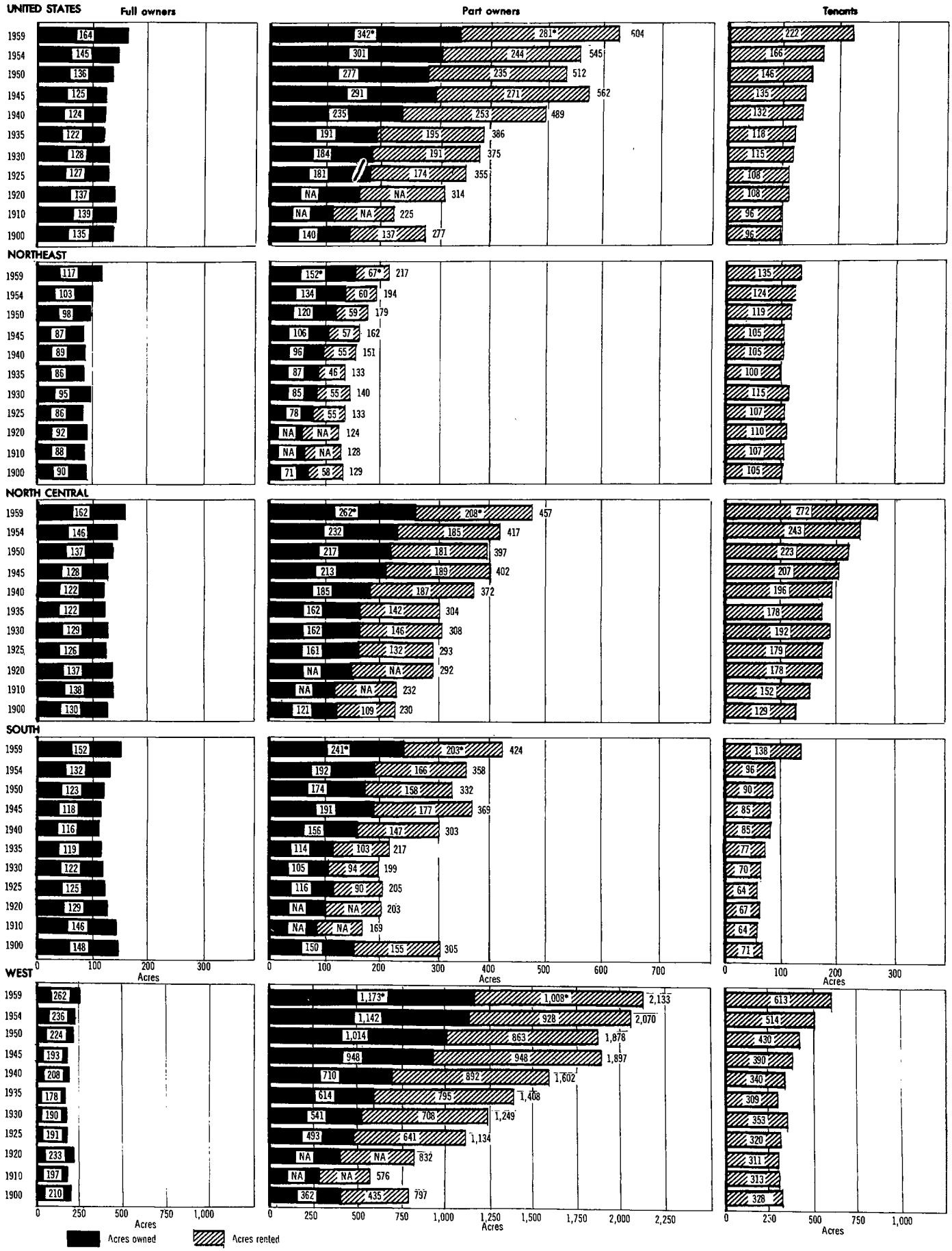
Greatest percentage increases in average farm size between 1950 and 1959 occurred in the South and West. In both of these regions the tenant farms showed a larger percentage increase in average size than farms of other tenure groups.

Farm size and tenure.—For the United States as a whole, about two-thirds of the farms of 99 acres or less were operated by full owners in 1959, this proportion decreased as size of farm increased. Only one-fifth of the farms of 2,000 acres or more were full-owner farms. This relationship between size of farm and tenure of operator is a reflection of three important factors. First, many small farms were operated as part-time or part-retirement farms. Second, fewer of the large farms were operated by full owners because of the difficulty of amassing the capital necessary to own and operate a very large farm. And, third, many full owners were nearing retirement age and had begun to reduce the size of their operations.

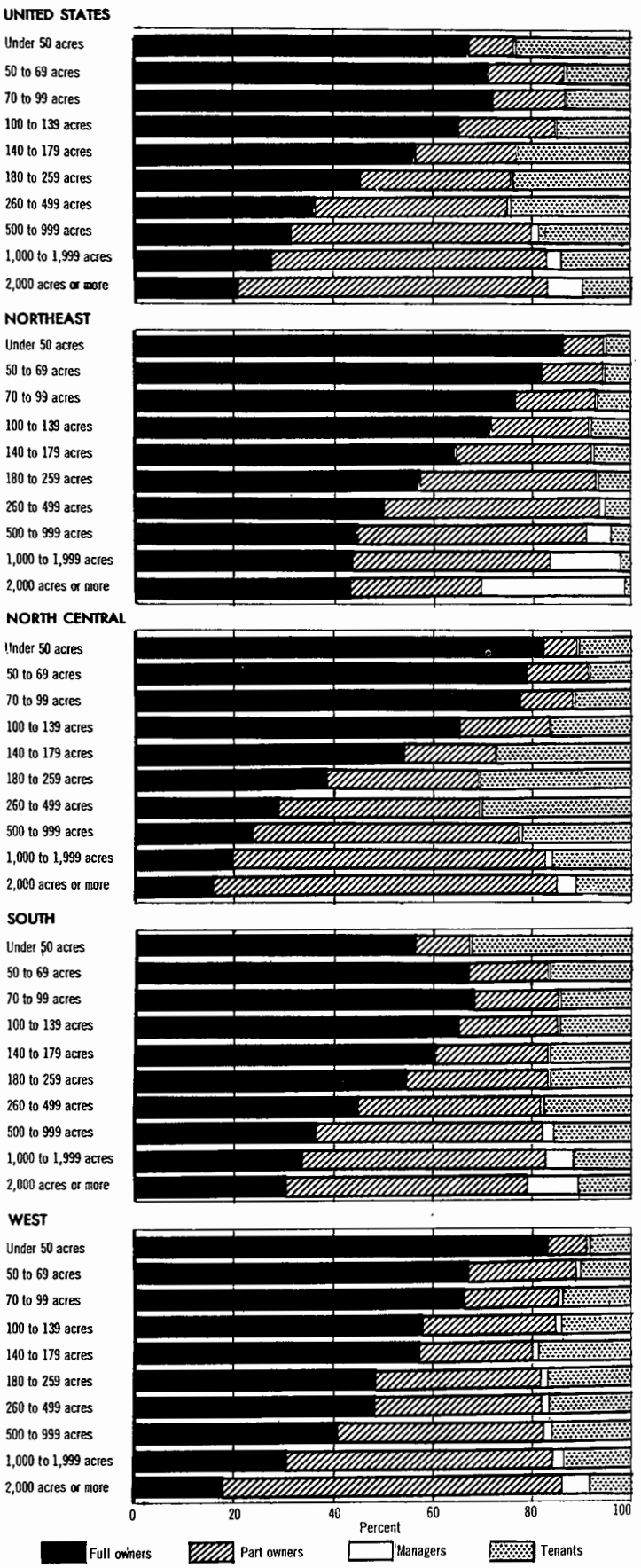
The proportion of farms operated by part owners increases with increasing size. In 1959 part owners operated three out of five of the farms of 2,000 acres or more. The proportion operated by managers was not significant among farms of less than 500 acres.

Tenants operated nearly one-fourth of the farms of less than 50 acres, but only one-eighth of the farms with 70 to 99 acres. The proportion of tenant farms in size-of-farm groups with over 100 acres was greatest—24 percent—on farms with 260 to 499 acres. The large proportion of tenant operators on farms of less than 50 acres is largely due to the large number of sharecropper farms in the South, and the relatively large proportion of tenant-operated farms in the size range between 140 to 499 acres is due to the importance of tenant farms in the high land value areas of the Corn Belt.

AVERAGE SIZE OF FARM, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1900 TO 1959



PERCENT OF ALL FARMS IN EACH SIZE OF FARM GROUP, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959

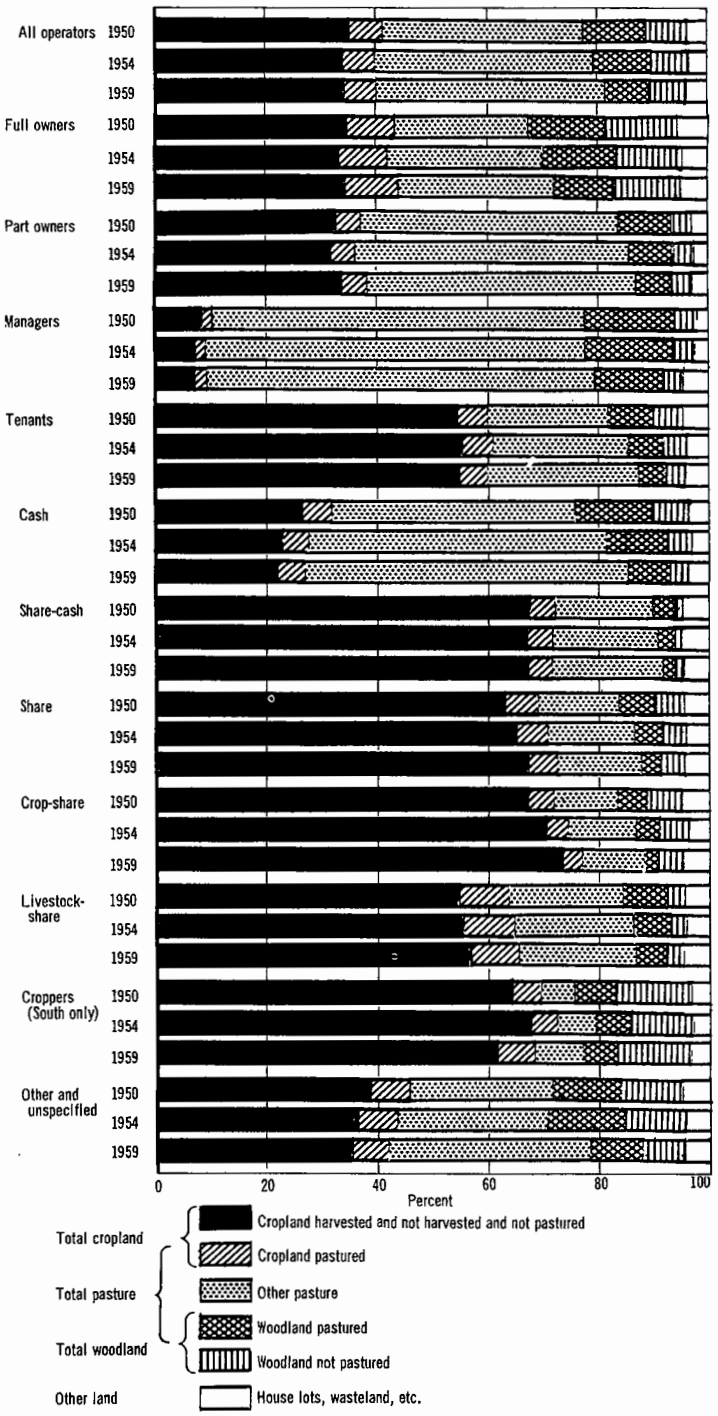


LAND USE

Major farmland uses.—Total cropland in the United States declined by 28 million acres between 1950 and 1959, while total pastureland increased by 1.4 million acres. The proportion of total cropland declined by 1 percent to 451.0 million acres, while the proportion of total pastureland increased by 2 percent to 662.9 million acres. The proportion of other land use (house lots, roads, etc.) remained virtually unchanged at 44.7 million acres.

The high concentration of tenant farms in the cash-crop producing areas of the Corn Belt and in the South has led to a higher proportion of cropland in tenant farms than in any other

PERCENT DISTRIBUTION OF ALL LAND IN FARMS ACCORDING TO MAJOR USES, BY TENURE OF OPERATOR, FOR THE UNITED STATES: 1950 TO 1959



tenure group. Tenant farms averaged 59.8 percent in cropland in 1959, while full-owner farms and part-owner farms averaged 43.8 and 38.0 percent, respectively. The average for manager-operated farms was 9.2 percent in cropland and 84.8 percent in pasture.

Crop-share lease tenants had the highest proportion of cropland—76.8 percent—and the lowest proportion of pastureland—17.3 percent. On the other hand, only 27.0 percent of the farmland in cash-lease farms was cropland and 71.5 percent was pastureland.

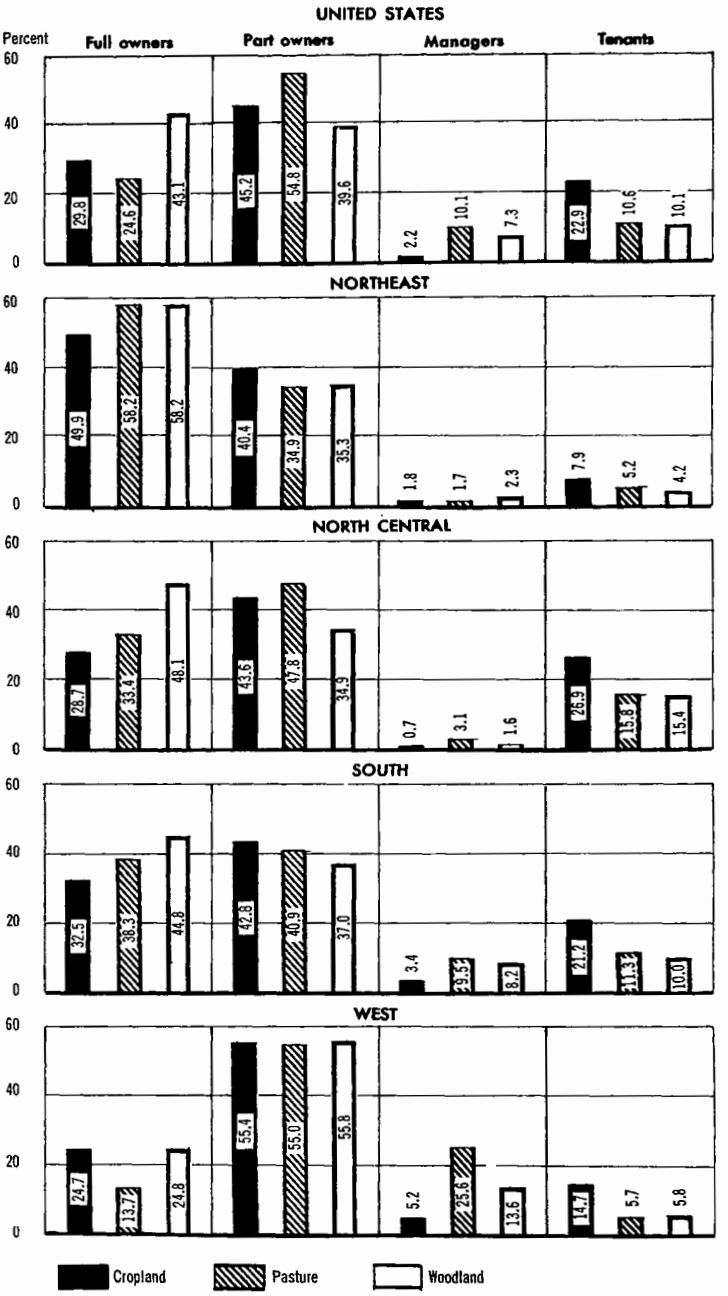
Nonpastured woodland accounted for only 6.4 percent of all farmland in 1959. Farms in most of the tenure classes included 4.0 percent or less of nonpastured woodland. However, full-owner farms and cropper farms included 12.2 and 13.3 percent, respectively, of this kind of land. Many of the full owners are part-retirement farmers and may have rented part of their cropland to others and retained the woodland part of their farm along with a small amount of cropland. The explanation for the croppers, however, is not as certain.

Tenure and farmland use.—Ninety percent of the cropland, or 411.4 million acres, was in commercial farms in 1959. Of this amount 45.2 percent was operated by part owners. This large proportion was primarily due to the many large part-owner farms in the grain-producing areas of the Great Plains and the Corn Belt. Full owners accounted for 29.8 percent, tenants for 22.9 percent, and managers for 2.2 percent.

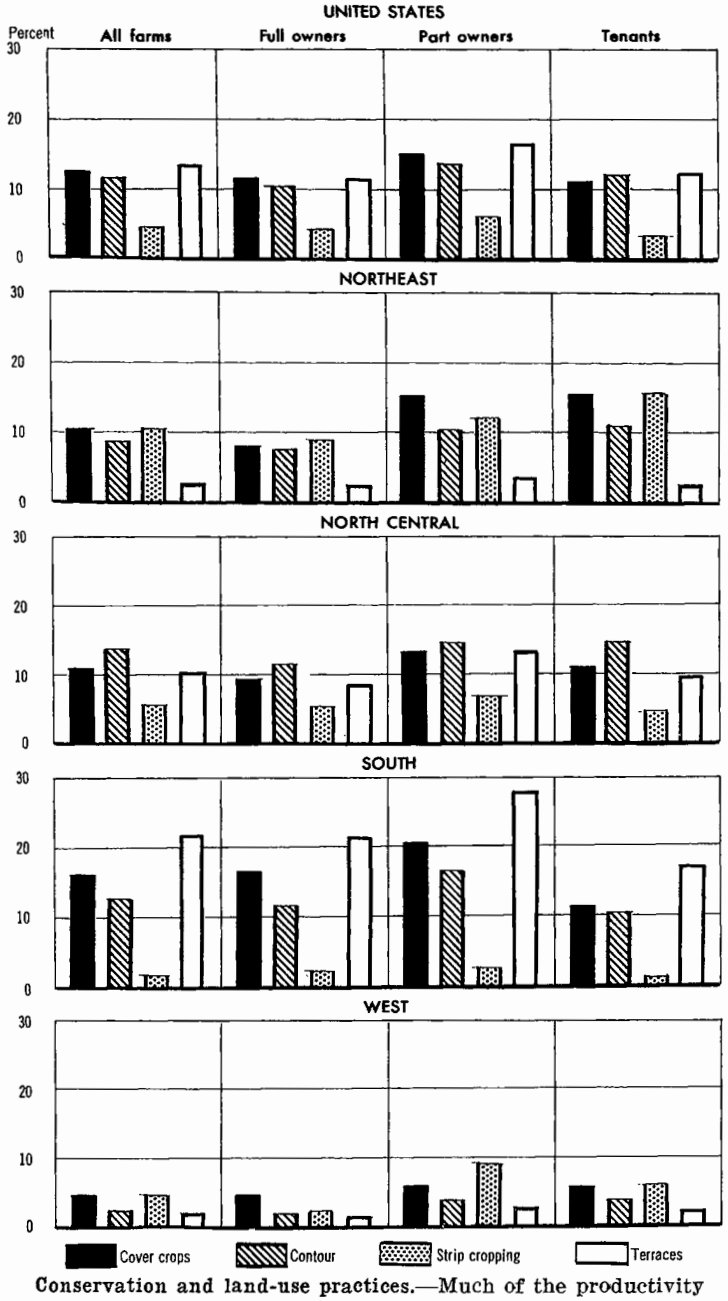
Pastureland on commercial farms totaled 534.4 million acres (including the pastured woodland). Again, part owners operated the largest proportion, 54.8 percent, reflecting the importance of part owners in livestock production. Full owners followed with 24.6 percent, and manager-operated farms with 10.1 percent. Tenant farms included only 10.6 percent of the pastureland.

Of the 118.5 million acres of total woodland on commercial farms, full owners reported 43.1 percent. They were closely followed by part owners, who reported 39.6 percent. Tenant-operated farms accounted for only 10.1 percent of the woodland. The large difference between tenant farms and owner farms is to be expected because tenant farms in general are found in the more productive areas, which have limited amounts of timberland.

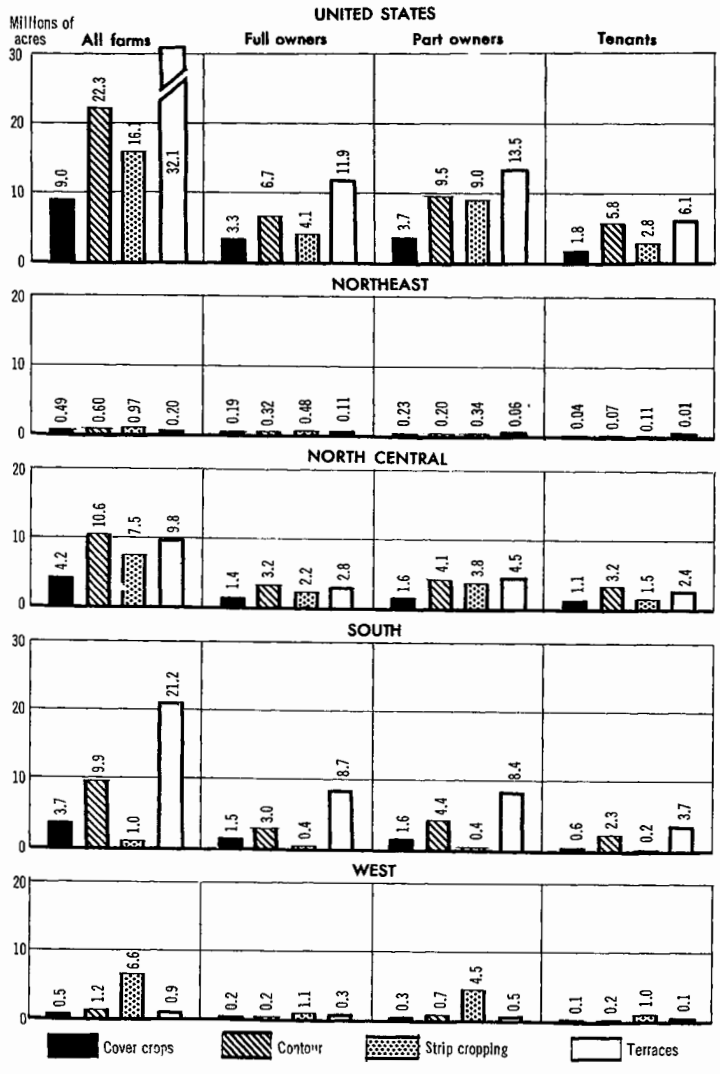
PERCENT DISTRIBUTION OF CROPLAND, LAND PASTURED, AND WOODLAND, FOR COMMERCIAL FARMS, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959



PERCENT OF COMMERCIAL FARMS REPORTING SPECIFIED LAND-USE PRACTICES, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959



NUMBER OF ACRES IN SPECIFIED LAND-USE PRACTICES, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959



Conservation and land-use practices.—Much of the productivity of farmland in the future depends in part on the soil conservation measures applied to the land today. Protection of the inherent soil productivity is generally accomplished through four different land-use practices. These practices are used in varying degrees throughout the United States according to the hazards of soil erosion in different areas. For example, contour farming is most prevalent in rolling areas of the Corn Belt and in the southern portion of the Great Plains. Stripcropping is found primarily in northern Montana and western North Dakota and to a lesser extent in western Nebraska, southwestern Wisconsin, and southern Pennsylvania. Terracing is found largely in the Southeast and also in an area extending from central Texas to Nebraska.

In the United States as a whole, the tenure groups differed very little in 1959 in the proportion of operators who reported specified land-use practices. Approximately one-eighth of the commercial farms reported using cover crops, one-eighth reported contour cultivation, and one-eighth reported terraces. About 5 percent of the commercial farms reported stripcropping. The relationship between tenure and land-use practices is shown in the following discussion of acreages in specified uses.

Regional comparisons indicate that more operators in the South than in any other region make use of soil-conservation practices. In this region a higher proportion of part owners than of other tenure groups reported using cover crops, contouring, and terracing.

Land in soil-conservation practices.—Nearly 9 million acres of farmland in 1959 were devoted to cover crops. Approximately 50 percent of this acreage was reported in the North Central region, and 40 percent was reported in the South. Part owners reported 3.7 million acres, compared with 3.3 million acres reported by full owners and 1.8 million acres reported by tenants. Full owners reported a greater proportion of their cropland in cover crops than did any other tenure group.

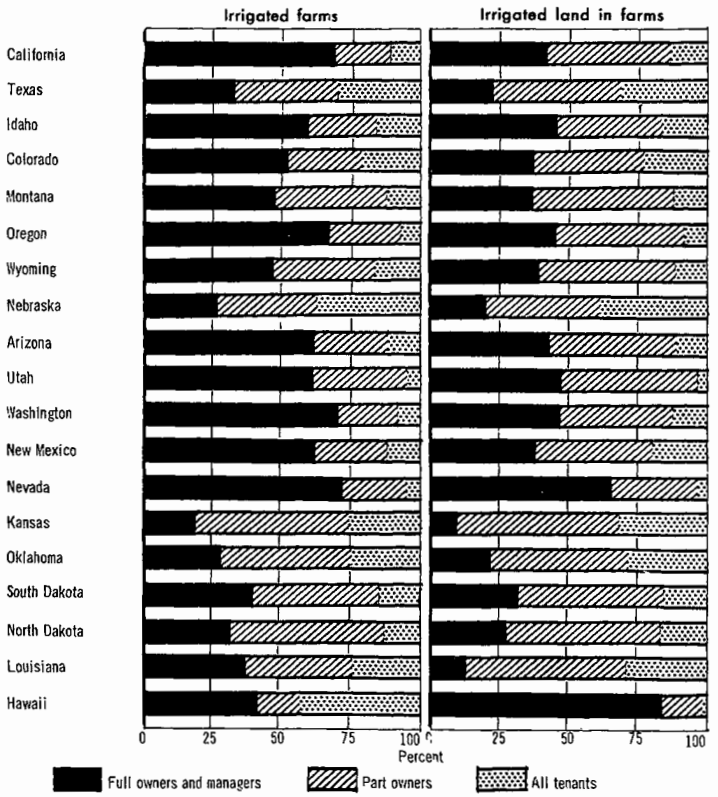
Contour cultivation of grain and row crops is a relatively easy operation and is used widely where soil erosion is a problem on moderately rolling land. Approximately 22.3 million acres were farmed on the contour in 1959. Part owners reported 42.5 percent of the contoured acreage followed by full owners and tenants with 30.2 percent and 26.1 percent, respectively. The nominal expense of contour cultivation is generally compensated by higher yields and greater returns in the first year.

Stripcropping was practiced on 16.1 million acres in 1959. Much of this acreage was reported by wheat farmers in North Dakota and Montana. Part-owner operations are the dominant

tenure form in areas where stripcropping is heavily practiced, and part owners reported 56.1 percent of the stripcropped acreage in the United States. Tenants reported only 17.3 percent of the stripcropping acreage.

Terracing was more widely reported than any other land-use practice. Of the 32.1 million terraced acres, about two-thirds were in the South. Terraces are widely used in the wheat-producing areas from central Texas to southern Nebraska both as a moisture-conserving practice and as a soil-conservation practice. Part owners reported 42.2 percent of the terraced acreage followed by full owners with 37.0 percent and tenants with 19.1 percent.

PERCENT DISTRIBUTION OF IRRIGATED FARMS AND IRRIGATED LAND IN FARMS, BY TENURE OF OPERATOR, FOR THE 17 WESTERN STATES, LOUISIANA, AND HAWAII: 1959



Irrigated farms and acreage.—In 1959, 313,217 farms in the United States reported a total of 33.4 million acres under irrigation. This was 3.0 percent of all farmland, and an increase of 3.6 million acres since 1954. Commercial farms reported 96.5 percent of the irrigated land. In 1959, 44.6 percent of the commercial irrigated farms were operated by full owners; however, they operated only 27.8 percent of the irrigated land. In contrast, part owners accounted for 33.5 percent of the commercial irrigated farms but operated 45.1 percent of the irrigated land. Managers operated 1.9 percent of the irrigated farms and 7.1 percent of the irrigated land. Tenants accounted for 20 percent of both irrigated farms and irrigated land.

Regional variations.—In the West, relatively arid conditions make irrigation considerably more important than in the more humid eastern regions of the United States. The most extensive areas of irrigation are found in California, Colorado, Nevada, Arizona, Idaho, Nebraska, and the High Plains area of Texas.

In 1959, the tenure of operators of irrigated farms varied widely among the 17 Western States, Louisiana, and Hawaii. In California, Nevada, Oregon, and Washington, over two-thirds of the irrigated farms were operated by full owners and managers, and one-tenth or less were operated by tenants. In the midwestern States of Kansas and Nebraska, full owners and managers operated about one-fifth and one-fourth of the irrigated farms, respectively. Part owners operated less than one-third of the irrigated farms in the 19 States as a whole, ranging from less than one-sixth in Hawaii to more than half in Kansas.

The tenure pattern of irrigated land is somewhat different from the tenure pattern of irrigated farms. In the 19 States as a whole the largest proportion of irrigated land was reported by part owners, who operated 44.3 percent of the irrigated land compared with 36.1 percent operated by full owners. This was the usual pattern in all States except Idaho, Utah, Washington, Nevada, and Hawaii, where full owners reported the largest proportion of irrigated land. In general, the irrigated land operated by tenant farmers was in the same proportion as the number of farms they operated.

In Hawaii the full-owner and manager group and tenants reported about the same proportion of irrigated farms. Both groups accounted for about 42.5 percent. However, full owners and managers operated 84.7 percent of the land, while the tenants operated only 1.6 percent. This reflects the wide use of irrigation on farms of all sizes and the great disparity in size of farms of tenant farmers and the large sugar and pineapple plantations operated by full owners and managers.

FARM LABOR

Labor as a factor of production.—Labor remained the largest single factor of production in 1959 notwithstanding the extensive substitution of capital for labor in recent years. According to estimates of the U.S. Department of Agriculture, labor accounted for 29 percent of the inputs in farm production in 1959 compared with 22 percent for power and equipment and 15 percent for real estate.

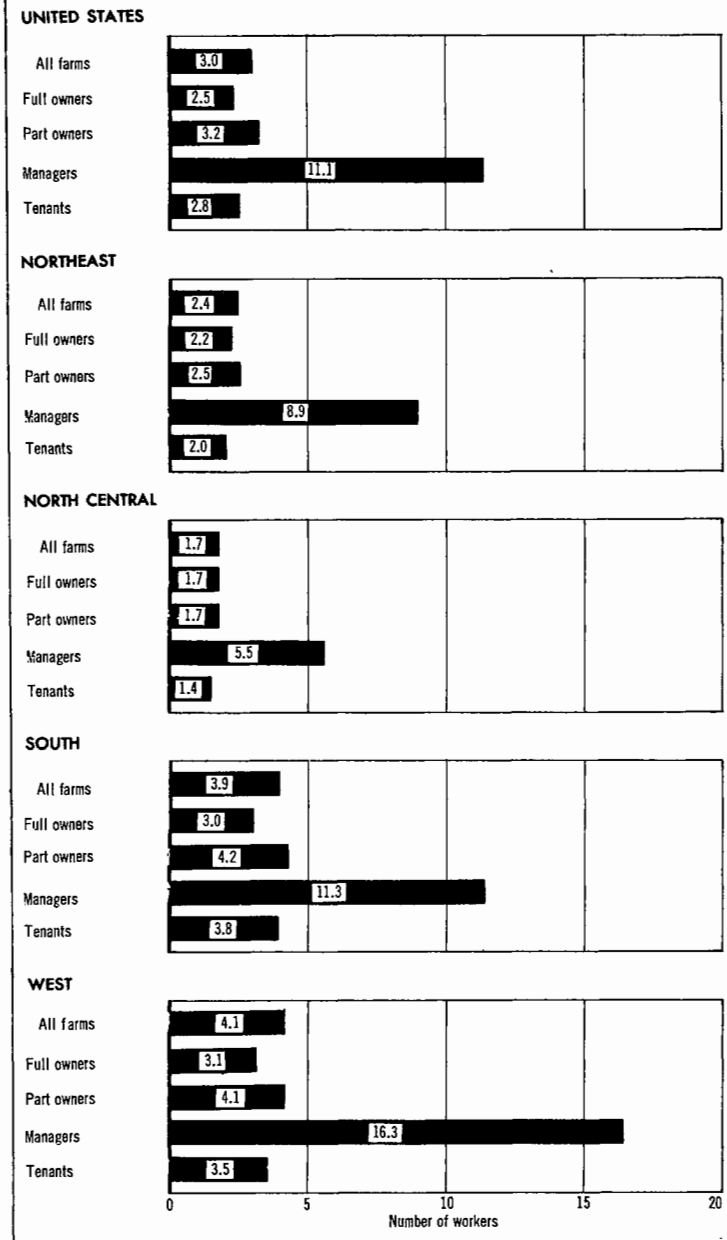
Labor has several features which distinguish it from other factors of production and make it particularly important in farm tenure. Much of the farm labor is supplied directly by the farm operators in all tenure groups with the exception of manager farms. This direct relationship of labor to the farm operator frequently is a major consideration in establishing the leasing arrangements on a particular farm. Labor is a flow resource; that is, it cannot be stored. This can lead to surplus labor in certain seasons and a shortage of labor during other critical periods.

Changes in the use of farm labor.—One of the most significant changes in agricultural production has been the rapid decrease in the use of labor. Total man-hours of farm labor per year have decreased from 22.9 billion hours in 1930 to 10.8 billion hours in 1959. This reduction of over 50 percent was made possible through increased mechanization and other technological advances. The substitution of capital for labor has had two significant effects—greater output and decreased labor requirements. According to U.S. Department of Agriculture estimates the index of output per man-hour has risen from 53 in 1930 to 195 in 1959 (1947–49=100). During the fifties this index increased about 10 points per year.

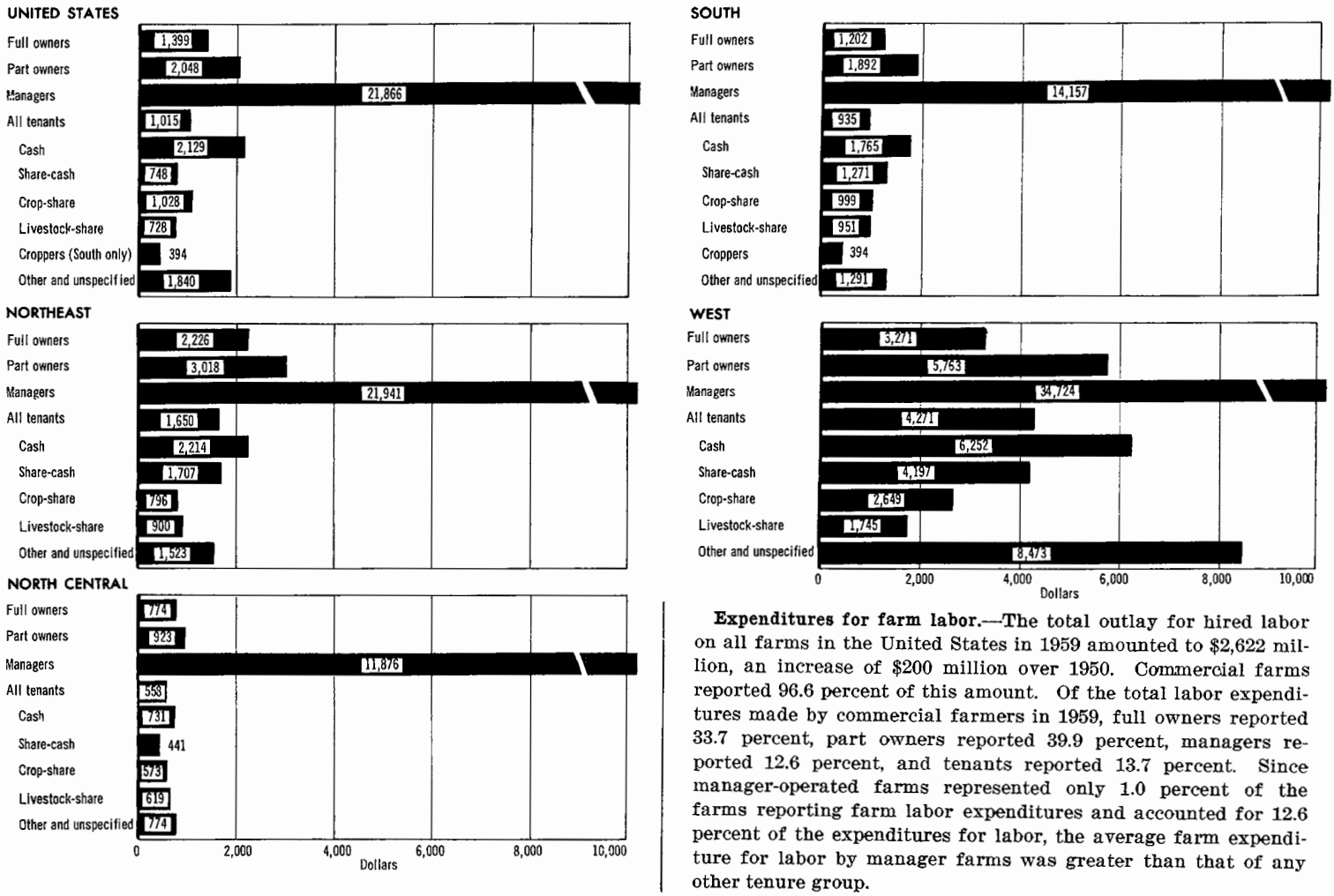
Farmworkers by tenure of farm operator.—During the week preceding the 1959 census enumeration 1,485,044 hired workers were employed on commercial farms. This week was near the peak period of employment for the year, and 54.6 percent of these hired workers were seasonal workers. In general, the number of hired farmworkers per farm was directly related to the average farm size of the major tenure groups. Of the commercial farms in the United States that reported hired workers, the full-owner farms reported an average of 2.5 workers; part-owner farms, 3.2 workers; manager farms, 11.1 workers; and tenant farms, 2.8 workers. The number of hired workers was smallest on farms in the North Central region and largest on farms in the West.

Only 12.5 percent of the commercial farms reported regular hired workers (employed 150 or more days). These farms employed 674,917 regular hired workers, or an average of 2.2 workers per farm. As expected, a greater proportion of manager farms reported regular hired workers than other tenure groups—58.3 percent compared with 17.6 percent of the part-owner farms, 11.4 percent of the full-owner farms, and 7.3 percent of the tenant farms. Manager farms, of course, also led all tenure groups in the average number of regular hired workers per farm. Of the commercial farms that reported regular hired workers, manager farms averaged 8.5 regular workers, part-owner farms 2.2, tenant farms 1.7, and full-owner farms 1.9 regular workers per farm.

NUMBER OF HIRED WORKERS PER COMMERCIAL FARM REPORTING, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959

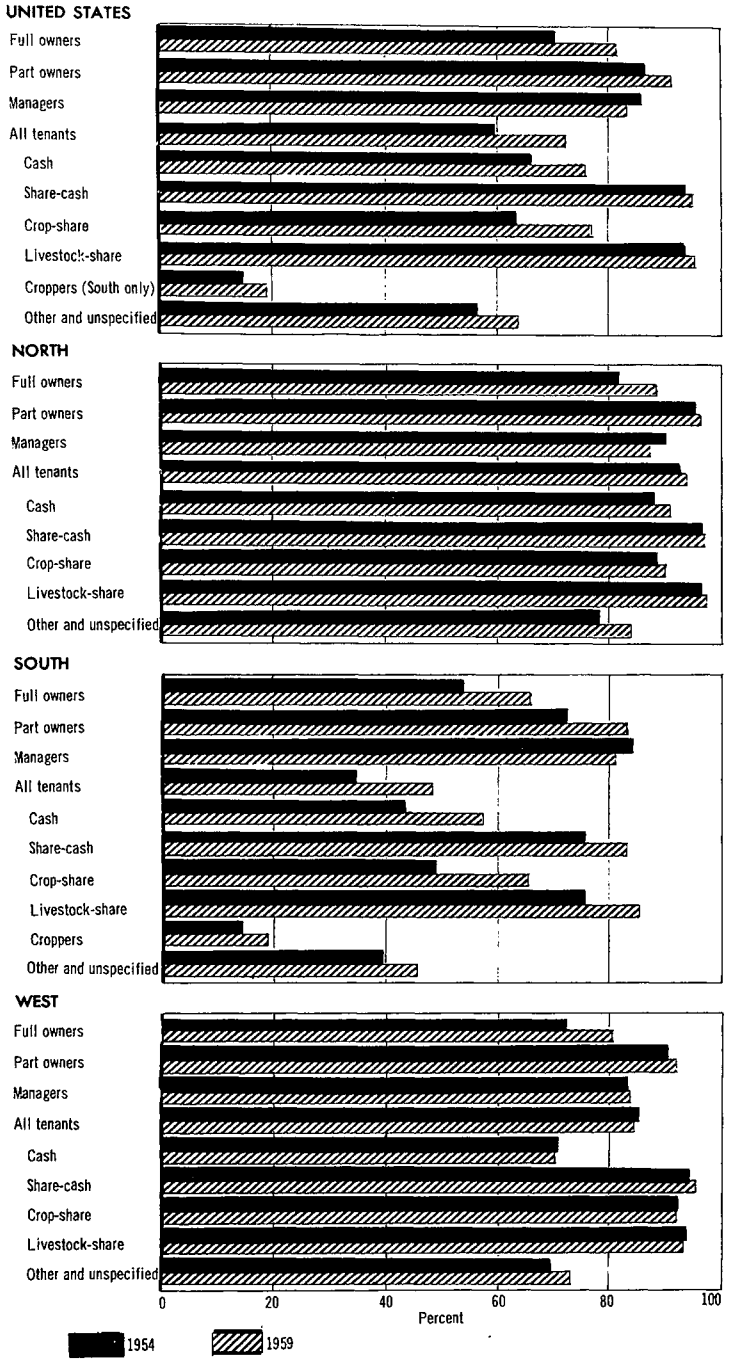


EXPENDITURES FOR HIRED LABOR PER COMMERCIAL FARM, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959

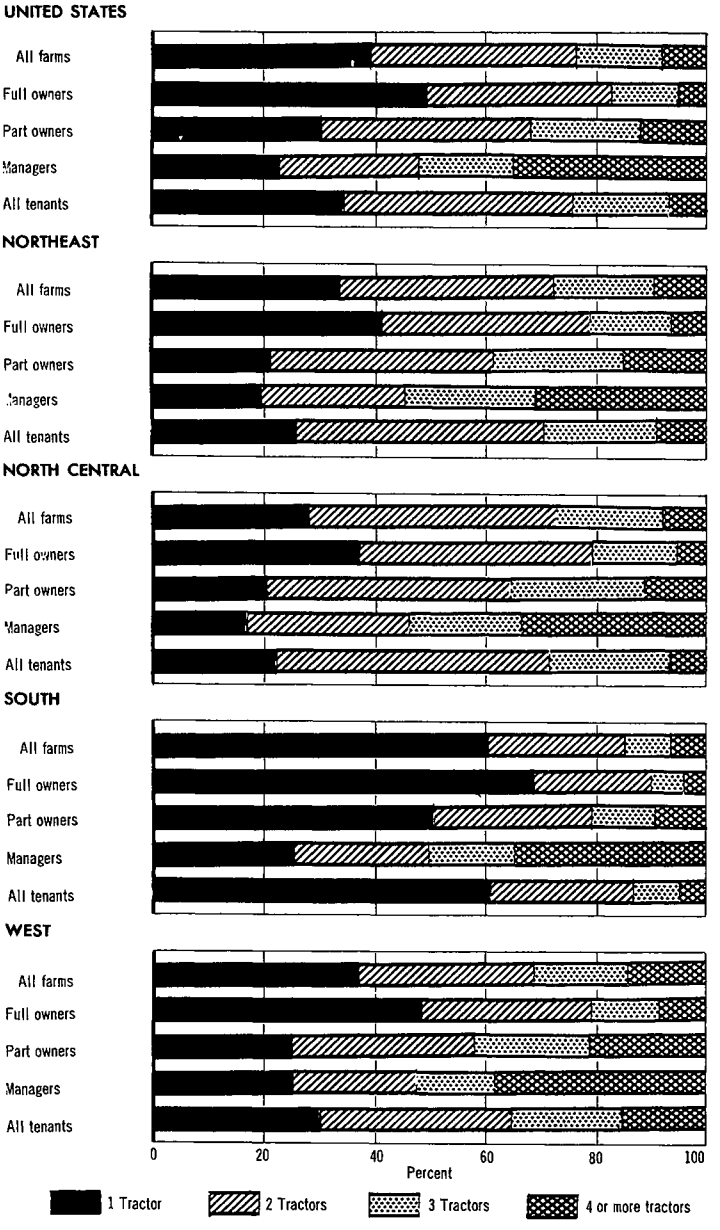


Expenditures for farm labor.—The total outlay for hired labor on all farms in the United States in 1959 amounted to $2,622 million, an increase of $200 million over 1950. Commercial farms reported 96.6 percent of this amount. Of the total labor expenditures made by commercial farmers in 1959, full owners reported 33.7 percent, part owners reported 39.9 percent, managers reported 12.6 percent, and tenants reported 13.7 percent. Since manager-operated farms represented only 1.0 percent of the farms reporting farm labor expenditures and accounted for 12.6 percent of the expenditures for labor, the average farm expenditure for labor by manager farms was greater than that of any other tenure group.

PERCENT OF COMMERCIAL FARMS REPORTING TRACTORS (OTHER THAN GARDEN), BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1954 AND 1959



PERCENT DISTRIBUTION OF COMMERCIAL FARMS REPORTING, BY NUMBER OF TRACTORS (OTHER THAN GARDEN), BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959



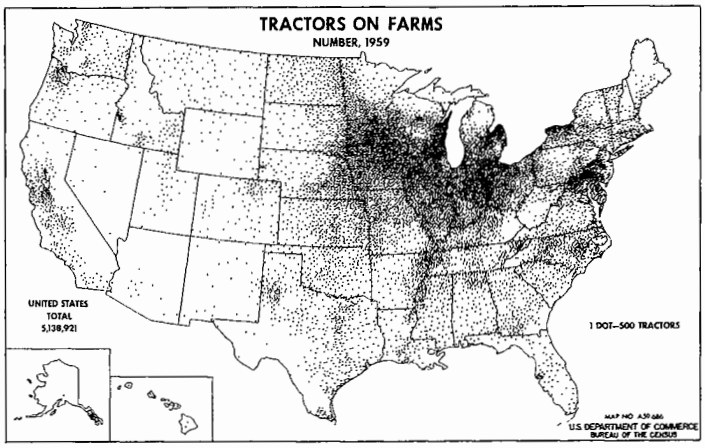
EQUIPMENT

Great strides have been made in the last two decades in the mechanization of farm production. U.S. Department of Agriculture estimates show that power and machinery represented only 10 percent of the total inputs in farm production in 1940. By 1959 this had climbed to 22 percent. Increased utilization of such equipment as tractors, grain combines, corn pickers, hay balers, and milking machines has greatly expanded output per farmworker.

Increase in power.—One indication of the increased substitution of mechanical power for animal power is the rapid expansion in the number of tractors on farms. Since 1950 the number of farm tractors of all kinds has risen by 42.4 percent. In 1959 there were 5,138,921 tractors on all farms of the United States, and an average of 2.1 tractors per commercial farm. The geographic distribution of tractors, however, is not proportional to the number of farms. A greater concentration is found in the North Central region than in other regions, while there are slightly fewer tractors than farms in the South.

The larger operations of part owners and managers are primarily responsible for the higher proportion of the farms in these two groups reporting tractors than either full owners or tenants.

In addition to the very high proportion of farms that reported tractors in 1959, the number of farms that reported more than one tractor is evidence of the intensity of mechanization. Within each tenure group more farms reported two or more tractors than reported only one. This general pattern existed for the United States and each of the regions except the South.



Specialized machines.—Another indication of the intensity of mechanization is the use of specialized machines. In general, farms operated by part owners and tenants were the most mechanized. Tenant farms in the South, however, were an exception, for they were the least mechanized of any tenure group. The number of croppers in the South greatly reduces the proportion of tenants reporting specified machines, because croppers usually supply only their labor to the operation of the farm.

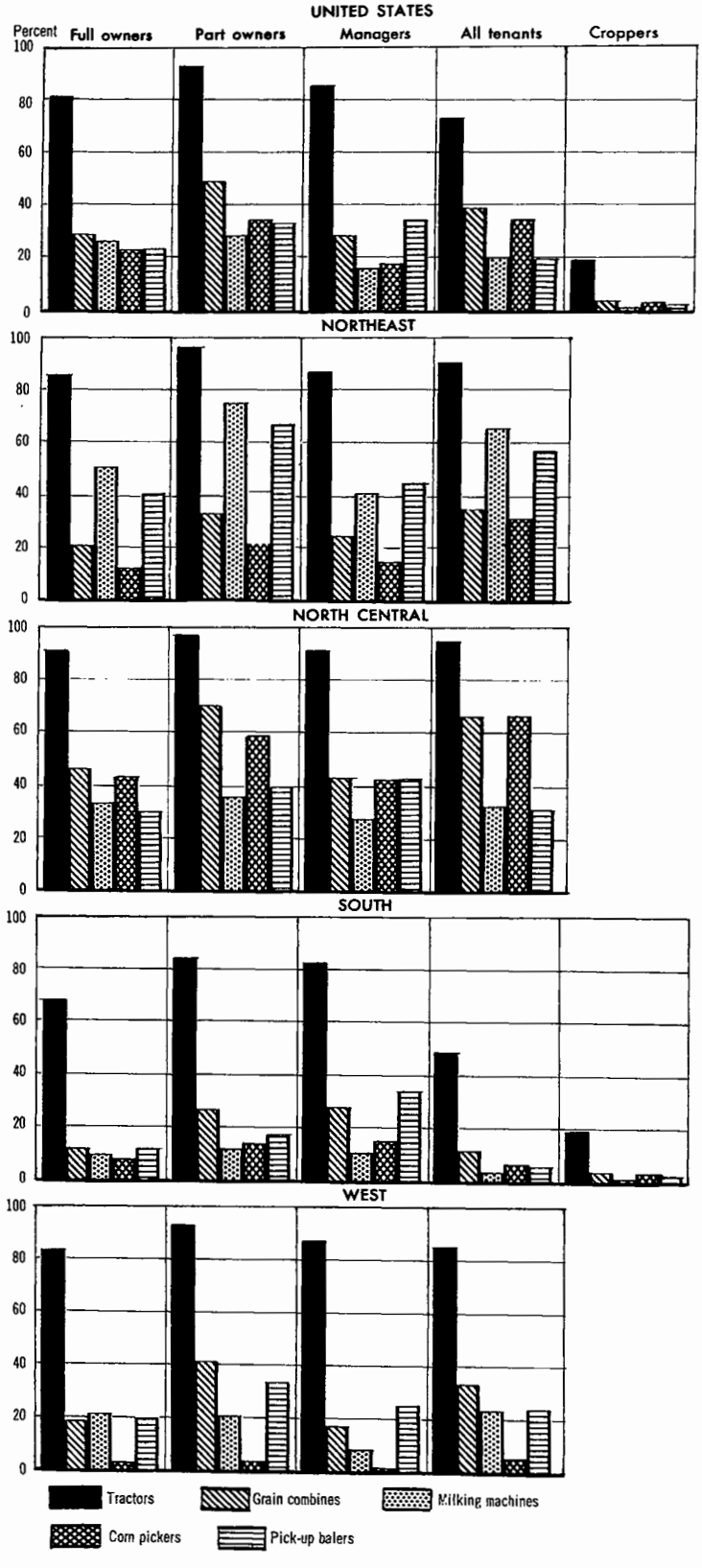
From 1950 to 1959 the number of commercial farms reporting grain combines increased by 39 percent, to 900,375 farms. Nearly 50 percent of the part owners and 40 percent of the tenants reported grain combines, while less than a third of the full owners and managers reported this equipment.

Milking machines were reported on 610,256 commercial farms in 1959. For the entire United States the proportion of farms within each tenure group reporting milking machines was fairly uniform. The percentage of farms reporting milking machines was nearly twice as large in the Northeast as in the other regions.

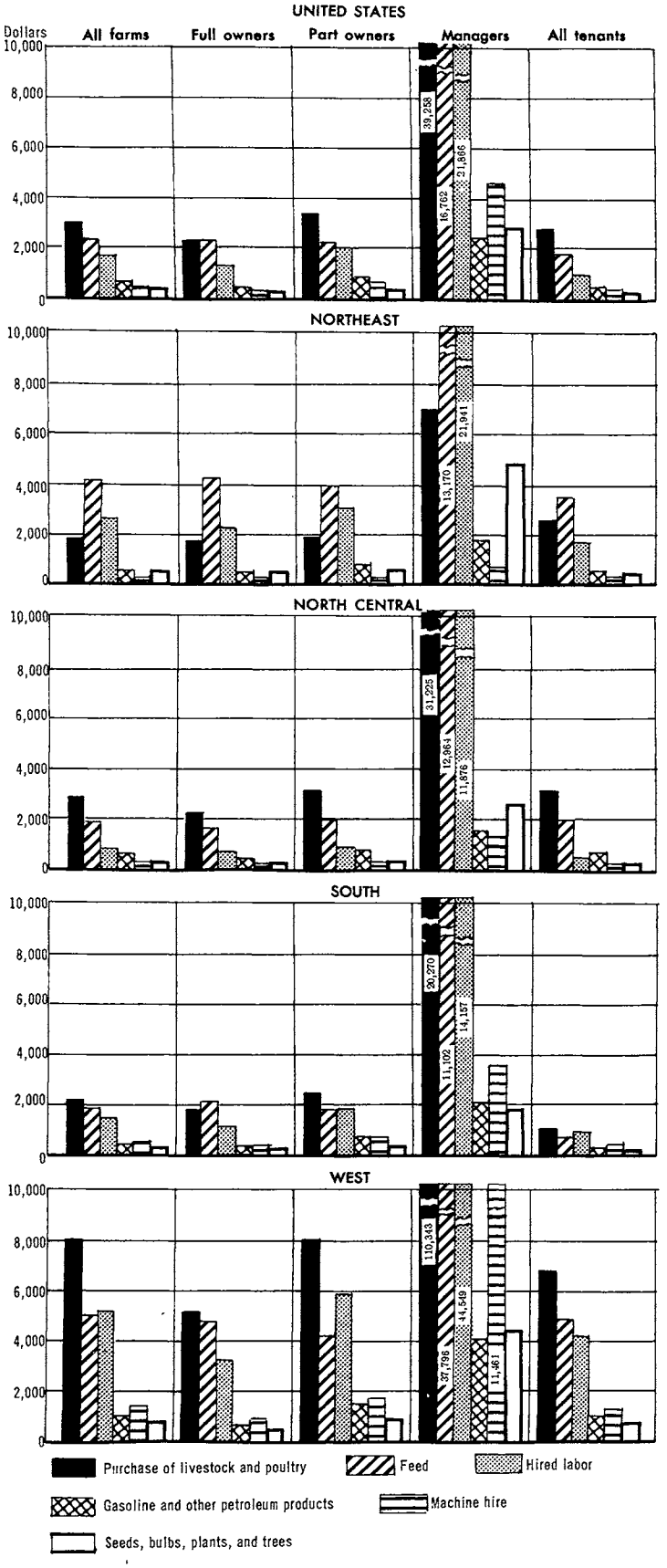
In 1959 corn pickers were reported on 712,486 commercial farms. This was an increase of 61 percent since 1950. There were 737,191 corn pickers reported on all commercial farms or just slightly over one corn picker per farm reporting. Part-owner and tenant-operated farms reported a higher percentage of corn pickers than either full-owner or manager-operated farms.

The mechanization of hay harvesting has been one of the most rapidly growing practices in agriculture. In 1959, 615,327 commercial farms reported pick-up balers, an increase of 235 percent over the number of commercial farms reporting balers in 1950. In addition to the pick-up balers, there were 266,353 commercial farms in 1959 that reported ownership of field-forage harvesters. However, these machines are used for the harvesting of corn silage as well as hay. Approximately one-third of the part-owner and manager-operated farms reported pick-up balers; this was 10 percent higher than either full-owner or tenant-operated farms. This difference reflects in part the greater emphasis on livestock operations on part-owner and manager-operated farms. All tenure groups in the Northeast reported a higher proportion of farms with balers than in the other regions.

PERCENT OF COMMERCIAL FARMS REPORTING TRACTORS, GRAIN COMBINES, MILKING MACHINES, CORN PICKERS, AND PICK-UP BALERS, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959



AVERAGE EXPENDITURE PER COMMERCIAL FARM REPORTING SPECIFIED COST ITEMS, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959



SPECIFIED FARM EXPENDITURES

Changes in costs.—Technological advances have brought about some significant changes in the methods of agricultural production. As farms have increased in size and become more specialized, purchased inputs have become a larger factor in production on individual farms. In addition to the general substitution of purchased inputs for farm produced inputs, there has also been a shift in the combination of inputs which has changed the composition of farm costs. Many of these changes in farm expenditures have been accompanied by adjustments in leasing arrangements or even in the form of tenure. The increasing use of contract arrangements in the production of poultry is an outstanding example.

The substitution of capital for labor has had a very marked effect on the structure of farm costs. For example, machine hire and expenditures for gasoline and petroleum on commercial farms increased approximately 30 percent between 1950 and 1959, while hired labor costs increased only 8 percent.

Specified cost items.—Differences in type and size of farm associated with different tenure groups should be kept in mind when comparing average expenditures for specified items per commercial farm so that all of the variations in expenditure are not attributed to the form of tenure alone.

The purchase of livestock and poultry per farm was the largest expense item for all tenure groups except full owners, for whom it was the second largest item. In 1959 the average expenditure for livestock and poultry per commercial farm reporting was $39,258 on manager farms compared with $3,361 on part-owner farms, $2,849 on tenant farms, and $2,329 on full-owner farms.

Feed was the largest cost item in the budget of full owners and the second largest item for part owners and tenants, but only the third largest item for managers. The average expenditure for feed per commercial farm reporting was $16,762 on manager farms, $2,380 on full-owner farms, $2,299 on part-owner farms, and $1,825 on tenant farms.

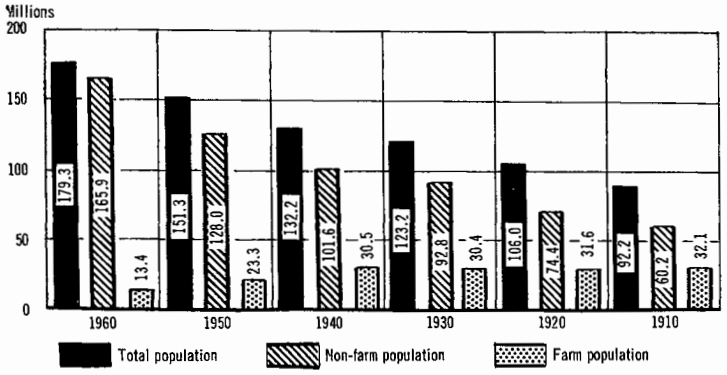
Hired labor was the second largest expenditure on manager farms and the third largest on farms of other tenure groups. On the commercial farms reporting hired labor, managers reported spending $21,866, part owners $2,048, full owners $1,399, and tenants $1,015.

The three lowest expense items—petroleum products; machine hire; and seeds, bulbs, plants, and trees—ranked in that order of importance for full owners, part owners, and tenants. Among the manager farms, however, machine hire was the fourth largest item, followed by seeds, bulbs, plants, and trees, and lastly by petroleum products.

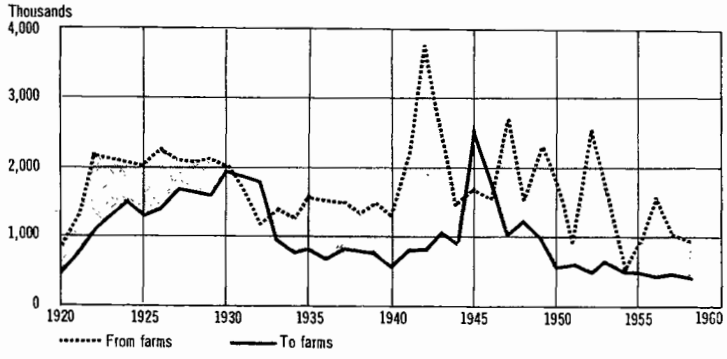
Regional patterns differed from the United States pattern, and depended largely on the type of farming that predominated in the different regions. For example, in the Northeast, where dairy farms predominate, feed was the largest item for most of the farms, followed by hired labor.

Section III.—PEOPLE

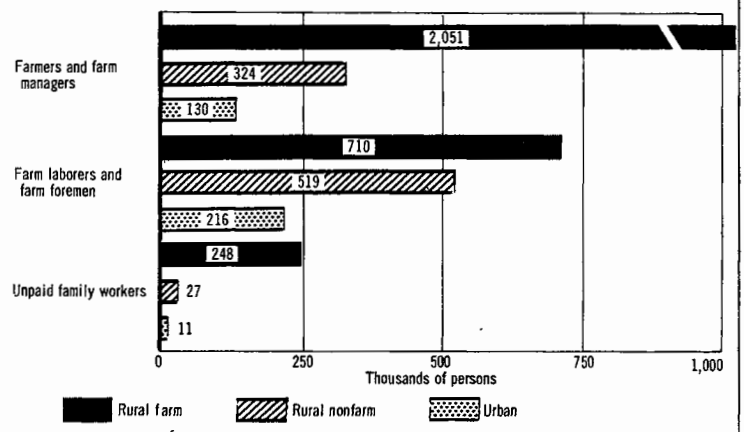
POPULATION: TOTAL, NONFARM, AND FARM, FOR THE UNITED STATES: 1910 TO 1960



MIGRATION TO AND FROM FARMS, FOR THE UNITED STATES: 1920 TO 1958



RESIDENCE OF EMPLOYED PERSONS IN THE FARM LABOR FORCE, BY KIND OF WORKER, FOR THE UNITED STATES: 1960



FARM POPULATION

Tenure data on agriculture include data on farm operators and the farm population, some farm laborers, and other families who live on farms but do not operate them. Moreover, many farm families are only partly dependent on agriculture for their livelihood while others operate farms but do not live on them.

Total population has increased continuously in the United States, reaching a total of 179,323,175 in April 1960. Farm population reached a peak of 32,530,000 in 1916. Since that time the number of farm residents has generally declined, reaching a low of 13,444,898 in April 1960. This is 7.5 percent of the total population in 1960.

Migration to and from farms has been substantial since 1920, but there has been wide fluctuation from year to year. According to estimates of the U.S. Department of Agriculture, in the last decade migration resulted in an annual net decrease of 857,000 people on farms.

Movement of persons to and from farms has been accompanied by an even larger movement between farm and nonfarm employment. Many farm people who take nonfarm jobs do not move away from the farm, and many who move to the farm do not give up their nonfarm employment.

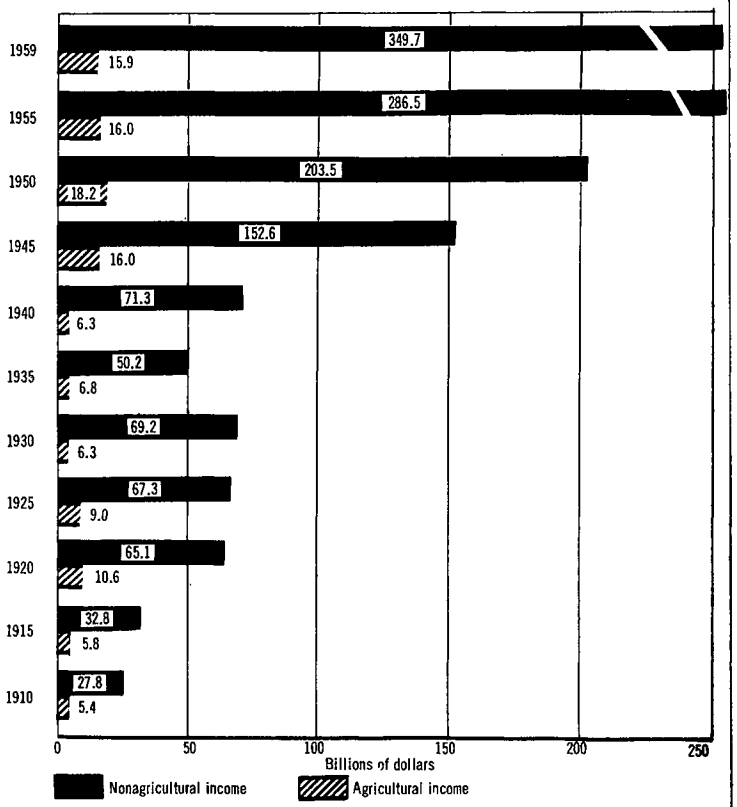
Tenure of the farm population.—The farm population includes not only families that depend primarily on farming for their income but also families that depend primarily on nonfarm employment for income. For many farm families, the farm serves mainly as a residence rather than as a means of livelihood.

According to the 1960 Census of Population, approximately 4.7 million of the farm population were in the labor force in April 1960, but only about 2.8 million were employed in agriculture; the remaining 1.9 million were employed in nonagricultural industries.

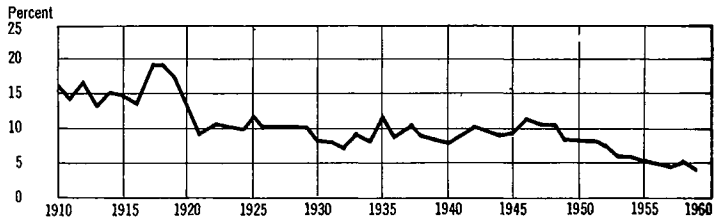
The tenure situation of farm people may be ascertained from information on tenure of self-employed and hired farmworkers. In 1959 there were 6,992,690 total workers on American farms. This figure includes all farm operators regardless of whether the operator reported doing any farmwork during the week prior to enumeration; also included are both regular (working 150 days or more) and seasonal hired workers that did any farmwork on the place during the week before enumeration, and unpaid members of the operator's family that worked 15 hours or more during the week. Of these workers, 3,707,973 were farm operators and 1,584,153 were hired workers. A distinction, however, should be made between commercial and noncommercial farms. To a large extent the noncommercial farms serve primarily as a place of residence. Nearly 80 percent of the operators of these farms reported income from nonfarm sources exceeding the value of the farm products sold.

Of the 6,992,690 farmworkers in 1959, 1,817,567 were farm owners and managers of commercial farms, 598,450 were tenants on commercial farms, and 1,485,044 were hired farmworkers on commercial farms. Of the hired workers on commercial farms, however, 54.6 percent were seasonal workers (employed less than 150 days) and 45.4 percent were regular hired workers. On the other hand, 1,391,065, or 19.9 percent, of all farmworkers were on noncommercial farms. More than 80 percent of these workers on noncommercial farms were owners and managers.

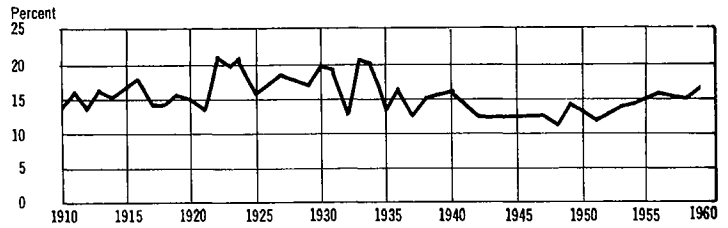
AGRICULTURAL NET INCOME AND NONAGRICULTURAL NET INCOME, FOR THE UNITED STATES: 1910 TO 1959



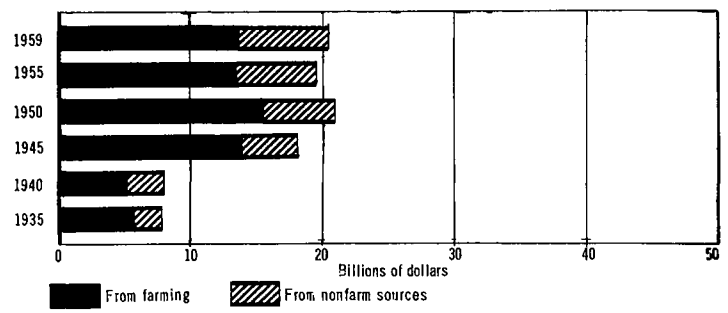
AGRICULTURAL NET INCOME AS PERCENT OF TOTAL NATIONAL INCOME, FOR THE UNITED STATES: 1910 TO 1959



NET INCOME FROM FARMING RECEIVED BY NONFARM POPULATION, FOR THE UNITED STATES: 1910 TO 1959



NET INCOME OF FARM POPULATION FROM FARMING AND NONFARM SOURCES, FOR THE UNITED STATES: 1935 TO 1959



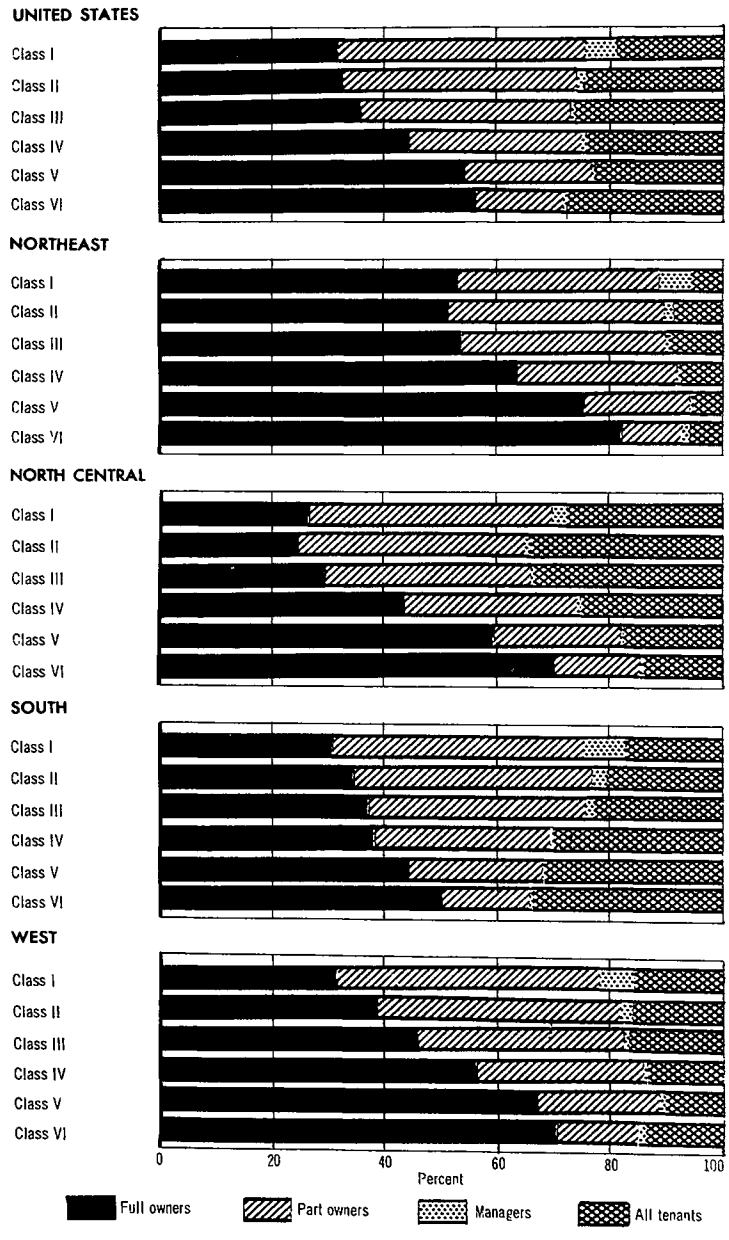
FARM INCOME AND TENURE

Farmers receive income from both farm and nonfarm sources. Similarly nonfarm people receive a portion of the income originating in agriculture. Both farm and nonfarm people influence the division of income through their tenure arrangements.

Many farm residents have nonfarm sources of income through either nonfarm employment or investments. According to estimates of the U.S. Department of Agriculture, the farm population in 1959 received one-third of its net income from nonfarm sources.

Net income originating in agriculture totaled $15,871 million in 1959, according to U.S. Department of Agriculture estimates. Some of the net income of farm operators is earned by farm operators who reside off the farm. Also, about 40 percent of the farm wages, nearly all of the interest on farm-mortgage debt, and all of the net rent to nonfarm landlords is received by nonfarm residents. In 1959, 17.2 percent of the total net agricultural income went to nonfarm residents.

PERCENT DISTRIBUTION OF COMMERCIAL FARMS IN EACH ECONOMIC CLASS, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959



Distribution of farm income by tenure.—In 1959, 65.2 percent of the farms in the United States were classified as commercial. In addition to farms that had total farm sales of $2,500 or more, this classification included farms with a value of sales of farm products of $50 to $2,499 if the farm operator was under 65 years of age and did not work off the farm 100 days or more during the year, and if total family income from nonfarm sources was less than the total farm sales.

The remaining 34.8 percent of the farms were primarily part-time and part-retirement farms. A high proportion of the families living on these noncommercial farms were dependent on income from nonfarm sources. In 1959 four-fifths of the noncommercial farms were operated by full owners, and the remaining fifth were evenly divided between part owners and tenants. Most of the tenants paid a cash rent or some form of payment other than a share of crops or livestock.

The distribution by tenure of commercial farm operators differed markedly by economic class. In general, the higher the total sales of farm products, the lower was the proportion of farms operated by full owners. This relationship held in all regions, and was particularly marked in the North Central and Western regions. The opposite relationship held for part owners and managers—the higher the total value of farm sales, the higher the proportion of farms operated by part owners and managers. The variation in the proportion of tenant farms within each economic class was not great (less than 10 percent) and did not follow such a definite pattern as the proportion for the full-owner or part-owner farms. For example, in the South the rate of tenancy increased as the total value of farm sales decreased, whereas in the North Central region the rate of tenancy increased as the total value of farm sales increased up to Class II farms, but decreased for the Class I farms.

Of the Class I farms (total farm sales of $40,000 or more), part owners operated 44.0 percent, full owners 31.4 percent, tenants 19.1 percent, and managers 5.6 percent. Of the Class VI farms (total sales of farm products of $50 to $2,499), full owners operated 56.5 percent, tenants 27.9 percent, part owners 15.5 percent, and managers 0.2 percent. Tenants accounted for approximately 25 percent of farms in the intermediate Classes II, III, IV, and V.

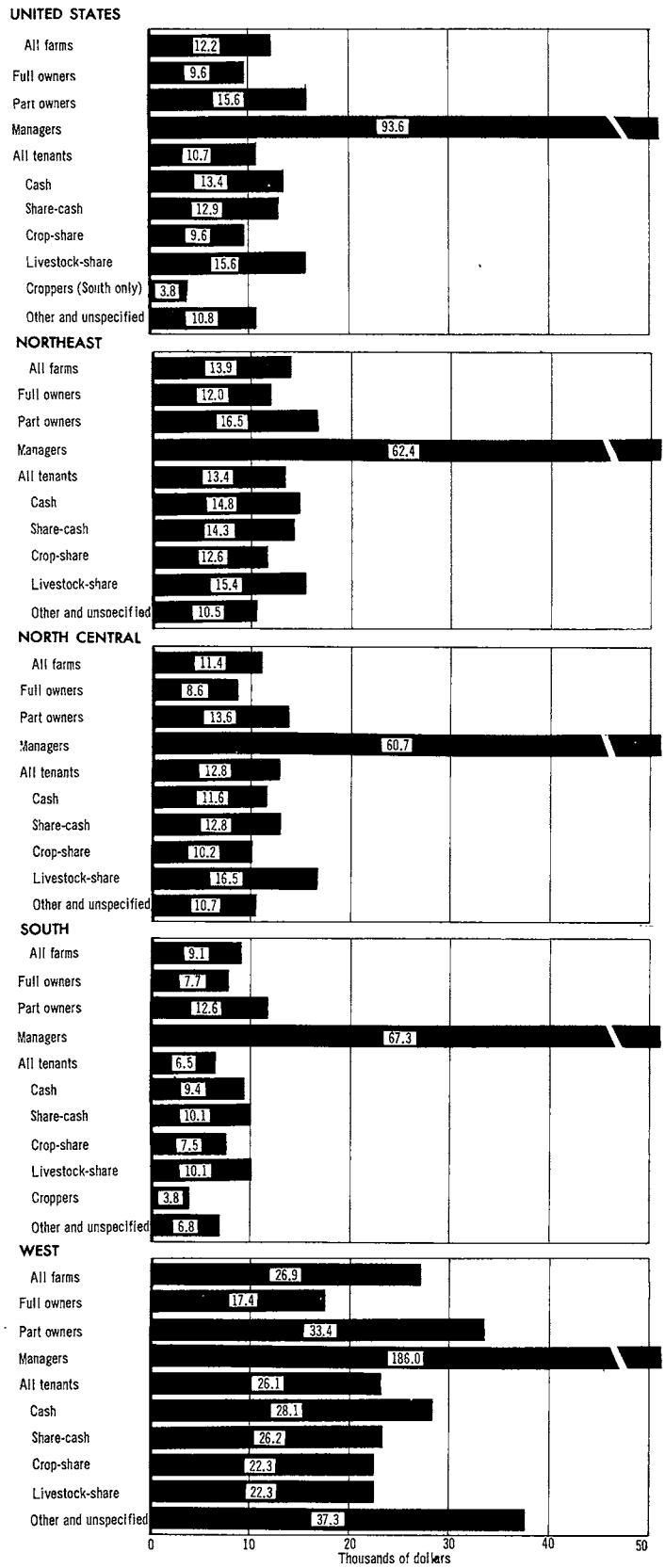
Average value of farm products sold.—The value of farm products sold per farm is only a rough approximation of the level of net farm income, since production expenses vary widely. Gross farm sales, however, do provide an indication of the relative income of farms in different tenure groups.

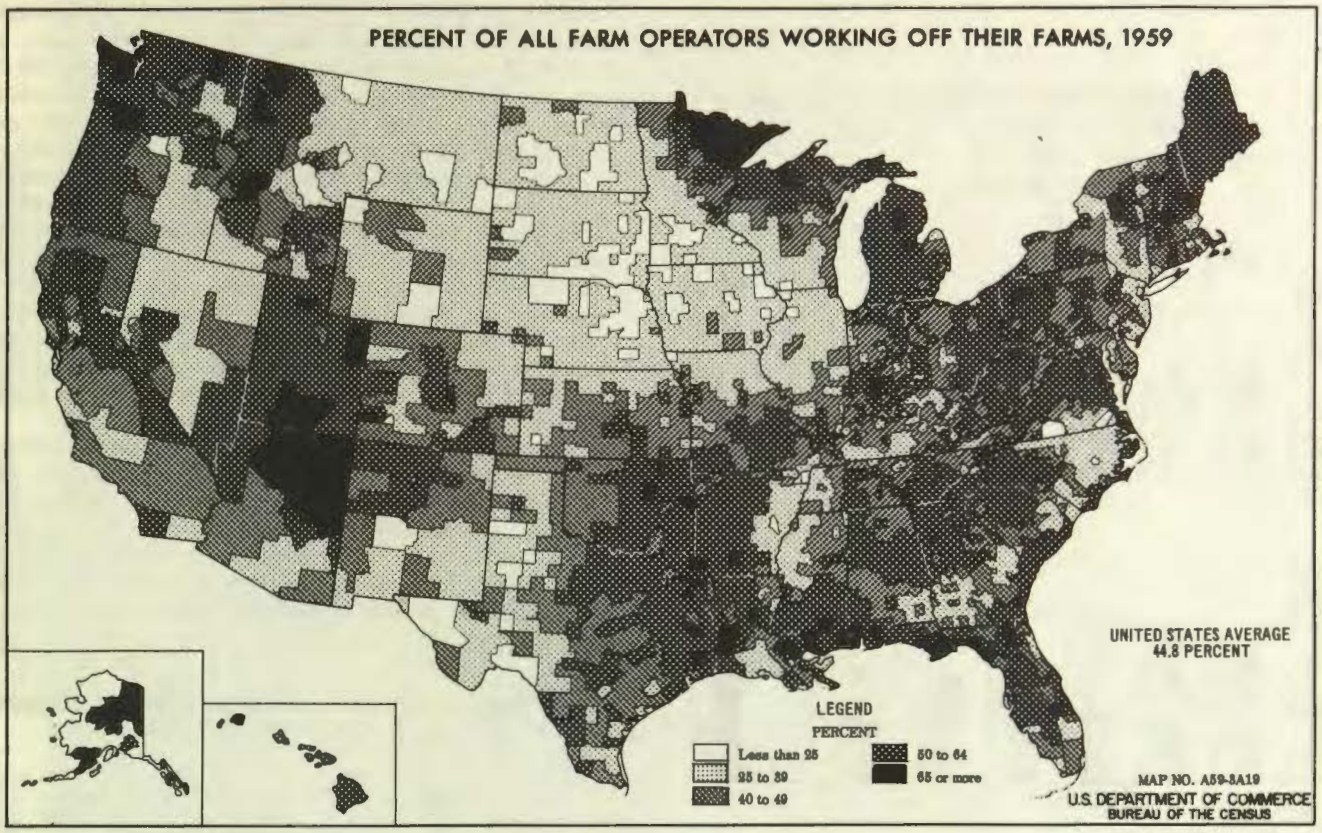
In 1959 the average value of farm products sold per commercial farm was $12,195. There was considerable variation among regions, however. The West had an average value of farm products of $26,884 per farm, compared with $13,861 per farm in the Northeast, $11,389 per farm in the North Central region, and $9,147 per farm in the South.

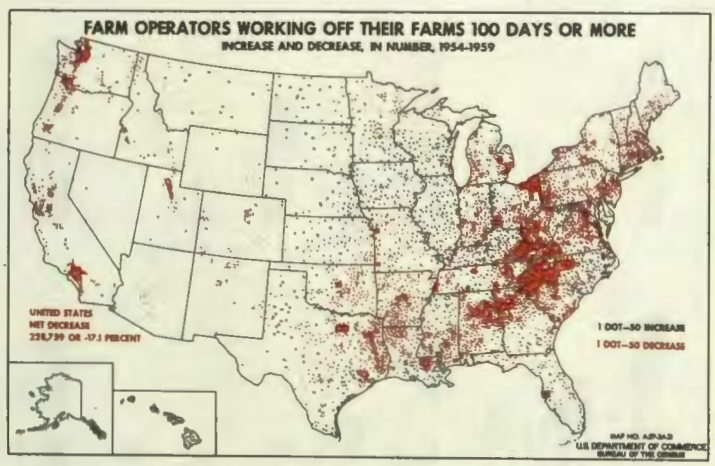
Among the tenure groups, managers reported the largest average sales—$93,606. A large portion of this, however, was paid out as production expenses, including the manager's salary. Part owners reported the next highest average sales—$15,577. Since part owners rented a portion of their land, part of these sales were divided with the landowner. Tenants reported slightly larger average sales than full owners ($10,727 and $9,553 respectively). The tenants also divide their sales with the landowner, therefore, the net income of tenants may be less than the net income of full owners. The same general ranking of tenure groups prevailed in all regions except the South, where full owners reported slightly larger average sales of farm products than tenants.

Among the various classes of tenants, livestock-share tenants reported the largest average sales, followed by cash tenants, share-cash tenants, other and unspecified tenants, crop-share tenants, and last, sharecroppers. These differences between classes are related to differences in type of farm and size of farm.

AVERAGE VALUE OF FARM PRODUCTS SOLD PER COMMERCIAL FARM, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959







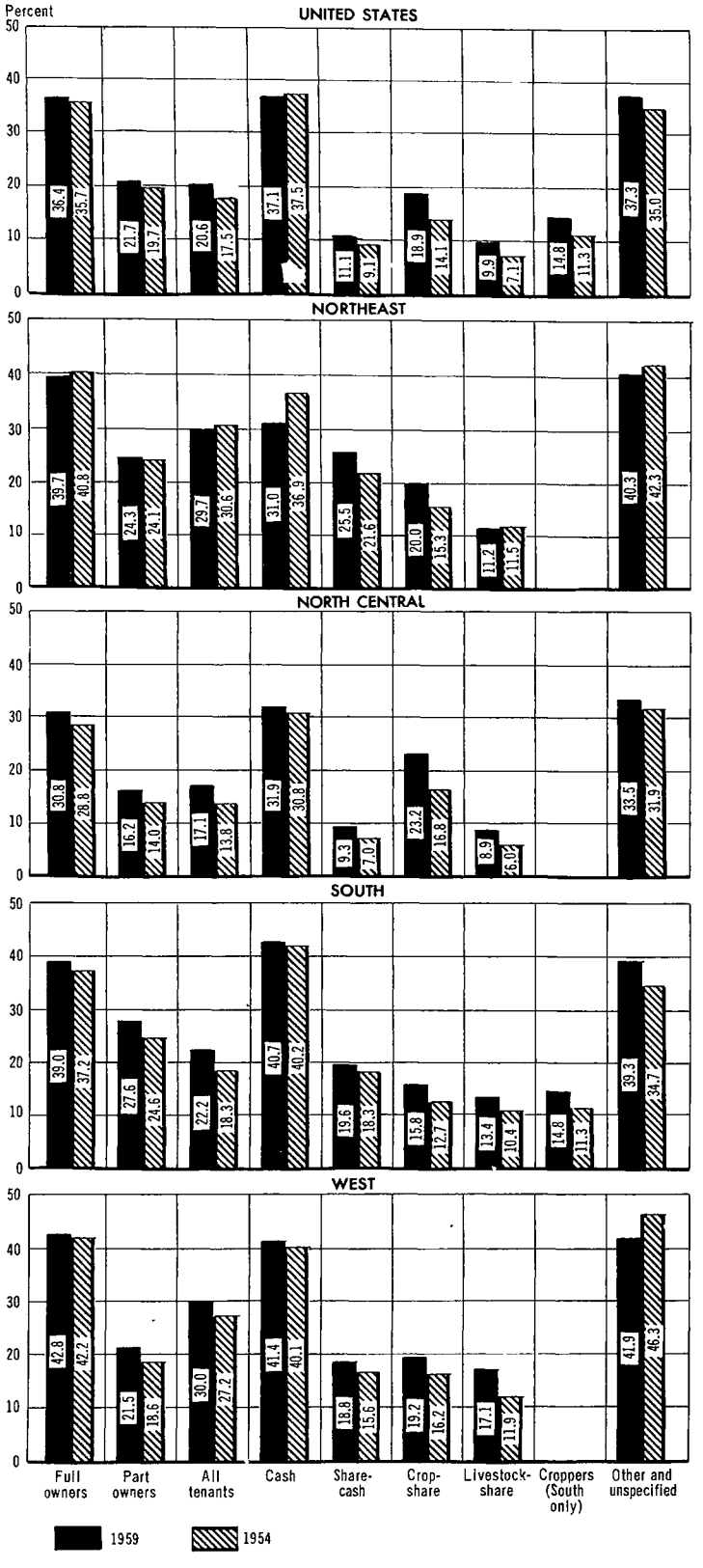
OFF-FARM EMPLOYMENT AND PART-TIME FARMING

Off-farm employment has an important effect on the standard of living of many farm families throughout the United States. In 1959 two-thirds of the farm operators reported that they or some member of their family living with them received income from sources other than the farm they operated. Of the farm operators themselves, nearly one-third reported working off their farms 100 or more days during the year.

Considerations entering into tenure arrangements are quite different for farm operators who are dependent on off-farm employment than for operators who are entirely dependent on their own farming operations for their income. For example, the individual with a full-time nonfarm job, who owns and operates a small acreage because he prefers to live in the country and engages in farming to supplement his income, is in a much different situation than the full-time owner-operator who is striving to acquire title to his land. The part-time farmer is not affected by adverse farm product prices to the same extent as the full-time farmer, because the part-time farmer may be able to continue to meet his mortgage payments from nonfarm income.

Farm operators with other employment and other income include (1) those farmers who work at nonfarm jobs during slack seasons, (2) farmers who supplement their farm income with continuous part-time nonfarm jobs, (3) persons employed full time at nonfarm jobs who have sufficient agricultural production to qualify as farmers; and (4) persons retired from either farm or nonfarm employment who live on the land and add to their retirement income with some farm output.

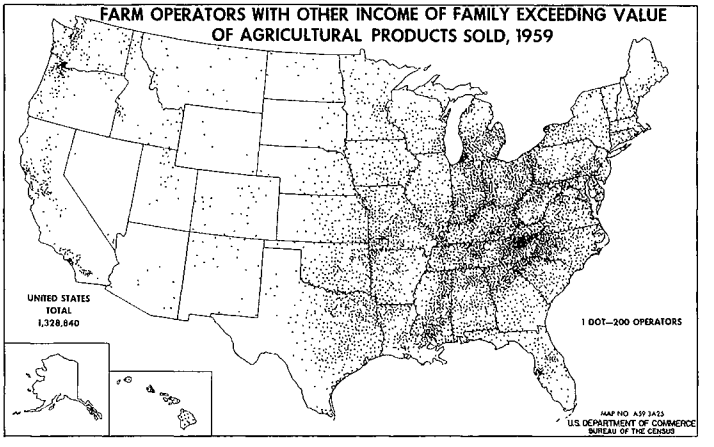
PERCENT OF FARM OPERATORS WORKING OFF THEIR FARMS 100 DAYS OR MORE, BY TENURE, FOR THE UNITED STATES AND REGIONS: 1959 AND 1954



Tenure and off-farm work.—Off-farm work by farm operators is largely associated with the noncommercial farms. Of the 1,107,606 farm operators who worked off their farms 100 days or more in 1959, more than two-thirds operated noncommercial farms. Only 14.5 percent of the commercial farmers reported off-farm work of 100 or more days, compared with 58.6 percent of the noncommercial farmers. Of the operators working off their farms 100 or more days, 69.6 percent were full owners as compared with 16.4 percent who were part owners and 13.7 percent who were tenants.

A larger proportion of the operators in all tenure groups reported 100 or more days of work off the farm in 1959 than in 1954. In 1959, 36.4 percent of the full owners worked off their farms 100 or more days. Among the part owners 21.7 percent worked off their farms 100 or more days, and among the tenants 20.6 percent.

Cash tenants and other and unspecified tenants reported nonfarm work in about the same proportion as full owners. As with full owners, the high proportion may be due to the large number of individuals with nonfarm jobs who were renting farms primarily as residences. Only one-tenth of the livestock-share tenants reported off-farm work of 100 or more days. This small percentage may be due to the labor requirements of their livestock enterprises.

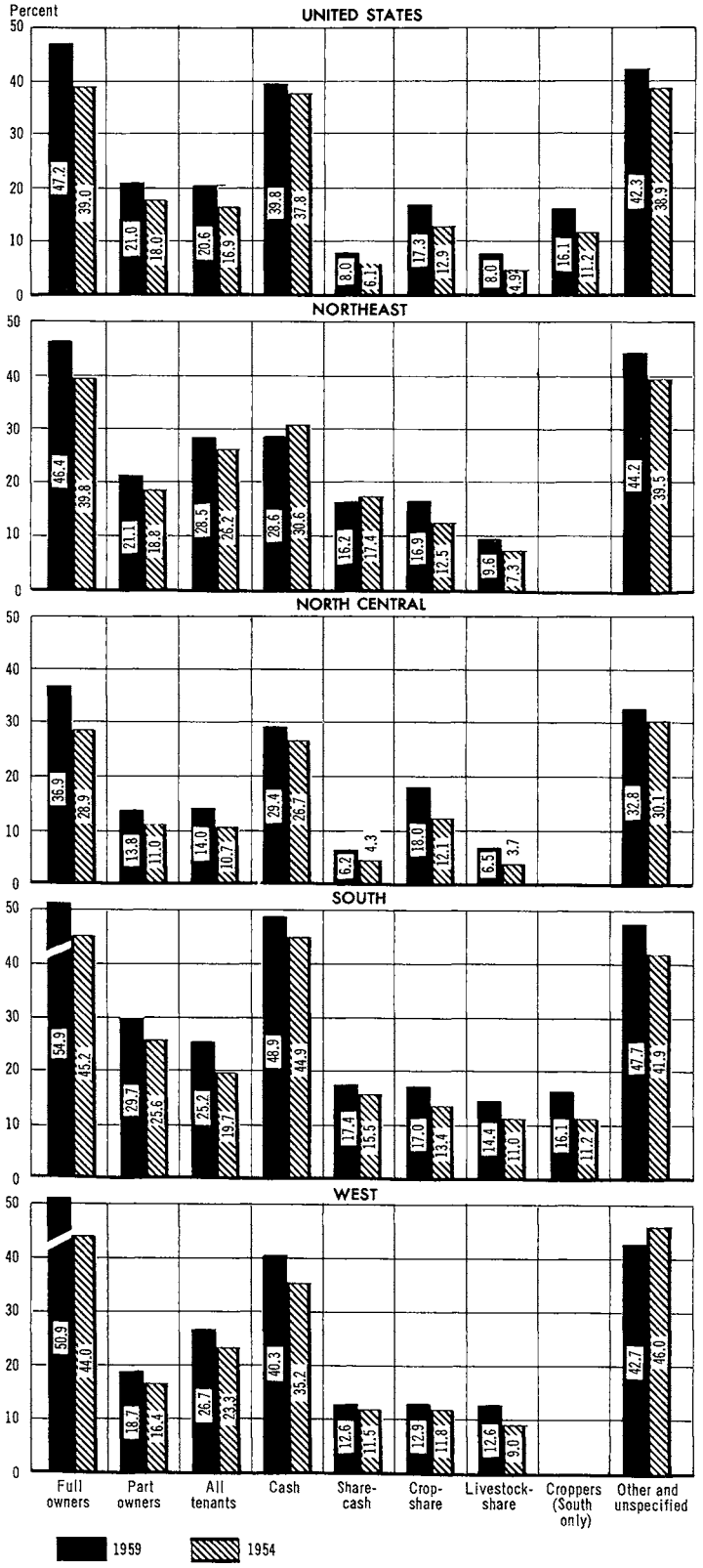


Other income.—In 1959, 1,328,840 farm operators reported that other income of the family exceeded the value of farm products sold from the farms they operated. These farms comprised 35.8 percent of all farms in the United States. To a considerable extent, they were the farms on which the operators worked off the farm 100 or more days. Therefore, the distribution of the two groups in regard to the tenure of operator is quite similar.

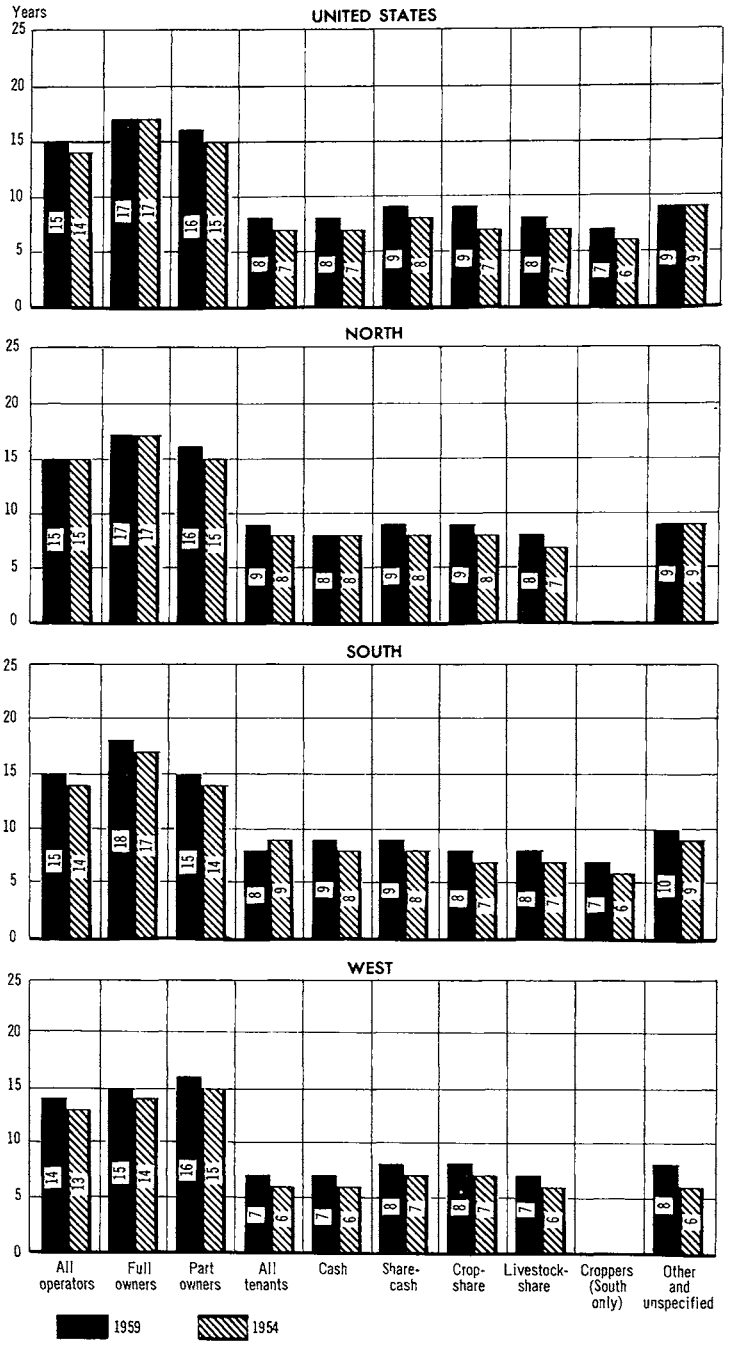
Nearly half (47.2 percent) of all full owners reported other income greater than the value of farm products sold from the farms they operated. In comparison, only one-fifth of the part owners and tenants reported other income in excess of the value of farm products sold. This same relationship was found in each of the four major regions of the United States. In the North Central region, however, the proportion of farmers reporting other income greater than the total value of farm products sold was considerably less than in the other regions. In this region approximately 37 percent of the full owners and only 14 percent of the part owners and tenants reported income from other sources greater than the value of farm products sold.

There was considerable variation among the tenant classes in the proportion reporting other income in excess of the value of farm products sold. Approximately 40 percent of the cash tenants and other and unspecified tenants reported other income greater than value of farm products sold compared with less than 20 percent of the crop-share tenants and croppers and only 8 percent of the share-cash and livestock-share tenants.

PERCENT OF FARM OPERATORS WITH OTHER INCOME OF FAMILY EXCEEDING THE VALUE OF FARM PRODUCTS SOLD, BY TENURE, FOR THE UNITED STATES AND REGIONS: 1959 AND 1954



AVERAGE NUMBER OF YEARS ON PRESENT FARM, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1959 AND 1954



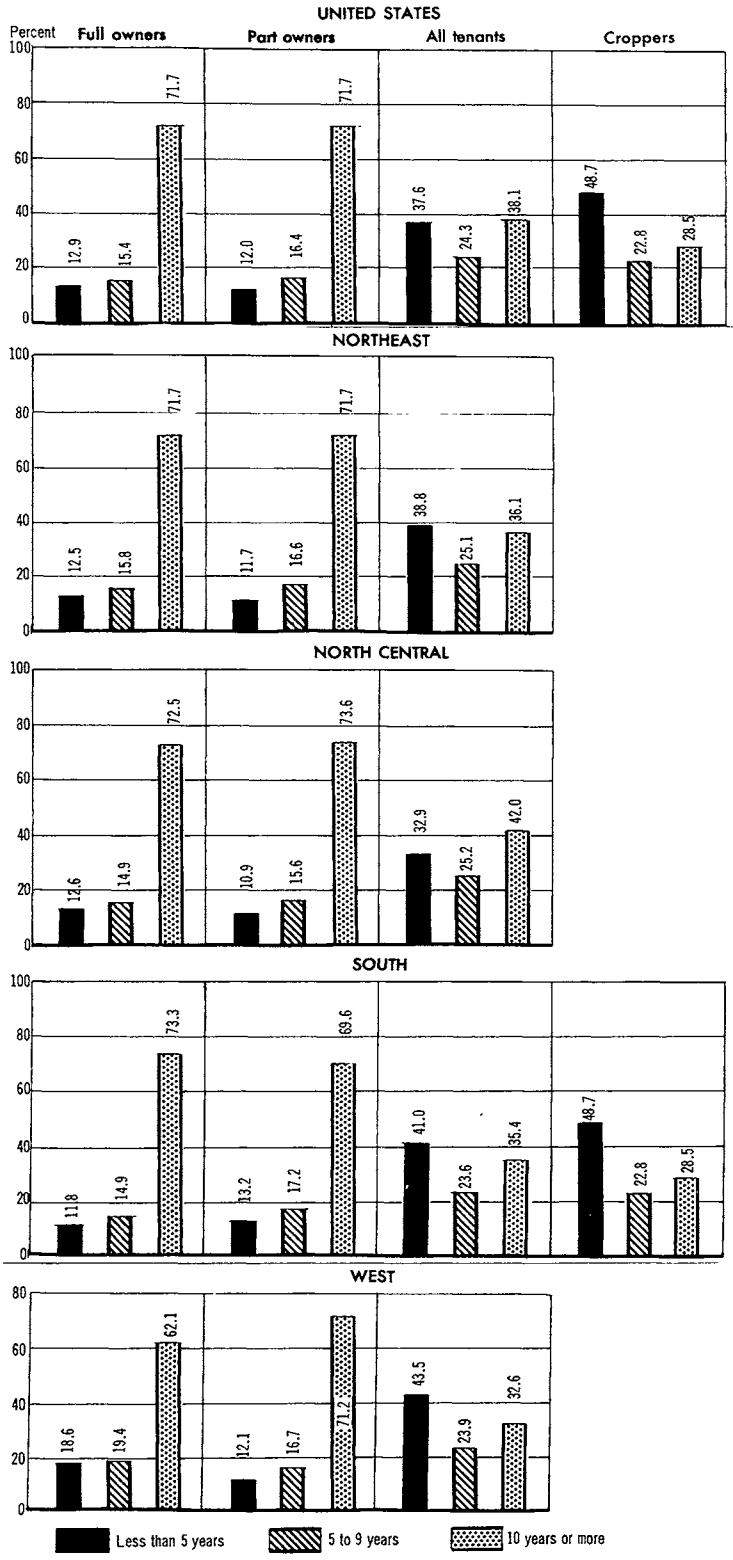
LENGTH OF TENURE AND MOBILITY

Years on present farm.—In 1959 farm operators had been on their present farms an average of 15 years, compared with 13 years in 1950 and 12 years in 1940. The advancing age of farm operators may account for most of the change, as the average age of farmers had increased by 2.5 years since 1940. This gradual lengthening of the period of occupancy while farm size has been growing so rapidly indicates that many farmers have expanded their operations by absorbing neighboring land instead of moving to larger farms. The average period of occupancy was slightly longer in the North and South than in the West.

Owner-operators had occupied their farms twice as long as tenants. In 1959, full owners and part owners had been on their present farms 17 and 16 years, respectively, whereas tenants had occupied their present farms only 8 years. This large difference can be explained largely by the age differences between owner-operators and tenants. On the average, owners were 9.6 years older than tenants in 1959. Most tenants either move to the ranks of owner-operator or leave farming by the time they reach the older age groups. In addition, the mobility of tenants to shift from farm to farm also decreases their length of occupancy.

There was little variation in the average period of occupancy among the various tenant classes. The largest difference was in the South, where the range extended from 7 years for share-croppers to 10 years for other and unspecified tenants. Livestock-share tenants were relatively low in their period of occupancy in all regions. Age may have been an important factor here as livestock-share tenants averaged 3.2 years younger than the average of all tenants.

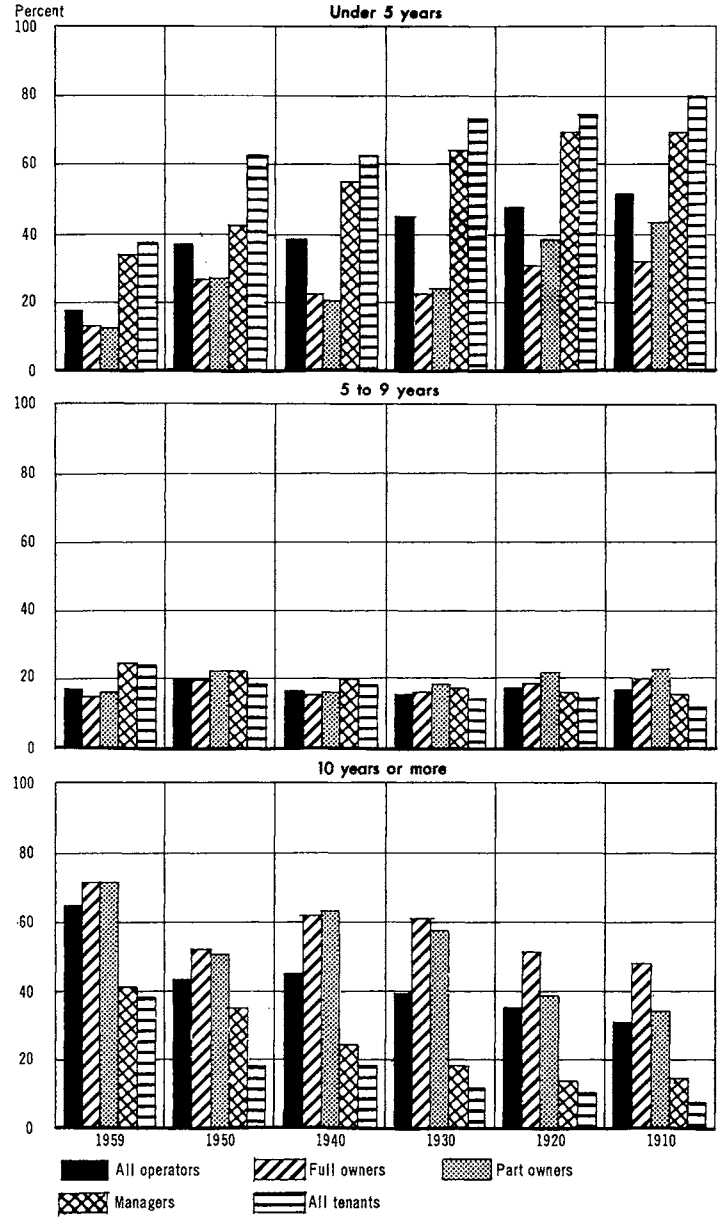
PERCENT DISTRIBUTION OF FARM OPERATORS IN EACH TENURE GROUP, BY YEARS ON PRESENT FARM, FOR THE UNITED STATES AND REGIONS: 1959



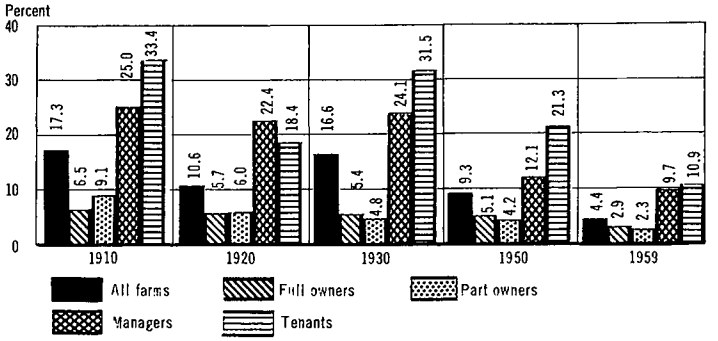
Distribution of farms by years on present farm.—In 1959 nearly two-thirds of the farm operators (64.8 percent) had occupied their farms for 10 years or more, while the remaining 35.2 percent of the operators were evenly divided between those who had been on their present farms from 5 to 9 years and those who had been on their present farms less than 5 years. Since 1910 the proportion of farmers occupying their present farms 10 years or more has steadily increased. In 1910 only 31.1 percent of the farm operators had been on their farms 10 years or more, while 51.8 percent had occupied their farms less than 5 years.

There was very little difference in length of time on present farm between full owners and part owners in any of the regions. For the United States, approximately 72 percent of the owner-operators had been on their farms 10 years or more; 16 percent, from 5 to 9 years; and 12 percent, less than 5 years. The tenants, however, were grouped mainly into two groups. Approximately 38 percent of the tenants of the United States had been on their present farms 10 years or more and an additional 38 percent had occupied the present farm less than 5 years. Nearly one-half of the croppers had been on their farms less than 5 years.

PERCENT DISTRIBUTION OF FARM OPERATORS BY YEARS ON FARM, BY TENURE, FOR THE UNITED STATES: 1910 TO 1959

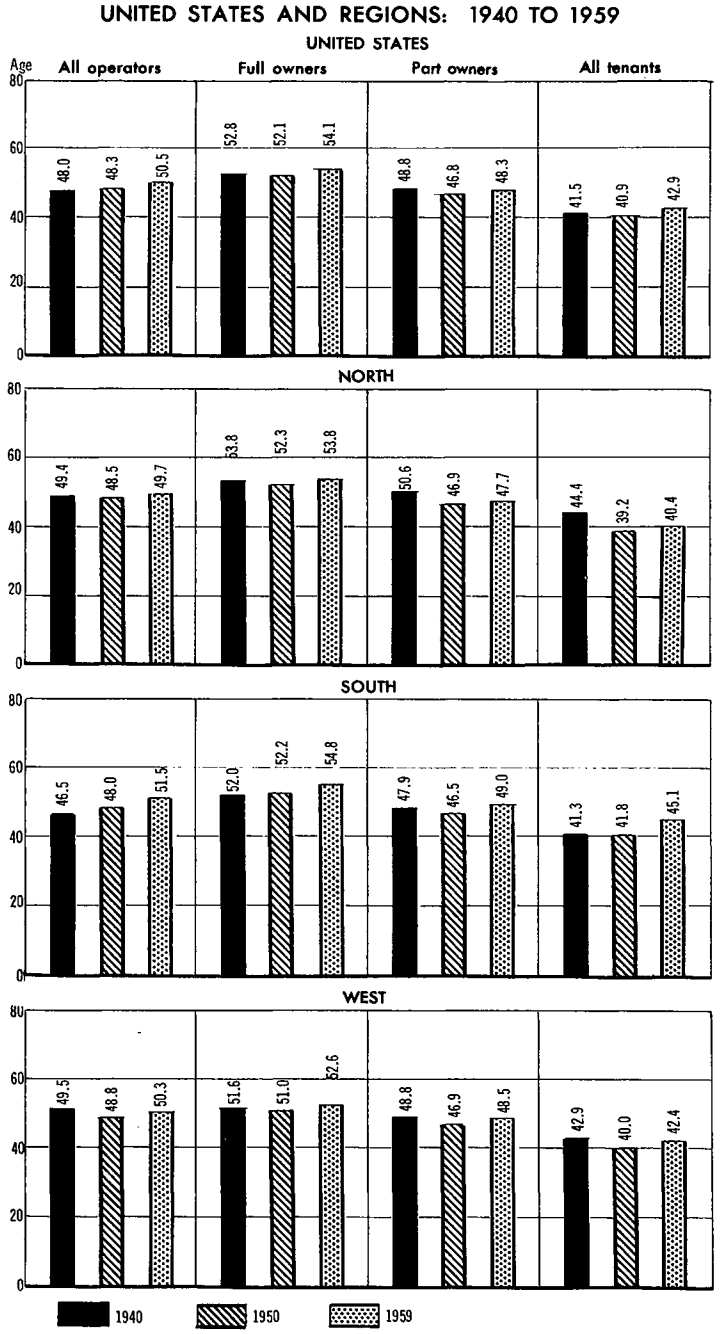


PERCENT OF FARM OPERATORS ON PRESENT FARM 1 YEAR OR LESS, BY TENURE, FOR THE UNITED STATES: 1910 TO 1959



Operators on present farms 1 year or less.—In 1910 slightly more than 17 percent of the farm operators had been on their farms 1 year or less. Even as recently as 1950, 9.3 percent had occupied their farms 1 year or less, whereas in 1959 this proportion had dropped to 4.4 percent. Of those farm operators on their farms less than 1 year, nearly half were tenants, an indication of their greater mobility. Almost 11 percent of all tenants had been on their present farms 1 year or less.

AVERAGE AGE OF FARM OPERATORS, BY TENURE, FOR THE UNITED STATES AND REGIONS: 1940 TO 1959



AGE AND RESIDENCE OF FARM OPERATORS

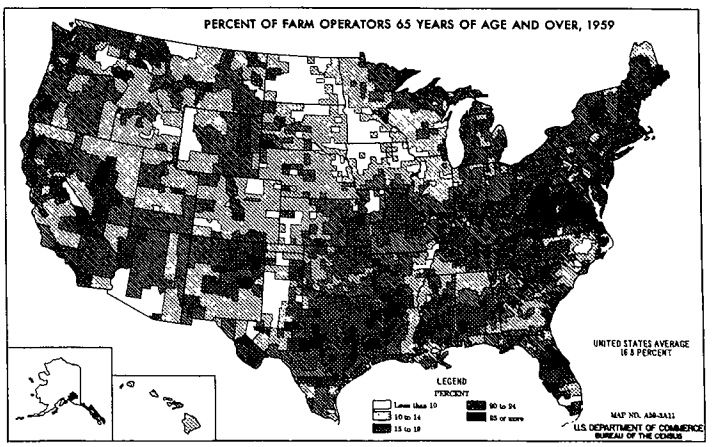
Average age of farm operators.—In 1959 the average age of all farm operators was 50.5 years. This was an increase of 2.5 years since 1940. The main reason for the increase in average age has been a lower entry rate of young farmers into agriculture than in the past and a higher proportion of young farmers leaving agriculture for nonfarm employment.

A high proportion of older farm operators are full owners. The average age of full owners in 1959 was 54.1 years. Most of the farm operators who are successful in achieving farm ownership do so in the middle years of their lives. This tends to make the average age higher for full owners than for other tenure groups. Many of the owners choose to go into semiretirement on their farms as they become older by renting out part of their land. Farm operators 65 years of age and over amounted to 16.8 percent of all farmers in 1959. This group included not only persons partly retired from farming, but also persons retired from nonfarm employment who had acquired farms and were living in semiretirement on the land.

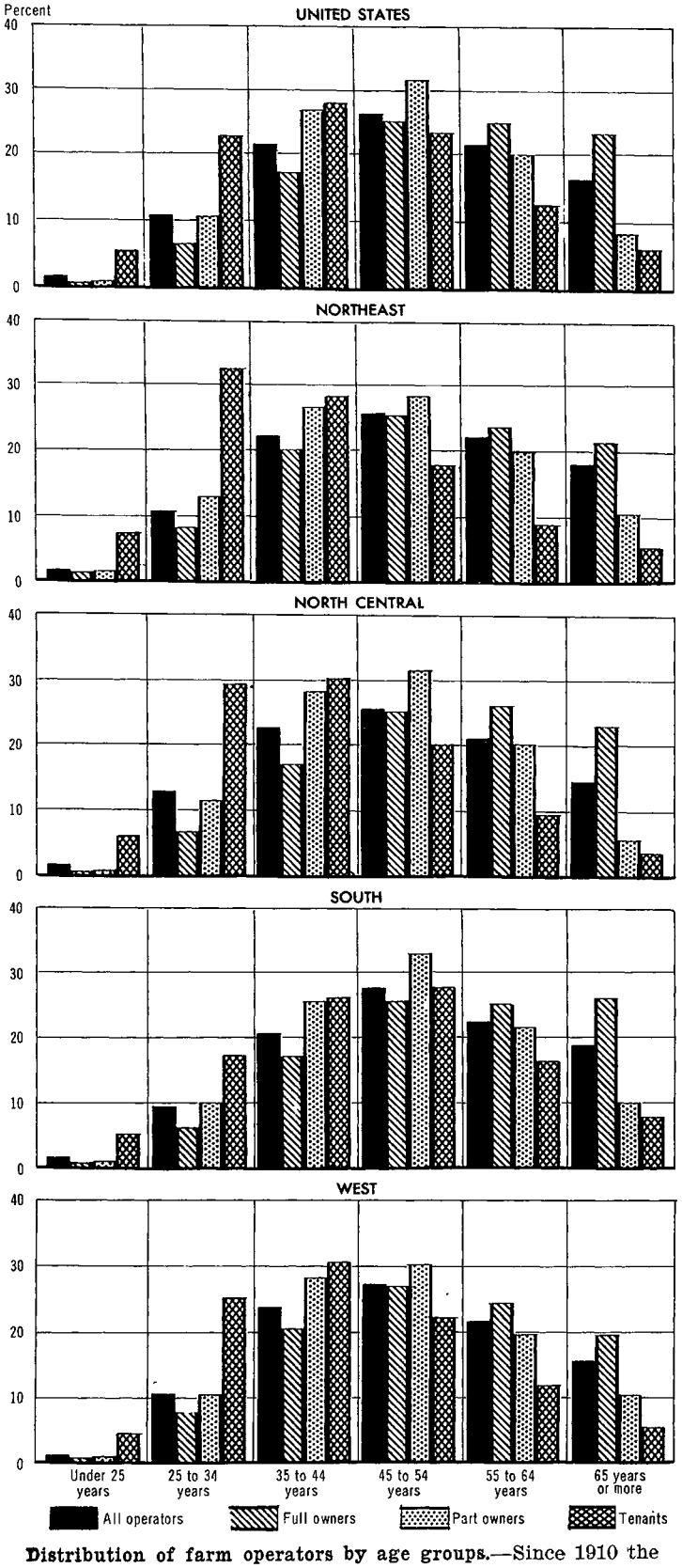
Part owners, on the average, are considerably younger than full owners, but older than tenants. Part owners averaged 48.3 years old in 1959. Farmers in this tenure group frequently cease to rent additional land as they approach their retirement years. In this way they pass into the ranks of the full owners, thus reducing the average age of part owners.

Tenants are the youngest of the tenure groups. In 1959 the average age of tenants was 42.9 years. Many individuals begin their farm operating careers as tenants. As they become older many acquire the capital to buy land and join the ranks of owners, thus affecting the number of older tenants.

Among the tenant classes, those with livestock-share leases were youngest. Their average age was 39.7 years. Croppers averaged 43.9 years of age, just one year older than the average of all tenants.

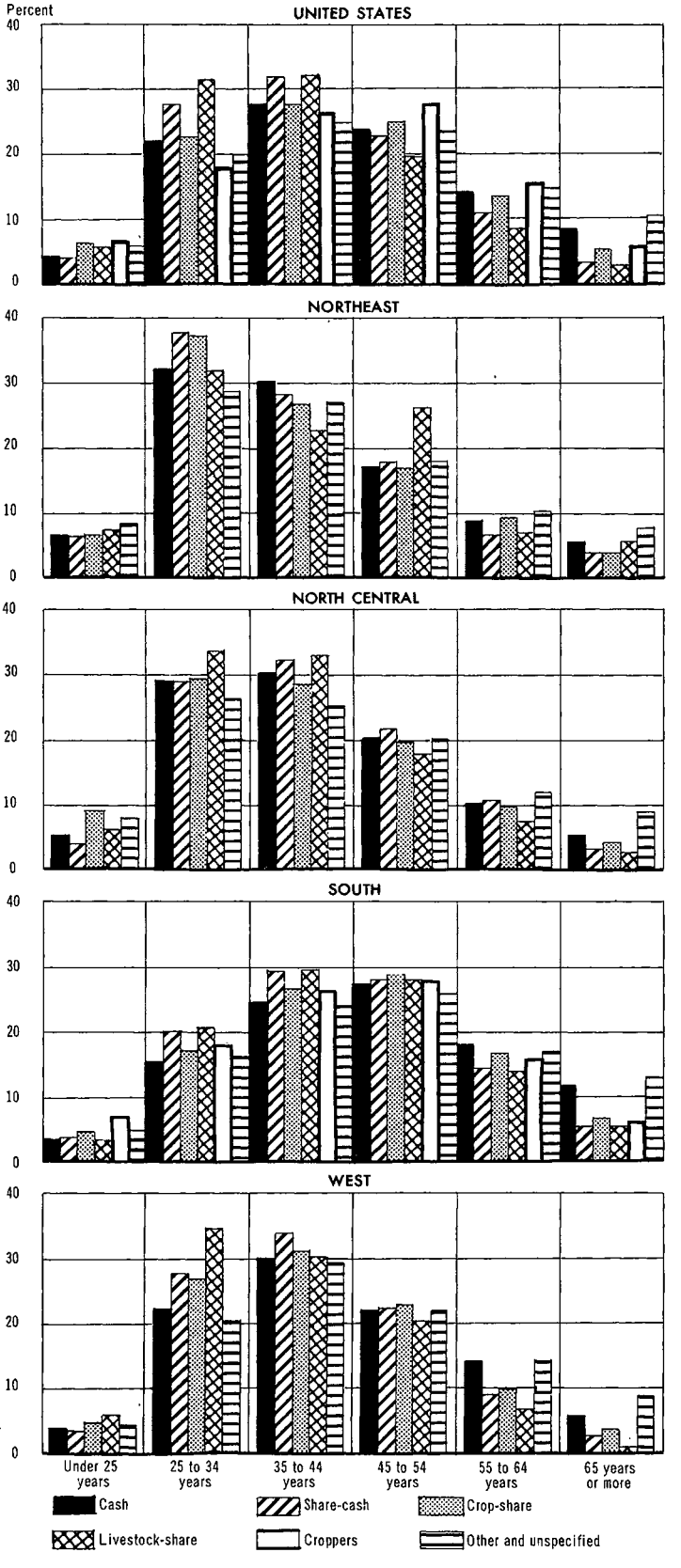


PERCENT DISTRIBUTION OF FARM OPERATORS IN EACH TENURE GROUP, BY AGE, FOR THE UNITED STATES AND REGIONS: 1959



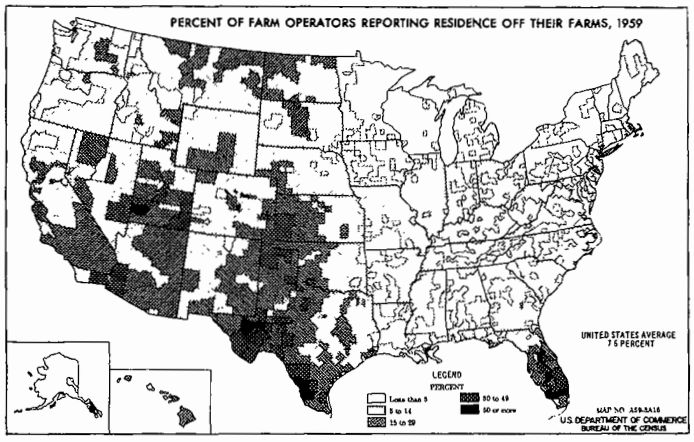
Distribution of farm operators by age groups.—Since 1910 the proportion of younger farmers has declined continuously, while the proportion of older farmers has increased. In 1910, 28.9 percent of the farm operators were under 35 years of age and only 23.6 percent were 55 or over. However, by 1959 only 12.7 percent of all farm operators were less than 35, while 48.7 percent were between 35 and 54 and 38.7 percent were 55 or over.

PERCENT DISTRIBUTION BY AGE OF TENANT IN EACH TENURE GROUP, FOR THE UNITED STATES AND REGIONS: 1959



The age distributions for all regions were similar to that for the United States. The shifting age distribution is a result of the low entry rate of young farmers into farming and the large number of younger farm operators leaving farming as the number of farms continues to decline.

Residence of farm operators.—In 1959, 7.6 percent of the farm operators who reported in regard to their residence did not live on the farms they operated. This was an increase of 2.5 percent since 1950. Some of the nonresident operators lived on nearby farms; others, as in Utah, lived in villages and commuted to their farms. Some types of farming require close supervision for only relatively short periods of time, permitting an operator to live a considerable distance from his farm during most of the year. Examples of "suitcase farming" are found in the wheat areas of the Great Plains and in the fruit and vegetable areas of Florida and Texas. In areas where most of the work is done by the family and where livestock enterprises are also carried on, as in the Midwest and South, the proportion of operators who did not reside on their farms was very small.



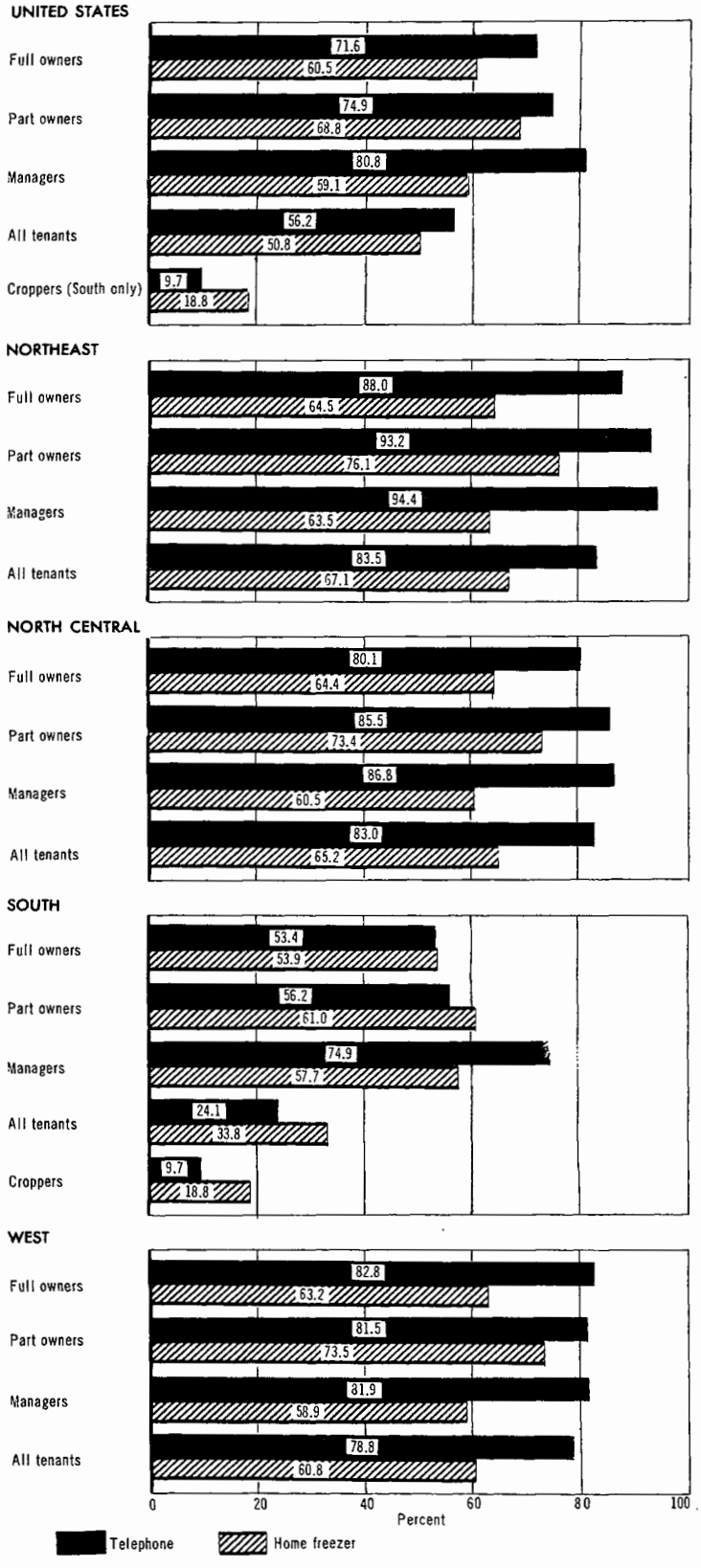
In the States bordering on or east of the Mississippi River, with the exception of Florida, most of the counties had a rather low proportion of operators who lived off their farms. Only in a few metropolitan areas did the proportion of nonresident farmers exceed 14 percent. In the Great Plains, Rocky Mountain States, and in Florida the proportion of nonresident farmers was somewhat greater. In a few counties in Florida, Texas, and Utah, nonresident farmers accounted for 50 percent or more of the operators. For States as a whole, farmers residing off their farms were most numerous in Florida and Arizona, where 20.6 percent were nonresidents. The proportion of nonresident farmers in Hawaii was 20.2 percent; in Utah, 18.0 percent; and in Texas, 16.6 percent. Other States next in order with 10 percent or more of the farm operators living off their farms were California, North Dakota, Kansas, New Mexico, Oklahoma, Montana, Nevada, and Colorado.

Among the commercial farms, 20.0 percent of the managers did not reside on the farms they operated, compared with 8.9 percent of the tenants, 6.4 percent of the part owners, and 6.3 percent of the full owners. Of the classes of tenants, crop-share tenants reported the largest percentage living off their farms (13.7 percent), and livestock-share tenants reported the lowest (4.1 percent).

FARM FACILITIES AND LOCATION CONVENIENCE

Facilities on farms.—The level of living of farm families, as measured in terms of facilities in the home, increased greatly in

PERCENT OF COMMERCIAL FARMS IN EACH TENURE GROUP REPORTING A TELEPHONE AND A HOME FREEZER, FOR THE UNITED STATES AND REGIONS: 1959



the past two decades. The proportion of farms reporting electricity increased from one-third in 1940 to three-fourths in 1950, and by 1954 the proportion had grown to over 90 percent. Farms reporting telephones also increased. In 1950 only 38.2 percent of the farms reported having telephones, compared with 65.0 percent in 1959. Reports of home freezers increased from 12.1 percent of all farms in 1950 to 32.2 percent in 1954, and in 1959 they were reported on 55.8 percent of the farms.

For commercial farms, managers reported the highest proportion of farms with telephones in all regions except the West. The proportion of manager farms with telephones ranged from 74.9 percent in the South to 94.4 percent in the Northeast. Full- and part-owner farms had about the same proportion of farms with telephones. Owner farms with telephones ranged from about 90 percent of the owner farms in the Northeast to about 55 percent in the South. Only 56.2 percent of the tenant farms in the United States had telephones. This was largely due to the low percent (24.1) of the tenant farms in the South with telephones.

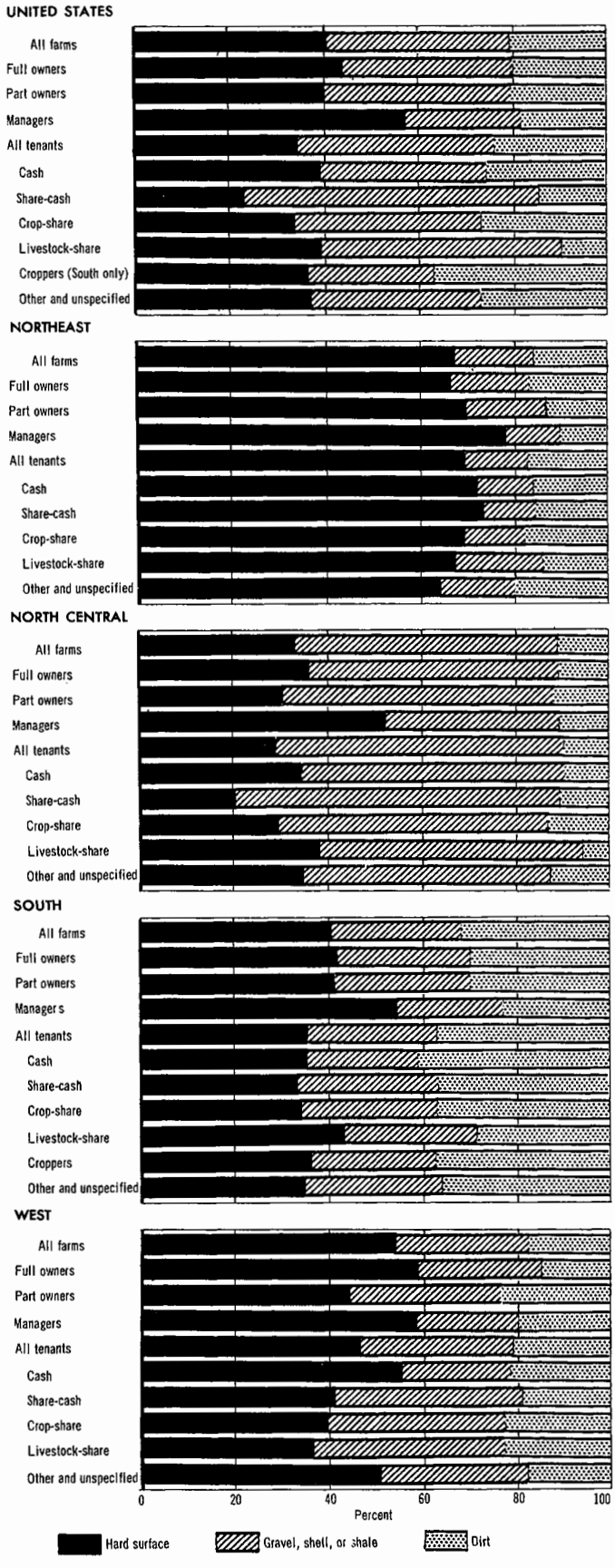
The proportion of farms reporting ownership of home freezers was about the same for all regions for the different tenure groups, except in the South where the proportion for each tenure group was lower than in the other regions. For the entire United States, the range between tenure groups extended from 68.8 percent on part-owner farms to 50.8 percent on tenant farms. Most of this difference was due to the low proportion of tenant farms in the South (33.8 percent) reporting home freezers.

Kind of road on which farms are located.—Much progress has been made since 1950 in providing all-weather roads for farm families. For example, in 1930 only one-third of the farms reporting were located on hard-surfaced, gravel, shell, or shale roads. By 1940 this proportion had increased to nearly one-half and by 1959 it had increased to four-fifths.

In the Northeast, two-thirds of the farms were located on hard-surfaced roads, while the remaining one-third were evenly divided between improved roads (gravel, shell, or shale) and dirt roads. Only one-third of the farms in the North Central region were located on hard-surfaced roads, but over half were on improved roads and only one-tenth were on dirt roads. In the South about 40 percent of the farms were located on hard-surfaced roads, about 30 percent on improved roads and about 30 percent on dirt roads. In the West 54 percent of the farms were located on hard-surfaced roads, 28 percent on improved roads, and 18 percent on dirt roads.

In 1959 nearly three-fifths of the managers reported that their farms were located on hard-surfaced roads compared with two-fifths of the owner-operators and only one-third of the tenants. Two-fifths of the owners and tenants reported that their farms were located on improved roads, while a little less than one-fourth of the managers reported being located on improved roads. Twenty percent of both owner farms and manager farms and almost 25 percent of the tenant farms were on dirt roads.

PERCENT DISTRIBUTION OF FARMS IN EACH TENURE GROUP, BY KIND OF ROAD ON WHICH LOCATED, FOR THE UNITED STATES AND REGIONS: 1959



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Final Report—Vol. V—Part 6—Chapter 3—Special Reports

A Graphic Summary of Agricultural Resources and Production

SPECIAL REPORTS

Prepared under the supervision of
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U.S. DEPARTMENT OF COMMERCE
Luther H. Hodges, Secretary

BUREAU OF THE CENSUS
Richard M. Scammon, Director (From May 1, 1961)
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PREFACE

Volume V, Part 6, Chapter 3: "A Graphic Summary of Agricultural Resources and Production, 1959," is one of three chapters based on data from the 1959 Census of Agriculture. This chapter presents graphically some of the significant facts concerning agricultural production. It includes information on the resources used in production, the nature and extent of the producing units or farms, and the nature and volume of the resulting production. It generally excludes, however, the information covered in the other two graphic summaries:

Chapter 1, "A Graphic Summary of Land Utilization," and

Chapter 2, "A Graphic Summary of Farm Tenure."

This report was prepared by James L. Stallings, Supervisory Statistician, and Ray Hurley, Chief, Agriculture Division, Bureau of the Census.

March 1963.

UNITED STATES CENSUS OF AGRICULTURE: 1959

FINAL REPORTS

Volume I—Counties—A separate part for each State, Puerto Rico, Guam, Virgin Islands, and American Samoa. Statistics on number of farms; farm characteristics; acreage in farms; cropland and other uses of land; land-use practices; irrigation; farm facilities and equipment; farm labor; farm expenditures; use of commercial fertilizer; number and kind of livestock; acres and production of crops; value of farm products; characteristics of commercial farms, farms classified by tenure, size, type, and economic class; and comparative data from the 1954 Census.

Part	State or States	Part	State or States	Part	State or States	Part	State or States
	New England States:		West North Central:		East South Central:		Mountain—Con.
1	Maine.	15	Minnesota.	30	Kentucky.	44	Utah.
2	New Hampshire.	16	Iowa.	31	Tennessee.	45	Nevada.
3	Vermont.	17	Missouri.	32	Alabama.		Pacific:
4	Massachusetts.	18	North Dakota.	33	Mississippi.	46	Washington.
5	Rhode Island.	19	South Dakota.		West South Central:	47	Oregon.
6	Connecticut.	20	Nebraska.	34	Arkansas.	48	California.
	Middle Atlantic States:	21	Kansas.	35	Louisiana.	49	Alaska.
7	New York.		South Atlantic:	36	Oklahoma.	50	Hawaii.
8	New Jersey.	22	Delaware.	37	Texas.		Other Areas:
9	Pennsylvania.	23	Maryland.		Mountain:	51	American Samoa.
	East North Central:	24	Virginia.	38	Montana.	52	Guam.
10	Ohio.	25	West Virginia.	39	Idaho.	53	Puerto Rico.
11	Indiana.	26	North Carolina.	40	Wyoming.	54	Virgin Islands.
12	Illinois.	27	South Carolina.	41	Colorado.		
13	Michigan.	28	Georgia.	42	New Mexico.		
14	Wisconsin.	29	Florida.	43	Arizona.		

Volume II—General Report—In 1 volume and also as 13 separates (for the Introduction and for each chapter). Statistics by subjects for 1959 and prior censuses. Statistics are presented for the United States, geographic regions, and divisions, and for the States.

Chapter	Title	Chapter	Title
	Introduction.		
I	Farms and Land in Farms.	VII	Field Crops and Vegetables.
II	Age, Residence, Years on Farm, Work Off Farm.	VIII	Fruits and Nuts, Horticultural Specialties, Forest Products.
III	Farm Facilites, Farm Equipment.	IX	Value of Farm Products.
IV	Farm Labor, Use of Fertilizer, Farm Expenditures, and Cash Rent.	X	Color, Race, and Tenure of Farm Operator.
V	Size of Farm.	XI	Economic Class of Farm.
VI	Livestock and Livestock Products.	XII	Type of Farm.

Volume III—Irrigation of Agricultural Lands—Data from the Irrigation Censuses of 1959 and 1950, by drainage basins, for the conterminous United States and for each of the 17 western States and Louisiana. Separate maps are available. Report also includes data from the 1959 Census of Agriculture for land irrigated and acres and production of crops on irrigated land in the 18 conterminous States and Hawaii.

Volume IV—Drainage of Agricultural Lands—Statistics for States and counties and for the conterminous United States, presenting 1960 data on number, area, physical works, and costs for drainage projects of 500 or more acres by size, type, and year organized. Maps are included.

Volume V—Special Reports

Part 1.—Special Census of Horticultural Specialties—Statistics for States, except Alaska and Hawaii, and for the conterminous United States, presenting 1959 data on number and kinds of operations, gross receipts and/or sales, sales of specified products, inventories, employment, and structures and equipment.

Part 2.—Irrigation in Humid Areas—Statistics for 30 eastern States showing 1960 data on acres irrigated, number of constructed ponds and reservoirs, source and method of applying water, type of pumping power, acreage of individual crops irrigated, and frequency of irrigation by States and counties.

Part 3.—Ranking Agricultural Counties—Statistics for selected items of inventory and agricultural production for the leading counties in the United States.

Part 4.—Farm Taxes and Farm Mortgage—A cooperative report by the Economic Research Science, U.S. Department of Agriculture and the Bureau of the Census, U.S. Department of Commerce, presenting 1961 data by States on taxes on farms, number of mortgaged farms operated by full owners and part owners, amount of mortgage debt held by principal lending agencies, and amount of interest paid.

Part 5.—1960 Sample Survey of Agriculture—Statistics by economic class and type of farm, showing 1960 data on farm-operator-family income from farm and off-farm sources; inventory and use of selected types of farm equipment, tractors by year made and fuel used; number, size, and materials used for new buildings constructed 1958 to 1960; number of farmers having contracts with dealers, processors, or others for the production and marketing of 15 farm products; and real estate and non-real-estate debts of farm operators and farm landlords by lending agencies.

Part 6.—A Graphic Summary of Agriculture, 1959—A cooperative report by the Economic Research Service, U.S. Department of Agriculture and the Bureau of the Census, U.S. Department of Commerce, presenting graphically for 1959 and prior census years some of the significant uses of agricultural land; the extent and nature of the various kinds of tenure under which farms are held and operated; and changes and developments in the use of agricultural resources and production of agricultural products.

Special Publication—Principal Data-Collection Forms and Procedures: United States Census of Agriculture, 1959, and Related Surveys—Facsimiles of the enumeration forms used, showing variations for the 50 States, Puerto Rico, American Samoa, Guam, and the Virgin Islands, together with brief descriptions of the census field procedures for the census and the related surveys.

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MAPS

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INTRODUCTION

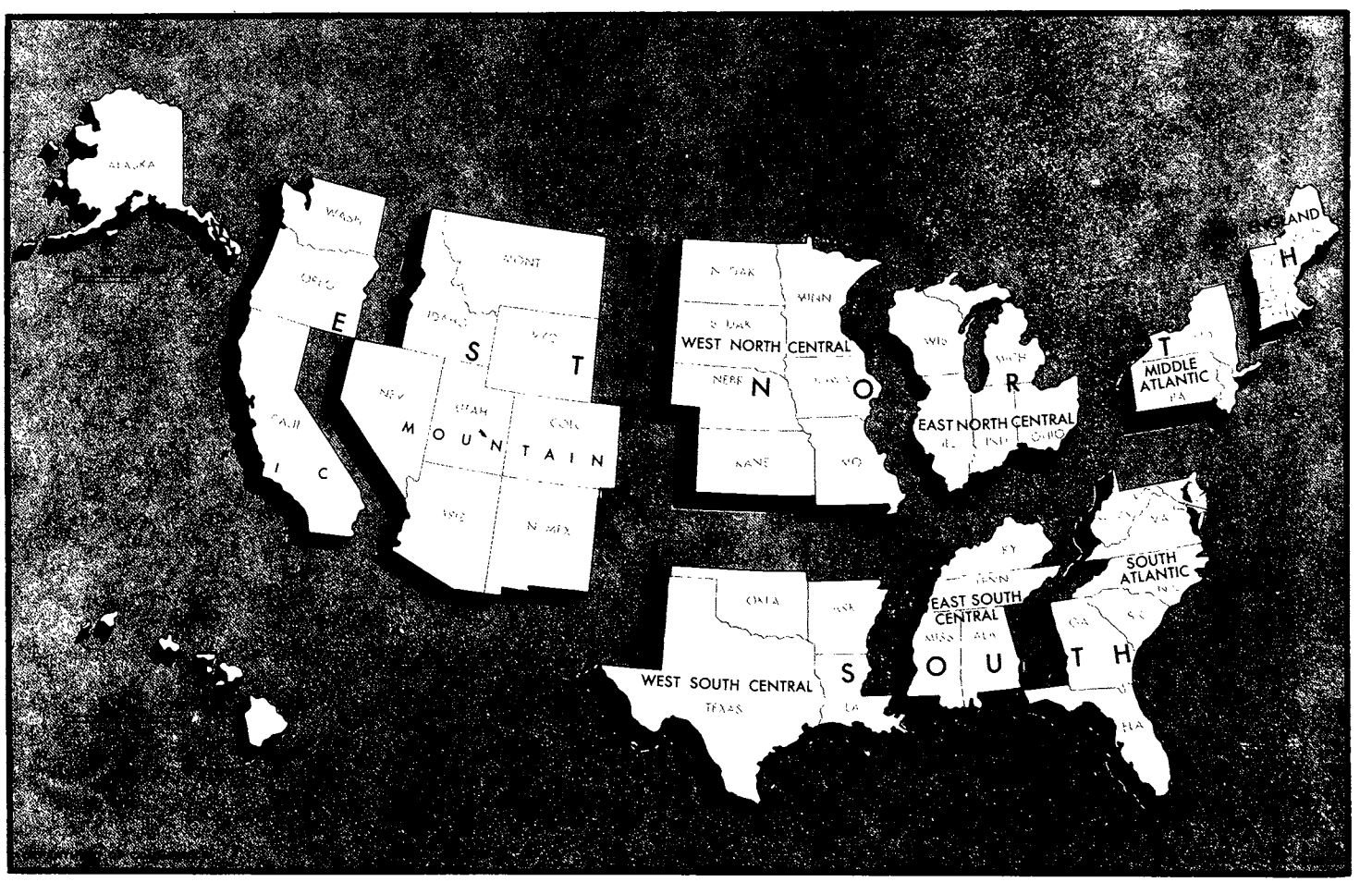
The 1959 Census of Agriculture is the seventeenth nationwide census of agriculture of the United States. This chapter summarizes graphically and briefly many of the significant facts revealed by the census regarding agricultural production in the United States. It indicates the extent and distribution of our farm resources, including land, livestock, and farm power. It outlines how our producing units or farms are organized. It also presents facts regarding the kinds, amounts, and distribution of agricultural production.

Source of information.—Most of the data for the graphic material in this report were obtained from the various censuses of agriculture. Detailed statistics for that part of the information which is based on the 1959 Census of Agriculture may be found in volumes I, II, III, and V of the reports for the 1959 Census of Agriculture.

Definitions and explanations.—The terms used in this report correspond with those used in reports of the various censuses of agriculture. Only general definitions and explanations are given in this publication. More detailed definitions and explanations may be found in Volume II: "General Report—Statistics by Subjects," of the reports for the 1959 Census of Agriculture.

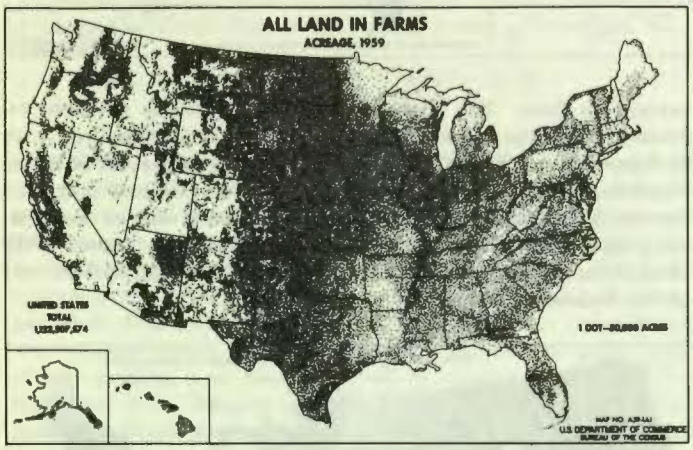
A census of agriculture has been taken every 5 years since 1920 and every 10 years prior to 1920. Census data relate to the census date or to the calendar year or crop year immediately preceding the census date.

The map below shows the three broad regions of the United States and the nine major geographic divisions referred to in this report. In many cases, data are shown for or reference is made to these regions and geographic areas.



Section I.—AGRICULTURAL RESOURCES

Resources used to produce agricultural products are many and varied. Some are of a rather fixed nature such as land and buildings, the farm operator's labor and management, the available labor of his family, surface and ground water, etc. Other resources are purchased as required. These include hired labor, fertilizer, lime, feed, seed, and many other items. This section presents briefly the nature and extent of many of the more important resources used in agricultural production including their distribution, quantity, trends in use, etc.



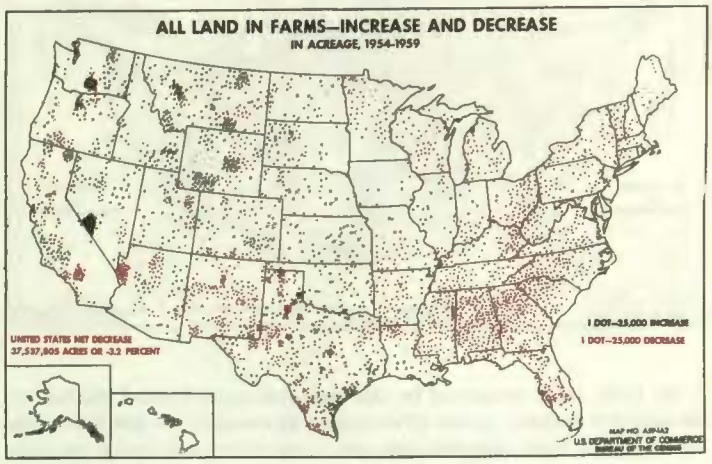
LAND

The land area of the 50 States is 2,271 million acres. The total land in farms in the United States in 1959 was 1,124 million acres or 49.5 percent of the land area. If no division is made between land in farms and land not in farms then the total land in each of the major uses in 1959 would be as follows:

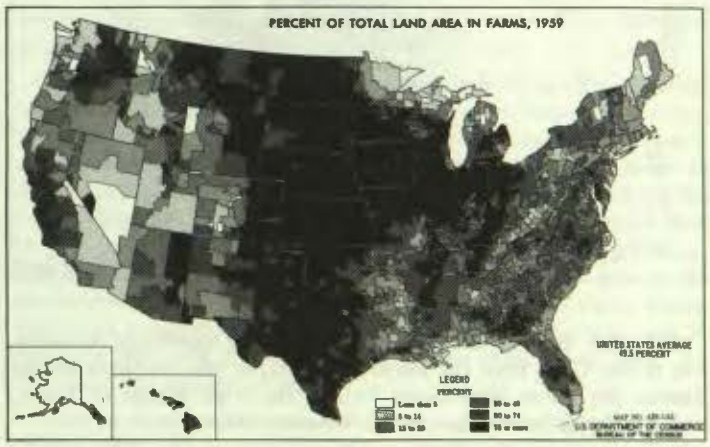
	Million acres
Cropland, including cropland used only for pasture	448
Pasture and grazing land including woodland and forest land pastured and grazed	887
Forest and woodland not pastured nor grazed	500
Other land, total	436

Data on land use refer only to area. There are great variations in the quality of land having various uses. The quality of the various kinds of cropland varies from use to use and area by area, and also within areas. The cropland used only for pasture supplies much more feed per acre than other pasture and grazing land. There are similar variations in the productivity of woodland and forest land.

The acreage of land in farms, including that reported for the new States of Alaska and Hawaii, dropped from 1,161 million acres in 1950 to 1,124 million acres in 1959. This drop of 38 million acres was due to several factors. In the first place, a change was made in the definition of a farm between the census of 1954 and that of 1959. However, the decrease in land in farms resulting from this change in definition amounted to only 6 million of the 38 million acre decrease. Part of the decrease can be attributed to the expansion of urban areas, since 7 million acres of the 38 million acre decrease was in counties included in standard metropolitan areas. The Soil Bank program, which retired many whole farms from agricultural production, was also a significant factor.

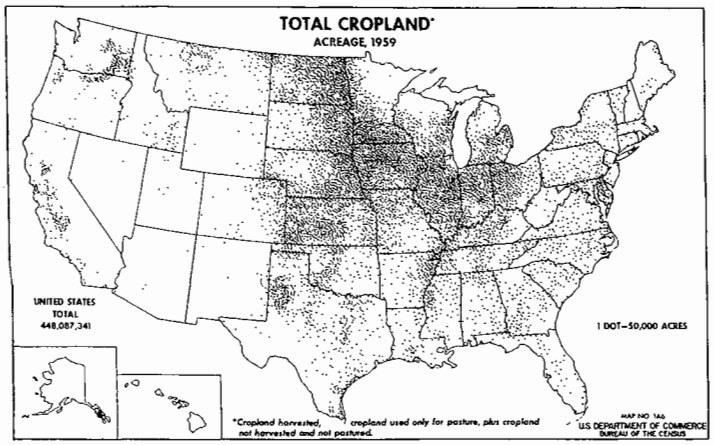


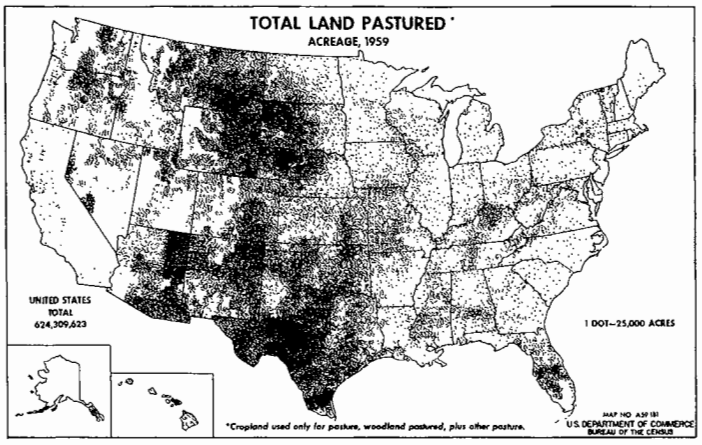
The percent of the total land area in farms varies throughout the United States. In the Great Plains and the Corn Belt a high proportion of the counties have 75 percent or more of their total land area in farms. West of the Great Plains, inadequate rainfall and mountainous topography explain the smaller proportion of land in farms over extensive areas. Large acreages of land in the Western States have remained in public ownership and a considerable acreage of this land is grazed under permits from the United States Government. This land is not included as land in farms. East and south of the Corn Belt hilly topography, infertile soils, and poor drainage extend over sizeable areas reducing the percentage of land in farms.



Cropland.—A large part of the Nation's agricultural production comes from the land used for crop production. The total cropland in 1959 amounted to 448 million acres and comprised 40 percent of the land in farms and 20 percent of the total land area in the United States. The total cropland includes 66 million acres of cropland used only for pasture.

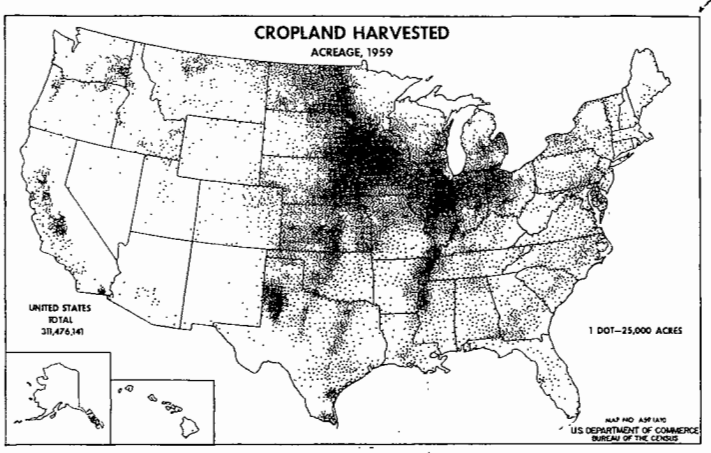
There are large concentrations of cropland in the Corn Belt and the eastern part of the Great Plains. Other concentrations occur along the lower Mississippi River and in the States bordering the Great Lakes.





In 1959, total cropland in the conterminous United States included 311 million acres of cropland harvested, 66 million acres of cropland used only for pasture, and 71 million acres of cropland not harvested and not pastured. The cropland not harvested and not pastured included 31 million acres of cultivated summer fallow and 40 million acres of idle land, land on which crops failed, and land planted in crops for future harvest.

Cropland harvested.—Cropland harvested in the United States totaled 311.5 million acres in 1959. The North had the largest amount of cropland harvested with 197.5 million acres, or 63.4 percent of the total. The South had 75.2 million acres, or 24.1 percent, and the West had 38.8 million acres, or 12.5 percent of the total.

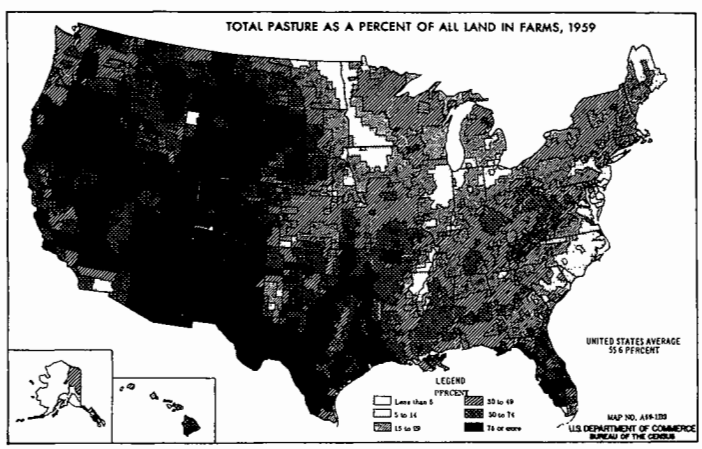


The high density of cropland harvested is especially conspicuous in the Corn Belt, the lower Lake States, the Northern Plains States, the lower Mississippi Valley, the High Plains of Texas, and the irrigated valleys in the Western States.

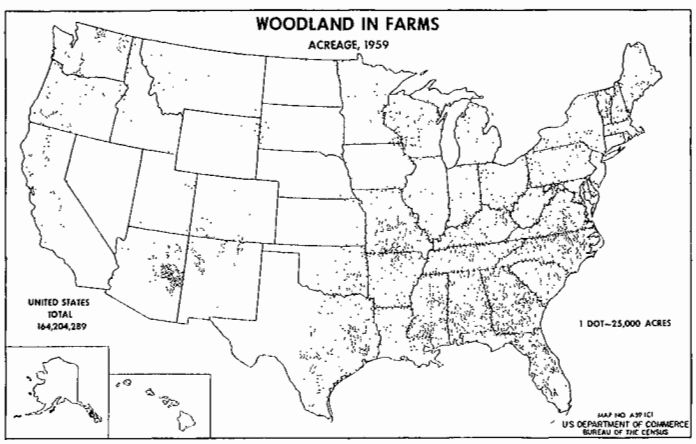
Pasture and grazing land.—The total acres used for pasture and grazing in 1959 was 953 million acres. This included 624 million acres pastured which was in farms and 328 million acres of grazing land not in farms. Most of the grazing land not in farms was in the West where grazing is permitted on public lands.

Of the 624 million acres of pastureland in farms about 66 million acres were cropland pastured; 93 million acres, woodland pastured; and 466 million acres, other pasture (not cropland and not woodland). The West led the North and South with 271 million acres pastured in 1959. Most of this was in the Mountain Division which had 220 million acres.

About 77 percent of the farms in the conterminous United States reported land pastured in 1959, compared with about 75 percent in 1954. The proportion of land in farms pastured remained about the same with 55.6 percent in 1959 compared with 55.9 percent in 1954. The North had the highest percent of farms reporting pasture in 1959 with 81.3 percent but had only 34.8 percent of the acreage pastured. In 1959, the West had the highest proportion (78.7 percent) of any of the three regions with land in farms pastured. The Mountain Division had 83.0 percent of its farmland pastured.



Woodland and forest land.—The census does not collect information on a large amount of the forest acreage which is not in farms. An estimate of forest acreage is available, however, from the U.S. Department of Agriculture. The total woodland and forest land in the United States in 1959 was estimated to be about 774 million acres. This included 164 million acres of woodland and forest land in farms, as enumerated by the census,



and approximately 610 million acres (the remainder) which is not in farms. The total does not include forest land in parks, wildlife refuges, etc.

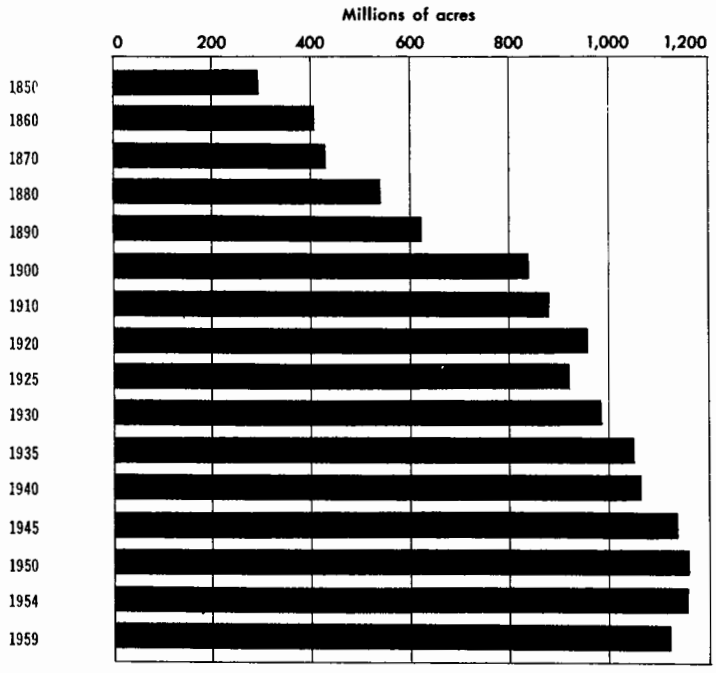
While much of the forest land not in farms is located in the West, much of the woodland in farms is in the East. Large areas of woodland are located in the Appalachian Mountain areas and in the southeastern States. Woodland in farms accounted for nearly one-sixth of the land in farms in 1959.

Of the woodland in farms in 1959, 93 million acres were pastured. The productivity of this woodland pasture varies greatly as it includes cutover forests, land once used for crops or open pasture in the process of reverting to forest land, arid woodland, brush, scrubland, and a variety of other kinds of woodland. Woodland pastured was distributed quite generally throughout areas of the United States climatically suited to woodland.

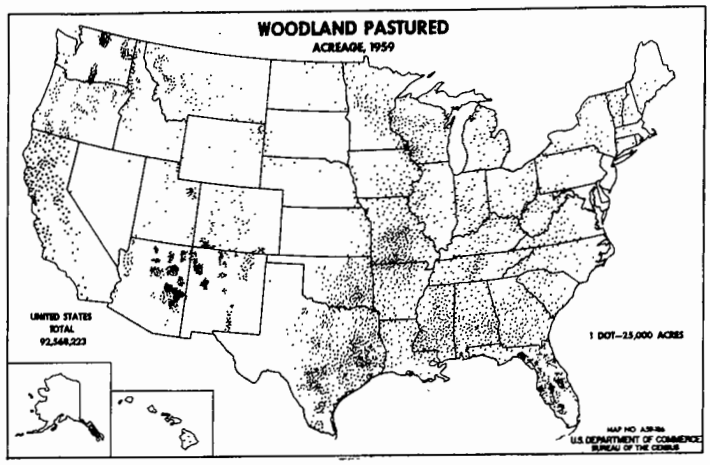
CHANGES IN LAND USE

The changes in the major uses of land in the United States were significantly different during the period prior to 1920 and the period since 1920. The period prior to 1920 was marked by the settlement and development of lands west of the Mississippi River and the clearing of forest lands. From 1890 to 1920, cropland other than that used for pasture increased from 248 to 402 million acres. This significant expansion of cropland was accompanied by decreases in grazing land. Grazing land not in farms was reduced about 107 million acres from 1900 to 1920. Part of this grazing land was converted to cropland and part of it has since been included as land in farms. Clearing of forest lands continued during this period as cropland and nonwooded pastureland increased in the eastern States and in parts of the Pacific Northwest.

ALL LAND IN FARMS IN THE UNITED STATES: 1850 TO 1959



In the period since 1920, there have not been large changes in major land uses. Cropland other than that used for pasture has fluctuated from about 380 to 410 million acres. Land development and improvement through drainage, irrigation, and clearing of forests have counterbalanced reversions of cropland to woodland and the conversion to such nonagricultural uses as cities, highways, parks, airports, etc. Land used for pasture and



grazing has declined about 114 million acres. Grazing lands not in farms have become part of the pastureland in farms, as more public lands have been included in farms. (If grazing lands are leased by farm operators, they are included as land in farms; if they are used under permit, they are not included in the census land in farms.)

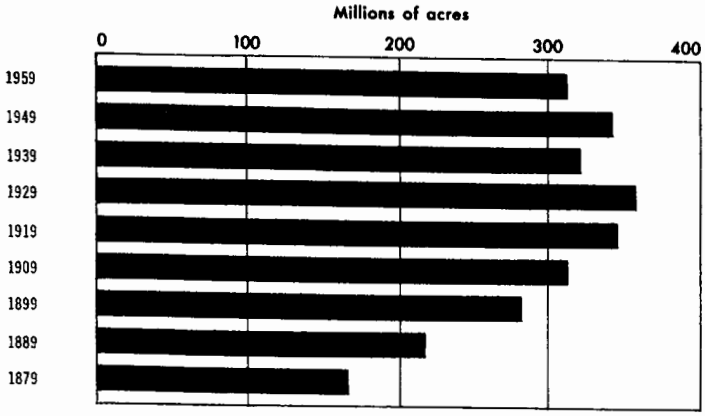
Since 1890, all land in farms has increased 500 million acres. Most of this increase resulted from the transfer of grazing lands not in farms to farms. Most of the increase in land in farms since 1890 has occurred in the 17 Western States of the conterminous United States, except for an appreciable increase in Florida during recent censuses. New settlements which continued until about 1920 account for a part of the increase. Since 1920, a half or more of the increase has resulted from the adding of approximately 100 million acres of Federal, State, and Indian reservation land to the area reported in census farms. Most of the remaining net increase occurred in privately owned lands. Changes in method of controlling grazing rights and modifications of census definitions and procedures rather than the expansion of undeveloped lands account for most of the increase of privately owned land in farms.

The decrease of approximately 12 million acres in total cropland between 1954 and 1959, resulted, in part, from the placing of entire farms in the Soil Bank, the conversion of cropland to pastureland, the conversion and reversion of some cropland to woodland and other noncropland uses, and from the abandonment or nonoperation of some farms with their included cropland, and in the conversion of some cropland to such nonfarm uses as highways, cities, parks, suburban homesites, etc. Much of the decrease occurred in the Great Plains States in the areas where there was a significant reduction in the acreage of wheat and in the Southern and Eastern States, where there were large decreases in the number of farms.

Land in farms in 1959 was 38 million acres, or 3.3 percent, less than in 1954. About three-fourths of the decrease occurred in the South and resulted largely from the transfer of land in farms to forest land or to lands to be used for forest purposes, the placing of entire farms in the Soil Bank, and the discontinuance of farm operations. About one-fourth of the decrease in land in farms from 1954 to 1959 was in the North. This decrease resulted largely from the discontinuance of farm operations, the placing of entire farms in the Soil Bank, and the transfer of land in farms to nonfarm uses.

The acreage of cropland harvested in 1959 was the same as in 1910, 37 million acres less than at the end of World War I, and 41 million acres less than at the end of World War II. The acreage of cropland harvested in the South in 1959 was about one-fourth less than at the end of World War I and World War II.

CROPLAND HARVESTED FOR THE UNITED STATES: 1879 TO 1959



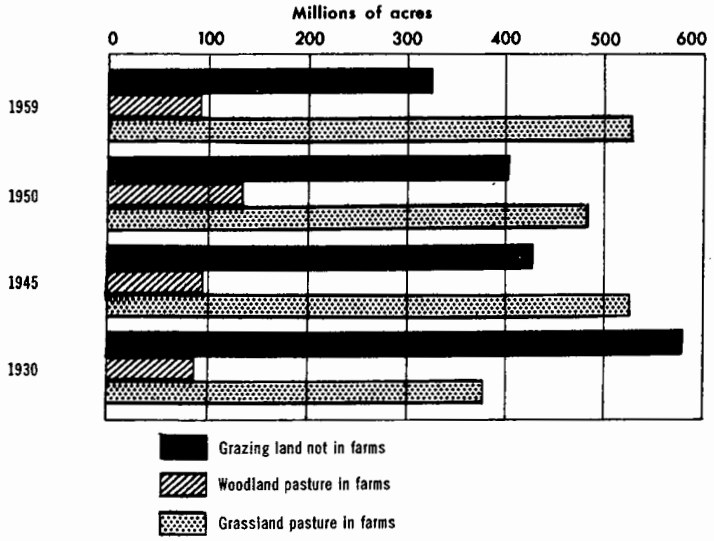
The decline in cotton acreage because of the shift of cotton acreage westward, and the increase in cotton yields; the decrease in corn acreage; and the abandonment of marginal farms have accounted for a large part of the decrease in cropland harvested in the South. The acreage of cropland harvested has declined about half in South Carolina, Georgia, and Alabama. The acreage of cropland harvested was less in 1959 than at the end of World War I and World War II in every State in the South except Florida.

The decline of cropland harvested in the North occurred largely in the Northeastern States, Missouri, Michigan, and Ohio. The abandonment of cropland in the face of competition from more productive midwestern areas and the industrial expansion into agricultural areas have contributed significantly to the decline of cropland harvested in the North. The acreage of cropland harvested in the more productive areas of the Corn Belt has remained unchanged since World War I.

In the West, the acreage of cropland harvested was 10 million acres, or 36 percent, more in 1959 than at the end of World War I. Much of this increase was the result of the increase in irrigated land. In Montana and Arizona, the acreage of cropland harvested in 1959 was more than twice as large as at the end of World War I.

Since 1900, the total area (farm and nonfarm) used for pasture and grazing has declined 180 million acres, or about 16 percent. Since 1920, the decline has been 114 million acres, or 11 percent.

PASTURE AND GRAZING LAND FOR THE UNITED STATES: 1930 TO 1959



At each successive census, more of the rangeland in the Western and Southern States has been included as land in farms. This accounts, to a large extent, for the decrease of grazing lands not in farms and the increase of pastureland in farms.

For the 48 conterminous States, the acreage of pastureland in farms was 25 million acres less in 1959 than in 1954. There was a decrease of three-fourths of a million acres of cropland used for pasture and 29 million acres of woodland used for pasture. Pasture that was not cropland and not woodland increased 5 million acres. Most of the increase in pasture that was not cropland and not woodland resulted, largely, from the reporting of woodland pasture, in Texas and other parts of the Southwest, in 1954 as other pasture in 1959. About two-thirds of the decrease in pastureland was in the Eastern and Southern States, where a considerable acreage of land was taken out of agriculture.

For the conterminous United States, there was a decrease of 33 million acres, or 17 percent, in the acreage of woodland in farms from 1954 to 1959. Nearly three-fourths of this decrease occurred in Northeastern and Southern States where, over the last three decades, there has been a reversion of considerable acreage of pastureland and cropland to forest lands. About one-fifth of the decrease in woodland in farms occurred in Texas where more of the brushland area was reported as other pasture, not cropland and not woodland. The decline of land in farms in the forested regions during the 5-year period resulted from the transfer of an appreciable amount of woodland in farms to forest land not in farms.

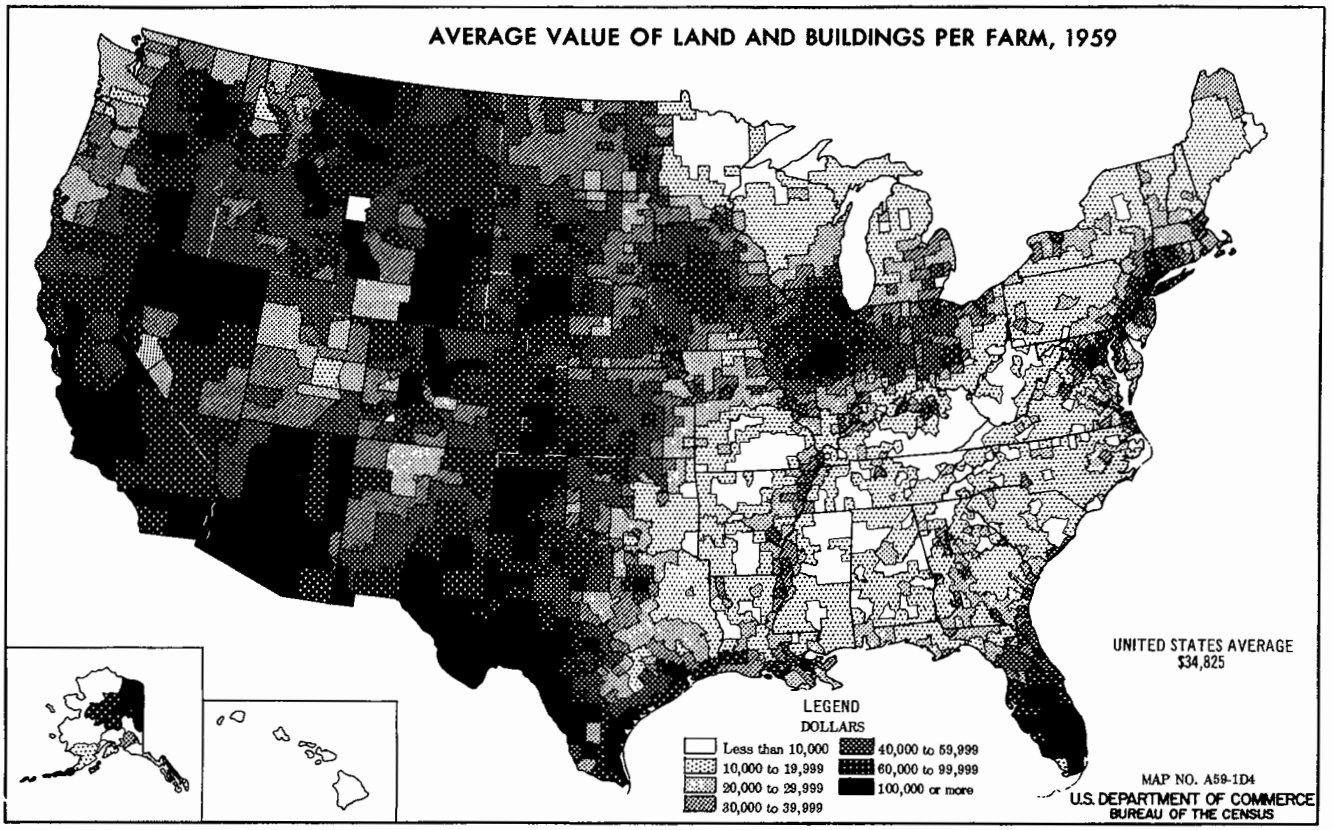
VALUE OF LAND AND BUILDINGS

Farm land and buildings in the conterminous United States had an estimated value of $129 billion in 1959. This was more than three times the total value in 1940 and almost eight times the total value in 1900. More than one-fourth of the value of farm land and buildings is on 2 percent of the farms. More than three-fifths of the value of land and buildings of all farms is accounted for by the value of land and buildings on the 17 percent of the farms having a value of land and buildings of $60,000 or more.

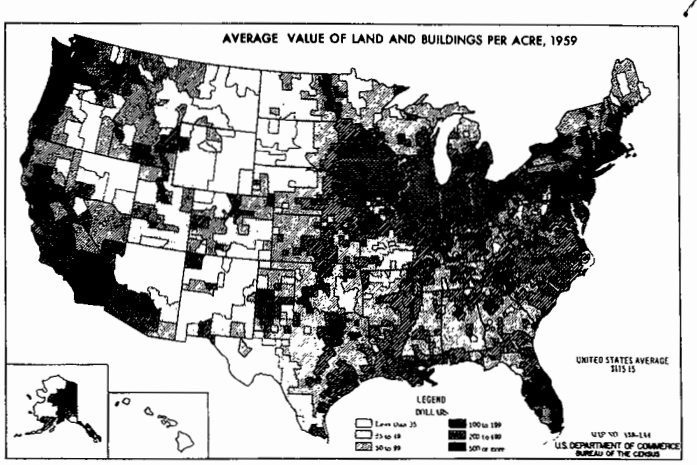
Farms with a value of land and buildings of—	Percent distribution for number of farms	Percent distribution of value of land and buildings
All farms	100.0	100.0
Less than $15,000	40.7	7.1
$15,000 to $24,999	17.5	8.2
$25,000 to $39,999	13.9	10.7
$40,000 to $59,999	10.9	13.0
$60,000 to $99,999	9.3	17.5
$100,000 to $199,999	5.6	18.3
$200,000 or more	2.1	25.2

Average value of farm land and buildings per farm.—Value of farm land and buildings per farm averaged $34,825 for the conterminous United States in 1959. The average was $36,003 per farm in the North, $23,702 in the South, and $82,379 in the conterminous West. It varied from a low of $13,962 per farm in the East South Central Division to a high of $89,632 per farm in the conterminous Pacific Division. While the average value of land and buildings per farm was high in the West, in general, it was also high in certain other areas including the central Corn Belt, southern Florida, and a strip along the Atlantic Coast from about Washington, D.C. through Connecticut. Values were generally low throughout most of the South, in northern New England, in the upper Great Lakes area, and in the Appalachians.

The average value of land and buildings per farm by States was lowest in West Virginia with an average of $10,230, while the highest was in Arizona with an average of $269,724.



Average value of farm land and buildings per acre.—The average value of farm land and buildings per acre for the conterminous United States was $115.15 in 1959. The average value of land and buildings exceeded $200 per acre in a relatively small part of the United States. A band through the heart of the Corn Belt from Iowa through Illinois, Indiana, and the middle of Ohio was the largest continuous area. There were other areas, however, along both the Atlantic and Pacific Coasts.



On a per acre basis the value of farm land and buildings exhibits a different pattern than on a per farm basis. The average value of land and buildings per farm in the conterminous West, for instance, was $82,379 in 1959 while the value per acre was only $82.68. Large groups of counties in the West had average values of land and buildings per acre of less than $25. In these areas, much of the land in farms comprises rangeland and roughland, some of which has a very low value for agricultural purposes. Relatively few counties in States of the Mountain Division had average values in excess of $100 per acre and these few counties were mostly counties which contained large amounts of irrigated land.

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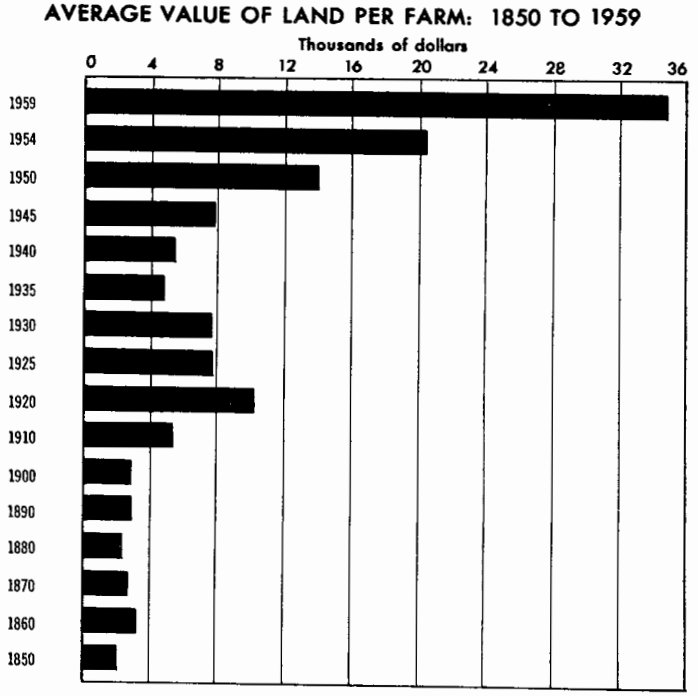
The States of the conterminous United States with the highest average value of farm land and buildings per farm were generally the States with small, intensively cultivated farms even though they might otherwise contain much land of low productivity. Urbanization may also influence land values in some areas. New Jersey ranked highest in value of land and buildings per acre with an average value of $520, while Wyoming ranked lowest with a value per acre of $21.39.

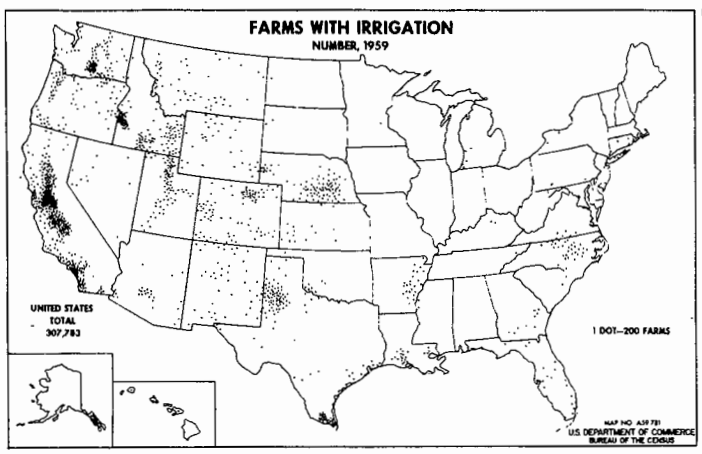
Changes in values of land and buildings.—The changes in the total values of land and buildings and the average value per farm and per acre from census to census are affected by changes in price level as well as by changes in the values of the physical



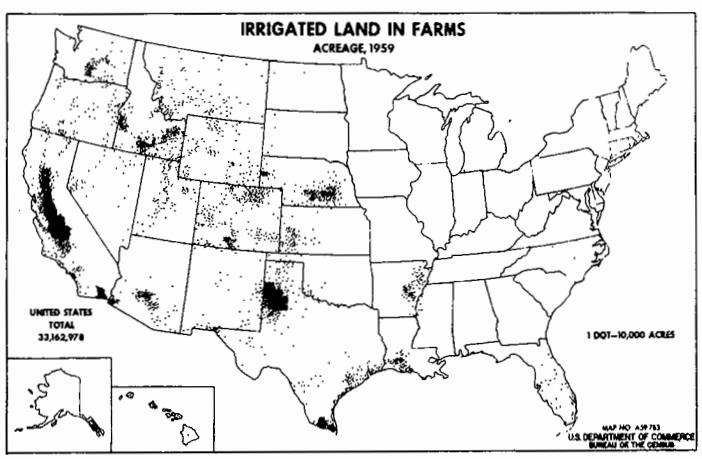
assets themselves. No fully satisfactory index is available to use for removing the full effect of the change in price level from census to census. The following chart, however, indicates what the value of farm land and buildings from 1850 to 1959 would be if adjusted to 1959 price levels. The adjusted values have been calculated by dividing the value of farm land and buildings by the index of wholesale prices (1959 = 100). The value of land and buildings at 1959 prices indicates more accurately the change in the value of farm land and buildings than the absolute values reported for the census.

IRRIGATION

Irrigated farms.—The actual number of farms with irrigation in the conterminous United States in 1959 was small. A total of only 306,532 farms reported some irrigation in 1959. This was only 8.3 percent of all farms. Farms with irrigation comprised only 2.1 percent of all farms in the North and 3.8 percent in the South, but 60.5 percent of the farms in the 11 conterminous Western States. If the six States of the Great Plains—North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas—are added to the 11 Western States, these 17 States account for 85.7 percent of the farms with irrigation. Three other States—Arkansas, Louisiana, and Florida—also have considerable irrigation. Although Arkansas and Louisiana have humid climates, flooding of rice fields results in a considerable number of farms with irrigation. Arkansas and Louisiana had 10,469 irrigated farms and 1,196,662 acres of irrigated land in 1959. There also were 4,249 farms in Florida with 413,526 acres irrigated.

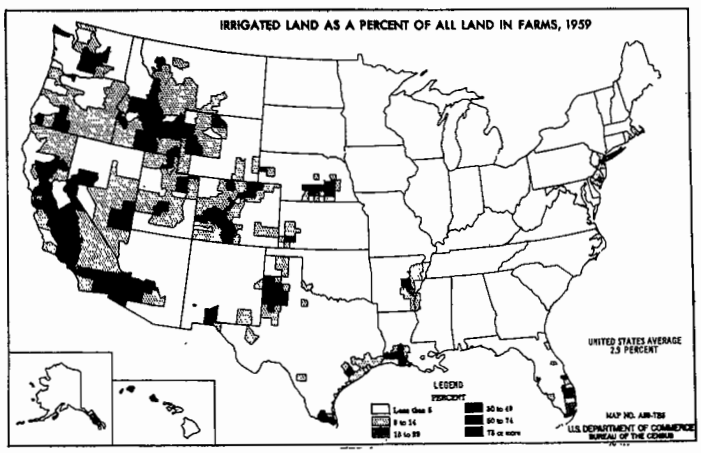


Distribution of irrigated land.—Over 66 percent of all irrigated land was in the West and 93.1 percent was in the 11 Western States and the 6 Great Plains States which have a dry climate. The acreage of land irrigated was 21.6 percent of the acreage of cropland harvested in these 17 States. Not all irrigated land was used for the production of harvested crops, however. Pastureland is also irrigated.



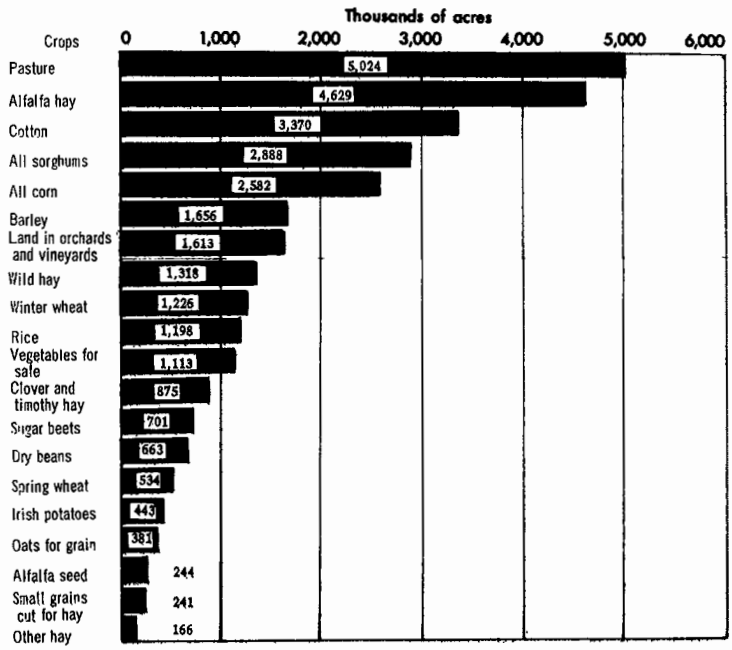
The irrigated acreage was particularly large in the fruit-, vegetable-, and cotton-producing areas of the West and of Texas. The largest concentration of irrigated land was in the Central Valley of California. If other areas of California are included, California had about 7.4 million acres, or 22.4 percent, of all irrigated acreage in the United States in 1959. Texas had 5.7 million acres. Most of this was in the High Plains cotton-producing areas.

Proportion of land irrigated.—Irrigated land makes up a substantial part of the total area of land in farms in several areas of the United States. Almost 84 percent of the farmland of Imperial County, California, was irrigated and in several counties of the Central Valley of California, over 30 percent of the farmland was irrigated. The Snake River Valley of Idaho had a high proportion of farmland irrigated although total acreage was not large. The Texas High Plains cotton area also had a high proportion of farmland irrigated with several counties having over 30 percent of the land in farms irrigated in 1959.



Acreage and production of crops from irrigated land.—The acreage of irrigated crops was compiled for the 17 Western States and Louisiana for 1959. Approximately 95 percent of the irrigated land is located in these 18 States. The following chart shows the acreage irrigated for the most important crops.

IRRIGATED ACREAGE OF SPECIFIED CROPS AND PASTURE IN THE 17 WESTERN STATES AND LOUISIANA: 1959



The following table indicates the contribution of irrigated land to the production of important irrigated crops in the 18 States.

Crop	Estimated total production on irrigated land in 18 States		
	Total	Percent of total for 18 States	Percent of total for conterminous United States
FIELD CROPS			
Corn harvested for grain---bushels	150,415,229	27.9	4.1
Sorghums harvested for grain---bushels	172,646,780	36.4	34.0
Small grains harvested, total---acres	5,251,160	8.1	5.4
All wheat---bushels	69,166,629	8.7	6.6
Winter wheat---bushels	41,979,119	6.7	4.8
Spring wheat---bushels	25,451,952	15.2	13.4
Oats---bushels	18,072,472	9.2	1.8
Barley---bushels	84,649,138	25.3	21.3
Rye---bushels	354,306	2.8	1.6
Flaxseed---bushels	1,392,599	9.5	7.1
Rice---bushels	89,791,855	100.0	74.3
Other grains---acres	202,372	22.3	17.4
Soybeans harvested for beans---bushels	1,407,958	6.1	0.3
Cowpeas harvested for peas---bushels	102,825	14.6	7.0
Dry field and seed beans harvested for beans---100-lb. bags	11,631,511	95.7	60.9
Dry field and seed peas harvested for peas---bushels	1,546,990	18.9	18.6
Hay:			
Alfalfa and alfalfa mixtures cut for hay---tons	16,101,913	60.6	26.9
Clover, timothy, and mixtures of clover and grasses cut for hay---tons	1,312,367	52.9	5.9
Lespedeza cut for hay---tons	1,085	0.5	(Z)
Vetch or peas cut for hay---tons	7,400	13.8	13.8
Oats, wheat, and other small grains cut for hay---tons	424,104	18.8	11.6
Wild hay cut---tons	1,311,603	17.0	15.2
Other hay cut---tons	257,585	10.7	4.2
Grass silage---tons, green weight	373,465	29.3	46.9
Alfalfa seed harvested---bushels	1,264,816	72.0	69.8
Red clover seed harvested---bushels	218,447	66.4	14.8
Sweetclover seed harvested---bushels	14,572	6.2	3.8
Cotton harvested---bales	5,303,255	68.0	38.1
Irish potatoes harvested---bushels	163,701,963	86.8	43.8
Sweetpotatoes harvested---bushels	2,112,923	21.0	7.2
Sugar beets harvested---tons	13,821,730	97.2	82.2
Hops harvested---pounds	54,032,675	99.0	99.0
Popcorn harvested---1,000 lb. ear corn	9,551	29.1	3.9
BERRIES AND SMALL FRUITS			
Berries and other small fruits harvested for sale, total---acres	33,618	51.4	17.5
Strawberries---quarts	148,044,034	78.2	53.0
Blackberries and dewberries---quarts	8,938,360	43.4	40.3
Boysenberries---quarts	10,325,023	73.2	70.4
Raspberries---quarts	6,368,156	30.3	19.1
Cranberries---barrels	154,301	100.0	13.0
Blueberries---quarts	952,342	43.7	2.9
Other berries---acres	509	18.5	13.3

Z Less than 0.05 percent.

No data are available regarding the production of tree fruits, nuts, and grapes on irrigated land. However, the irrigated acreage of tree fruits, nuts, and grapes represents almost 80 percent of the total acreage in the 18 States and almost 40 percent of the total acreage in the 48 conterminous States. The value of the fruit, nut, and grape crops in the 18 States was $708 million in 1959. A large part of this value was for crops harvested from irrigated land. The value of the tree fruit, nut, and grape crops in the 18 States comprised 55 percent of the value of these crops in the 48 conterminous States. Thus, at least half of the tree fruit, nut, and grape crops in the 48 conterminous States were produced in 1959 on irrigated land in the 18 States.

Data are not available for the production on irrigated land of vegetables harvested for sale. The following table summarizes the acreages of vegetables grown for sale on irrigated land in the 18 States as well as the total acreages of vegetables harvested for sale in the 18 States and in the 48 conterminous States.

Item	Total acreage 48 States	Acreage for 18 States			
		Total	Irrigated total	Irrigated acreage as a percent of total for 48 States	Irrigated acreage as a percent of total for 18 States
All vegetable crops	3,486,741	1,439,729	1,113,305	31.9	77.3
Asparagus	162,914	100,581	98,993	60.8	98.4
Green snap beans	243,983	36,196	29,576	12.1	81.7
Cabbage	111,324	38,851	32.719	29.4	84.2
Cantaloups and muskmelons	133,751	97,513	90,015	67.3	92.3
Sweet corn	617,362	93,597	78,093	12.6	83.4
Lettuce and romaine	200,577	181,144	179,937	89.7	99.3
Dry onions	101,569	71,692	58.935	58.0	82.2
Green peas	334,221	146,445	24.569	7.4	16.8
Tomatoes	445,133	218,471	210,698	47.3	96.4
All other	1,077,301	455,239	309,770	28.8	68.0
Value of vegetables harvested for sale	*Dollars* 736,244,138	*Dollars* 370,033,730	NA	NA	NA

NA Not available.

FARM PEOPLE

The peak of the farm population since 1910 was reached in the 1930's when more than 32 million persons were counted as living on farms. Since the 1930's the farm population has declined significantly. Less than half as many persons were counted as living on farms in 1960 as in 1940. The decline of 9.9 million from 1950 to 1960, was greater than during any other decade, even when allowance is made for the change in definition. However, even the 1960 farm population of 13.4 million includes a considerable number of persons who are not engaged in farm operations as well as many persons who work at nonfarm jobs and secure the major part of their livelihood from nonfarm sources.

While both total population and food requirements have been increasing, the farm population has been decreasing. The proportion of the population living on farms in 1960 was less than half that of 1950 and one-third that of 1940.

The acres of land in farms and cropland harvested have been declining. The average acreage of cropland per person is now about half that of 1920. On the other hand, the average acreages of land in farms and cropland harvested per person living on farms in 1960 were more than twice the corresponding averages for 1940. With the increasing mechanization, increased use of power and electricity on farms, advances in farm technology, the increased use of inputs from nonfarm sources, the increasing substitution of capital for labor, increasing commercialization and specialization in agricultural production, and increasing technical and managerial know-how of farm operators, fewer and fewer people living on farms have been able to provide increasing quantities of food and fiber for a growing population.

TOTAL, RURAL, AND FARM POPULATION, FOR THE UNITED STATES: 1850 TO 1959

Item and year	Number of persons [1]	Percent of total population	Increase or decrease (−)	
			Number	Percent
Total population: [2]				
1960	179,323,175	100.0	NA	NA
1954 [3]	161,763,000	100.0	NA	NA
1950	151,325,798	100.0	NA	NA
1945 [3]	139,583,000	100.0	NA	NA
1940	132,164,569	100.0	NA	NA
1935 [3]	127,057,000	100.0	NA	NA
1930	123,202,624	100.0	NA	NA
1925 [3]	115,402,000	100.0	NA	NA
1920	106,021,537	100.0	13,793,041	15.0
1910	92,228,496	100.0	16,016,328	21.0
1900	76,212,168	100.0	13,232,402	21.0
1890	62,979,766	100.0	12,790,557	25.5
1880	50,189,209	100.0	11,630,838	30.2
1870	38,558,371	100.0	7,115,050	22.6
1860	31,443,321	100.0	8,251,445	35.6
1850	23,191,876	100.0		

See footnotes at end of table.

TOTAL, RURAL, AND FARM POPULATION, FOR THE UNITED STATES: 1850 TO 1959—Continued

Item and year	Number of persons [1]	Percent of total population	Increase or decrease (−)	
			Number	Percent
Rural population: [4]				
Current urban definition: [5]				
1960	54,054,425	30.1	−424,556	−0.8
1950	54,478,981	36.0	NA	NA
Previous urban definition:				
1960	66,266,822	37.0	5,069,218	8.3
1950	61,197,604	40.4	3,738,373	6.5
1940	57,459,231	43.5	3,417,206	6.3
1930	54,042,025	43.9	2,273,770	4.4
1920	51,768,255	48.8	1,603,760	3.1
1910	50,164,495	54.4	4,167,159	8.3
1900	45,997,336	60.4	NA	NA
1890 [3]	40,841,449	64.9	4,815,401	13.4
1880 [3]	36,026,048	71.8	7,370,038	25.7
1870 [3]	28,656,010	72.0	3,429,207	13.6
1860 [3]	25,226,803	80.2	5,578,643	28.4
1850 [3]	19,648,160	84.7	----------	----------
Farm population: [6]				
1960	13,444,898	7.5	−8,445,102	−38.6
1954 [3]	21,890,000	13.5	−1,441,738	−6.2
1950 [3]	23,331,738	15.4	−1,963,262	−7.8
1945 [3]	25,295,000	18.1	−5,251,911	−17.2
1940 [3]	30,546,911	23.1	−1,614,089	−5.0
1935 [3]	32,161,000	25.3	1,715,650	5.6
1930 [3]	30,445,350	24.7	−744,650	−2.4
1925 [3]	31,190,000	27.0	−424,269	−1.3
1920 [3]	31,614,269	29.8	−462,731	−1.4
1910 [3]	32,077,000	34.9	----------	----------

NA Not available.
[1] Figures for 1910 to 1959 relate to April 1; those for earlier years, to June 1. Figures for decennial years are based on the decennial censuses with adjustments to obtain comparability; those for other years are estimates.
[2] Figures for 1940 to 1959 include members of the Armed Forces overseas, for the earlier years the number of persons in the Armed Forces overseas was not available but was probably negligible. Figures for 1870 include adjustments for underenumeration in Southern States.
[3] Data for Alaska and Hawaii not included.
[4] Figures shown for rural population exclude members of Armed Services overseas; the percent of total population for 1959, 1954, 1950, and 1940, respectively, is based on the civilian population.
[5] The data for 1960 and 1950 for the current urban definition are not comparable with those for earlier years because of change in definition.
[6] The figures shown for farm population in the quinquennial censuses are estimates roughly comparable with the current estimates of the farm population obtained from the Census Bureau's Current Population Survey. These estimates differ substantially from the farm population as tabulated from the 1945, 1935, and 1925 Censuses of Agriculture.

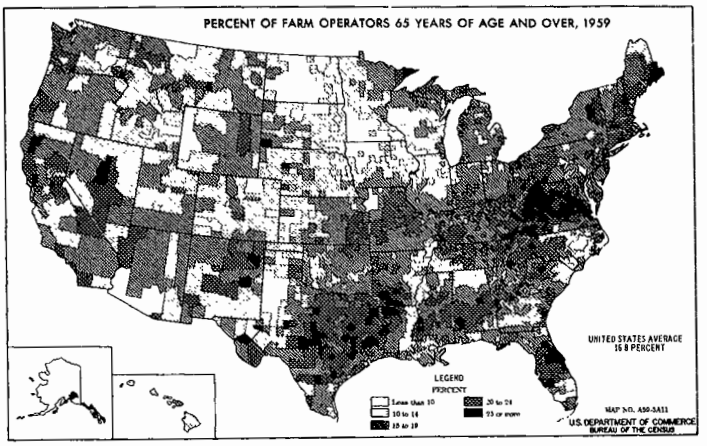
AVERAGE NUMBER OF PERSONS PER FARM, WITH PER CAPITA DATA FOR LAND IN FARMS, CROPLAND HARVESTED, AND VALUE OF FARM PRODUCTS SOLD, FOR THE UNITED STATES: CENSUSES OF 1850 TO 1959

Item and year	Average number of persons per farm	Average per capita		
		Land in farms (acres)	Cropland [1] harvested (acres)	Value of farm products sold (dollars)
Total population:				
1960	48.33	6.3	1.7	170
1954 [2]	33.82	7.2	2.1	152
1950	28.08	7.7	2.3	147
1945 [2]	23.82	8.2	2.5	116
1940	21.66	8.1	2.4	[2] 51
1935 [2]	18.65	8.3	2.3	NA
1930	19.57	8.0	[2] 2.9	[2] 90
1925 [2]	18.11	8.0	3.0	NA
1920	16.43	9.0	[2] 3.3	NA
1910	14.49	9.6	[2] 3.4	NA
1900	13.28	11.0	[2] 3.7	NA
1890 [2]	13.79	9.9	3.5	NA
1880 [2]	12.51	10.7	3.3	NA
1870 [2]	14.91	10.2	NA	NA
1860 [2]	15.38	13.0	NA	NA
1850 [2]	16.00	12.7	NA	NA
Farm population:				
1960	3.62	83.6	23.2	2,268
1954 [2]	4.58	52.9	15.2	1,126
1950 [2]	4.34	49.7	14.8	945
1945 [2]	4.32	45.1	14.0	642
1940 [2]	5.01	34.7	10.5	219
1935 [2]	4.72	32.8	9.2	NA
1930 [2]	4.84	32.4	11.8	316
1925 [2]	4.90	29.6	11.0	NA
1920 [2]	4.90	30.2	11.0	NA
1910 [2]	5.04	27.4	9.7	NA

NA Not available.
[1] Prior to 1924, based on total acreage of crops.
[2] Data for Alaska and Hawaii not included.

Age of farm operator.—Farm operators in the United States are becoming fewer and older. The average age of farm operators has been going up since 1950 as opportunities for younger operators to enter farming have been decreasing. In 1959, the average age of farm operator for the conterminous United States was 50.5 years as compared with 49.6 years in 1954, and 48.3 years in 1950. In 1959, for the three geographic regions, farm operators in the South had the highest average age with 51.5 years.

For the United States, the proportion of farm operators in the age group 65 years or more increased from 16.6 percent in 1954, to 16.8 percent in 1959. During the same period the proportion of farm operators under 35 years of age decreased from 15.1 percent to 12.7 percent. Two of every three farm operators were 45 years of age or older in 1959.



OFF-FARM WORK

Farm operators reporting off-farm work vary from those who supplement their farm income with odd or spare-time jobs to those operators who have regular nonfarm jobs and use the farm to either supplement their regular income or as a rural residence. The operators with odd or spare-time jobs usually consider their nonfarm employment to be of secondary importance, and they may work part-time on someone else's farm, or work at seasonal nonfarm jobs.

Many persons who may be employed in cities, or have other regular nonfarm jobs, are living in rural areas but have sufficient agricultural activities to qualify their places as farms. Some of these operators may be producing agricultural products largely for home use, while others are using the farm to supplement their regular nonfarm income. Some of the farm operators working off their farms are using their nonfarm income as a source of capital for expanding their farming operations.

The proportion of farm operators who work off their farms increased significantly during the last 15 years. Prior to 1949, approximately 3 out of 10 farm operators reported some work off the farm operated. During the last two censuses about 5 out of every 11 farm operators reported some work off their farms. The change during the last 15 years in the proportion of the farm operators working off their farms 100 or more days or 200 or more days has been much greater than the change in the proportion of farm operators working off their farms. From 1949 to 1959, the proportion of farm operators working off their farms 100 days or more increased fom 23.3 to 29.9 percent, and the proportion of farm operators working off their farms 200 days or more, from 17.5 to 23.7 percent.

The increase during the last 15 years in the proportion of farm operators working off their farms is the result largely of the increase in proportion of farm operators of commercial farms working off their farms. Also, there has been a very significant increase during the last decade in the percentage of the farm op-

erators of farms with gross sales of $2,500 to $9,999 working off the farm 100 or more days as indicated by the following data:

PERCENT OF FARM OPERATORS REPORTING WORK OFF THE FARM, BY TOTAL VALUE OF FARM PRODUCTS SOLD, FOR THE CONTERMINOUS UNITED STATES: 1959, 1954, AND 1949

Value of farm products sold per farm	Percent of farm operators reporting—					
	Work off farm			100 or more days of work off farm		
	1959	1954	1949	1959	1954	1949
All farm operators	44.8	45.0	38.8	29.8	27.9	23.3
Under $2,500	58.1	55.5	47.6	46.1	40.5	32.6
$2,500 to $4,999	43.4	36.3	28.3	26.7	16.2	11.0
$5,000 to $9,999	35.1	31.2	24.0	16.2	10.2	7.0
$10,000 or more	26.6	25.6	21.0	9.9	7.5	6.7

The most significant change in off-farm work since 1954 has been in the increased proportion of farm operators working 100 or more days off the farm. Of the farm operators working off the farm in 1959, 66.5 percent reported 100 or more days of off-farm work. This compares with 61.9 percent in 1954. The proportion of all farm operators working any days off the farm has remained relatively constant at about 45 percent. If the definition of a farm had not been changed the proportion of farm operators working off their farms for 1959 would have been higher.

Of the three regions, the West had the highest proportion of all operators working off the farm 100 or more days, 35.6 percent, whereas the South had the greatest increase as the proportion increased from 29.5 percent in 1954, to 32.9 percent in 1959. In the South in 1959, 35.1 percent of the white operators worked off the farm 100 or more days compared to only 21.4 percent of the nonwhite operators.

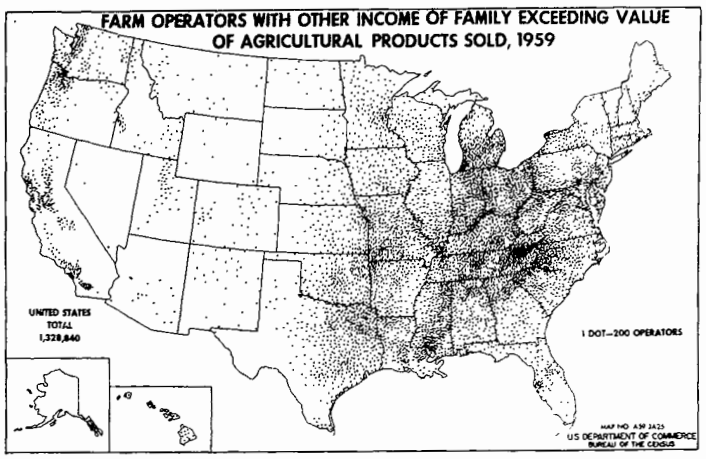
The change in the number of farm operators working off their farms from 1954 to 1959 is affected by the change in the definition of a farm, and also by the large decline in the number of farms with relatively low gross sales of farm products. More than half of the farm operators of farms with sales of farm products of less than $2,500 worked off their farms in 1954. In 1959, on the other hand, there was a substantial increase in the number of farm operators working off their farms 100 days or more in areas, such as the Midwest, where there are substantial numbers of farms with sales of farm products of $2,500 to $9,999.

Other members of operator's family.—For 1959, 21.6 percent of all farm operators reported other members of their family performed work off the farm, compared with 15.9 percent in 1954.

The proportion of farm operators reporting members of their families having nonfarm jobs, businesses, or professions is much greater for the group of farms with the farm operator working off the farm than for the group of farms with the farm operator not working off the farm.

Off-farm income.—For 1959, 39.3 percent of all farm operators reported income from sources other than the farm operated as compared with 27.9 percent in 1954. This income included sale of products from land rented out, cash rent, boarders, old-age assistance, pensions, allowances, unemployment compensation, interest, dividends, profits from nonfarm business, and help from members of their families. Since 1954, the proportion of farm operators reporting income from sources other than the farm operated has increased in every geographic division.

The importance of this off-farm income has also increased. The proportion of farm operators reporting family income from off-farm sources exceeding the value of agricultural products sold has increased from 29.8 percent in 1954, to 35.8 percent in 1959. If there had been no change in definition of a farm the proportion would have been 38.8 percent in 1959. Although the proportions for all geographic areas increased, the increase for the South was more than for any other area.



In 1959, three-fifths of the farm operators of farms, with the farm operator reporting work off the farm, reported the income of the farm operator and members of his family from sources off the farm exceeded the value of farm products sold. There was also a significant number of farm operators not working off their farms (or not reporting work off their farms) with income from off-farm sources exceeding the value of farm products sold.

Income of farm operators' families from sources other than the farm operated.—Data on the amount of income of farm operators' families from sources other than the farm operated are available from a special survey made for a sample of farms in 1960. The relative importance of income of the families of farm operators from sources other than the farm operated has been increasing. In 1960, 4 out of 5 farm-operator families received income from other sources as compared with 7 out of 10 which received income from sources other than the farm operated in 1955. The average income per farm-operator family from other sources was 36 percent greater in 1960 than in 1955. The average income from other sources per operator-family with income from other sources was $2,926 in 1960, as compared with $2,405 in 1955.

Income from wages and salaries, nonfarm businesses, social security, and Soil Bank payments have become increasingly important sources of income of farm-operator families. In 1960, 45 out of 100 farm-operator families received income from wages and salaries, one out of 10 farm-operator families received income from nonfarm businesses or professional practices, and one out of 6 received income from social security, pensions, retirement pay, etc. Wages, salaries, and income from nonfarm businesses or professional practices were important income sources on part-time farms. Almost half the income from wages, salaries, and nonfarm businesses or professional practices for all farm operators was received by operators of part-time farm operations. The average income per part-time farm-operator family from these sources was $3,768. Almost 4 out of 5 families of part-retirement farm operators received income from social security, pensions, etc., and their income from such sources was equal to almost 15 percent of the income of all farm-operator families from such sources.

Income from sources other than the farm operated was important for farm-operator families of all sizes of farms. Almost 70 percent of the families of the operators of commercial farms received income from sources other than the farm operated and the amount of income from such sources averaged $1,753. Approximately seven-tenths of the families of operators of farms with a value of farm products sold of $10,000 or more had income from sources other than the farm operated and the income from other sources averaged more than $2,800 per farm-operator family.

INCOME OF FARM OPERATORS FROM SOURCES OTHER THAN FARM OPERATED: 1960 AND 1955

Source of income	Estimated amount of income				Average per farm-operator family (dollars)		Percent of farm-operator families reporting		Average per farm-operator family reporting (dollars)	
	Dollars (1,000)		Percent distribution							
	1960	1955	1960	1955	1960	1955	1960	1955	1960	1955
Total	7,415,924	8,006,472	100.0	100.0	2,280	1,682	77.9	69.9	2,926	2,405
Cash wages, salaries	4,175,654	[1] 5,023,656	56.3	62.7	1,284	1,055	44.7	NA	2,872	NA
Nonfarm business or professional practice	1,131,464	1,061,893	15.3	13.3	348	223	9.7	10.9	3,567	2,046
Custom work	243,497	205,521	3.3	2.6	75	43	16.0	5.7	467	762
Rental of farm property to others	397,948	[2] 478,281	5.4	6.0	122	100	11.8	NA	1,031	NA
Rental of nonfarm property to others	134,551	173,014	1.8	2.2	41	36	4.1	5.2	1,012	701
Interest, dividends, and regular payments from trust funds	314,176	450,052	4.2	5.6	97	95	14.1	18.7	684	505
Roomers and boarders	11,794	53,183	0.2	0.7	4	11	0.8	2.7	472	421
Federal Social Security, pensions, retirement pay, veterans' payments, annuities, unemployment income, workmen's compensation, and old age assistance	656,959	515,391	8.9	6.4	202	108	NA	NA	NA	NA
Other (oil leases, soil bank payments, contributions from persons outside family, etc.)	349,881	45,480	4.7	0.6	108	10	NA	1.8	NA	527

NA Not available.
[1] Includes income received by wife of farm operator from nonfarm sources and income received by other family members from farm and nonfarm sources.
[2] Includes income received by wife of farm operator from farm sources.

LIVESTOCK AND POULTRY

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

Cattle.—Cattle and calves constitute the leading kind of livestock on United States farms. Cattle in the United States totaled 92 million head in 1959. Seven-tenths of all farms reported cattle.

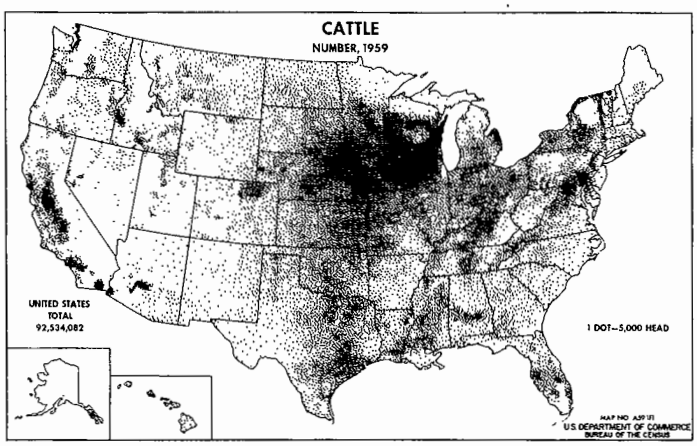
Cattle numbers were widely distributed in 1959. However, the most extensive areas of high density were in Iowa, eastern Nebraska, southern Minnesota, southern Wisconsin, and northern Illinois. More than 72 out of each 100 farms had cattle in 1959. The number of farms keeping cattle has been declining since 1935. Only one-half as many farms had cattle in 1959 as in 1935.

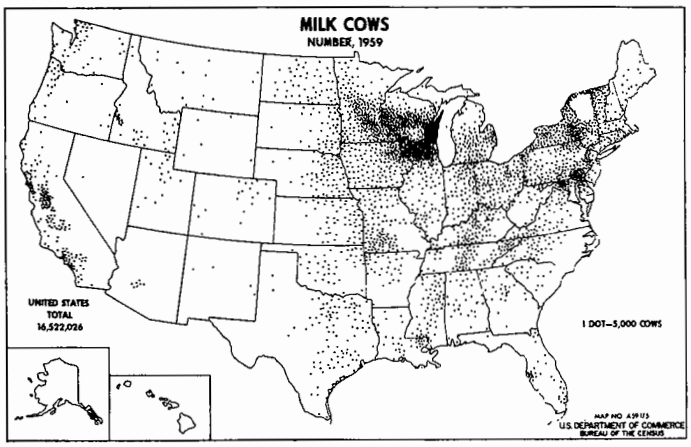
Milk cows.—Two-fifths of the cows in the United States were milk cows and almost two-thirds of the milk cows were in the North in 1959. Areas of concentration included Minnesota, Wisconsin, Michigan, New York, Vermont, Massachusetts, Pennsylvania, Maryland, Delaware, Ohio, Illinois, and California.

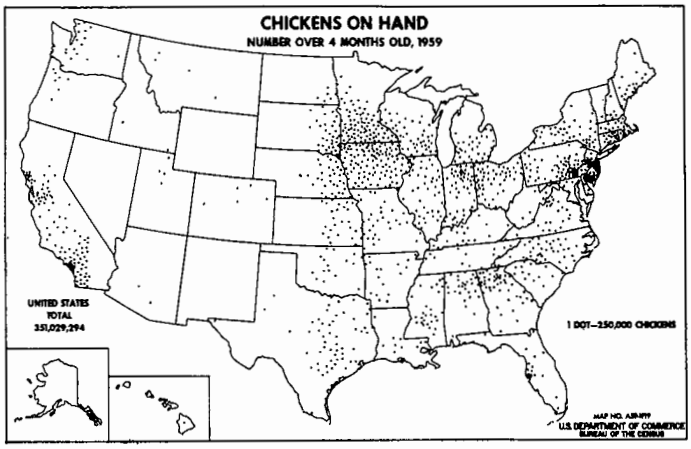
From 1954 to 1959, the number of farms reporting milk cows for the conterminous United States declined more than 1.1 million. The number of farms with milk cows in 1959 was only two-fifths of the number with milk cows in 1920.

Chickens.—Almost three-fifths of all farms had chickens in 1959. The number of chickens on farms in 1959 was almost the same as the number in 1920. There were large concentrations of chickens in the northern Corn Belt, around New York City, and around Los Angeles, California. California ranked first among all States in number of chickens in 1959, with 25,907 farms reporting 27 million chickens. Iowa ranked second with 26.7 million, and Minnesota ranked third with 22 million.

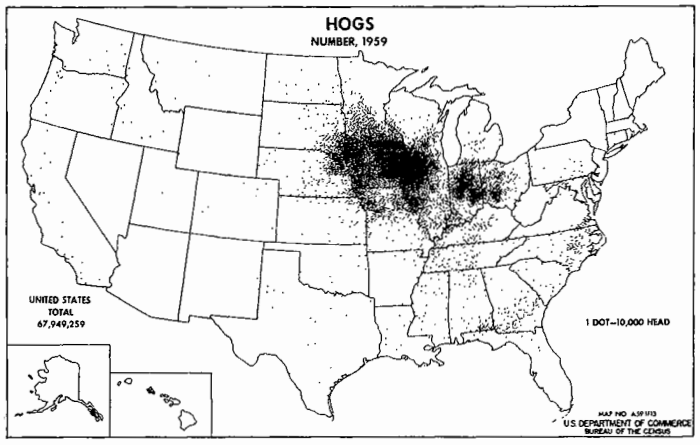
Significant changes have occurred in the chicken and egg production during the last few decades. Chicken meat production has become semifactory and concentrated largely on 15,000 farms. Egg production has been changed from a sideline enterprise to a highly specialized business with large-scale operations integrated with facilities for handling eggs for large-scale retail outlets. In 1959, 12,000 farms provided 36 percent of all eggs sold.





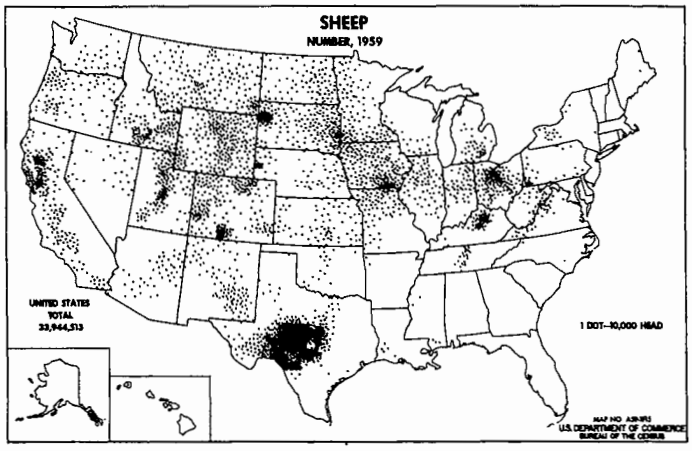


Hogs.—The distribution of hogs in the United States in 1959 was very similar to the distribution of corn production, as corn is the principal feed for hogs. The North Central divisions had 75.8 percent of the hogs and pigs reported. Iowa led all other States with 21.8 percent. More than half of the hogs were in the important corn-producing States of Iowa, Illinois, Ohio, Indiana, and Minnesota.

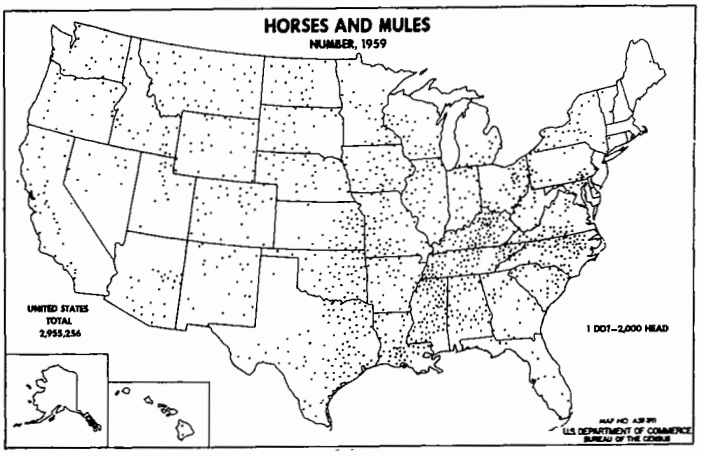


The number of farms reporting hogs and pigs for the conterminous United States was 22 percent less in 1959 than in 1954 and was less than half the number of farms reporting in 1939. Hogs and pigs were sold by only three-fifths as many farms in 1959 as in 1950.

Sheep.—Almost three-fifths of the sheep and lambs in the United States in 1959 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 bluegrass areas of Kentucky, southwestern Pennsylvania, northern Missouri, and southern Iowa.



Horses and mules.—The rapid decline starting in the 1920's in the number of farms reporting horses and mules and the number of horses and mules on farms continued throughout the 1954 to 1959 period. By 1959, for the conterminous United States, only one-fourth as many farms reported horses and mules as in 1940 and the number of horses and mules had declined from a peak of more than 25 million in 1920 to fewer than 3 million in 1959. From 1950 to 1959, the number of horses and mules declined 4.6 million. Many of the horses and mules included in the census are not used for work purposes. Tractors, motortrucks, automobiles, and electricity have almost completely replaced horses and mules as sources of work power on farms.



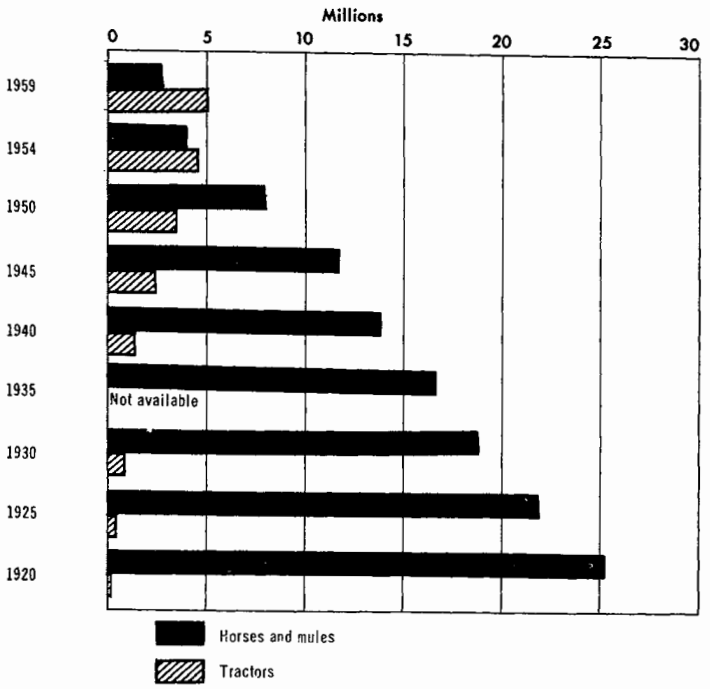
FARM AND FARM HOME EQUIPMENT AND ROADS

The capacity of farmworkers to produce has been directly related to the development and use of new and improved items of farm equipment and facilities. The productive capacity of the farmworker changed very little between 1820 and 1850 during which time he produced farm products, on the average, for fewer than five persons at home and abroad. New inventions and resultant new equipment began to appear on the farm after 1850 and the farmworker was able to produce farm products for an increasing number of persons. By the turn of the 20th century, he was producing for almost seven persons. More than eight persons were being provided food and other farm products by a farmworker in 1920; by 1930, the number had increased to almost 10. The productive capacity of the farmworker increased moderately to 1940 when there were almost 11 persons supported, and with a rapid increase occurring during and immediately following World War II, there were nearly 15 persons at home and abroad supplied in 1950 by a farmworker. Further phenomenal increases occurred between 1950 and 1959. In 1954 a farmworker produced enough for 18 persons while in 1959 one farmworker was producing for 24 persons at home and abroad. More than 46 percent of the increase in productivity of farmworkers over the 140-year period came during the last decade. In connection with this recognition of the improved technology and increased specialization which have enabled farmers to provide increasing quantities of farm products with a decreasing number of farmworkers it should be noted that the decrease in the number of workers on the farm has been accompanied by an almost equal increase in the off-the-farm employment in the farm equipment and supplies industry. Approximately 23 million employed workers are involved in some way with agriculture on and off the farm and include the 7 million workers on farms as well as over 6 million who develop, manufacture, and sell farm supplies, and provide services in connection therewith; and another 10 million who serve to assemble, transport, process, and distribute farm products.

FARM POWER

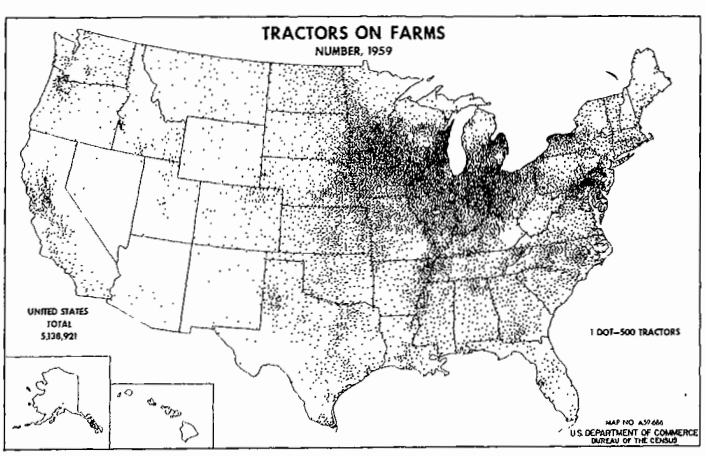
Tractors, motortrucks, and electricity provide most of the power for our farms. The change from horses and mules to tractors for farmwork, trucks for hauling, automobiles for travel, and electricity for power has speeded up the rate at which farmwork is done and has increased the productivity of farmworkers. These developments have made it possible for the farmer to supply an increasing number of people other than himself with less and less labor. 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

NUMBER OF HORSES AND MULES, AND TRACTORS, FOR THE UNITED STATES: 1920 TO 1959



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 takeoff has increased the efficiency and dependability of harvesting equipment such as mowers, combine harvesters, corn pickers, etc. Different sizes of tractors and rubber tires both for tractors and for other farm equipment have made possible the widespread mechanization of farms, especially the larger ones. Electricity has made power tools, water systems, milking machines, and other labor-saving equipment possible.

Tractors.—There were about 2.7 million farms reporting 5.1 million tractors of all types, sizes, and ages for the United States in 1959. These numbers represent a net decrease of 6.9 percent in the number of farms reporting tractors but an increase of 9.4 percent in the number of tractors reported for the conterminous United States since 1954. The number of farms reporting field tractors (tractors other than garden) decreased about 2.8 million to 2.6 million from 1954 to 1959 while the proportion of all farms having tractors increased from 60.1 to 72.3 percent.



More than four-fifth of the commercial farms have tractors. Commercial farms without tractors either do not require tractor power or the tractor power is furnished by the landlord or by a hired contractor. More than half of the commercial farms with tractors, other than garden, have two or more tractors. The average number of tractors, other than garden, per farm reporting tractors was 2.0.

Data on the age of tractors on farms and on the type of fuel used were obtained for the conterminous United States in a special sample survey made in 1960. According to this survey, one-fifth of all wheel-type tractors on farms were less than 5 years old, 29 percent were 5 to 9 years old, 30 percent were 10 to 14 years old, and 20 percent were 15 years old and over. Approximately 9 out of 10 of the wheel tractors used gasoline, kerosene, or distillate as fuel; 7 percent used diesel fuel; and 4 percent used liquid petroleum gas.

Motortrucks.—In 1920, only 131,551, or 2 percent of all farms in the conterminous United States, had motortrucks. Since 1920, each census has shown an increase in motortrucks until a peak of a little over 2.2 million farms reporting 2.7 million motortrucks was reached in 1954. Since that time, the number of farms with motortrucks declined to a little under 2.2 million in 1959, but the proportion of all farms having motortrucks increased from 46.3 percent in 1954 to 58.7 percent in 1959.

Automobiles.—The number of farms reporting automobiles in the conterminous United States decreased from about 3.4 million in 1954 to 3.0 million in 1959 for a decrease of 13.0 percent, while the number of automobiles reported on farms decreased about 4.3 million in 1954 to 3.6 million in 1959 for a decrease of 14.9 percent. At the same time, the percent of farms reporting automobiles increased from 70.9 percent in 1954 to 79.8 percent in 1959.

The largest decreases in the number of farms reporting automobiles and number of automobiles reported have occurred in the East North Central and South Atlantic States. The largest increases in the percent of farms reporting automobiles was in the South.

HARVESTING MACHINES

Corn pickers.—There were 766,948 farms reporting 792,379 corn pickers in the conterminous United States in 1959. There were 90,860, or 13.4 percent, more farms reporting and 104,913, or 15.3 percent, more corn pickers reported in 1959 than in 1954.

While these represent increases from 1954, they were not as great as increases in the previous census period. From 1950 to 1954, number of farms reporting corn pickers increased 228,701, or 51.1 percent, while number of corn pickers reported increased 231,947, or 50.9 percent.

Most of the corn pickers are concentrated in the North and especially in the Corn Belt part of the North Central divisions.

A special sample survey for 1960 indicated that corn pickers were used to harvest approximately 64 million acres of corn, or approximately 93 percent of the acreage harvested for grain. More than one-fourth of the acreage of corn picked by corn pickers was on farms other than the farm on which the corn picker was kept.

Grain combines.—While the number of grain combines on farms in the conterminous United States in 1959 was the highest ever reported, neither the increase in number nor the percent increase in number from 1954 to 1959 was as great as in the two previous census periods. Number of combines on farms increased from 373,687 to 713,633 (339,946 or 91.0 percent) from 1945 to 1950 and from 713,633 to 979,050 (265,417 or 37.2 percent) from 1950 to 1954. The increase in number from 1954 to 1959 was from 979,050 to 1,041,527, an increase in number of only 62,477 or 6.4 percent.

The distribution of grain combines is similar to the distribution of the acreage of small grains combined or harvested for grain. The number of combines per 1,000 acres of crops for which combines were used for harvesting was 7.6 in 1959 as compared with 4.8 in 1949.

According to a sample survey in 1960, combines are used for harvesting approximately 130 million acres of grain and other crops. This acreage represents approximately 91 percent of the acreage of all crops for which combines are used for harvesting.

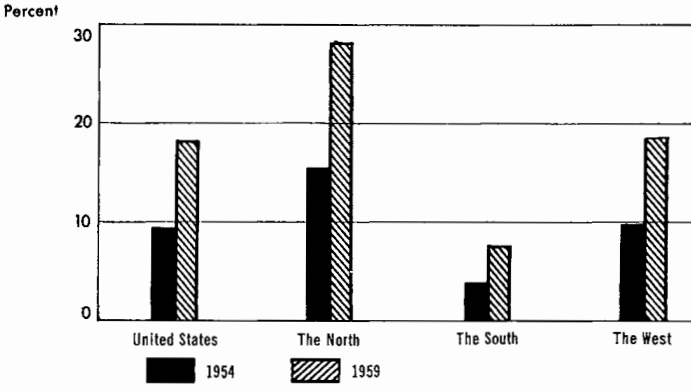
Pick-up balers.—Hay is one of the three leading crops on the basis of acreage in the United States. The harvesting of hay has become increasingly mechanized during the last two decades. The proportion of farms with pick-up balers in the conterminous United States almost doubled in the last 5 years, from 9.3 percent in 1954 to 18.1 percent in 1959. There was also an increase of 51.8 percent in the number of pick-up balers reported from 1954 to 1959. A total of 679,754 pick-up balers were reported on 669,531 farms in 1959 compared with 447,909 on 442,872 farms in 1954.

A sample survey made in 1960 indicated that pick-up balers were used to harvest almost 75 million acres of hay and other crops in 1960.

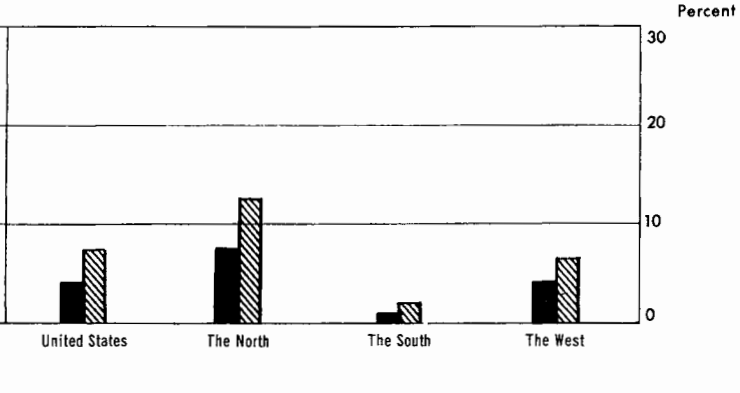
Field forage harvesters.—The mechanization of the harvesting of field forage crops has been increasing rapidly during the decade. From 1954 to 1959, for the conterminous United States, farms with field forage harvesters increased from 197,265 to 275,134, or 39.5 percent, while the number of field forage harvesters increased 44.2 percent.

About 65 percent of the farms reporting field forage harvesters in 1959 were located in the 12 North Central States. The Middle Atlantic Division was also important with 16.8 percent of the farms reporting field forage harvesters. Combined, these divisions accounted for 75.9 percent of the field forage harvesters reported. In 1960, field forage harvesters were used on 13.5 million acres.

PERCENT OF FARMS REPORTING PICK-UP BALERS FOR THE UNITED STATES AND REGIONS: 1954 AND 1959



PERCENT OF FARMS REPORTING FIELD FORAGE HARVESTERS FOR THE UNITED STATES AND REGIONS: 1954 AND 1959



Data for Alaska and Hawaii not included.

CHORE EQUIPMENT

Milking machines.—From 1954 to 1959, the number of farms with milking machines decreased from 712,022 to 666,037, or 6.5 percent. Farms reporting milk cows decreased during the same period from 2,957,000 to 1,837,000, or 37.9 percent. In 1954, 24.1 percent of the farms with milk cows had milking machines while in 1959, 36.3 percent had them.

Milking machines were on 88.3 percent of the commercial dairy farms in 1959. The number of farms reporting milking machines was equivalent to 28.7 percent of all farms having 10 or more milk cows in 1959. The distribution of farms with milking machines is similar to the distribution of dairy farms.

Electric milk coolers.—Electric milk coolers were reported on 428,380 farms in 1959. Approximately one farm in four of farms reporting milk cows had an electric milk cooler in 1959. Over two-thirds of all of the commercial dairy farms (68.1 percent) had an electric milk cooler in 1959. The East North Central States had by far the largest number of farms reporting electric milk coolers with 133,547 farms representing 31.2 percent of all reported in the conterminous United States. The Middle Atlantic States had the highest percent of farms with milk cows reporting electric milk coolers with 70.8 percent. The New England States also had a high percent of farms with milk cows reporting milk coolers with 69.5 percent.

Crop driers.—In total, about 51,523 farms reported crop driers for grain, forage, and other crops in 1959. Nearly 58 percent of the driers were reported in the 12 North Central States.

Minnesota led all the States in number of farms reporting crop driers in 1959 with 3,873 followed closely by Iowa with 3,818. In all, six States—Minnesota, Iowa, Nebraska, Ohio, Pennsylvania, and Illinois—had more than 3,000 farms each reporting crop driers. Nebraska had the highest percent of farms reporting crop driers in the conterminous United States with 4.0 percent.

Power-operated elevator, conveyor, or blower.—The presence of a power-operated elevator, conveyor, or blower was reported on 925,450 farms in the United States in 1959. Approximately 73 percent of this type of equipment was located in the 12 North Central States. Iowa led all other States with 109,436 farms reporting this type of equipment, Illinois was second with 80,876.

HOME FACILITIES AND EQUIPMENT

Telephones.—Nearly two farms out of three had telephones in 1959. While the number of farms with telephones was only 3.2 percent higher in 1959 than in 1954, the percent of all farms having telephones increased from 48.8 to 65.0 in the conterminous United States. In spite of the increase from 1954 to 1959 in the number of farms with telephones, fewer farms were equipped with this facility in 1959 than in 1920, when 38.7 percent of all farms in the United States had telephone service.

Notwithstanding a 29 percent decrease in the number of farms in the South, the farms with telephones increased 23 percent in this area. The South's 140,000 gain in the number of farms with telephones more than counterbalanced the combined decreases of 58,000 in the North and the 7,900 decrease in the conterminous West.

By geographic divisions, the percent of all farms having telephones in 1959 ranged from 87.5 in the New England States to 40.1 in the East South Central States. The greatest gain in telephones occurred in the East South Central States with an

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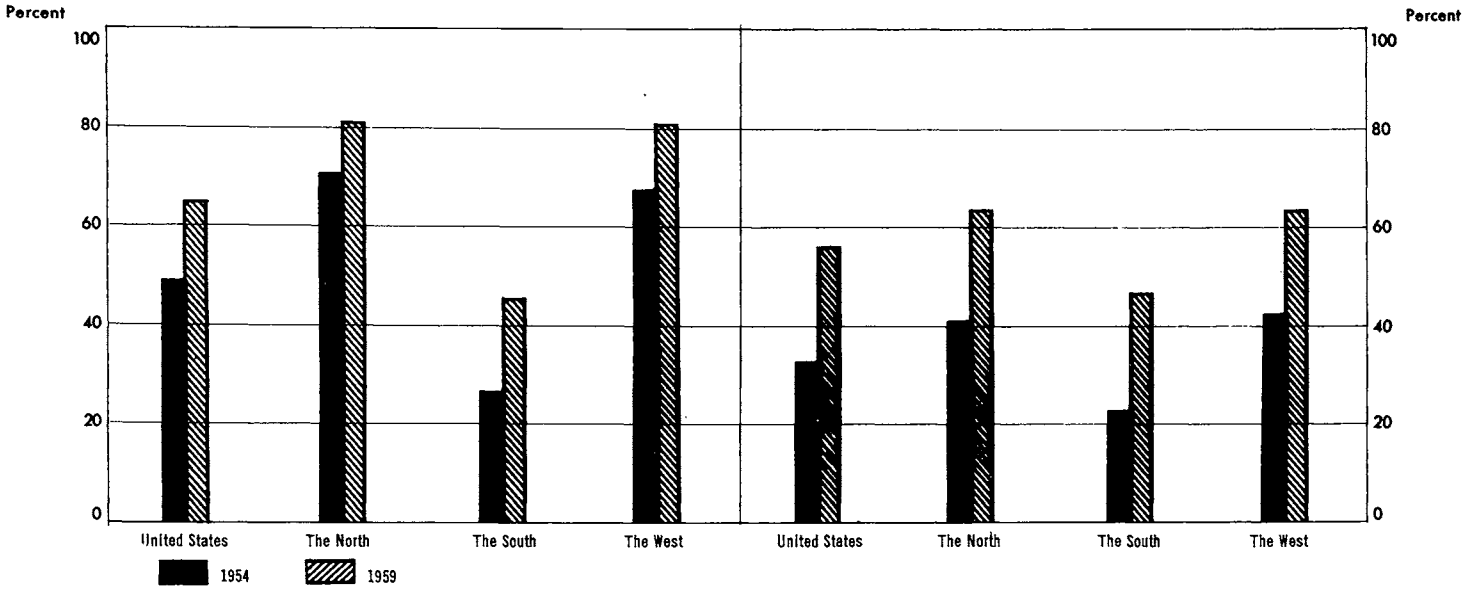
PERCENT OF FARMS REPORTING TELEPHONE FOR THE UNITED STATES AND REGIONS: 1954 AND 1959

PERCENT OF FARMS REPORTING HOME FREEZER FOR THE UNITED STATES AND REGIONS: 1954 AND 1959



Data for Alaska and Hawaii not included.

increase of 56,000 farms (33.0 percent) reporting telephones. Although about half of the States had fewer farms with telephones in 1959 than in 1954, a large part of this decrease resulted from the decrease in the total number of farms rather than from the discontinuation of telephone service.

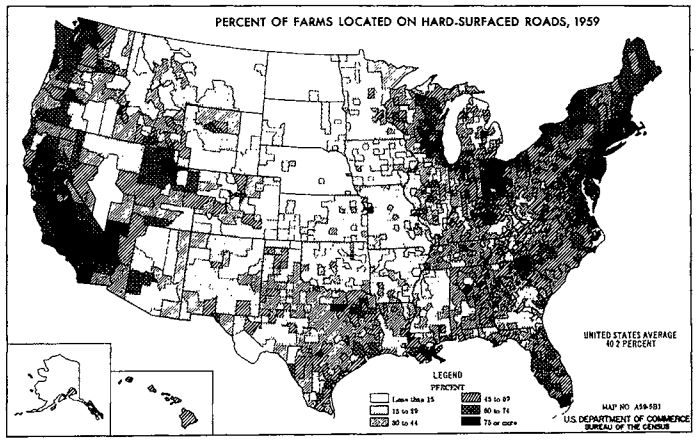
Home freezers.—The number of farms with home freezers in the conterminous United States increased from 1954 to 1959 in spite of the decrease in the number of farms. In 1959, five farms out of nine had a home freezer compared with one farm in three (32.2 percent) in 1954 and one farm in eight (12.1 percent) in 1950. The 2.1 million farms in the conterminous United States reporting home freezers in 1959 represented an increase of 34 percent over the 1.5 million listed in 1954 and was more than three times the 650,512 listed in 1950.

By geographic divisions, the highest percent of increase in farms reporting home freezers was the 74.2 percent increase reported in the East South Central States. Nearly a third of the total increase in farms with home freezers, however, occurred in the West North Central States where the gain was 160,000, or an increase of 51 percent over 1954. Increases in farms with home freezers were found in 43 of the 48 conterminous States with only New Hampshire, Massachusetts, Rhode Island, Connecticut, and New Jersey showing slight decreases.

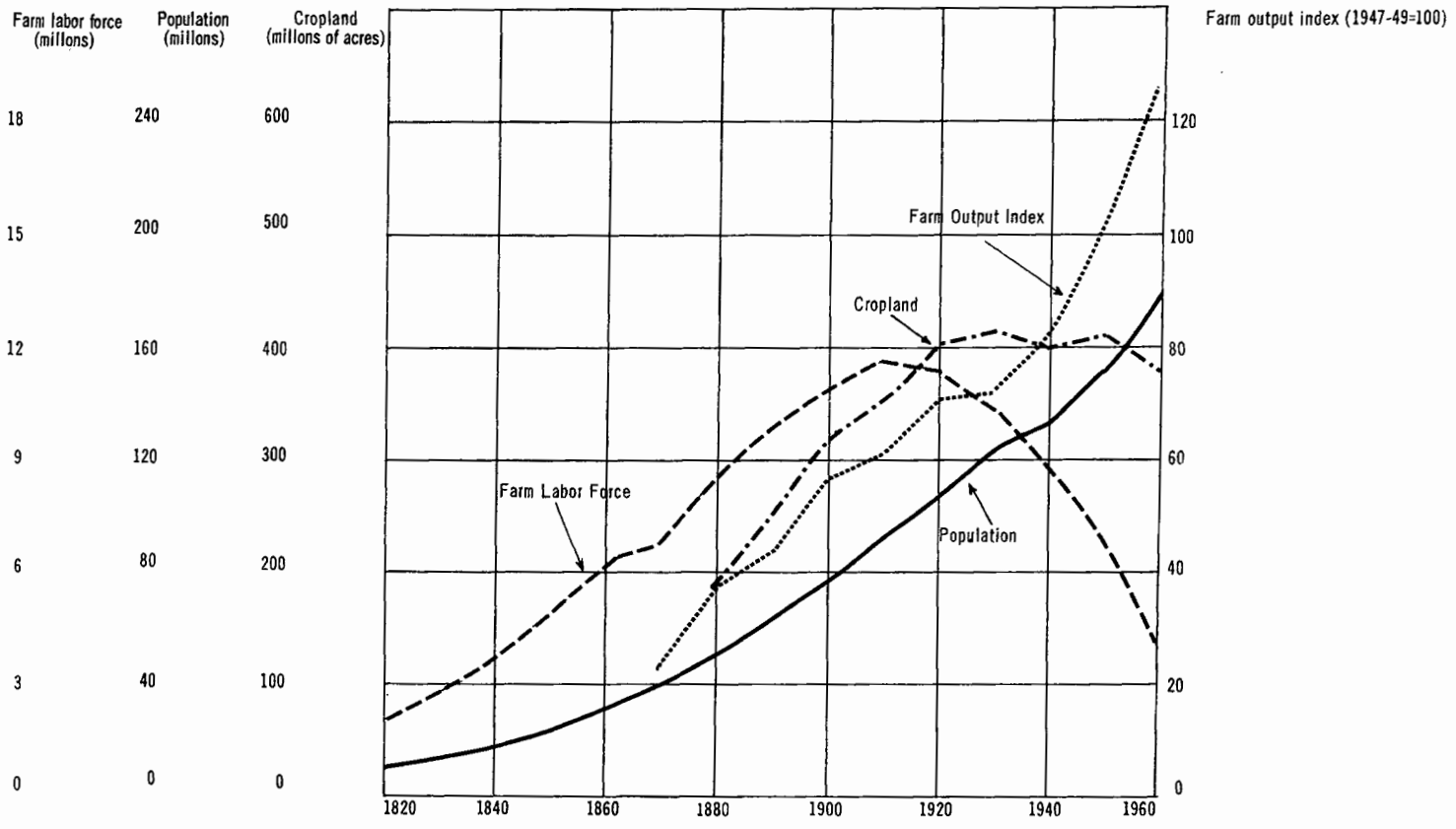
ROADS

Much progress has been made in recent years in providing all-weather roads for farm families. For example, in 1930 only one-third of the farms were located on hard-surfaced, gravel, shell, or shale roads. By 1940 this proportion had increased to nearly one-half and by 1959 it had increased to almost four-fifths.

In the North, 38.4 percent of the farms reporting were located on hard-surfaced roads, 50.4 percent were on improved roads (gravel, shell, or shale), and the remaining 11.3 percent were on dirt roads in 1959. However, only 18.8 percent of the farms in the West North Central region were located on a hard-surfaced road, 66.6 percent were on improved roads, and 14.5 percent were on dirt roads. Of the farms reporting type of road in the South, 40.7 percent were located on hard-surfaced roads, 28.0 percent on improved roads, and 31.3 percent on dirt roads. In the West, 54.2 percent of the farms reporting were located on hard-surfaced roads, 28.0 percent on improved roads, and 17.8 percent on dirt roads.



TRENDS IN POPULATION, FARM LABOR FORCE, AND FARM OUTPUT IN THE UNITED STATES: 1820 TO 1959



FARM LABOR FORCE

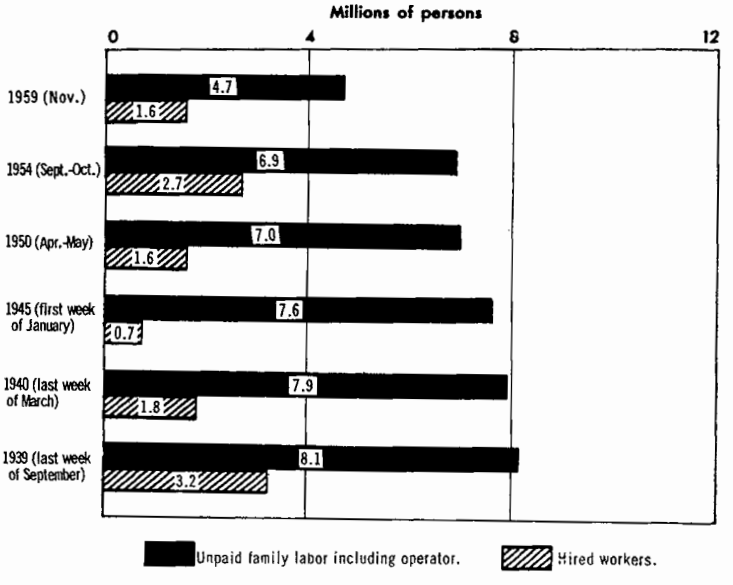
The declining percentage of the labor force engaged in agricultural pursuits may be an indication of increasing specialization in agricultural production. An indication of this is the shift in the production of farm supplies and equipment and the performance of farm services from farmworkers to nonagricultural workers. Much of the work required in the processing, transportation, and distribution of farm products formerly done by "agricultural" workers is now performed by "nonagricultural" workers. In 1820, the farm labor force represented over 70 percent of persons employed in all occupations. In 1960, only 6 percent of the labor force was engaged in agricultural pursuits. In 1960, the farm labor force represented only 2.3 percent of the total population.

Farm operators and unpaid members of their families comprised 75 percent of the 6.3 million persons working on farms the week preceding the census in 1959. Farm operators working one or more hours totaled 3.0 million, or 48.1 percent of the total; unpaid family workers working 15 hours or more during the week preceding the census numbered 1.7 million, or 26.9 percent of the total; and hired workers amounted to 1.6 million, or 25.0 percent of the total. Farm operators made up the only farm labor on 1.6 million, or 44 percent, of all farms and the operator and/or members of his family comprised the farm larbor force the week preceding the census on 2.6 million, or 70.9 percent of all farms. Hired workers were employed on only 547,611 farms. Of these, 62,140 farms with five or more hired workers had over half of all the hired workers on all farms.

Farm operators.—Farm operators comprised the largest of the three major groups of farmworkers in 1959. Of the 3.7 million farm operators, only 3.0 million worked one or more hours on the farm operated during the week preceding the census. A total of 660,612 did not work one or more hours on the farm operated during the week preceding the census. These 660,612 were operators who worked at other jobs; farm operators on part-retirement farms where no farmwork was required during the selected week; and farm operators on certain types of farms such as fruit farms, vegetable farms, wheat farms, etc. where the kinds of agricultural operations did not require farm labor during the specified week.

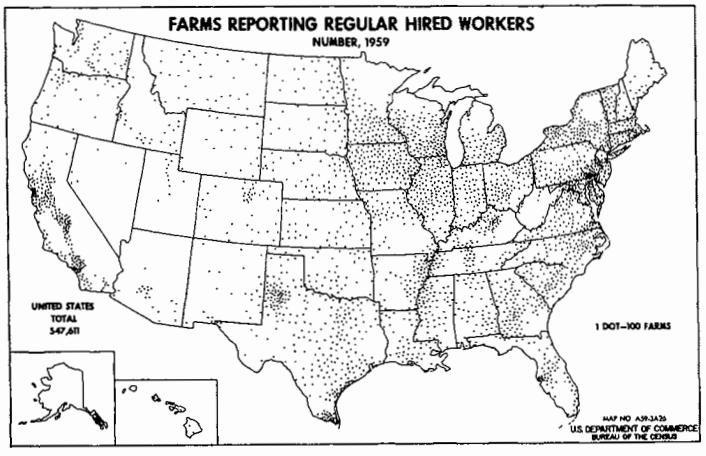
Unpaid family workers.—The second largest group of farmworkers is the 1.7 million unpaid members of farm operators' families working 15 or more hours on the farm. Most unpaid members of farm operators' families working on farms are wives and older children under 25 years of age. The number of these workers varies greatly by season and is twice as large during the summer as during the winter.

FARM LABOR—NUMBER OF UNPAID FAMILY AND HIRED WORKERS: 1939 TO 1959



Hired farm labor.—Hired farm labor is the smallest of the three major groups of farmworkers. This part of the farm labor force totaled 1.6 million persons during the week preceding the census enumeration in 1959. More than half of the total hired farm labor force comprised seasonal workers employed for less than 150 days on the farm on which they were working. The number of seasonal hired workers varies greatly during the year as farm labor requirements are highly seasonal.

Hired farmworkers during the week preceding the census enumeration were reported on 547,611, or 14.8 percent, of the farms in 1959. However, 1.8 million, or 48.1 percent, of all farms employed some hired labor in 1959. Expenditures of $1,000 or more for hired labor were made on only 432,901, or 11.7 percent, of the farms. Only 244,433 farms, or 1 farm out of 15, had two or more hired workers in 1959. More than half of all the farmworkers were on the 62,140 farms having five or more hired workers. Only eight States had as many as 50,000 hired farmworkers and the total of those eight States represented 46.1 percent of all the hired farmworkers in the United States. Two States, Texas and California, had almost one-fifth of all hired farmworkers.



Only 1 farm out of 12 had one or more regular hired workers in 1959 and only 110,487 farms had two or more regular hired workers. About 40 percent of all regular hired workers were on the 22,530 farms employing five or more regular hired workers in 1959. Only three States—New York, Texas, and California—had as many as 5,000 farms having two or more regular hired workers.

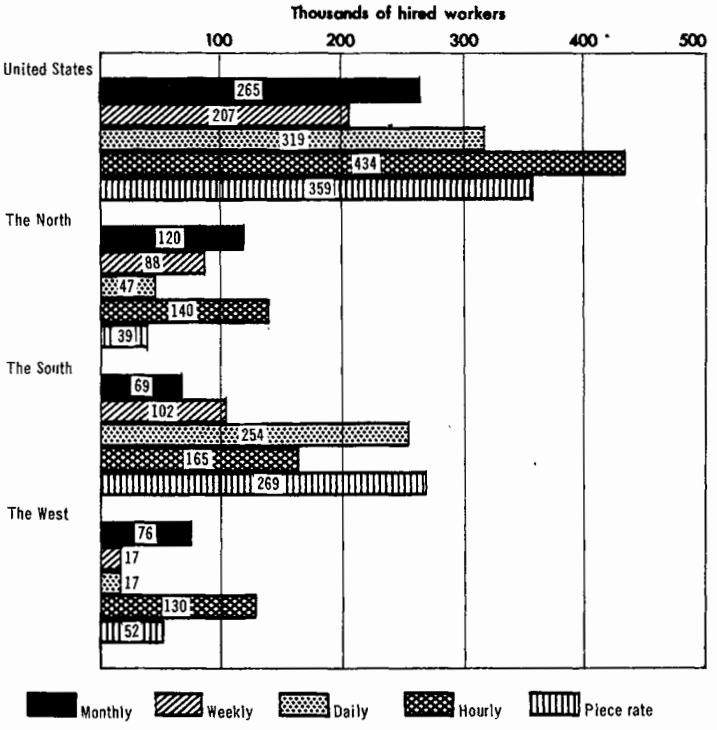
From 1954 to 1959 there was a significant reduction in hours of work of hired farmworkers as indicated by the following data:

	1959	*1954*	*1950*
Average hours of work per month for workers paid on monthly basis	209	231	239
Average hours of work per week for workers paid on weekly basis	46	51	52
Average hours of work per day for workers paid on daily basis	8.5	8.8	9.2

Approximately one out of every six hired workers during the week preceding the census in 1959 was employed by the month. The average hours of work by hired workers paid on a monthly basis was 209 hours for the conterminous United States. In 1954, the corresponding average hours worked per month was 231.

Approximately one out of every seven hired workers on farms was paid on a weekly basis. The average hours worked per week

NUMBER OF HIRED WORKERS BY BASIS OF PAYMENT BY REGIONS: 1959



for these workers was 46 for the conterminous United States, a decrease of 5 hours, or almost 10 percent, from the average of 51 hours for 1954.

One out of every five hired farmworkers in 1959 was paid on a daily basis. The average number of hours worked per day for the hired workers was 8.5 hours per day as compared with 8.8 hours per day in 1954. Four-fifths of the hired farmworkers paid on a daily basis were in the South.

Approximately one-fourth of all hired workers during the week preceding the census in 1959 were employed on a piece-price basis. No data are available regarding the hours of work for this group of hired farmworkers. About 75 percent of the hired workers employed on a piecework basis were in the South.

Cash farm wage rates.—The data available on farm wage rates represent only cash payments. Many hired farmworkers receive perquisites such as room and board, food, house, etc., in addition to the cash payments. The wage rates reflect widely varying types of workers and working arrangements. Some hired workers may be working only part time, even though they are paid on a monthly or weekly basis. In some cases, young persons or elderly persons are paid small wages in addition to board, etc., and these persons have been reported in the census as hired workers. Moreover, some workers receive a share of the farm products in addition to the cash payments.

For the United States, the average cash wage rate per person was $198 per month for workers paid by the month, $42 per week for workers paid by the week, $5.25 per day for workers paid by the day, $0.97 per hour for workers paid by the hour, and $6.46 per day (for Friday of week preceding enumeration) for persons working on a piecework basis.

Wage rates vary significantly by States. Wage rates were higher in the Western States and lower in the Southern States.

Wage rates increased from 1954 to 1959, although not as much as during the period from 1950 to 1954 as indicated by the following data for the conterminous United States:

	1959	1954	1950
Average wages per month for workers paid on monthly basis	$195.00	$162.00	$118.00
Average wages per week for workers paid on weekly basis	42.00	38.00	28.00
Average wages per day for workers paid on daily basis	5.25	5.13	3.66
Average wages per hour for workers paid on hourly basis	0.95	0.88	0.67

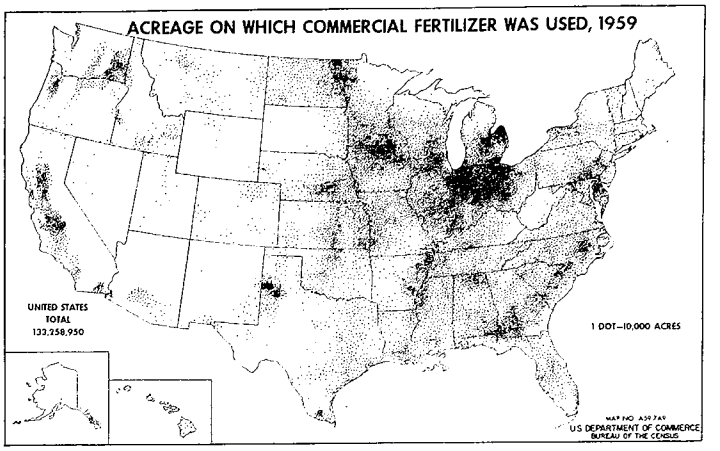
FERTILIZER AND LIME

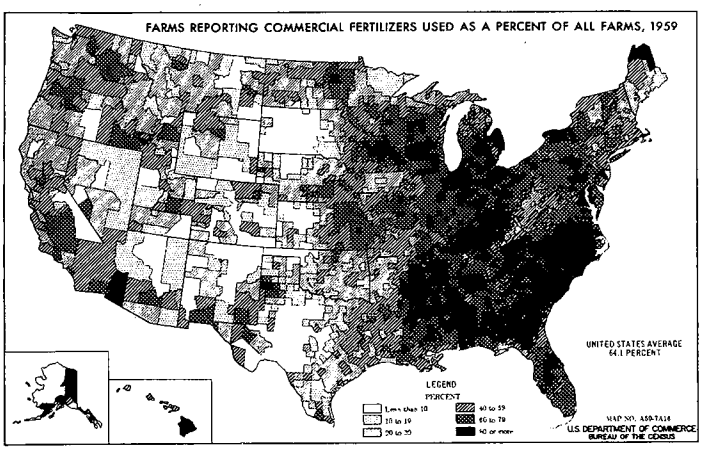
Fertilizer.—Fertilizer was used on nearly two out of three farms in 1959. In the United States 19.8 million tons of fertilizer were purchased for use on 2.4 million farms. The proportion of farms using fertilizer was much higher in the North and South than in the West. This is mainly because there is more cultivated land in the North and South.

Of all fertilizer used on farms in 1959, 91.6 percent was used on commercial farms and only 8.4 percent on other farms. Of all fertilizer used 18.2 million tons were dry materials and 1.6 million tons were liquid materials.

More fertilizer is used on corn than on any other crop. In 1959 more than one-third of all fertilizer was used for corn. Corn accounted for approximately two-fifths of the acreage fertilized in 1959. Nearly 2 out of every 3 acres of corn harvested in 1959 were fertilized. In 4 out of the 10 States having 2 million or more acres of corn harvested in 1959, 80 percent or more of the corn harvested was fertilized.

More total tons of fertilizer were used in North Carolina than any other State. This is mainly because of the high fertilizer requirements of tobacco which is the principal crop in North Carolina. The South Atlantic Division in general led all other divisions in use of fertilizer with 5.3 million tons.





USE OF COMMERCIAL FERTILIZER AND FERTILIZING MATERIALS ON CROPS AND PASTURE, FOR THE UNITED STATES: 1959

Crops and pasture fertilized	Farms reporting use of fertilizer			Tons used		Acres fertilized			Pounds per acre	Percent distribution of—	
	Total	Percent of all farms in the United States	Percent of all farms using fertilizer	Total	Average per farm reporting	Total	Average per farm reporting	Percent of acreage fertilized [1]		Tons used	Acres fertilized
United States, total	2,378,454	64.1	100.0	19,802,175	8.3	[2] 133,258,950	56.0	15.8	297	100.0	100.0
Hay and cropland pastured	490,330	13.2	20.6	2,195,396	4.5	13,399,909	27.3	10.4	328	11.1	10.1
Other pasture (not cropland)	154,727	4.2	6.5	745,547	4.8	4,456,949	28.8	1.0	335	3.8	3.3
Corn	1,568,714	42.3	66.0	6,759,814	4.3	51,000,884	32.5	64.6	265	34.1	38.3
Sorghums	31,236	0.8	1.3	155,049	5.0	2,358,804	75.5	18.4	131	0.8	1.8
Wheat	494,095	13.3	20.8	1,406,386	2.8	17,486,168	35.4	42.1	161	7.1	13.1
Soybeans	79,467	2.1	3.3	279,717	3.5	2,731,113	34.4	14.0	205	1.4	2.0
Cotton	381,919	10.3	16.1	1,636,264	4.3	8,545,771	22.4	62.5	383	8.3	6.4
Tobacco	312,654	8.4	13.1	655,244	2.1	817,853	2.6	98.0	1,602	3.3	0.6
Irish potatoes	29,140	0.8	1.2	449,284	15.4	869,503	29.8	75.4	1,033	2.3	0.7
Sugar beets	17,552	0.5	0.7	143,346	8.2	637,696	36.3	95.3	450	0.7	0.5
Oats	8,322	0.2	0.3	17,005	2.0	188,467	22.6	14.2	180	0.1	0.1
Barley	13,304	0.4	0.6	52,435	3.9	985,644	74.1	30.5	106	0.3	0.7
Sugarcane	966	(Z)	(Z)	156,044	161.5	209,903	217.3	95.4	1,487	0.8	0.2
Pineapples	111	(Z)	(Z)	28,275	254.7	57,183	515.2	90.6	989	0.1	(Z)
Coffee	1,215	(Z)	0.1	4,174	3.4	7,716	6.4	99.5	1,082	(Z)	(Z)
Oats and other grains	134	(Z)	(Z)	870	6.5	7,032	52.5	79.7	247	(Z)	(Z)
Vegetables	74	(Z)	(Z)	132	1.8	285	3.9	125.6	926	(Z)	(Z)
Unspecified other crops	964,137	26.0	40.5	5,117,193	5.3	29,561,329	30.7	39.9	346	25.8	22.2

Z Less than 0.05 percent.

[1] Percentages for crops or pasture fertilized represent the ratio of the acreage fertilized to the total acres of crops that are harvested in the United States. The percentage for total acres fertilized is based on all cropland harvested plus the acres of pasture, other than woodland; in the case of pasture, to the total acreage of pasture (excluding woodland pasture).

[2] Area of land on which fertilizer was applied. In some cases, two or more crops were fertilized and harvested from the same land.

Data are available for the quantity of fertilizer used in the conterminous United States for only 1959, 1954, 1940, and 1930 censuses.

Census year	Tons of fertilizer used		
	Total	Increase over preceding census	
		Tons	Percent
1959	19,603,104	649,744	3.4
1954	18,953,360	11,949,534	170.6
1939	7,003,826	−531,196	−7.0
1929	7,535,022	NA	NA

NA Not available.

There has been a large increase in the proportion of farms using fertilizer. Since 1940, the quantity of fertilizer used has doubled.

Figures on the number of farms using or purchasing commercial fertilizer and fertilizing materials are available for a long period for the conterminous United States.

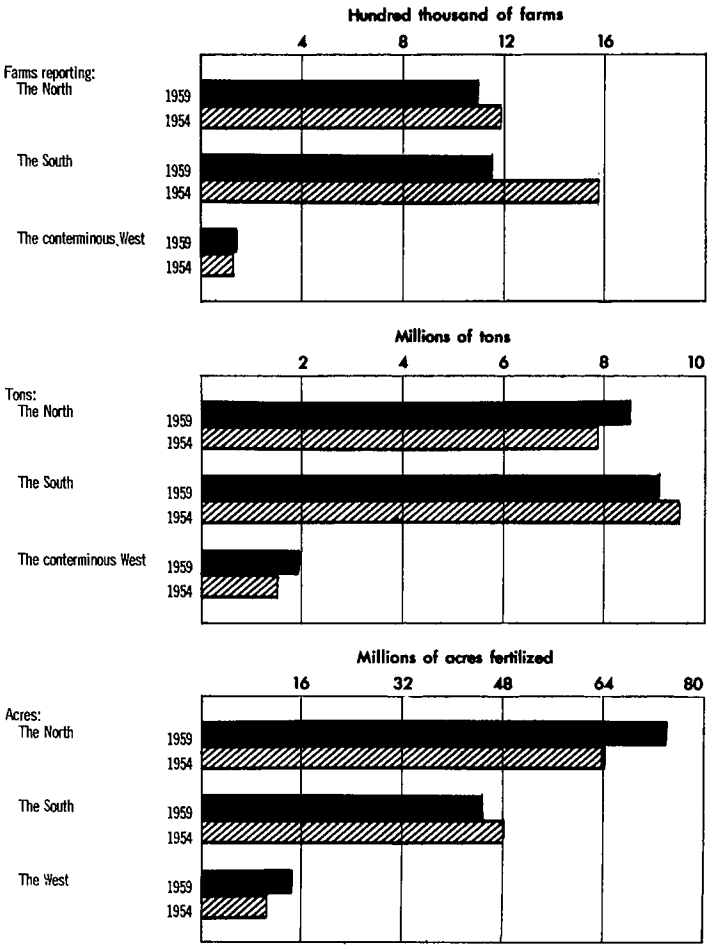
Census year	Farms reporting fertilizer used or purchased		
	Total	Increase over preceding census	
		Number of farms	Percent
1959	2,374,015	−542,391	−18.6
1954	2,916,406	336,135	13.0
1944	2,580,271	243,240	10.4
1939	2,337,031	12,941	0.6
1929	2,324,090	140,034	6.4
1924	2,184,056	−87,123	−3.8
1919	2,271,179	448,147	24.6
1909	1,823,032	NA	NA

NA Not available.

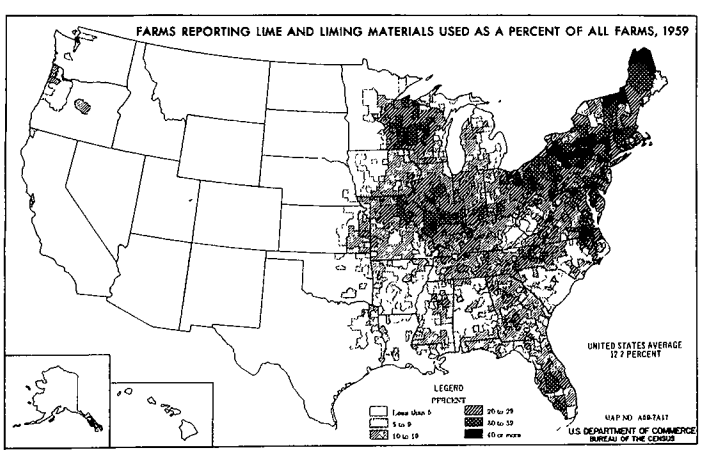
While the number of farms reporting the use of fertilizer declined from 2,916,000 in 1954, to 2,374,000 in 1959, for the conterminous United States, the proportion of the farms reporting fertilizer increased from 61.0 in 1954, to 64.1 in 1959. Most of the decrease in the number of farms reporting fertilizer occurred in the South where the decline in the number of farms from 1954 to 1959 was relatively large.

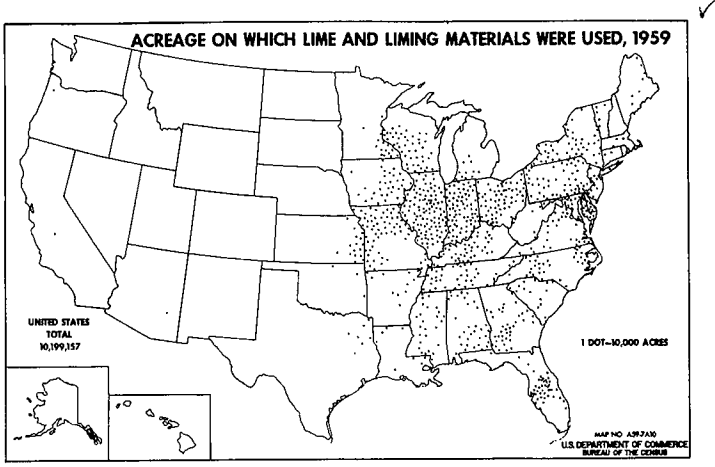
Lime.—In 1959, about one out of eight farms reported the use of lime and liming materials. The use of lime is concentrated largely in the Northern States and the South Atlantic States. While the number of farms for the conterminous United States reporting the use of lime was fewer in 1959 than in 1954, the proportion of farms reporting the use of lime increased from 10.9 to 12.3 percent for the 48 conterminous States.

COMMERCIAL FERTILIZER: FARMS REPORTING, TONS, AND ACRES FERTILIZED, BY REGIONS: 1959 AND 1954



The tons of lime and liming materials used in 1959 for the conterminous United States were 10.9 percent greater than in 1954, while the acreage limed was 2.9 percent less. The average amount of lime and liming materials used per acre was 3,760 pounds in 1959, or 14.3 percent greater than in 1954 in the conterminous United States. The increase from 1954 to 1959 in the tons of lime and liming materials used was the result largely of increases in the Southern States.

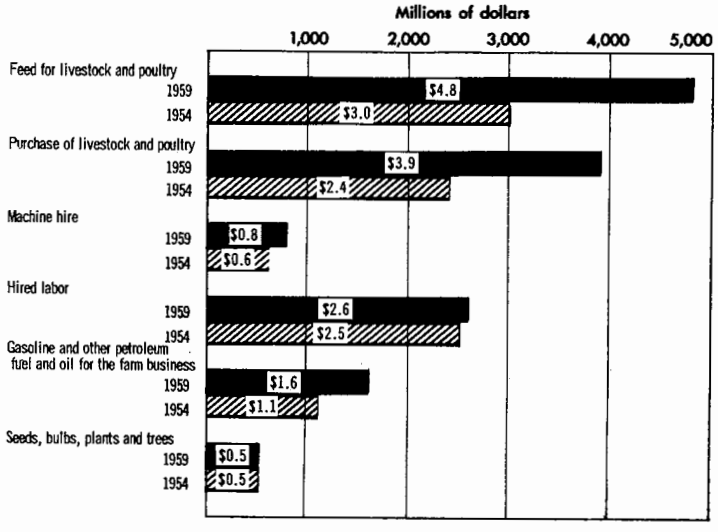




SELECTED FARM EXPENDITURES

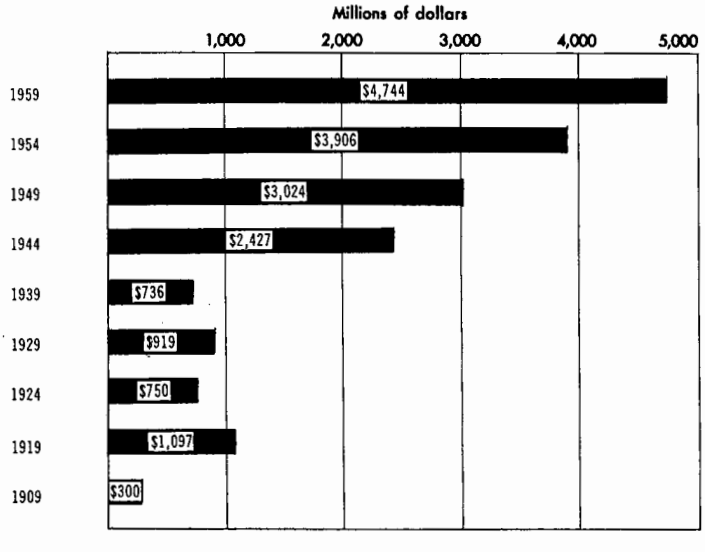
In 1959, one or more of six items of farm expenditures were reported by 99 percent of all the 3.7 million farms in the United States. These items were feed for livestock or poultry, purchase of livestock and poultry, machine hire, hired labor, gasoline and other petroleum products; and seeds, bulbs, plants, and trees. The total of the six items for farm expenditures was over $14 billion and was equivalent to 46.2 percent of the value of all farm products sold in 1959. These six items of farm expenditures account for approximately two-thirds of the cash expenditures for farm operators in the United States. There are many significant items of expense not included in this total, such as expenditures for fertilizer, lime, interest, taxes, containers, cash rent, etc. The six items of farm expense averaged $3,798 per farm for all farms, and $5,549 per farm for commercial farms.

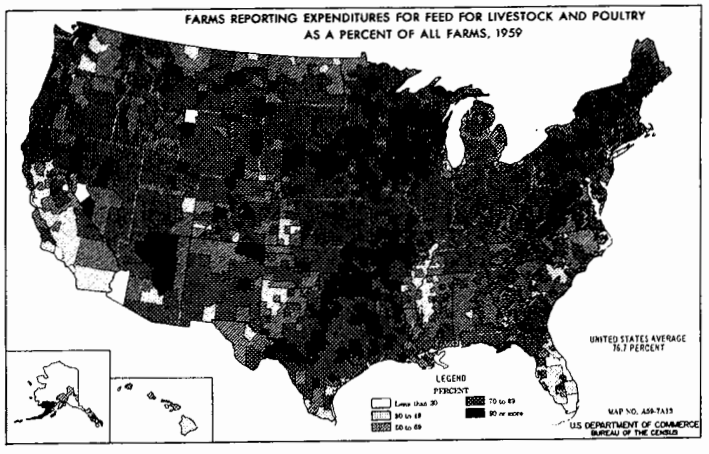
SELECTED FARM EXPENDITURES: 1959 AND 1954

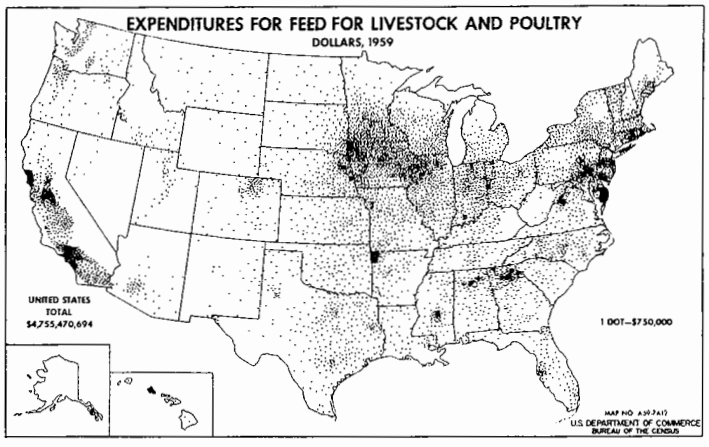


Expenditures were larger for feed than for any other of the six items. The expenditures for the purchase of livestock and poultry and the expenditures for hired labor were the next two most important items of farm expenditure.

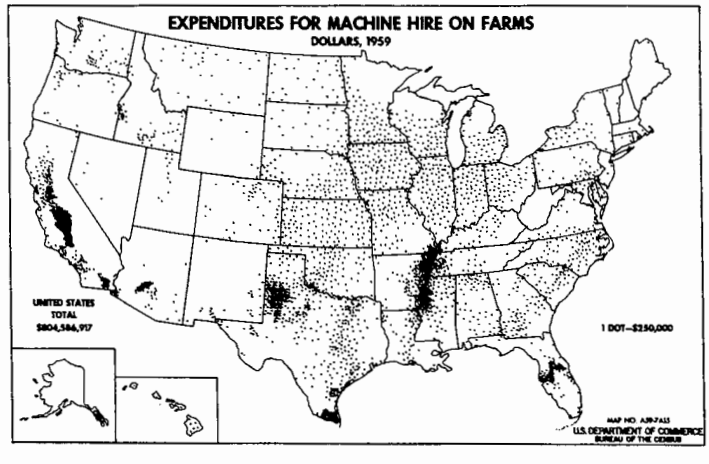
EXPENDITURES FOR FEED FOR LIVESTOCK AND POULTRY: 1909 TO 1959





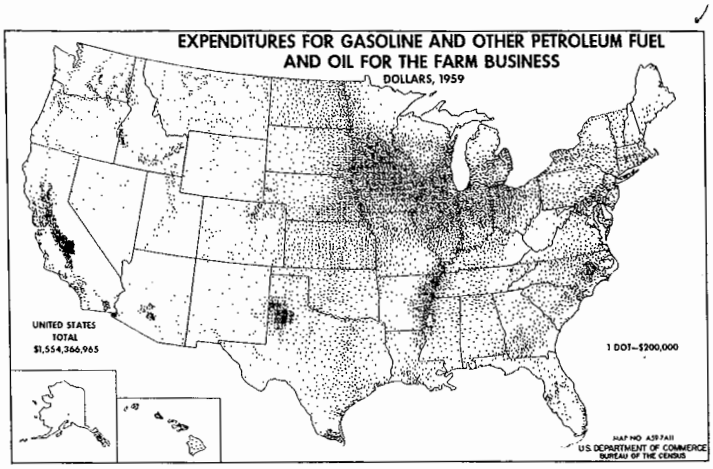


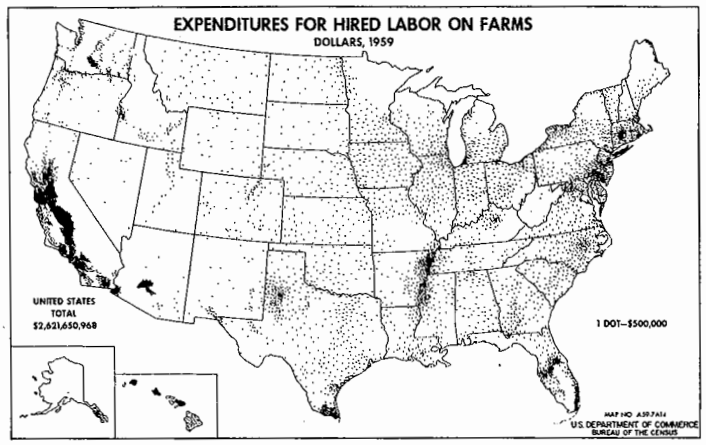
While one or more of the six items of cash expenditures were reported for nearly all farms, most items of expenditure were reported for only a part of the farms. The expenditures for gasoline and other petroleum fuel and oil for the farm business were reported for 93 percent of all farms and 97 percent of the commercial farms. There were some farms for which all the farmwork was hired on a contract basis and there were some farms on which gasoline-operated machinery was not required or not used. Feed for livestock and poultry was reported for more than three-fourths of the farms, and hired farm labor by less than half of the farms. The amount of expenditures on a large proportion of the farms reporting a particular item of expenditure was relatively small. For example, for almost one-fifth of the farms reporting the purchase of feed, the expenditure was less than $100; for almost three-fifths of the farms with ex-

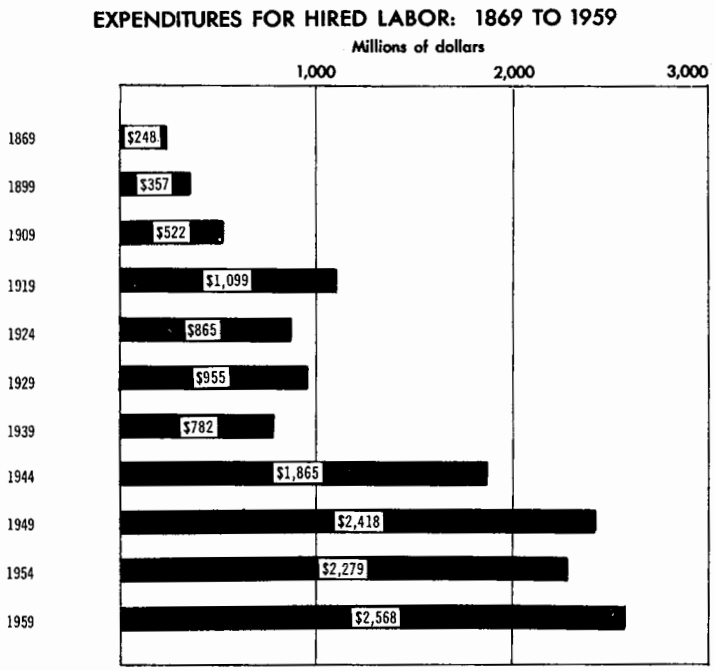


penditures for machine hire, the expenditure was less than $200; for nearly two-thirds of the farms with expenditures for hired labor, the expenditure was less than $500; and for one-third of the farms with expenditures for gasoline and other petroleum fuel and oil for the farm business, the expenditure was less than $100.

The number of farms reporting expenditures for farm labor has been declining and there has been a large decrease in the number of farms with expenditures of less than $1,000 for hired labor. Notwithstanding these decreases, the number of farms reporting an expenditure of $2,500 or more for hired labor increased 14.6 percent from 1954 to 1959.







Section 2.—THE PRODUCING UNITS OR FARMS

Agricultural production takes place mainly on producing units called farms (including ranches) where the various farm resources or resource services are transformed into agricultural products. There are many sizes, types, and classes of farms. Some are mainly places of residence for persons who work off the farm or are retired. Some involve large expanses of land, while others involve only a few acres. The acres of land in a farm do not always indicate the importance of a farm in terms of value of products produced. A multiple-storied broiler house on one acre of land, for example, may produce products worth more than a several-section livestock ranch in the arid West. This part of the Graphic Summary of Agricultural Resources and Production, 1959, presents briefly the nature of the producing units or farms which produce agricultural products, with consideration given to their size, type, and economic class.

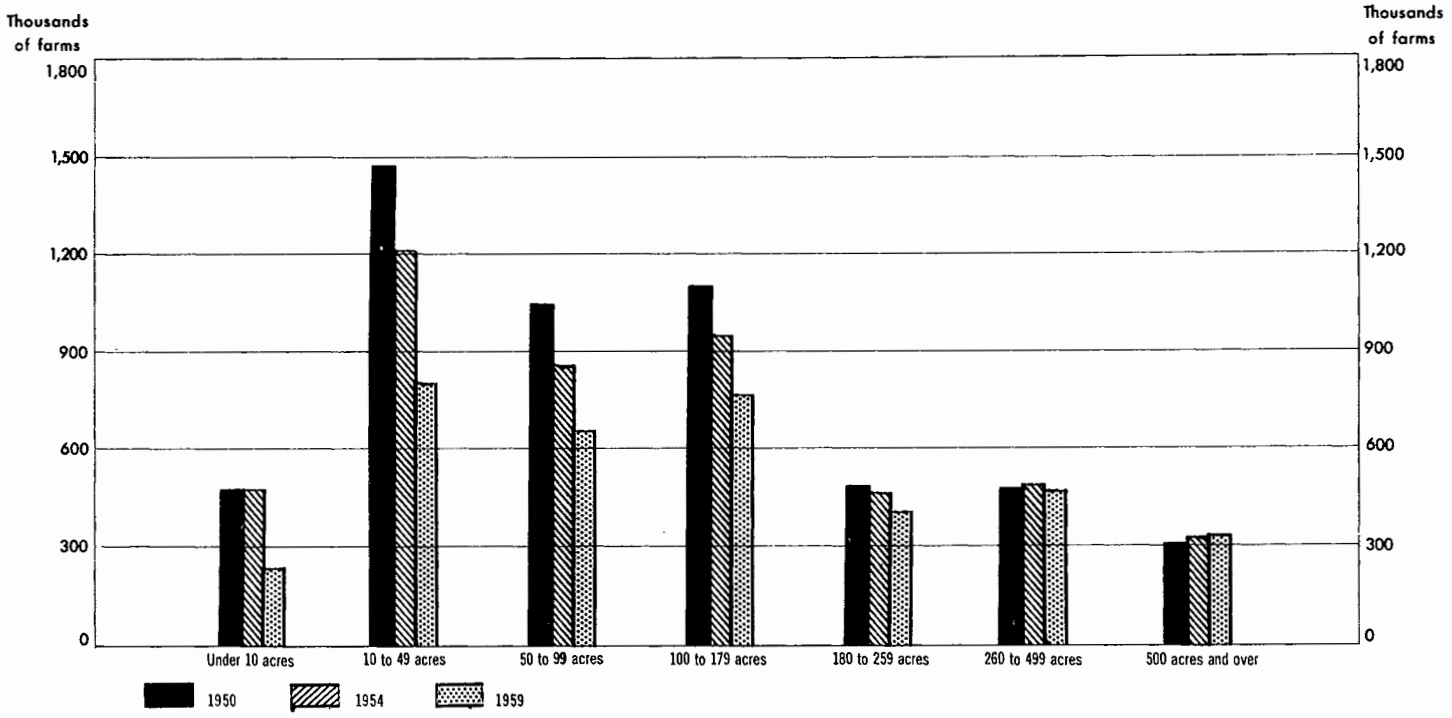
SIZE OF FARM

There are many ways of measuring the size of farms. Total acreage in the farm is the measure most commonly used. Farms in the United States vary in size from less than 1 acre to more than 100,000 acres. In 1959 there were 79,000 farms of less than 3 acres and 136,000 farms of 1,000 acres or more. Although almost half, or 46.3 percent, of the farms were under 100 acres in size in 1959, these farms accounted for only 6 percent of all land in farms. Farms of 500 acres or more comprised only 9 percent of all farms, yet they contained 61.6 percent of all land in farms.

In the predominantly arid and semiarid West, most of the land in these large farms consisted of grazing land of very low productivity, while in the South, much of the land in the farms of 1,000 acres or more consisted of woodland and brushland used for grazing.

One of the outstanding characteristics of 20th century agriculture in the United States has been the growth in physical farm size. The total acreage of land in farms has changed little in this period and most of the increase in average size of farm has come from the reduction in farm numbers.

NUMBER OF FARMS BY SIZE OF FARM, FOR THE UNITED STATES: 1959, 1954, AND 1950



FARMS CLASSIFIED BY ACRES OF TOTAL LAND IN FARMS, FOR THE UNITED STATES: 1880 TO 1959

Year	Number of farms by acres of total land in farms								
	Total	Under 3 acres	3 to 9 acres	10 to 29 acres	30 to 49 acres	50 to 99 acres	100 to 499 acres	500 to 999 acres	1,000 or more acres
1959	3,710,503	79,083	165,245	(813,216)		657,990	1,658,530	200,012	136,427
1954 [1]	4,782,416	99,896	384,395	713,335	499,496	864,063	1,899,053	191,697	130,481
1950	5,388,437	78,110	410,420	855,000	624,596	1,048,075	[2] 2,068,466	182,297	121,473
1945 [1]	5,859,169	98,966	495,595	945,608	708,796	1,157,320	2,166,208	173,777	112,899
1940	6,102,417	37,022	472,325	(1,782,061)		1,291,328	[2] 2,255,396	163,711	100,574
1935 [1]	6,812,350	35,573	535,258	1,241,431	882,164	1,444,007	2,417,803	167,452	88,662
1930	6,295,103	44,244	317,755	(2,002,115)		1,375,198	[2] 2,315,403	159,723	80,665
1925 [1]	6,371,640	15,151	363,384	(2,038,692)		1,421,078	2,326,155	143,852	63,328
1920	6,453,991	[3] 21,158	[3] 270,348	([4] 2,013,516)		1,475,005	[2] 2,456,729	149,826	67,409
1910 [1]	6,361,502	18,033	317,010	(1,918,499)		1,438,069	2,494,461	125,295	50,135
1900	5,739,657	41,882	226,564	(1,664,797)		1,366,167	[2] 2,290,561	102,526	47,160
1890	4,564,641	(150,194)		(1,168,327)		1,121,485	2,008,694	84,395	31,546
1880	4,008,907	4,352	134,889	(1,036,323)		1,032,810	1,695,983	75,972	28,578

[1] Data for Alaska and Hawaii not included.
[2] Includes farms of 100 acres or more for Hawaii.
[3] Data for Alaska not available.
[4] Includes 62 farms for Alaska, in the under 50 acres size group.

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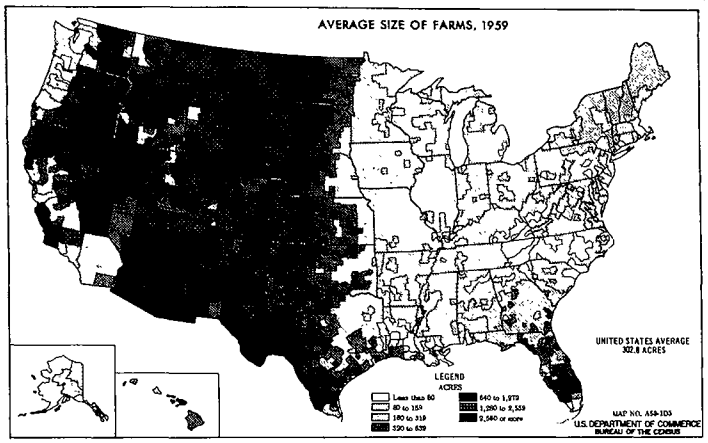
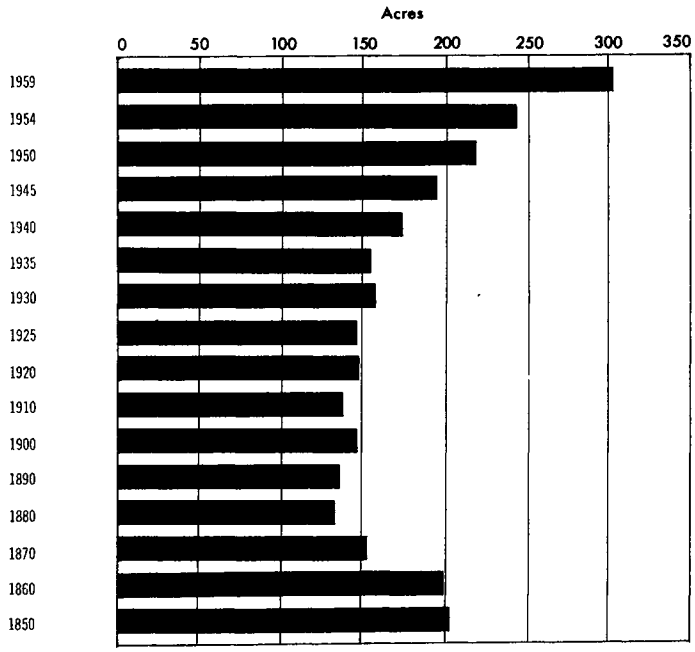
In 1959, the average size of farm in the conterminous United States was 302.4 acres, an increase of 60.2 acres, or 24.9 percent, since 1954. This was the largest average size reported at any time during the last century and more than double the average size of 145.1 acres in 1925.



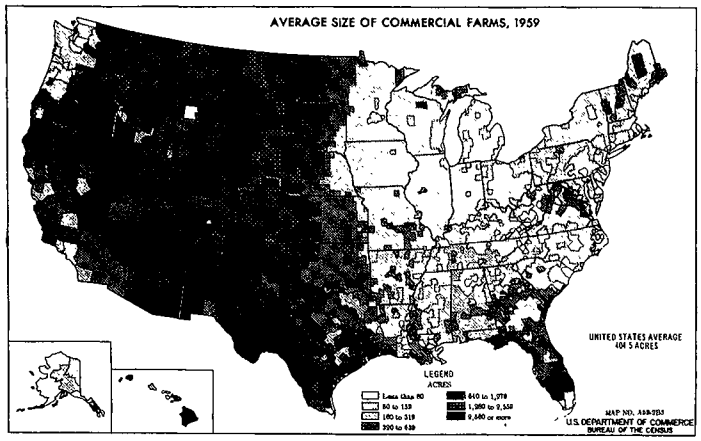
Since 1910, the average size of farm has increased 164 acres, with an increase for each census, except 1925 and 1935. Since 1930, the average size of farm has almost doubled. This does not mean that all farms have doubled in size, but that there are fewer smaller farms. There were 900,000 fewer farms under 50 acres in size in 1959 than in 1950. Between 1954 and 1959, the number of farms in the 48 States comprising the conterminous United States declined from 4.8 million to 3.7 million, or 23 percent. The number of farms in 1959 was the smallest number reported by the census of agriculture since 1870. Of the 1.1 million decrease, approximately 232,000 resulted from the change in definition of a farm. In the period from 1954 to 1959, the number of farms decreased in every one of the 48 States and in all except 42 of the 3,067 counties in the 48 States comprising the conterminous United States. Even though the average size of farm varies considerably by States and geographic areas, an increase in size was reported for every State in the United States from 1954 to 1959. The average size of farm in 1959 varied from 83 acres in North Carolina to 5,558 acres per farm in Arizona.

AVERAGE SIZE OF FARM, FOR THE UNITED STATES: 1850 TO 1959



Alaska and Hawaii not included.

For commercial farms the average size of farm is larger. The average size of all commercial farms in the United States in 1959 was 404.5 acres compared with the 302.8 acres for all farms.



ECONOMIC CLASS OF FARM

The classification of "commercial" and "other farms" distinguishes farms that provide the major source of employment and income for the farm operator and his family from those which are part-time, part-retirement, and abnormal farms including institutional farms and Indian reservations. In general, for 1959, all farms with a value of sales amounting to $2,500 or more were classified as commercial. Farms with a value of sales of $50 to $2,499 were classified as commercial if the farm operator was under 65 years of age and (*1*) he did not work off the farm 100 or more days during the year and (*2*) the income received by the operator and members of his family from nonfarm sources was less than the value of all farm products sold. The remaining farms with a value of sales of $50 to $2,499 and institutional farms and Indian reservations were included in one of the groups of "other farms."

Commercial farms were further divided into six economic classes on the basis of the total value of all farm products sold, as follows:

Economic class	*Value of farm products sold*
Class I	$40,000 or more
Class II	$20,000 to $39,999
Class III	$10,000 to $19,999
Class IV	$5,000 to $9,999
Class V	$2,500 to $4,999
Class VI	$50 to $2,499

Other farms were divided into three economic classes as follows:

Part-time—Farms with sales of farm products of $50 to $2,499 and the farm operator under 65 years of age and

(1) The farm operator worked off the farm 100 days or more or

(2) The income the farm operator and members of his family received from off-the-farm sources was greater than the value of all farm products sold.

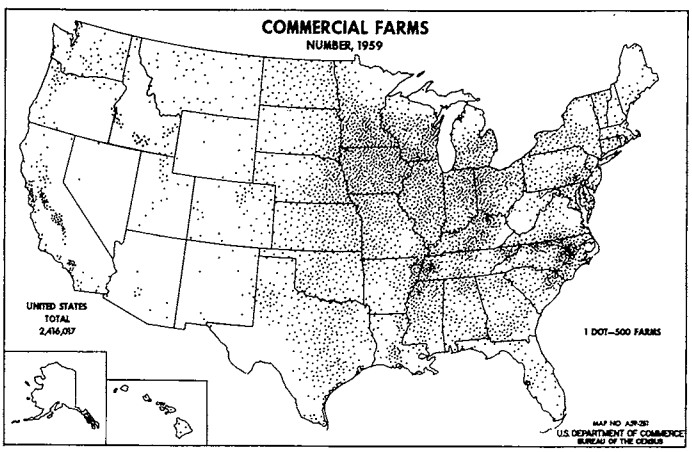
Part-retirement—Farms with sales of farm products of $50 to $2,499 and the farm operator 65 years or over.

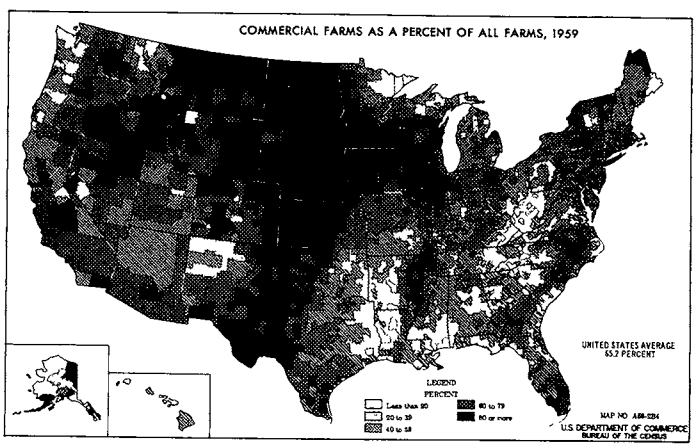
Abnormal—Farms operated by institutions such as schools, penitentiaries, etc.; Indian reservations, etc.

Commercial farms.—Nearly two-thirds of all farms in 1959 were classified as commercial farms. Commercial farms accounted for 96.2 percent of the total value of all products sold, had 87.0 percent of all land in farms, 94.2 percent of the cropland harvested, and 85.0 percent of the value of land and buildings.

Almost half of all commercial farms in the United States were located in the Corn Belt States bordering on the Great Lakes

and States in the Northern Great Plains. In these areas, three-fifths or more of the farms are commercial farms. In the mountain areas of Kentucky, Tennessee, Virginia, West Virginia, Missouri, and Arkansas, and in other scattered areas of the South, and in Minnesota, Wisconsin, and Michigan a very low percent of the farms are commercial farms. Many farm operators in these areas work at nonfarm jobs or are semiretired and produce enough products for their places to qualify as farms.





The variations in the size of operations for the farms comprising these six classes were very great—the farms varied in value of farm products sold from $50 to more than $2,500,000. There are also great differences in the contribution of the various economic classes of farms to total agricultural production. For example, the sales of agricultural products from the 102,000 Class I farms exceed the sales of agricultral products from the more than 1,600,000 Class IV, V, and VI farms.

The relative importance for 1959 of the various classes of farms in terms of organization, resources used, and output is indicated by the following data:

The differences in the quantities of resources used and in sales of agricultural products among economic classes were very large in 1959.

Economic class of farm	Average per farm						
	Land in farms (acres)	Cropland harvested (acres)	Hired farmworkers (persons)	Tractors (other than garden) (number)	Fertilizer used (tons)	Expenditures for 6 items [1] (dollars)	Value of all farm products sold (dollars)
Commercial farms, total	404.5	122.3	0.6	1.6	7.5	5,549	12,195
Class I	2,465.7	434.6	5.4	3.9	41.5	51,626	94,531
Class II	791.1	243.4	1.3	2.6	14.9	12,317	26,842
Class III	444.9	170.8	0.6	2.1	8.8	5,513	13,882
Class IV	288.3	109.0	0.3	1.6	5.3	2,759	7,223
Class V	191.9	59.3	0.2	1.2	3.7	1,446	3,683
Class VI	106.3	25.6	0.1	0.6	2.2	525	1.321

[1] Includes feed for livestock and poultry; purchase of livestock and poultry; machine hire; hired labor; seeds, bulbs, plants, and trees; and gasoline and other petroleum fuel and oil for the farm business.

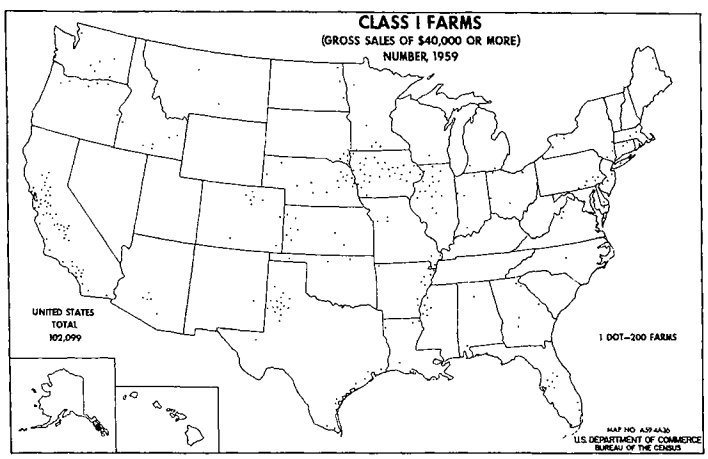
There are large variations for 1959 among economic classes in the rate and frequency of use of resources and in the production and sales per unit of resources used.

Item	Economic class of farm						
	All commercial farms	Class I	Class II	Class III	Class IV	Class V	Class VI
Acres of cropland harvested per tractor (other than garden)	75	112	94	81	67	51	43
Average acres of corn harvested for grain per corn picker	89	163	121	90	72	71	118
Average tons of hay harvested per pickup baler	158	390	186	145	128	127	138
Percent of farms reporting—							
Regular hired workers	12.5	67.7	37.6	17.0	7.3	3.5	0.8
More than 1 regular hired worker	4.5	43.5	14.0	4.1	1.4	0.7	0.2
Expenditure of $100 or more for gasoline and other petroleum fuel and oil for the farm business	81.9	98.0	96.9	96.1	92.1	76.9	38.2
Use of commercial fertilizer	71.7	73.5	75.5	75.5	71.0	69.0	70.1
Tractors (other than garden)	81.4	91.9	92.6	93.1	89.0	77.9	47.1
Purchase of $100 or more for feed for livestock and poultry	70.0	72.6	80.2	83.1	77.7	65.0	39.2
Expenditure of $500 or more for hired labor	25.5	88.8	66.6	37.2	20.4	10.6	2.3
Pounds of fertilizer used per acre fertilized:							
Total	292	357	274	255	270	321	369
Hay and cropland pasture	322	312	333	319	312	335	355
Corn for all purposes	260	280	263	244	252	283	304
Sorghums for all purposes	131	143	129	115	115	135	147
Wheat	156	114	149	159	164	192	226
Irish potatoes	1,033	1,043	1,088	976	901	931	968
Tobacco	1,602	2,382	1,691	1,659	1,584	1,531	1,534
Cotton	375	325	336	379	436	448	456
Value of milk and cream sold per milk cow—dollars	255	433	340	279	208	144	69
Value of eggs sold per chicken 4 months old and over—dollars	3.33	4.81	4.09	3.25	2.58	2.13	1.19
Yield per acre of—							
Corn for grain—bushels	54.3	67.0	63.9	58.0	49.4	41.8	30.3
Alfalfa and alfalfa mixtures for hay and dehydrating—tons	2.4	3.4	2.5	2.3	2.1	1.9	1.6
Clover, timothy, and mixtures of clover and grasses cut for hay—tons	1.6	1.7	1.8	1.8	1.6	1.5	1.3
Irish potatoes—bushels	313	348	307	276	230	200	172
Cotton—bales	1.0	1.3	0.9	0.8	0.7	0.7	0.7

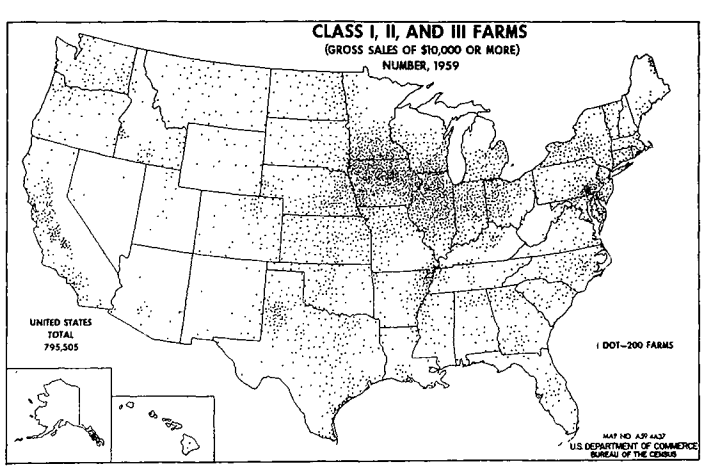
Economic class of farm	Number of farms, total	Percent distribution by economic class							
		Number of farms	Land in farms	Cropland harvested	Hired farmworkers	Tractors (other than garden)	Fertilizer used	Expenditures for 6 items [1]	Value of all farm products sold
Commercial farms, total	2,416,017	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Class I	102,099	4.2	25.8	15.0	37.5	10.0	23.4	39.3	32.8
Class II	210,402	8.7	17.0	17.3	18.4	13.8	17.3	19.3	19.1
Class III	483,004	20.0	22.0	27.9	18.8	25.8	23.5	19.9	22.8
Class IV	653,881	27.1	19.3	24.3	14.3	27.1	19.3	13.5	16.0
Class V	617,677	25.6	12.1	12.4	8.8	18.1	12.5	6.7	7.7
Class VI	348,954	14.4	3.8	3.0	2.1	5.2	4.2	1.4	1.6

[1] Includes feed for livestock and poultry; purchase of livestock and poultry; machine hire; hired labor; seeds, bulbs, plants, and trees; and gasoline and other petroleum fuel and oil for the farm business.

Class I farms (gross sales of $40,000 or more).—Although Class I farms represented only 4.2 percent of all commercial farms in 1959, they accounted for 31.5 percent of the gross value of all farm products sold. Class I farms represent relatively large farming operations. Class I farms accounted for 21.4 percent of all the fertilizer used, 30.3 percent of all the feed purchased, 48.7 percent of all the livestock and poultry purchased, 28.3 percent of all the machine hire, 49.9 percent of the expenditures for hired farm labor, 27.6 percent of the expenditures for seeds, plants, and trees; and 18.1 percent of the expenditures for gasoline and other petroleum fuel and oil for the farm business on commercial farms. They employed more than one-third of all hired farmworkers and almost one-half of all regular hired farmworkers. Most of the Class I farms are in the Corn Belt, California, the High Plains area of Texas, and in the Mississippi Delta.



Class II, III, and IV farms.—Class II, III, and IV farms had a total value of farm products sold of $5,000 to $39,999. Farms in these economic classes accounted for almost three-fifths of all commercial farms and almost three-fifths of all farm products sold. These farms contain 51 percent of all land in farms and 66 percent of all cropland harvested. Most of these farms are operated by the farm operator and members of his family. Only one out of six of these farms had regular hired farmworkers and less than 5 percent of the farms had more than one regular hired worker in 1959. Seventy-seven percent of these farms that harvested crops in 1959 used commercial fertilizer and 19 percent used lime. Over 91 percent of the Class II, III, and IV farms had tractors, other than garden, and 77 percent had one or more motortrucks.



Class V and VI farms.—Class V comprises farms with sales of agricultural products of $2,500 to $4,999 and Economic Class VI, farms with sales of $50 to $2,499. Although farms in these two economic classes comprised 26.1 percent of all farms, they accounted for only 8.9 percent of all farm products sold. The small scale of operations on these farms is indicated not only by the value of farm products sold but also by the relatively small quantities of resources used.

Farm operators of Economic Class VI farms depend primarily upon farming for their income. They use relatively small amounts of resources.

Item	Average per Class VI farm
Land in farms—acres	106.3
Cropland harvested—acres	25.6
Value of land and buildings—dollars	9,849
Cattle and calves—number	6.7
Milk cows—number	1.7
Chickens 4 months old and over—number	36.2
Tractors (other than garden)—number	0.6

Relatively small amounts of purchased inputs are used on these farms.

Item	Average per Class VI farm
Fertilizer—tons	2.2
Lime—tons	1.4
Hired farm labor—dollars	61
Machine hire—dollars	66
Feed for livestock and poultry—dollars	173
Gasoline and other petroleum fuel and oil for the farm business—dollars	121

Most of the farms in Class VI were in the smaller size groups.

Farms by size	Class VI farms	Percent distribution
Total	348,954	100.0
Under 10 acres	31,642	9.1
10 to 49 acres	121,439	34.8
50 to 69 acres	36,096	10.3
70 to 99 acres	48,341	13.9
100 to 139 acres	39,185	11.2
140 to 179 acres	27,457	7.9
180 or more acres	44,794	12.8

Most of the Class VI farms had relatively small amounts of cropland.

Cropland	Number of farms	Percent distribution
Farms with acreage of cropland harvested of—Total	348,954	100.0
None	34,808	10.0
1 to 9 acres	77,750	22.3
10 to 19 acres	87,463	25.1
20 to 29 acres	54,638	15.7
30 to 49 acres	49,322	14.1
50 to 99 acres	32,987	9.5
100 or more acres	11,986	3.4

Nearly three-fourths of the Class VI farms are in the South. More than half of these Class VI farms in the South were cotton and tobacco farms.

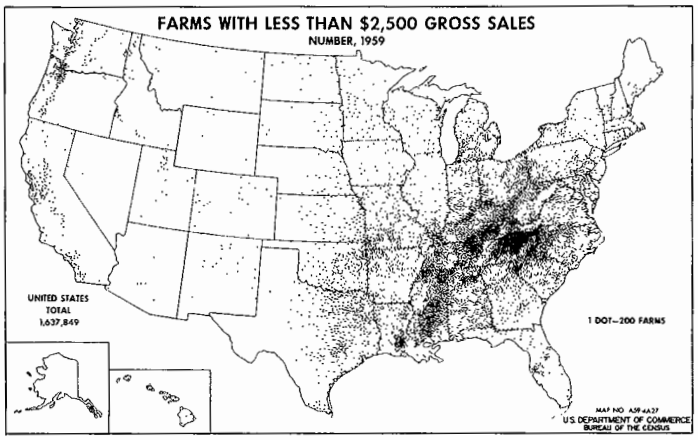
Type of farm	Number of farms	Percent distribution
Total	348,954	100.0
Cash-grain farms	32,342	9.3
Tobacco farms	56,759	16.3
Cotton farms	83,202	23.8
Field-crop farms other than cash-grain, tobacco, and cotton	5,811	1.7
Vegetable farms	4,383	1.3
Fruit-and-nut farms	5,465	1.6
Poultry farms	8,900	2.6
Dairy farms	30,342	8.7
Livestock farms other than poultry and dairy and livestock ranches	82,886	23.8
Livestock ranches	6,441	1.8
General farms	26,068	7.5
Miscellaneous farms	6,355	1.8

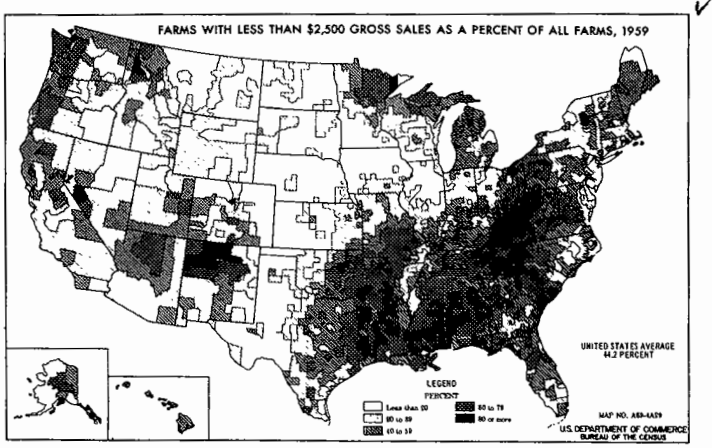
More than 27 percent of the Class VI farms were operated by tenants and 10.8 percent were operated by croppers.

Tenure of operator	Number of farms	Percent distribution
Total	348,954	100.0
Full owners	197,071	56.5
Part owners	54,050	15.5
Managers	621	0.2
All tenants	97,212	27.9
Cash	11,280	3.2
Share-cash	4,463	1.3
Crop-share	28,512	8.2
Livestock-share	2,180	0.6
Croppers (South only)	37,523	10.8
Other and unspecified	13,254	3.8

FARMS WITH LESS THAN $2,500 GROSS SALES

Farms with less than $2,500 gross sales comprise the Class VI commercial farms plus the part-time and part-retirement farms. They were generally more numerous in the eastern half of the United States with large numbers in the East South Central and South Atlantic divisions. They represented three-fifths or more of all farms in most of these two geographic divisions.





The data for farms with a value of farm products sold of less than $2,500 affects significantly the averages for all farms. For example, when the farms with a value of farm products sold of less than $2,500 are included in the total, the average value of farm products sold for farms in 1959 would be $8,259; if these farms are excluded, the average value of farm products sold per farm would be $13,975.

Most of the changes in the number of farms since 1950 have occurred in the number of farms with sales of farm products of less than $2,500.

Value of farm products sold	Number of farms				
	Total			Percent change	
	1959	1954	1950	1954–1959	1950–1959
Farms with value of farm products sold of— Total	3,701,364	4,783,021	5,379,250	−22.6	−31.2
Less than $2,500 [1]	1,636,920	2,681,179	3,291,355	−38.9	−50.3
$2,500 to $4,999	616,819	811,965	882,302	−24.0	−30.1
$5,000 to $9,999	653,150	706,929	721,211	−7.6	−9.4
$10,000 or more	794,475	582,948	484,382	+36.3	+64.0

[1] Includes abnormal farms.

The decrease of 1,044,000 in the number of farms with sales of farm products of less than $2,500 from 1954 to 1959 was affected by a change in the definition of a farm. The change in definition of a farm accounted for 22 percent of the change from 1954 to 1959 and 16 percent of the change from 1950 to 1959 in the number of farms with a value of products of less than $2,500. If the definition of a farm had not been changed, the decrease from 1954 to 1959 would have been from 2,681,000 to 1,869,000 rather than to 1,637,000.

Farms with a value of farm products of under $2,500 declined more than 50 percent from 1950 to 1959. They accounted for 61 percent of all farms in 1950 and only 44 percent in 1959. In 1950, they accounted for 12 percent of all farm products sold as compared with only 5 percent in 1959.

The change in farms with less than $2,500 of farm products sold accounts for a large part of the change in all farms.

Item and year		All farms	Farms with value of farm products sold of less than $2,500 [1]	Farms with value of farm products sold of $2,500 or more
Number of farms	1959	3,701,364	1,636,920	2,064,444
	1954	4,783,021	2,681,179	2,101,842
	1950	5,379,250	3,291,355	2,087,895
Change in number of farms	1954–1959	−1,081,657	−1,044,259	−37,398
	1950–1959	−1,677,886	−1,654,435	−23,451
	1950–1954	−596,229	−610,176	+13,947
Average size of farm—acres	1959	302.6	111.7	454.0
	1954	242.5	102.6	421.1
	1950	215.6	94.2	407.0
Value of farm products sold per farm—dollars	1959	8,232	990	13,975
	1954	5,188	846	10,726
	1950	4,142	825	9,370

[1] Includes abnormal farms.

Most of the farms with less than $2,500 of sales that have disappeared are in the smaller size groups.

Size of farm and year		All farms	Farms with value of farm products sold of less than $2,500 [1]	Farms with value of farm products sold of $2,500 or more
All farms	1959	3,701,364	1,636,920	2,064,444
	1954	4,782,416	2,680,545	2,101,871
	1950	5,379,250	3,291,355	2,087,895
Farms under 10 acres	1959	240,351	193,961	46,390
	1954	484,291	438,500	45,791
	1950	480,373	438,173	42,200
Farms 10 to 99 acres	1959	1,467,721	1,013,489	454,232
	1954	2,076,894	1,556,988	519,906
	1950	2,522,717	2,025,262	497,455
Farms 100 to 219 acres	1959	997,210	317,870	679,340
	1954	1,210,298	485,358	724,940
	1950	1,379,654	612,638	767,016
Farms 220 to 499 acres	1959	660,027	89,376	570,651
	1954	688,755	152,731	536,024
	1950	691,530	170,829	520,701
Farms 500 to 999 acres	1959	199,755	16,263	183,492
	1954	191,697	33,123	158,574
	1950	183,913	32,675	151,238
Farms 1,000 or more acres	1959	136,300	5,961	130,339
	1954	130,481	13,845	116,636
	1950	121,063	11,778	109,285

[1] Includes abnormal farms.

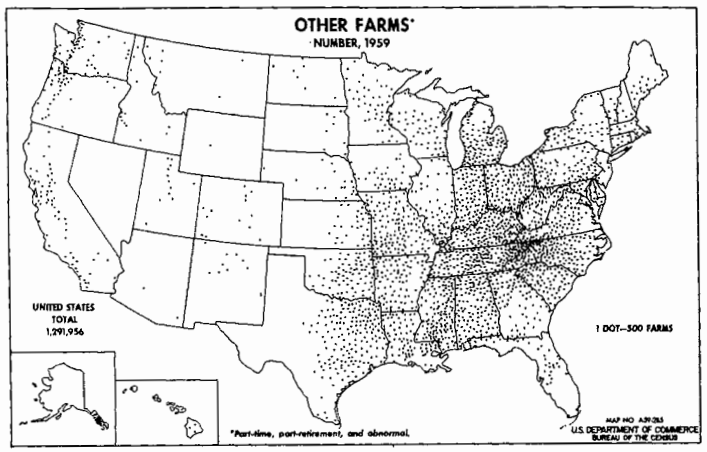
Most of the land in farms with less than $2,500 sales has been shifted to farms with greater sales.

Item and year	All farms	Farms with value of farm products sold of less than $2,500 [1]		Farms with value of farm products sold of $2,500 or more	
		Number	Percent of all farms	Number	Percent of all farms
Land in farms---acres (1,000) 1959	1,120,028	182,867	16.3	937,161	83.7
1954	1,160,044	275,008	23.7	885,036	76.3
1950	1,159,789	309,994	26.7	849,795	73.3
Cropland harvested---acres (1,000) 1959	313,446	27,072	8.6	286,374	91.4
1954	334,164	51,494	15.4	282,670	84.6
1950	345,528	70,113	20.3	275,415	79.7

[1] Includes abnormal farms.

OTHER FARMS

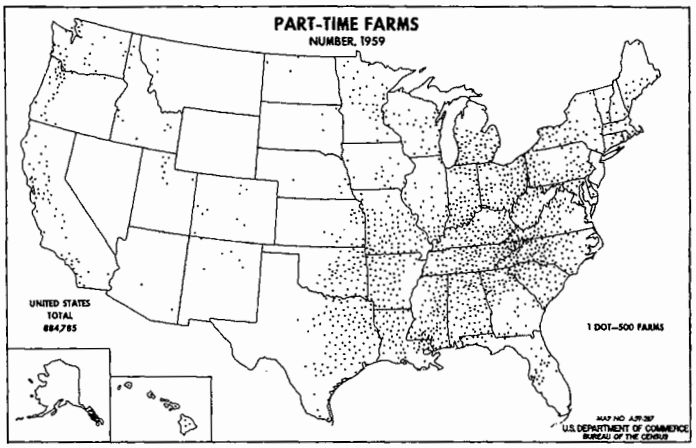
There were 1.3 million part-time, part-retirement, and abnormal farms in 1959. They accounted for 34.8 percent of all farms but only produced 3.8 percent of the value of all farm products sold. The largest concentration of other farms is found in the Appalachian areas of Tennessee, North Carolina, and Virginia and more generally in the eastern half of the United States. Most of these were part-time and part-retirement farms.



The characteristics of other farms are markedly different from those of commercial farms and the interests of the operators for these two distinct groups of farms are likewise different.

Item	Percent of total for all farms represented by—	
	Commercial farms	Other farms
Number of farms	65.2	34.8
Land in farms	87.0	13.0
Cropland harvested	94.2	5.8
Value of land and buildings	85.7	14.3
Value of farm products sold	96.2	3.8
Number of cattle and calves	91.3	8.7
Number of chickens 4 months old and over	89.2	10.8
Number of tractors (other than garden)	84.2	15.8
Expenditures for feed for livestock and poultry	94.2	5.8
Purchase of livestock and poultry	96.9	3.1
Expenditures for hired labor	96.6	3.4
Expenditures for gasoline and other petroleum fuel and oil for the farm business	92.9	7.1
Tons of fertilizer used	91.6	8.4
Tons of lime used	89.7	10.3
Farm operators 65 years old and over	34.5	65.5
Farm operators working off their farms 100 or more days	31.6	68.4
Farm operators reporting other members of the family working off the farm	55.8	44.2
Farm operators reporting income from sources other than the farm operated and off-farm work	50.0	50.0
Farm operators reporting income of family from sources other than the farm operated greater than the value of farm products sold	22.8	77.2

Part-time farms.—More than two-thirds of the farms classed as other farms in 1959 were part-time farms. Part-time farms comprise a variety of farm operating situations. Many farm operators who had little or no work off the farm, have obtained off-farm work and have continued to live on the farm and carry on some farm operations. In some cases, farming operations have been continued at about the same level as before off-the-farm work was undertaken. In other cases, farming operations have been reduced either as a result of changes in the family of the farm operator or as a result of increased nonfarm income and the diminished time available for farmwork. Expansion of industry and other off-the-farm employment opportunities have created work not only for the farm operator but also members of his family. In such cases, off-the-farm earnings of the farm operator and of members of his family increase the family income. Some persons with jobs in cities, industry, etc. have moved to rural areas to supplement their income by producing farm products to secure what they consider to be the advantages of country living. In some areas, part-time farming represents a transition from part-time to full-time farming, or to the discontinuing of farming.



Part-time farms comprise only a part of the farms on which the farm operator has full-time employment off the farm or the family of the farm operator secures more income from sources other than the farm operated than from farming operations. In 1959, there were 281,147 farm operators operating farms with a value of farm products sold of less than $2,500 and there were 69,893 farm operators of farms with a value of farm products sold of $2,500 or more, reporting that the income from sources other than the farm operated exceeded the value of farm products sold.

Almost 69 percent of part-time farm operators have full-time jobs off the farm operated (i.e., work off their farms 200 or more days). Over 80 percent of the operators of part-time farms worked off their farms 100 days or more in 1959.

Income from sources other than the farm operated or from off-farm work by the operator or members of his family provided the major source of income on 45 percent of the part-time farms. On one-third of the part-time farms, other members of the farm operator's family also worked at nonfarm jobs, businesses, professions, or on someone else's farm. Off-farm sources of income were more important than the sales of agricultural products on almost 90 percent of the part-time farms.

In 1959, part-time farms accounted for 6.0 percent of all land in farms, 3.7 percent of the acreage from which crops were harvested, 5.7 percent of the cattle and calves, 5.7 percent of the hogs and pigs, 6.0 percent of the chickens 4 months old and over, 1.4 percent of the hired regular farmworkers, and 11.6 percent of the tractors, other than garden. Operators of part-time farms used 5.7 percent of the fertilizer; 7.3 percent of the lime; and accounted for 3.1 percent of the total expenditures of all farms for

feed for livestock and poultry; the purchase of livestock and poultry; hired farm labor; gasoline and other petroleum fuel and oil for farm business; machine hire; and seeds, plants, bulbs, and trees in 1959. Over half of the farms operated by part-time operators were under 50 acres in size and 13.7 percent were less than 10 acres in size. Approximately one-fourth of the farms had no cropland harvested and 31.5 percent had less than 10 acres of cropland harvested. Only 5.1 percent of the part-time farms had 50 acres or more of cropland harvested in 1959. About 60 percent of the part-time farms had a tractor, almost 80 percent had an automobile, and over 90 percent had an automobile or truck or both. About half of the part-time farm operators used commercial fertilizer or fertilizing materials, and 7.7 percent used lime in 1959. The average amount of fertilizer used per farm reporting was about 2.5 tons and the amount of lime was 20.5 tons. Cattle were kept on 67.3 percent, milk cows on 40.9 percent, hogs and pigs on 45.9 percent, and chickens on 53.5 percent of the part-time farms. Over 60 percent of the land used for harvested crops was used for corn and hay. The sale of cattle and calves accounted for more than one-fourth of all the farm products sold and the sale of livestock and livestock products other than poultry and dairy products accounted for nearly half of the value of all farm products sold.

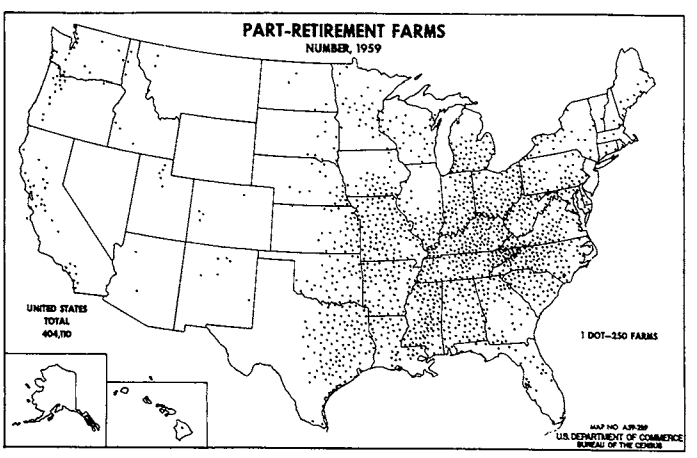
The amount and source of off-farm income for families of operators of part-time farms were obtained in a special survey made for a sample of farms in 1960.

The amount and source of off-farm income for families of the operators of part-time farms in 1960 were as follows:

Source of off-the-farm income	*Average income per family*
Total income from off-the-farm sources	$4,249
From cash wages and salaries	3,100
From nonfarm business or professional practice	667
From other sources	482

In 1959, the total value of farm products sold per part-time farm was $801. Net income from farming per part-time farm would have been relatively small. Thus income from off-farm sources was several times the amount of net farm income for part-time farming.

Part-retirement farms.—Part-retirement farms comprised 10.9 percent of all farms in 1959 but were relatively unimportant in terms of resources used and production. They accounted for 3.2 percent of all land in farms, 1.8 percent of cropland harvested, 2.5 percent of cattle and calves, 2.0 percent of hogs and pigs, 4.0 percent of tractors, other than garden, owned, and 1.1 percent of the value of all farm products sold in 1959. Part-retirement farms were numerous in the Appalachian Mountains area and in the southern and eastern half of the United States.



The average value of farm products sold per part-retirement farm was $854 in 1959. However, the income of the operator and his family from sources other than the farm operated exceeded the value of farm products sold on 58 percent of these farms.

Over one-fourth of the part-retirement farms had no cropland harvested and about two-thirds of those reporting cropland harvested had less than 20 acres of cropland harvested. About 6 percent of all part-time farms had 50 acres or more of cropland harvested, less than half had tractors, and less than 4 percent had hired farmworkers. About half of the farms used some commercial fertilizer and the average amount used per farm reporting was 2.3 tons. Cattle and calves were reported on 67.6 percent of the farms, milk cows on 46 percent, hogs and pigs on 38.6 percent, and chickens on 69 percent.

Corn and hay comprised almost two-thirds of the total acreage of crops harvested. The sale of cattle and calves accounted for 28 percent of the total value of farm products sold, and the sale of hogs, dairy products, and eggs accounted for another 25 percent of total sales.

By definition all of the operators of part-retirement farms were 65 years of age or over. Their average age was 71.1 years. Over 90 percent of the part-retirement farms were operated by owners. The average value of farm land and buildings was $11,034.

The amount and source of off-farm income for part-retirement farms were obtained by a special sample survey in 1960. The average amount of income from sources other than the farm operated was as follows:

Source of off-the-farm income	*Average income per family*
Total income from off-the-farm sources	$1,847
From cash wages and salaries	425
From nonfarm business or professional practice	138
From Federal Social Security, pensions, retirement pay, veterans' payments, and annuities	868
From rental of farm property to others	152
From other sources	264

Almost four out of five families of part-time farms received income from social security, pensions, etc. in 1960.

Abnormal farms.—Abnormal farms include institutional farms and Indian reservations regardless of the value of sales of farm products. From the standpoint of products sold, they are relatively unimportant, accounting for only 0.4 percent of the value of all farm products sold in 1959.

TYPE OF FARM

Basis of classification.—The classification of commercial farms by type was made on the basis of the relationship of the value of sales from one source, or a number of sources, to the total value of sales of all farm products sold from the farm. In order for a farm to be classified as a particular type, the value of sales from a product or a group of products had to represent 50 percent or more of the total value of sales of farm products.

The types of commercial farms for which data are presented in the 1959 Census of Agriculture, together with the product or group of products on which type classification is based, are as follows:

Type of farm	*Source of sales* [Products or groups of products amounting to 50 percent or more of the value of all farm products sold]
Cash-grain	Corn, sorghums, small grains, dry beans, field and seed beans and peas, cowpeas for peas, and soybeans for beans
Tobacco	Tobacco

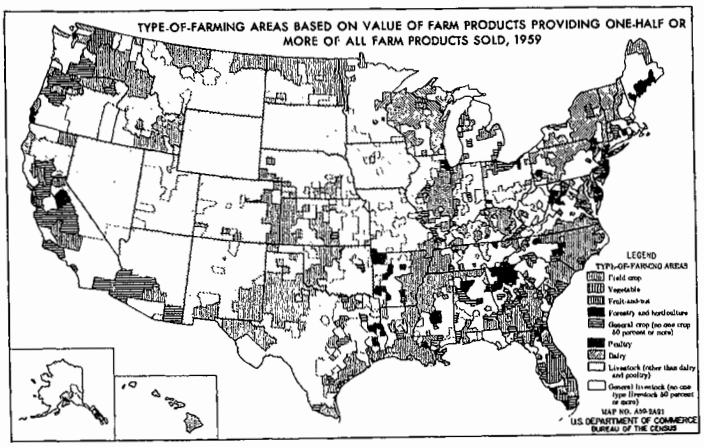
Type of farm	*Source of sales*
Cotton	Cotton
Other field-crop	Peanuts, Irish potatoes, sweetpotatoes, sugarcane for sugar or sirup, sweet sorghums for sirup, broomcorn, popcorn, sugar beets for sugar, mint, hops, pineapples, and sugar beet seed
Vegetable	Vegetables for sale
Fruit-and-nut	Berries, other small fruits, tree fruits, grapes, and nuts
Poultry	Chickens, chicken eggs, turkeys, and other poultry products
Dairy	Milk and cream. The criterion of 50 percent of total sales was modified in classifying dairy farms. A farm having a value of sales of dairy products amounting to less than 50 percent of the total value of farm products sold was classified as a dairy farm, if— (a) Milk and cream sold accounted for more than 30 percent of the total value of farm products sold, and (b) Milk cows represent 50 percent or more of total cows, and— (c) The value of milk and cream sold plus the value of cattle and calves sold amounted to 50 percent or more of the total value of all farm products sold.
Livestock other than dairy and poultry	Cattle, calves, hogs, sheep, goats, wool, and mohair, except for farms in the 17 conterminous Western States, Louisiana, Florida, Alaska, and Hawaii that qualified as livestock ranches
Livestock ranches	Farms in the 17 conterminous Western States, Louisiana, Florida, Alaska, and Hawaii were classified as livestock ranches if the sales of livestock, wool, and mohair represented 50 percent or more of the total value of farm products sold, and if pastureland or grazing land amounted to 100 or more acres and was 10 or more times the acreage of cropland harvested.
General	Field seed crops, hay, silage, or sales from three or more other sources and farms not meeting the criteria for any other type. That is, a farm was classified as "general" if the value of farm products sold came from three or more sources and did not meet the criteria for any other type.
Miscellaneous	Nursery and greenhouse products; forest products; horses, mules, colts, and ponies; and all institutional farms and Indian reservation farms.

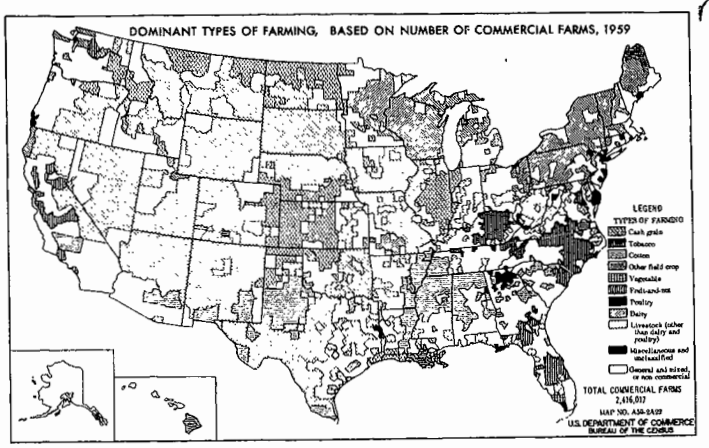
The above types were selected because they provide a classification or grouping of farms meaningful to large areas of the United States, as well as smaller areas of specialized production.

DISTRIBUTION OF COMMERCIAL FARMS BY TYPE

Of the 12 types of commercial farms, livestock farms other than dairy and poultry farms and livestock ranches ranked first in number of farms in the United States in 1959. Dairy farms ranked second in number, followed closely by cash-grain farms. For the country as a whole, cotton and general farms ranked fourth and fifth, respectively. These five types account for more than three-fourths of all commercial farms in the United States.

Regionally, there are some important variations from the National pattern. In the North, livestock farms and ranches other than dairy and poultry farms and livestock ranches represent the most numerous type. Dairy farms and cash-grain farms occupy second and third place, respectively. In the South, cotton farms are the most numerous, while tobacco farms and livestock farms other than poultry farms and livestock ranches rank second and third, respectively. These three types make up almost two-thirds of the commercial farms in the South.





The great diversity which characterizes the Western States results in somewhat less uniformity of farm type than is found in the North and the South. Livestock farms other than poultry and dairy farms and livestock ranches ranked first with 41,246 farms, or 17.8 percent of the commercial farms in the West. Cash-grain, fruit-and-nut, and dairy farms ranked 2, 3, and 4 and are each of almost equal numerical importance. Although the West is noted for its livestock ranches, this type ranked only fifth.

Dairy farms ranked first in number in most of the northeastern States and in Michigan, Wisconsin, and Minnesota. These States have favorable growing conditions for pasture and hay, favorable climate for dairy cattle, and large nearby markets for fluid milk and other dairy products.

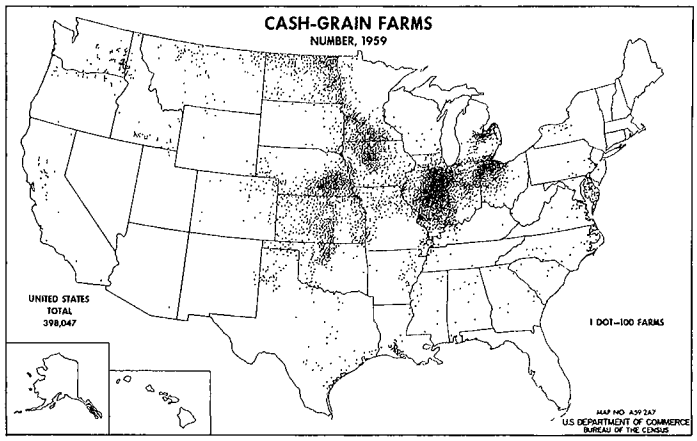
Cotton farms are the most important type numerically in most of the Southern States. Cattle raising is becoming more important in the South but in most of these States, the percentage of farms on which livestock provides the chief source of income is still small.

Cash-grain farms are the most numerous type in Illinois, where corn and soybeans are the most important cash crops, and in North Dakota and Kansas, where wheat is the chief cash crop. In many of the other States in which wheat is an important crop, cash-grain farms rank second in numerical importance.

The extent of specialization in farming in the various States is shown by the percentage of all commercial farms represented by the three most important types in each State. In only 15 States does a single type of farm account for 50 percent or more of all commercial farms, indicating that there is considerable variation in the types of farms in most States.

Cash-grain farms.—Out of the 2.4 million commercial farms, almost one-sixth were cash-grain farms. The greatest concentration of cash-grain farms was in the Corn Belt where corn

and soybeans are the principal cash-grain crops sold. In the Dakotas, Nebraska, Kansas, Oklahoma, Montana, Washington, and Oregon, wheat is the principal cash-grain crop and the cash-grain farms there were mostly wheat farms. Cash-grain farms in Arkansas, Mississippi, Louisiana, California, and on the Gulf Coast of Texas were rice farms. In some scattered areas, grain sorghums, dry field beans and peas, and small grains other than wheat and rice, were the principal source of income of cash-grain farms, but such farms comprised a relatively small part of cash-grain farms. Cash-grain farms were principally wheat farms, corn and soybean farms, or rice farms.



Cash-grain farms accounted for 66.5 percent of the value of wheat sold, 92.8 percent of the value of rice sold, 55.8 percent of the value of soybeans sold, and 58.5 percent of the value of corn sold on commercial farms in 1959. The sale of these four crops comprised 64.6 percent of all farm products sold from cash-grain farms.

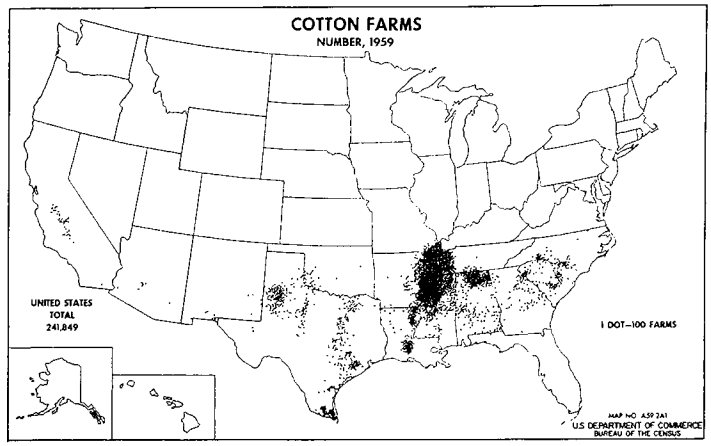
Cash-grain farms contained almost one-third of the cropland in the United States. They had 32.7 percent of the acreage of land from which crops were harvested and 70.9 percent of the land in cultivated summer fallow in 1959. They accounted for 32.0 percent of all the farms having 100 or more acres of cropland harvested. The 35,764 cash-grain farms with 500 acres or more of cropland harvested are largely wheat farms.

Cash-grain farms were highly mechanized. More than 93.5 percent had tractors other than garden, 71.1 percent had grain combines, 47.3 percent had corn pickers, and 75.4 percent had motortrucks in 1959. However, the degree of mechanization was much greater for the farms with $10,000 or more value of farm products sold than for farms with less than $10,000 value of farm products sold.

Cash-grain farms had 29.0 percent of the total acreage fertilized, 28.5 percent of the acreage of corn fertilized, 56.9 percent of the acreage of wheat fertilized, and 57.1 percent of the acreage of soybeans fertilized.

About one-third of the cash-grain farms had a value of farm products sold of less than $5,000. About three-fourths of these farms contained less than 220 acres and more than 90 percent had less than 200 acres of cropland harvested. Over one-fifth of the operators of these farms reported that the family income from sources other than the farm operated exceeded the value of farm products sold, 44.2 percent of the operators worked off their farms, 34.6 percent of the operators had income from sources other than the farm operated and off-farm work, and 19.5 percent reported other members of the family working off the farm in 1959.

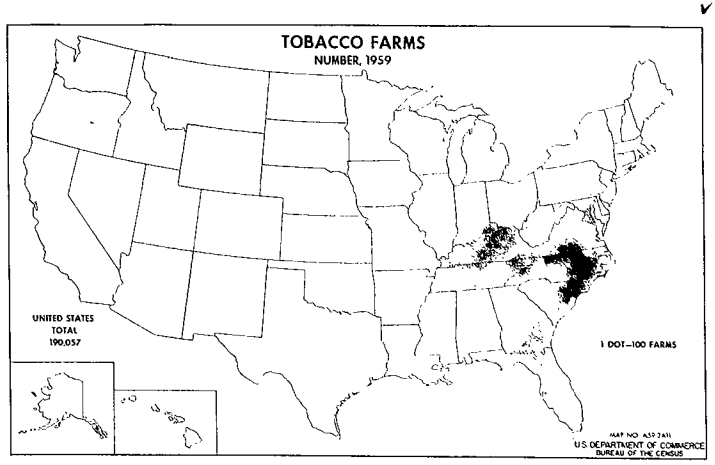
Cotton farms.—One out of every ten commercial farms in 1959 was classified as a cotton farm. Cotton farms were located almost entirely in the South and in irrigated areas of the West. The greatest concentration was in the Mississippi Delta. Operators of cotton farms accounted for 61.3 percent of the farm operators growing cotton in 1959 and 82.1 percent of all cotton harvested. Cotton farms had less than 8 percent of the total cropland in commercial farms. Many of the cotton farms were small. Two-fifths contained less than 50 acres and 57.8 percent contained less than 100 acres. Almost three-fifths had less than 50 acres of cropland harvested and only one-fourth had 100 or more acres of cropland harvested.



More than a fifth of the cropland harvested in cotton farms was irrigated, and one-fifth of all irrigated cropland harvested was on cotton farms. However, more than 85 percent of the irrigated cropland harvested on cotton farms was on the 29,155 cotton farms with a value of farm products sold of $20,000 or more and these farms produced 62.0 percent of all cotton sold from cotton farms in 1959.

The sale of cotton accounted for 79.8 percent of all crops sold and for 75.0 percent of all farm products sold from cotton farms. More than half of the cotton farms were tenant-operated and almost four-fifths of the tenants operated their farms under a crop-share arrangement. More than a third of the cotton farms were operated by nonwhite operators and more than one-half of all commercial farms operated by nonwhite operators were cotton farms.

Tobacco farms.—Tobacco farms comprised 7.9 percent of the 2.4 million commercial farms in 1959. Nearly all of the tobacco farms were in the South. Five States—North Carolina, South Carolina, Virginia, Kentucky, and Tennessee—had 90.9 percent of the tobacco farms. Tobacco farms had less than 2 percent of the cropland in commercial farms and tobacco accounted for less than 15 percent of the acreage of crops harvested on tobacco farms. Corn and hay crops comprise more than three-fifths of the acreage of all crops harvested on tobacco farms.

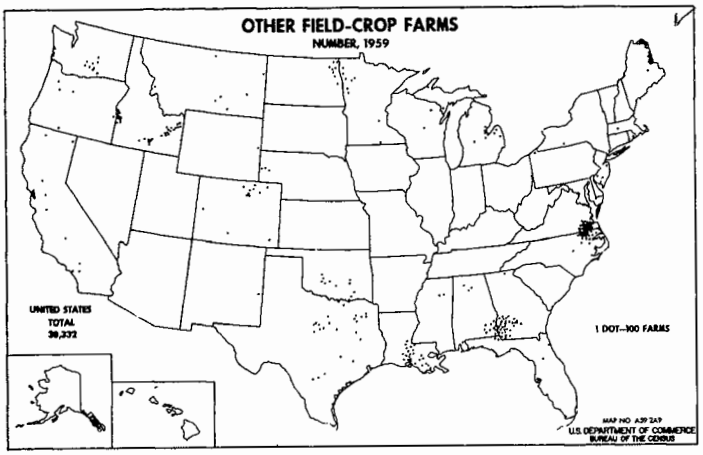


Tobacco farms were relatively small. Almost 70 percent contained less than 100 acres and 43.8 percent contained less than 50 acres. Eighty-eight percent had less than 50 acres of cropland harvested. More than two-fifths were operated by tenants, largely tenants renting for a share of the crop. More than one-fifth were operated by nonwhite operators and tobacco farms operated by nonwhite operators represented one-fourth of all commercial farms operated by nonwhite operators. The labor on tobacco farms was furnished largely by the farm operator and members of his family. An expenditure of $2,500 or more for hired labor was reported for only 2.3 percent of the tobacco farms, and an expenditure of less than $500 for 46.9 percent of the farms. Farm operators of tobacco farms depended primarily upon their farm operations for income for their families. For 93 percent of the farm operators, the income from the sale of agricultural products exceeded the income of the farm operator and his family from sources other than the farm operated.

Tobacco farms were highly specialized. Although the percent of cropland harvested in tobacco was less than 15 percent, the sale of tobacco accounted for 86 percent of the value of all crops sold and 77 percent of the value of all farm products sold from tobacco farms in 1959. Tobacco farms included 2,128 farms with a value of farm products sold of $20,000 or more. These were largely farms on which shade-grown and cigar types of tobacco were grown. Although these farms accounted for only 1 percent of all tobacco farms, they accounted for 8.9 percent of the value of all tobacco sold.

More than two-thirds of all tobacco farms had a value of farm products sold of less than $5,000. The average value of farm products sold per farm for these farms was only $2,616. More than a third of these farms were operated by tenants.

Other field-crop farms.—Other field-crop farms comprised only 1.6 percent of all commercial farms in 1959 and accounted for only 1.7 percent of the acreage of cropland harvested. Other field-crop farms represented different kinds of farms in the various areas. In most areas, it is possible to identify other field-crop farms with a specific crop. In Maine, New York, New Jersey, North Dakota, Minnesota, Idaho, and California they are principally potato farms; in North Carolina, Virginia, Georgia, Alabama, and Texas they are primarily peanut farms; and in Louisiana and Hawaii they are primarily sugarcane farms.

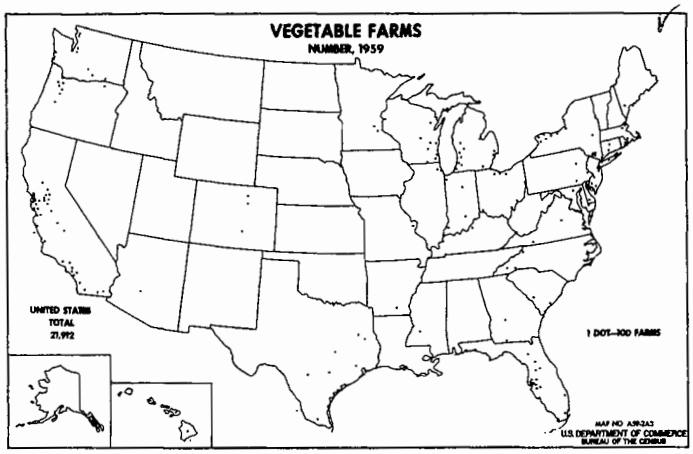


Other field-crop farms include 4,011 farms with sales of farm products of $40,000 or more. These 4,011 farms accounted for 55.8 percent of the value of all farm products sold from other field-crop farms. A total of 2,793 of these farms were large-scale potato farms and approximately 1,100 were sugarcane farms. These 4,011 farms accounted for more than half the fertilizer used, 77.1 percent of the regular hired workers, and 73.1 percent of the cash expenditures for hired labor on all other field-crop farms. The average amount of fertilizer used per farm was 144.8 tons and the average expenditure for hired labor was $29,509 per farm.

Almost one-third of the other field-crop farms had a value of farm products sold of less than $5,000. These 12,489 farms accounted for less than 4 percent of the total value of farm products sold from other field-crop farms. They were largely peanut farms and almost 40 percent were tenant-operated. The average value of farm products sold per farm was $2,416, the average tons of fertilizer used per farm was 5.4, and the expenditure for hired labor per farm was $162.

Vegetable farms.—Vegetable farms comprised less than 1 percent of all commercial farms and contained less than 1 percent of the total cropland in commercial farms. Vegetable farms, however, accounted for 2.2 percent of the value of all farm products sold and 71.6 percent of the value of all vegetables sold in 1959.

Vegetable farms were highly specialized. The sale of vegetables accounted for 81.7 percent of the value of all farm products sold from vegetable farms and the acreage of vegetables harvested for sale was 71.6 percent of the acreage from which crops were harvested. Fertilizer was used on 91.9 percent of the farms and the acreage fertilized was equivalent to 86.8 percent of the acreage from which crops were harvested. The average amount of fertilizer used per acre fertilized was 749 pounds.

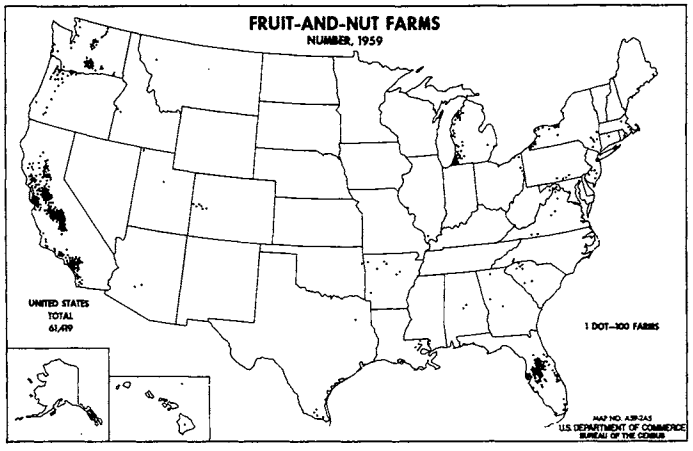


Vegetable farms are widely scattered. The greatest concentration was in California, Florida, New Jersey, Michigan, and Wisconsin. The production of vegetables was concentrated on a relatively small number of large-scale, highly specialized farms. The 5,267 vegetable farms with a value of farm products sold of $20,000 or more, accounted for over 80 percent of the value of all vegetables sold on vegetable farms and for 60.8 percent of the value of all vegetables harvested for sale in the United States. About 38 percent of the land used for crops was irrigated and the average acreage of irrigated land per farm was 150 acres. The average value of farm products sold per farm for these farms was $103,175 and the average expenditure for hired labor was $32,682 per farm.

Fruit-and-nut farms.—Fruit-and-nut farms represented 2.5 percent of all commercial farms; had 1.2 percent of the total cropland harvested; 77.6 percent of the land in berries, small fruits, fruit orchards, groves, vineyards, and planted nut trees; 4.5 percent of the value of all farm products sold; and 91.1 percent of all fruits and nuts sold in 1959. Fruit-and-nut farms were highly concentrated in a few localities. More than 75 percent of the farms were in the States of California, Florida, Michigan, Washington, New York, and Oregon.

The kinds of fruits and nuts grown in the various localities differ greatly. In western New York, apples and grapes were the

principal crops; grapes were the principal fruit crop around Lake Erie. Apples, cherries, peaches, grapes, and berries were the principal fruits in Michigan. In Washington and northern California, there was a large variety of fruits grown separately and in combination such as apples, pears, plums and prunes, cherries, grapes, walnuts, strawberries, and raspberries. In southern California citrus fruits, olives, grapes, walnuts, almonds, peaches, and apricots were grown separately and in combination. Oranges and grapefruit were the predominant fruits in Florida and the Rio Grande Valley of Texas. In Georgia and South Carolina peaches were the principal fruit grown. Apples were the important fruit crop along the Appalachian Mountains and parts of Arkansas and Missouri. Strawberries represent an important fruit crop in Arkansas, Louisiana, and along the Atlantic Coast.



Fruit-and-nut farms were highly specialized. The sale of fruits and nuts on fruit-and-nut farms in 1959 accounted for 93.3 percent of all farm products sold. The acreage of land in berries, small fruits, fruit orchards, groves, vineyards, and planted nut trees on fruit-and-nut farms was equivalent to 79.7 percent of the acreage of cropland harvested.

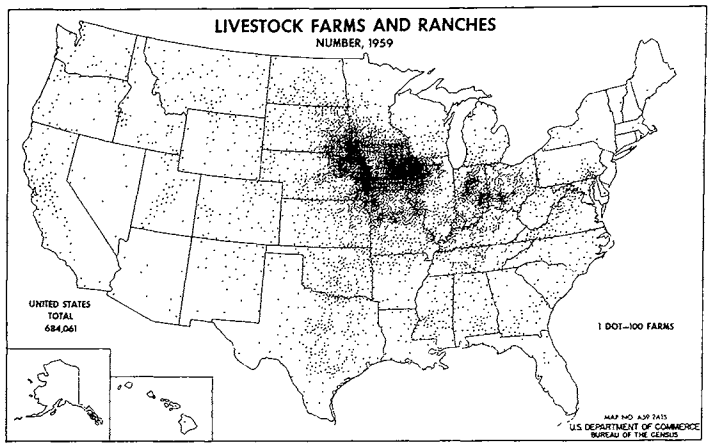
The 15,475 large-scale and highly specialized fruit-and-nut farms with a value of farm products sold of $20,000 or more accounted for 73.2 percent of the value of all fruits and nuts sold on all fruit-and-nut farms.

These large specialized farms with a value of farm products sold of $20,000 or more had an average acreage of land in fruit orchards, groves, vineyards, and planted nut trees of 121.7 acres. The average value of all farm products sold was $62,780 and the average value of fruits and nuts sold was $58,706. They had an average of 2.8 tractors (excluding garden tractors) per farm, an average expenditure for machine hire and hired labor of $17,854, and used an average of 47.1 tons of commercial fertilizer per farm.

More than half of the fruit-and-nut farms had a value of farm products sold of less than $10,000. The average acreage of cropland harvested on these farms was 21.6 and the acres in fruit orchards, groves, vineyards, and planted nut trees averaged 15.4 acres per farm.

Livestock farms other than poultry and dairy farms and livestock ranches.—Livestock farms and ranches other than dairy and poultry farms and livestock ranches comprised 25.5 percent of all farms, contained 24.3 percent of all the land in farms, 28.6 percent of the cropland harvested, and accounted for 27.4 percent of the value of all farm products sold in 1959. They had 41.2 percent of the cattle and calves and 62.2 percent of the hogs and pigs on all farms.

Livestock farms, other than dairy and poultry farms and livestock ranches, accounted for 67.7 percent of the hogs sold, 52.8 percent of the cattle and calves sold, and 63.8 percent of all live-



stock products other than dairy and poultry sold from all farms in the United States.

The average value of all farm products sold per farm was $13,086. Of the total value of sales, 81.4 percent was derived from the sale of livestock and livestock products other than dairy and poultry, 2.5 percent from dairy products, 1.9 percent from poultry products, and 14.3 percent from crops. Three out of four other livestock farms were owner-operated. Farm tenancy amounted to only 20.0 percent.

Livestock ranches.—The classification, livestock ranches, was used only in 18 Western States, Florida, Hawaii, and Alaska. Livestock ranches represent farms on which the chief emphasis is placed upon the production of livestock by grazing. The classification was not used in the remaining 29 States because in these States livestock farms consist almost entirely of farms on which livestock products are produced primarily by the feeding of crops or purchased feed.

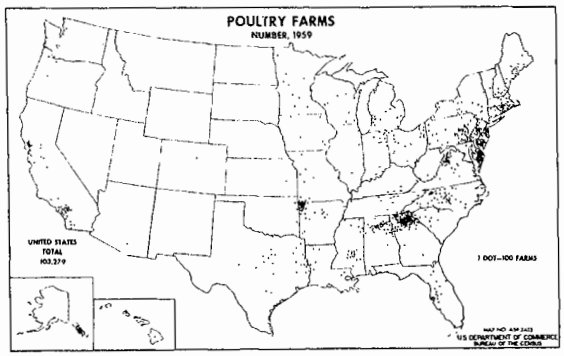
Livestock ranches comprised less than 3 percent of all commercial farms. They contained 31.5 percent of the land in farms, 1.6 percent of the cropland harvested; they had 54.9 percent of all land used for pasture and grazing, 15.5 percent of all the cattle and calves, 41.4 percent of the sheep and lambs, and 84.7 percent of the goats and kids. They accounted for 4.8 percent of the value of all farm products sold, 15.7 percent of the cattle and calves sold, and 38.0 percent of the sheep and lambs sold in 1959. Livestock ranches are located mainly in grazing areas of the western half of the United States. Areas of concentration include the Edwards Plateau of Texas, Flint Hills of Kansas, Sand Hills of Nebraska, western South Dakota, western North Dakota, Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, and Florida. Some areas of concentration were in the grazing areas of Washington, Oregon, and California.

The characteristics of livestock ranches differ in various parts of the country. Usually only one kind of livestock, cattle, sheep or goats, are kept on the same ranch. Both cattle and sheep ranches are found in the western part of the country. Goat ranches are limited almost entirely to New Mexico, Texas, and Arizona. The livestock ranches in Florida and Hawaii were cattle ranches. Livestock ranches were highly specialized. The sale of livestock and livestock products (other than dairy and poultry products) accounted for 95.9 percent of all farm products sold from livestock ranches. Almost 90 percent of the livestock ranches are owner- or manager-operated. Only one out of four had regular hired workers.

The 6,757 large ranches (sales of $40,000 or more of all farm products) accounted for about one-seventh of the production on livestock ranches. These large-scale ranches accounted for 60.1 percent of the sale of livestock and livestock products (other than dairy and poultry products), 54.4 percent of the cattle and calves,

and 55.0 percent of the sheep and lambs sold from livestock ranches.

Poultry farms.—Poultry farms comprised 103,279 of the 2.4 million commercial farms in 1959. They had almost half the chickens 4 months old and over, accounted for 60.0 percent of the chicken eggs, 93.3 percent of the chickens including broilers sold, and 80.1 percent of the value of poultry and poultry products sold from all commercial farms. A total of 68.4 percent of the poultry farms were located east of the Mississippi River. The greatest concentrations of poultry farms were in the broiler-producing areas in Georgia, Alabama, Mississippi, Arkansas, Delaware, and Maryland. Over 90 percent of the poultry farms were owner-operated.

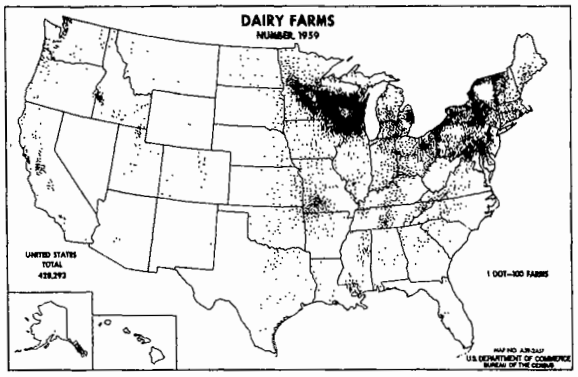


The 11,151 poultry farms with gross sales of farm products of $40,000 or more were distinctly different from the poultry farms with a smaller value of farm products sold. The average value of farm products sold per farm of these large-scale poultry farms was $81,426 as compared with $12,013 for all other commercial poultry farms. These 11,151 farms accounted for 45 percent of all farm products sold by poultry farms, and 46.4 percent of all poultry and poultry products sold from all commercial poultry farms. The expenditures for feed on these farms were 43.8 percent of the feed expenditures of all poultry farms and 12.2 percent of the feed expenditures for all commercial farms.

Poultry farms also included many farms with relatively small operations. There were 48,881 poultry farms with a value of farm products sold of less than $10,000. These farms comprised 47.3 percent of all poultry farms, but only accounted for 12.1 percent of all farm products sold and 11.4 percent of all poultry and poultry products sold from all poultry farms. A total of 45.9 percent of the operators of these small-scale poultry farms were 55 years old or over. A total of 44.7 percent of the operators worked off their farm, and 31.8 percent worked off their farm 100 days or more. The families of the operators of 37.6 percent of these farms obtained more income from off the farm operated than from the sale of agricultural products.

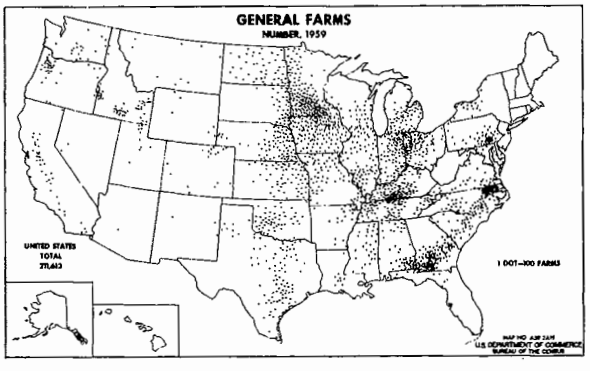
Dairy farms.—Dairy farms represented the second largest group of specialized farms in 1959. They contained 9.1 percent of all land in farms, 12.5 percent of cropland harvested, accounted for 15.7 percent of all farm products sold, and 85.6 percent of all dairy products sold from all commercial farms in 1959. Dairy farms comprised 17.7 percent of all commercial farms and had 18.7 percent of all regular hired workers in 1959. Dairy farms were most concentrated in the New England States, New York, Pennsylvania, New Jersey, Delaware, Maryland, Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, and along the Pacific Coast.

There were large differences in the size of operations of dairy farms. There were 8,538 large-scale dairy farms with a value of farm products sold of $40,000 or more. These farms accounted for 17.2 percent of all dairy products sold on dairy farms and 14.7 percent of dairy products sold from all commercial farms. Almost 60 percent of these farms had 100 or more milk cows. The



expenditures for feed on these farms represented more than one-fifth of the expenditures for feed for all dairy farms and 5.3 percent of the feed expenditures for all commercial farms. There also were 30,342 dairy farms with sales of farm products of less than $2,500. Over 98 percent of these farms had less than 20 milk cows. They accounted for only 0.9 percent of the dairy products sold from all dairy farms.

General farms.—General farms comprised 8.8 percent of all commercial farms, contained 6.1 percent of the land in farms, and 9.6 percent of the land from which crops were harvested for all commercial farms in 1959. They accounted for 7.0 percent of the total value of all farm products sold from all commercial farms in the United States.



General farms were most numerous in the North Central States. Other areas of concentration were in Kentucky, Tennessee, Georgia, Alabama, Oklahoma, and Texas.

There were several important sources of sales for general farms. In some areas, there were two or three important sources. In other areas, a larger number of farm enterprises provided the sources of income. There were wide differences in the kinds of crops, as well as in the kinds of livestock, contributing to the sale of farm products on general farms. In the South, tobacco and cotton were important crops contributing to sales from general farms. In the Corn Belt corn, soybeans, and Irish potatoes were important. In other areas Irish potatoes, beans, and wheat were the principal crops. In some areas dairy products comprised the principal sources of livestock and livestock products sales. In other areas hogs and cattle were important. In a few areas, poultry and poultry products formed the principal source of sales of livestock and livestock products.

Miscellaneous farms.—The 37,155 miscellaneous commercial farms comprised principally farms producing nursery and greenhouse products, although the total includes some farms on which the sale of forest products or of horses was the principal source of income. The sale of horticultural specialties and forest products accounted for 91.3 percent of the value of all farm products sold on miscellaneous farms. Over three-fourths of the value of all farm products produced on miscellaneous farms were sold from 7,894 farms with a value of farm products sold of $20,000 or more.

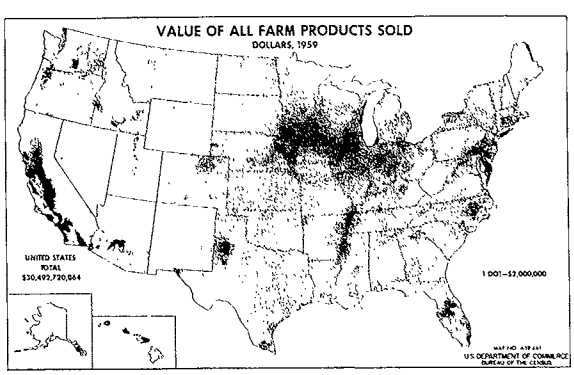
Section 3.—AGRICULTURAL PRODUCTION

Agricultural production involves many types of products. It includes food for human consumption from plants and livestock, fiber for clothing and other uses, forest products, oil crops, products used as inputs for further agricultural production such as hay and feed, grains for livestock, and products used in nonagricultural production. The wide range of climate and agricultural resources in the United States make possible a wide diversity of agricultural products. Rainfall, length of growing season, terrain, kind of soil, distance to market, bulk of product, availability of processing facilities, price, etc., influence the kinds of farm products produced in each area. Some agricultural products are grown widely throughout the United States on all sizes. types, and classes of farms. Other products are grown on specialized farms. Some crops require rather precise soil and climatic conditions. Also, the relative importance of various products in American agriculture has changed over time. This section of the Graphic Summary of Agricultural Resources and Production, 1959, presents briefly the nature and extent of agricultural production in the United States including distribution and trends in production.

In most areas, the small-scale diversified farm is disappearing and agricultural production is being concentrated on a relatively small number of highly specialized farms. A relatively large number of farms producing most farm products discontinued production or ceased operation during the last decade. During the period 1954–59, there were large-scale reductions in the number of farms producing various farm products—cotton, 41 percent; corn for grain, 22 percent; tobacco, 19 percent; vegetables for sale, 35 percent; land in fruit orchards and vineyards, 35 percent; apples, 43 percent; dairy products sold, 31 percent; chicken eggs sold, 37 percent; and hogs sold, 11 percent. On the other hand, in 1959, a large part of the production of many farm products was concentrated on a relatively small proportion of the 3.7 million farms. For example, 20,000 farms produced over 16 percent of all farm products sold, 4,700 farms raised 88 percent of all the turkeys going to market, 34,000 farms produced one-fourth of all whole milk sold, 12,000 farms produced four-fifths of the Irish potato crop, 29,000 farms produced almost three-fifths of the cotton crop, 5,300 farms produced over three-fifths of all vegetables sold, and 15,000 fruit-and-nut farms produced over three-fifths of all fruits and nuts marketed.

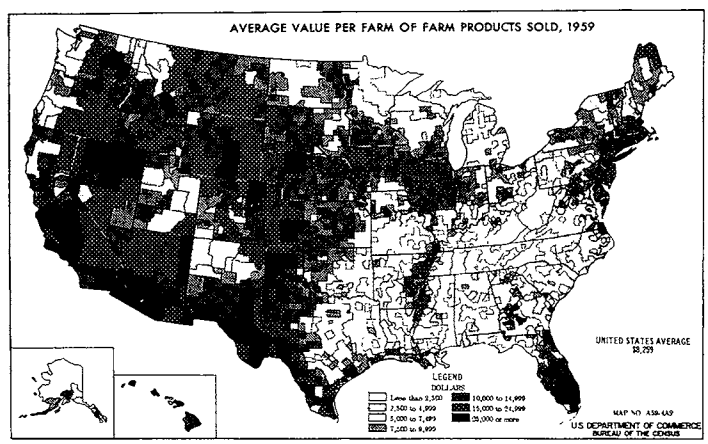
ALL PRODUCTS

The value of all farm products sold for the conterminous United States totaled $30.3 billion in 1959. This was an increase of $5.7 billion from 1954. Livestock and livestock products made up 56.1 percent of all farm products sold in 1959 compared with 49.9 percent in 1954.

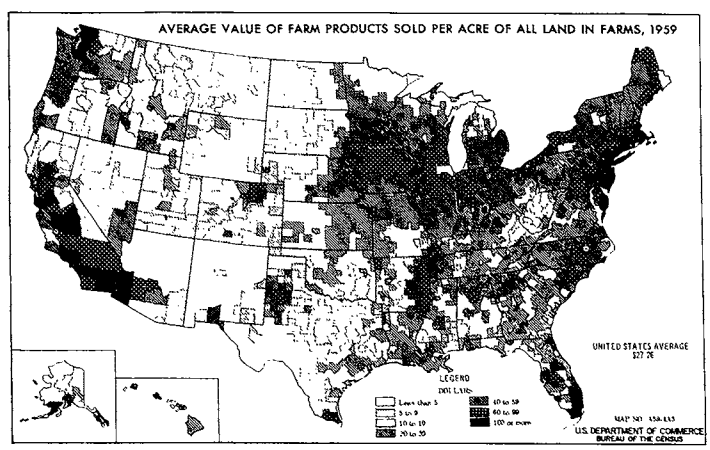


The value of farm products sold provides an overall measure of total farm production. A large part of the total value of all products sold came generally from the Corn Belt in the North Central divisions although there were other important areas. California accounted for 9.3 percent of the total value of all farm products sold in the United States in 1959 and ranked first among all other States. Iowa ranked second with 7.5 percent.

The average value of all farm products sold per farm in the conterminous United States in 1959 was $8,191. This is up 58.9 percent from 1954 when it was $5,153.



The average value of farm products sold per acre of all land in farms is highest in those areas with inherently fertile soils and where a high proportion of the land in farms is used as cropland. Such areas include the Corn Belt and the Lower Mississippi Valley. Other areas with high average values are those in which high-value crops make up an important part of the farm products sold. Areas in which average values of farm products sold per acre are low are most extensive in the West, where large acreages of pasture and grazing land are needed for livestock production. In the eastern States, rough topography and poor soils are commonly associated with a low value of production per acre in numerous areas.

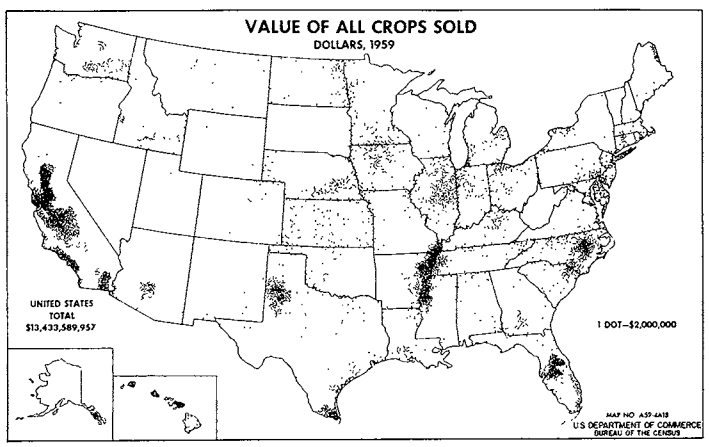


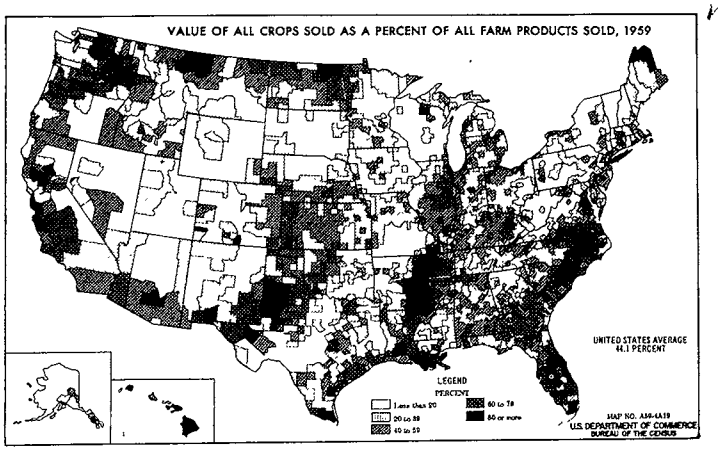
PRINCIPAL FARM PRODUCTS SOLD

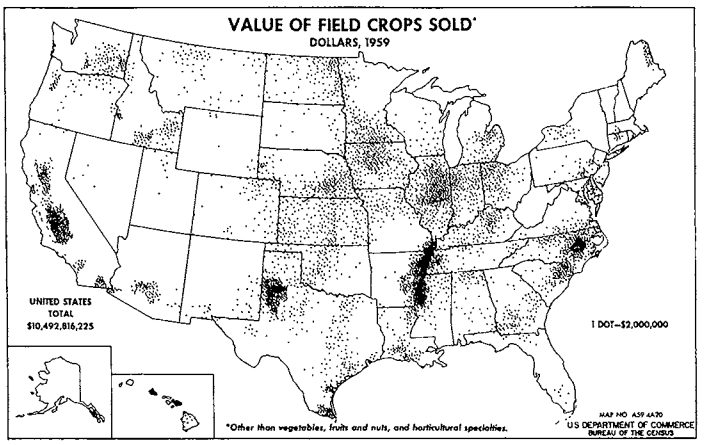
The following table lists the farm products, each with a value of sales of $100 million or more in 1959, in order of their importance as measured by the value of sales for the 50 States. These 27 farm products accounted for about 91 percent of the value of all farm products sold in 1959.

VALUE OF SALES OF 27 PRINCIPAL FARM PRODUCTS FOR THE UNITED STATES: 1959

Farm product	Rank	Value ($1,000,000)
Total, all farm products sold	xxx	30,493
Total, 27 farm products sold	xxx	27,722
Cattle (excluding calves) sold alive	1	5,952
Whole milk and cream	2	4,022
Hogs and pigs sold alive	3	2,435
Cotton	4	2,343
Calves sold alive	5	1,880
Corn for grain	6	1,780
Wheat	7	1,736
Chicken eggs	8	1,061
Soybeans for beans	9	981
Tobacco	10	948
Broilers	11	750
Irish potatoes	12	415
Oranges (all)	13	395
Turkeys, ducks, geese, and their eggs sold	14	340
Sheep and lambs sold alive	15	338
Sorghums for grain	16	333
Alfalfa and alfalfa mixtures for hay	17	278
Rice	18	245
Barley	19	241
Apples	20	205
Sugar beets for sugar	21	187
Oats for grain	22	179
Grapes	23	165
Dry field and seed beans	24	136
Peanuts for nuts	25	131
Peaches	26	126
Sugarcane for sugar	27	121







Crops sold in the conterminous United States in 1959 were valued at $13.3 billion. Although this was up from the $12.2 billion in 1954 it represented a smaller percent of the value of all products sold in 1959 than 1954. The areas of greatest concentration of crop sales include the cotton and rice producing areas of the Mississippi Valley; the irrigated areas producing cotton, vegetables, and fruits in the West; the cotton and tobacco producing areas of North and South Carolina; the citrus and vegetable producing areas of Florida and Texas; and the wheat, corn, and soybean producing areas of the Midwest.

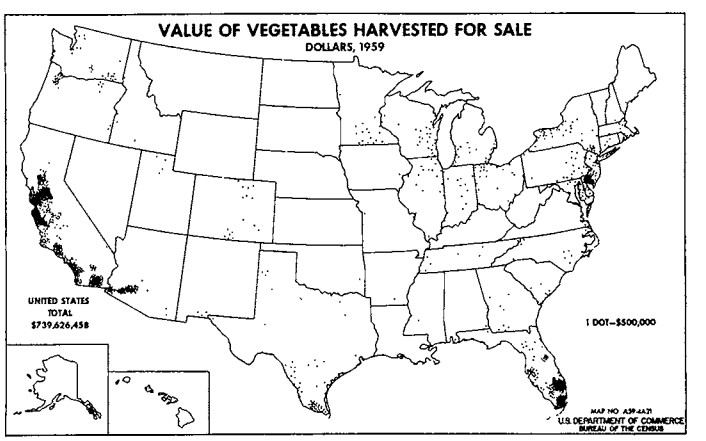
All crops.—The total value of all crops sold—field crops, vegetables, fruits, nuts, forest products, and horticultural specialties—amounted to $13.3 million for 1959.

Cotton.—Cotton was the most important crop sold on the basis of the value of sales. The value of sales for 1959 was $2,343 million and represented 7.7 percent of the total value of all agricultural products sold and 17.6 percent of the total value of all crops sold.

Corn.—Corn was the second most important single crop item from the standpoint of total value of sales. The 1959 value of the portion sold as grain was $1,780 million and represented 5.9 percent of the total value of sales of all farm products. The 1959 value of sales comprised 13.4 percent of the total value of the sales of all crops.

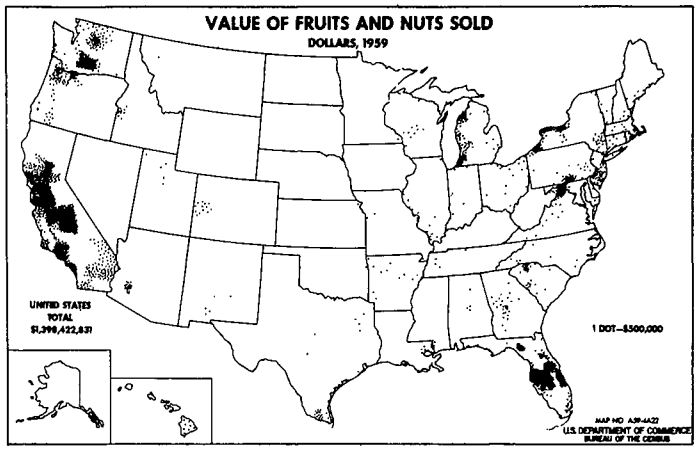
Wheat.—Wheat was the third most important crop on the basis of the value of sales. The value of sales for the 1959 crop was $1,736 million and represented 5.7 percent of the total value of farm products sold and 13.0 percent of the total value of all crops sold. The quantity of wheat sold represented 92.8 percent of the quantity harvested in 1959 as compared with 88.4 percent in 1954.

Vegetables.—The total value of vegetables sold in 1959 was $736 million. The value of vegetables sold was 5.5 percent of the total value of all crops sold for 1959. For 1959, vegetables sold

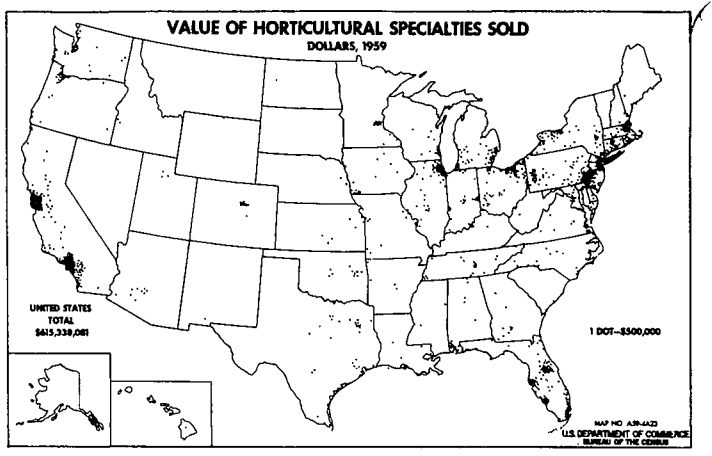


represented 2.4 percent of the total value of all farm products sold as compared with 2.6 percent for 1954.

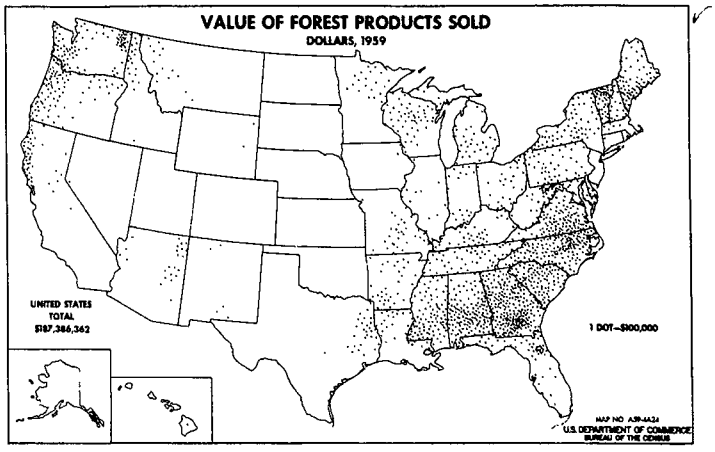
Fruits and nuts.—The total value of fruits and nuts sold for 1959 was calculated to be $1,393 million. The 1959 figure represents 10.5 percent of the total value of all crops sold, as compared with 9.8 percent in 1954.



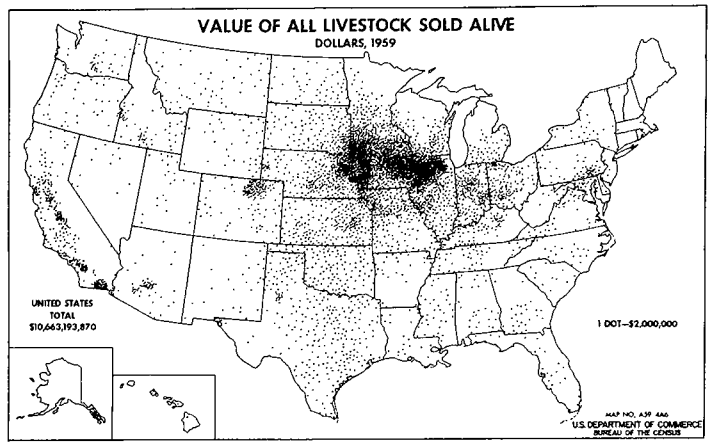
Horticultural specialties.—The total value of horticultural specialties sold in 1959 was $613 million. For 1959, the value of sales represented 4.6 percent of the total value of all crops sold. Most areas of concentrated sales of horticultural product sales are near to large urban areas.



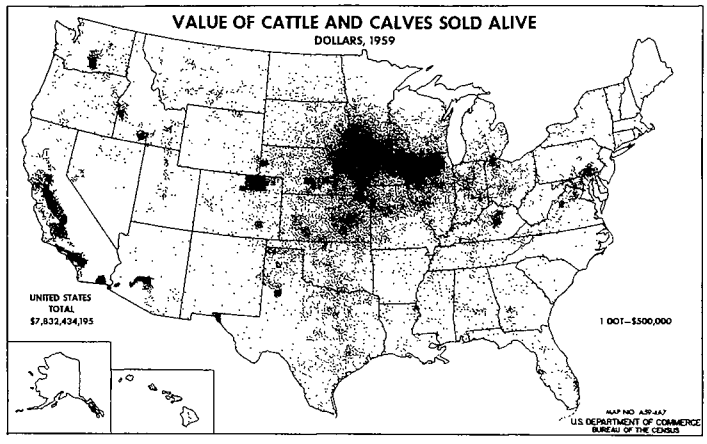
Forest products sold.—The value of forest products sold in 1959 was $187 million. The value represented 0.6 percent of the total value of all farm products sold in 1959. Most forest products are sold from farms in the eastern and southern parts of the United States.



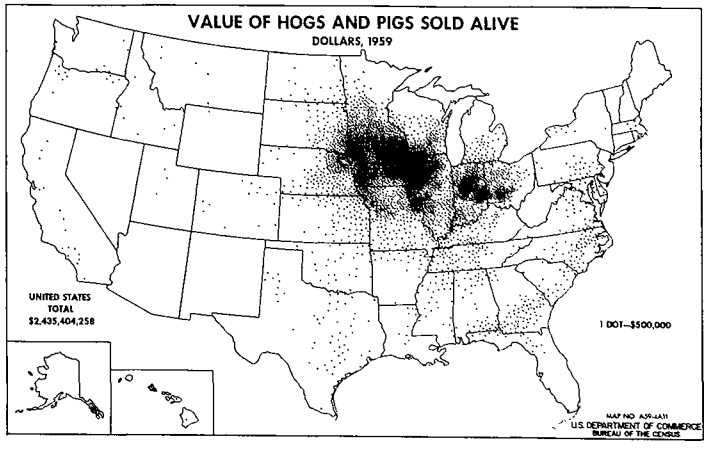
Livestock and poultry and livestock and poultry products sold.—The total value of sales of livestock and poultry and their products for 1959 was $17,025 million. This total represents 56.1 percent of the total value of all products sold in 1959. The areas of greatest concentration included the Corn Belt, the dairy areas of eastern United States, and irrigated areas in California and other parts of the West.



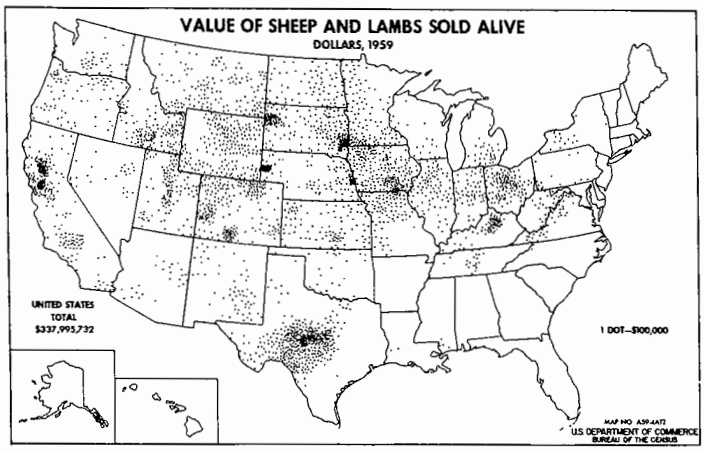
Cattle and calves.—The value of sales of cattle and calves for 1959 was $7,821 million. The 1959 total represents 25.8 percent of the total value of all farm products sold. A large part of the sales of cattle and calves is concentrated in the Corn Belt. Other areas of concentration include the irrigated areas of the West, dairy areas in the East, and areas of concentrated poultry and egg production in the South.



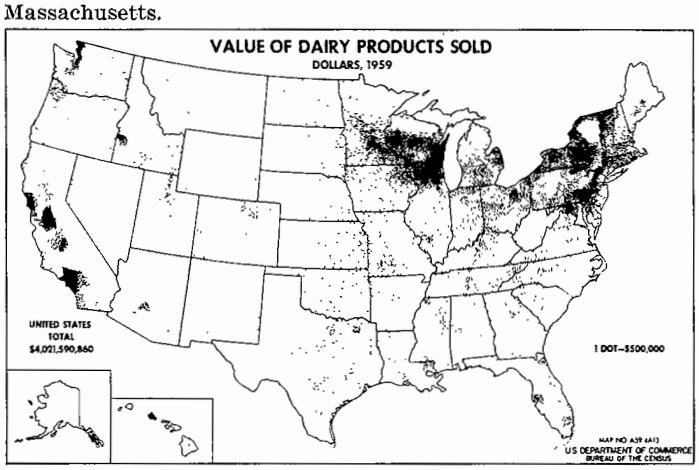
Hogs and pigs.—The 1959 value of sales for hogs and pigs was $2,432 million. Hog production is concentrated in the Corn Belt, with over 80 percent of all hog sales in 1959.



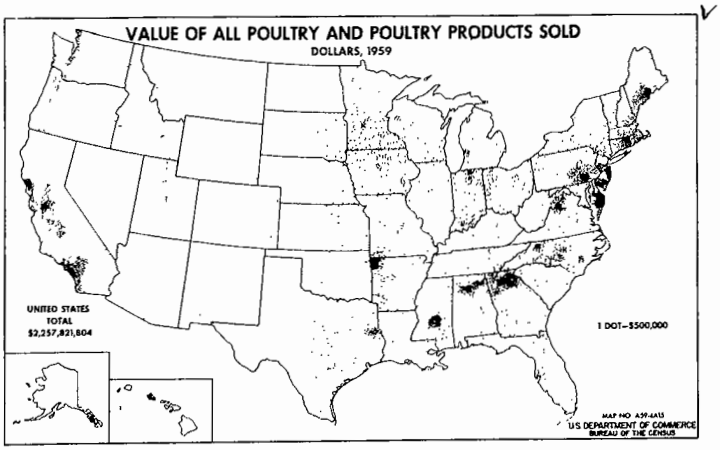
Sheep and lambs.—For 1959, the value of sheep and lambs sold was $338 million. The total sales shown by the census include not only sheep and lambs sold for slaughter but also those sold to other farmers as well as those shipped to stockyards and auction yards for further sale to farm operators for further growth or fattening.



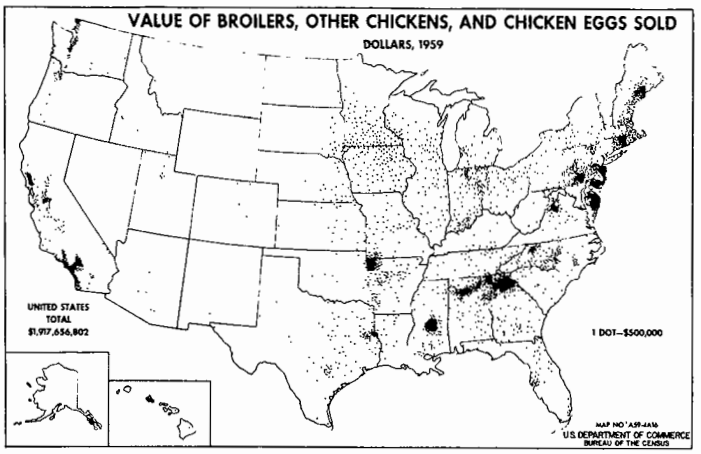
Dairy products.—The total value of dairy products (milk and cream) sold was $4,010 million for 1959, or 20.3 percent above the $3,334 million reported for all dairy products sold for 1954. Sales of milk and cream in 1959 represented 23.6 percent of the total value of all livestock and poultry and their products sold, and 13.2 percent of the value of all farm products sold. Over one-half of the value of all dairy products sold were in California, Minnesota, Wisconsin, Michigan, New York, Pennsylvania, and Massachusetts.



Poultry and poultry products.—The value of all poultry and poultry products sold in 1959 totaled $2,250 million. Most of these sales were from specialized farms in specialized producing areas in California, Arkansas, Mississippi, Alabama, Georgia, Virginia, Maryland, Pennsylvania, New Jersey, and New England.



Broilers comprised 87.3 percent of the number of all chickens sold in 1959, compared to 81.8 percent in 1954. The value of broilers sold comprised 87.6 percent of the value of all chickens sold in 1959, compared to 79.9 percent in 1954.



The value of sales for chicken eggs in 1959 was $1,056 million, or 15.2 percent above the $917 million reported for 1954. Over one-third of all eggs sold are produced on 11,300 specialized farms and three-fourths of all broilers sold come from 15,381 highly specialized broiler-producing farms.

CROP PRODUCTION

Acreage and production of principal crops.—In 1959, more than 308 million acres of field crops other than vegetables, small fruits and berries, and fruit and nut crops were reported as harvested. The total value of all field crops harvested was $16.1 billion. Field crops accounted for 84 percent of the value of all crops harvested in 1959. However, only 19 field crops accounted for as much as one-half of 1 percent of the total value of all field crops harvested and value of production of these 19 field crops accounted for 97 percent of the value of all field crops harvested in 1959. The acreage of these 19 field crops represented 86 percent of the acreage of cropland harvested in 1959.

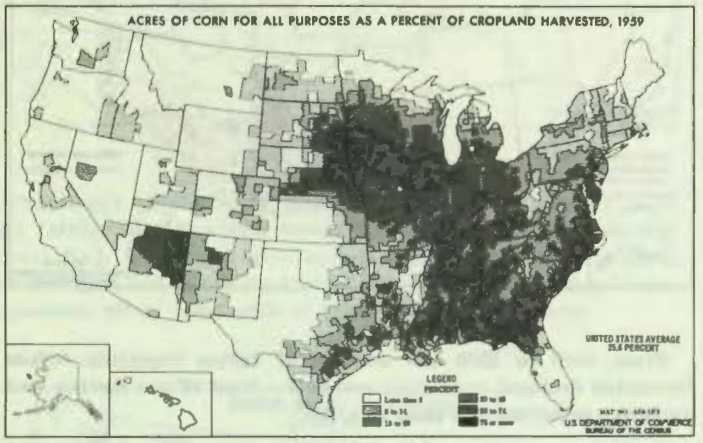
VALUE OF PRODUCTION FOR PRINCIPAL FIELD CROPS: 1959

Item	Farms reporting, percent of all farms	Acres harvested as a percent of cropland harvested	Total value of production		
			Total (millions of dollars)	Percent of value of all field crops harvested	Average per farm reporting (dollars)
All field crops	NA	98.9	16,084	100.0	NA
Corn for all purposes	57.8	25.6	4,384	27.3	2,045
Cotton	13.7	4.7	2,343	14.6	4,598
Wheat	25.1	15.9	1,872	11.6	2,010
Alfalfa and alfalfa mixtures cut for hay	26.2	8.4	1,270	7.9	1,309
Soybeans for all purposes	15.6	7.3	1,036	6.4	1,791
Tobacco	11.2	0.4	948	5.9	2,274
Oats for grain	27.7	8.5	639	4.0	622
Sorghums for all purposes	8.9	5.8	577	3.6	1,756
Irish potatoes	18.5	0.4	480	3.0	700
Clover, timothy, and mixtures of clover and grasses cut for hay	17.3	4.5	437	2.7	682
Barley	7.8	4.6	343	2.1	1,183
Rice	0.3	0.5	249	1.6	23,876
Sugar beets for sugar	0.6	0.3	187	1.2	7,890
Wild hay	5.1	3.4	144	0.9	765
Peanuts for all purposes	2.8	0.5	141	0.9	1,351
Dry field and seed beans	0.9	0.5	138	0.9	3,978
Sugarcane for sugar	0.1	0.1	121	0.8	39,410
Other hay	6.7	1.6	119	0.7	476
Lespedeza hay	6.7	1.0	80	0.5	324

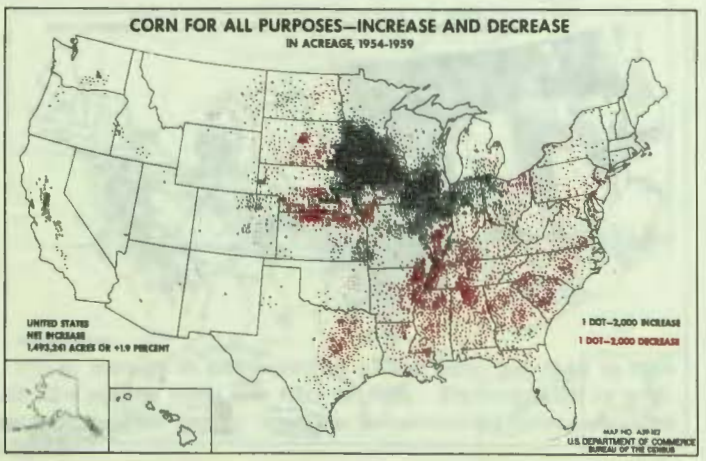
NA Not available.

FIELD CROPS

Corn.—Corn is the most important crop grown in the United States. It was grown in 1959 on almost three-fifths of all farms; its acreage was equivalent to more than one-fourth of the acreage of land from which crops were harvested. Corn production is concentrated in the Upper Mississippi River Basin. More than 70 percent of the corn acreage and nearly 80 percent of the corn produced in 1959 was concentrated in the nine States of Iowa, Illinois, Indiana, Ohio, Minnesota, Wisconsin, Nebraska, Missouri, and South Dakota.



The 79.6 million acres of corn harvested for the conterminous United States in 1959 represent a 1.9 percent increase above the acreage harvested in 1954. Favorable weather conditions, the removal of government acreage allotments in commercial producing areas, and an increase in government support prices were the principal reasons for the increase in acreage.

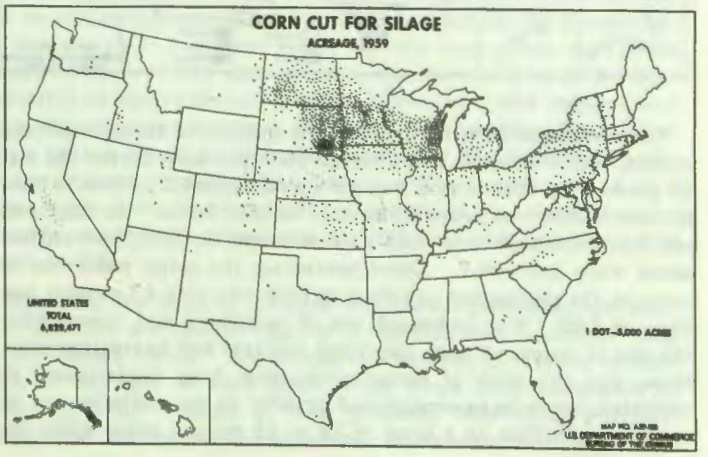


The production of corn for grain, 3.7 billion bushels, was the largest reported in any census and represents a 41 percent increase over that of 1954. In 1959, favorable weather conditions, increased use of commercial fertilizer, hybrid seed, and improvement in tillage and harvesting methods resulted in the highest yield ever recorded by a census (52.8 bushels per acre). The 6.8 million acres of corn cut for silage in 1959 was down only slightly from the census record of 6.9 million acres reported in 1954.

Significant changes have occurred in the number of farms which harvested corn, the acreage harvested, and the production of corn for grain during the last 30 years. Corn was grown on less than half as many farms in 1959 as in 1929. More than half of the decrease in the number of farms growing corn occurred during the last 10 years. Of the 1.3 million decrease from 1949 to 1959 in the number of farms growing corn, more than three-fifths was accounted for by the decrease in the number of farms growing 10 acres or less.

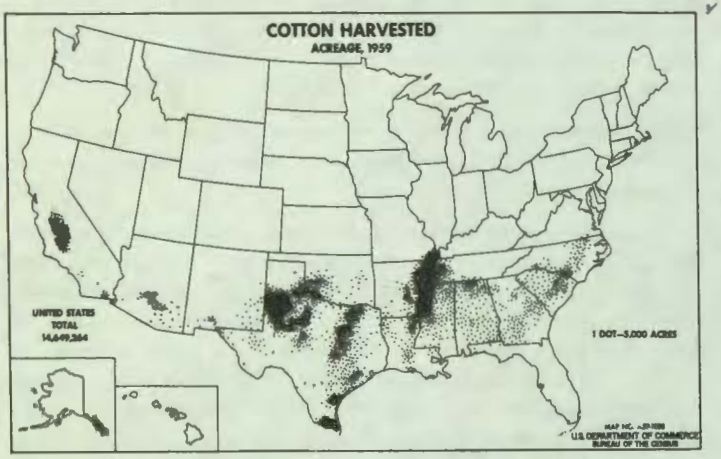
The 79.6 million acres of corn harvested for all purposes in 1959 was 18.5 percent less than the 97.7 million acres harvested in 1929.

Almost 90 percent of the corn acreage is harvested for grain. The production of corn for grain for the two census years 1959 and 1954, was 48 percent greater than for the census year 1929, although the 1959 and 1954 acreage was less than the 1929 acreage. The yield per acre for 1959 was 52.8 bushels per acre as compared with 25.6 bushels per acre for 1929. The increased use of hybrid seed, fertilizers, improved tillage and harvesting equipment, and the discontinuance of corn production on small farms and less productive lands account for the significant increase in corn yield.

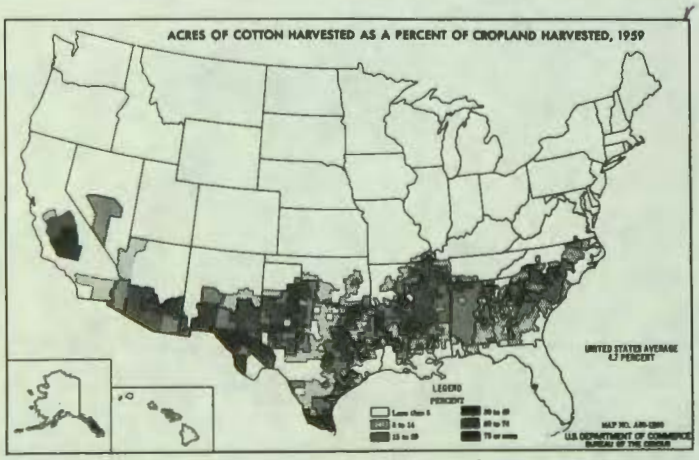


Cotton.—On the basis of value, cotton is the second most important crop harvested in the United States. While cotton accounts for almost 15 percent of the value of all field crops harvested, the acreage of cotton harvested in 1959 represented less than 5 percent of the acreage of land from which crops were harvested.

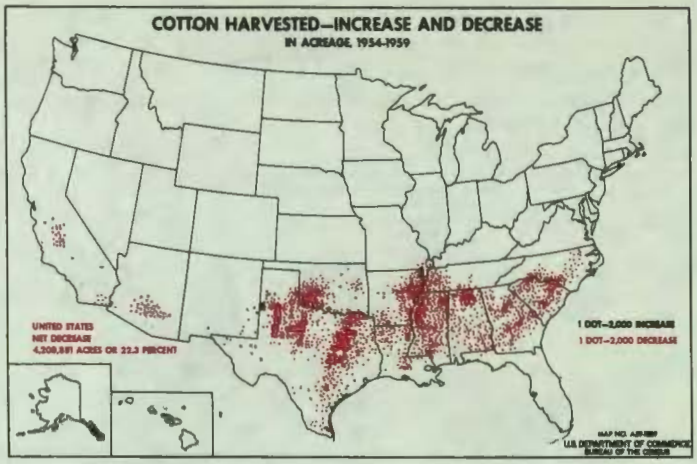
Cotton was harvested from 14.6 million acres in 1959, the smallest acreage reported for any census since 1879, and 4.2 million below the acreage harvested in 1954. However, the 1959 crop of 14 million bales was almost 8 percent above the production of 1954. The average yield of 0.95 bale per acre was the highest ever recorded for any census. This record high yield per acre was primarily due to better production practices, the diversion of land under governmental control programs, and the shift of cotton acreage from nonirrigated to irrigated areas.



Almost all cotton is grown in the southern and western part of the United States. Approximately 20 percent of the acreage is irrigated. However, the production on irrigated land accounts for approximately 33 percent of the total.



Large changes have occurred in the number of farms reporting cotton, cotton acreage, and average yield per acre during the last 30 years. In 1929, cotton was grown on almost 2 million farms; in 1959, cotton was reported on only 509,540 farms. In 1929, cotton was harvested from 43.2 million acres; in 1959, 14.6 million acres were harvested. Notwithstanding the large reduction in acreage, the production of cotton in 1959 was only 4.5 percent less than in 1929. The increased use of fertilizers and insecticides, the use of improved seed, improved cultural and harvesting practices, and the shift of cotton production from nonirrigated to irrigated lands have contributed greatly to the maintenance of cotton production at a level of 12 to 15 million bales while the cotton acreage has declined from more than 43 million to less than 15 million acres. There also has been a shifting of cotton acreage from the southeastern United States to the West during the last 20 years.



From 1949 to 1959 the number of farms reporting cotton harvested declined more than one-half. Most of the decline was in farms reporting less than 25 acres.

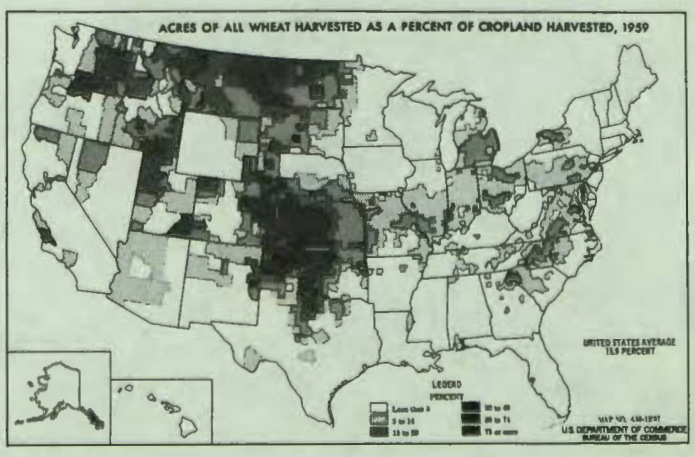
COTTON—FARMS REPORTING BY ACRES HARVESTED: 1959 AND 1949

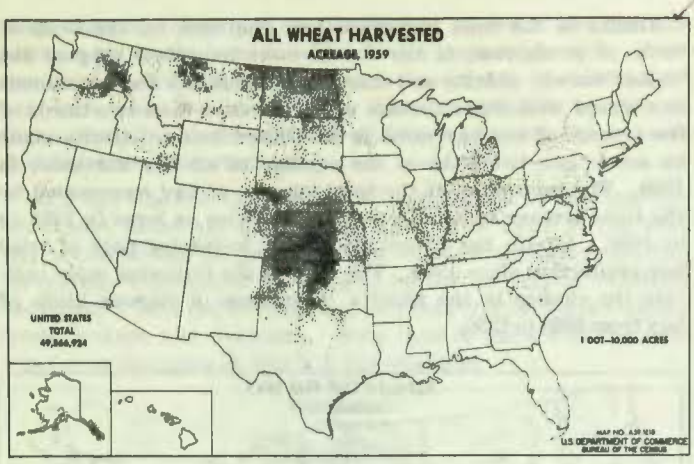
Farms with acres harvested of—	Farms reporting	
	1959	1949
Total	508,502	1,110,876
Under 5 acres	98,138	172,364
5 to 24 acres	289,668	718,208
25 to 49 acres	54,446	116,730
50 to 99 acres	34,132	56,677
100 to 199 acres	21,191	29,743
200 acres and over	10,927	17,154

More than half of the cotton in 1959 was produced on the 26,648 farms which harvested 100 or more bales. Approximately one-fifth of the cotton was harvested on farms producing 500 or more bales.

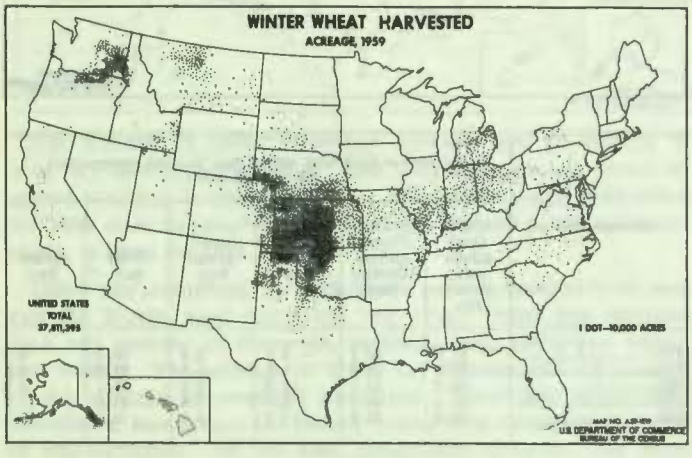
Wheat.—The value of wheat harvested in 1959 amounted to about one-eighth of the value of all field crops harvested and its acreage was equal to approximately one-sixth of the acreage of land from which crops were harvested.

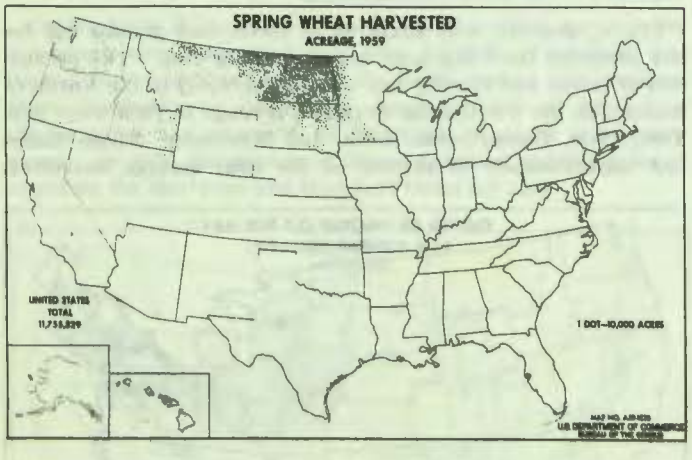
The wheat acreage is concentrated in the Central and Northern Great Plains and in the Pacific Northwest, where rainfall is low and where there is considerable fluctuation in annual yield.



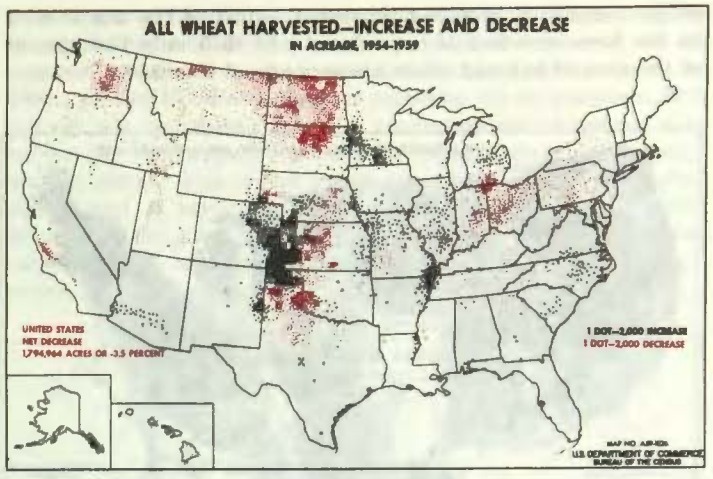


Practically all the wheat grown in the Southern Great Plains and farther east is winter wheat, i.e., sown in the fall. Spring wheat, both durum and other spring, is produced in the Northern Great Plains and in the Northwest. The acreage of spring wheat represents about one-fourth of the acreage of all wheat.





Wheat acreage in 1959 was 21.6 million acres less than in 1949 and 12.4 million acres less than in 1929. The reduction in acreage has resulted largely from the governmental acreage control program.



Winter, spring, and durum wheat were grown on more than 900,000 farms in 1959. Although about three out of five farms harvested fewer than 25 acres of wheat, a significant part of the total acreage of wheat was on the farms that had 300 acres or more, and on the 12,064 farms that harvested 10,000 or more bushels.

WINTER, SPRING (OTHER THAN DURUM), AND DURUM WHEAT—FARMS REPORTING BY ACRES HARVESTED AND BY BUSHELS HARVESTED: 1959

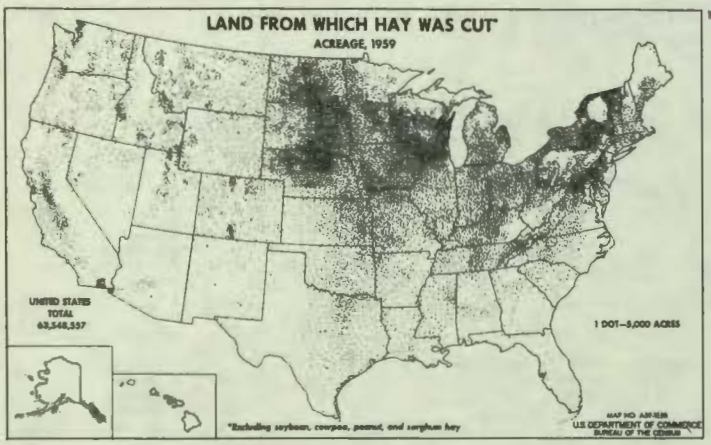
Item	Number of farms reporting, 1959		
	Winter wheat	Spring wheat other than durum wheat	Durum wheat
Farms reporting, total	780,425	113,267	16,793
Farms reporting by acres harvested:			
Under 15 acres	327,335	23,741	2,088
16 to 24 acres	163,125	16,010	2,340
25 to 49 acres	133,513	18,587	4,444
50 to 199 acres	114,421	42,381	7,036
200 to 299 acres	19,019	7,288	578
300 to 499 acres	14,516	3,864	256
500 acres or more	8,496	1,396	51
Farms reporting by bushels harvested:			
Under 100 bushels	81,877	8,255	1,388
100 to 499 bushels	366,985	43,598	5,698
500 to 999 bushels	148,975	20,515	3,524
1,000 to 4,999 bushels	148,717	36,344	5,688
5,000 to 9,999 bushels	22,112	3,783	428
10,000 bushels or more	11,759	772	67

Most of the wheat produced is sold. In 1959, 93.3 percent of the winter wheat, 89.9 percent of the durum wheat, and 90.5 percent of spring wheat other than durum was sold.

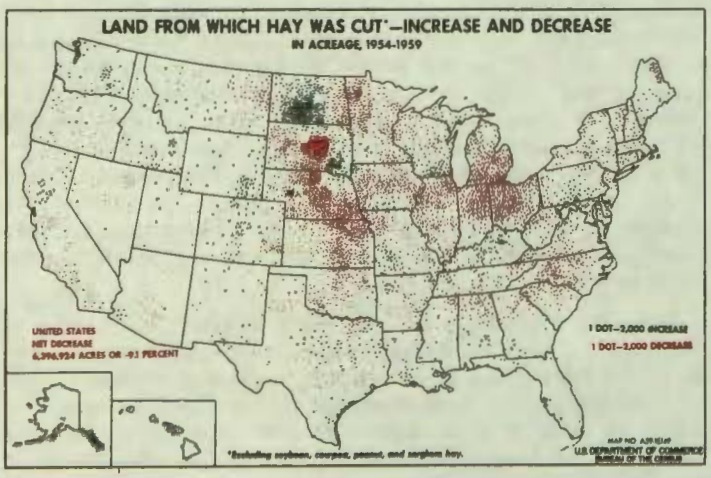
Although the 49.6 million acres of wheat harvested in 1959 was the smallest acreage harvested in any census since 1934, the production of 1.1 billion bushels of wheat in the United States was the largest ever reported for any census. In fact, the production of wheat was 11.7 percent larger in 1959 than when the record census acreage of 73.1 million acres was harvested in 1919. The reduction of approximately 2 million acres from 1954 resulted not only from acreage allotments but also from some abandonment of acres as the result of drought in parts of the Northern Great Plains States, primarily South Dakota. The record yield of 21.3 bushels per acre was nearly four bushels greater than the previous census record established in 1944, and was approximately equal to 1954.

Hay.—On the basis of acreage, hay (other than sorghum, peanut, soybean, and cowpea hay) is the second most important crop in the United States. The acreage in hay was equivalent to one-fifth of the area of land from which crops were harvested in 1959. In most counties in New England, New York, Pennsylvania, and the Mountain States, hay represented more than half

of the acreage of cropland harvested. Most of the hay is used on the farm on which it is produced. In 1959, only 14.6 percent of the tons of hay and grass silage produced was sold.



The acres of land from which hay was cut declined 6.4 million acres, or 9.2 percent, from 1954 to 1959. Much of this decrease occurred through the Corn Belt and Central Great Plains although there were other widely scattered areas of decrease. Decreases were especially heavy in central South Dakota. The only large area of increase in acreage occurred in central North Dakota.

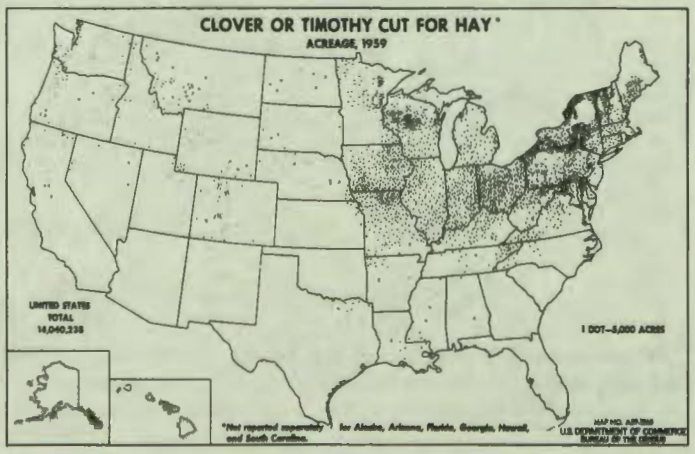


Alfalfa is the most important hay crop and, on the basis of value of production, is the fourth most important crop in the United States. Alfalfa and other leguminous hay and leguminous hay mixed with other grasses comprise more than two-thirds of the acreage of hay harvested in the United States. Alfalfa made up more than two-fifths of the acreage of all hay harvested in 1959. The proportion of the total acreage of hay represented by the total acreage of alfalfa was nearly twice as large in 1959 as in 1939. Alfalfa has accounted for an increasing part of total hay production since 1939. The data in the following table indicate the change in the relative importance of various kinds of hay from 1939 to 1959.

Census year	Percent of land from which hay was cut represented by acreage of—					
	Alfalfa (and alfalfa mixtures) hay	Clover and/or timothy hay	Lespedeza hay	Small grain hay	Wild hay	Other hay
1959	41.1	22.1	4.9	5.6	16.5	9.8
1954	37.2	24.2	4.7	6.7	17.8	9.4
1949	24.3	22.5	10.3	7.2	21.1	9.9
1944	20.4	30.8	8.1	7.8	21.2	11.7
1939	20.9	28.2	7.7	9.9	19.5	13.8

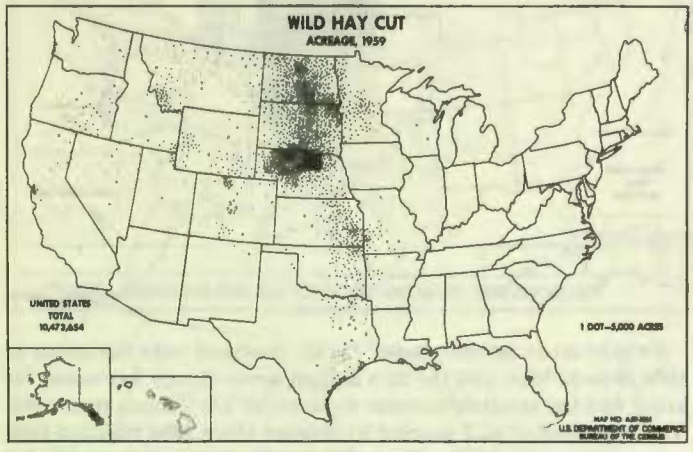
The acreage of alfalfa is concentrated in irrigated areas in the West and in the North Central States.

Clover, timothy, and mixtures of clover and grasses cut for hay comprise the tenth most important field crop. The production of clover and timothy hay was concentrated in the Northern States and the five leading States in acreage in 1959 were New York, Ohio, Pennsylvania, Iowa, and Wisconsin. These States had approximately 43 percent of the total acreage harvested.



More than 91 percent of the production of clover and timothy hay was fed on the farm on which it was produced in 1959. Both the number of farms reporting and the acreage of this kind of hay have been declining. From 1944 to 1959, the number of farms reporting decreased almost 50 percent and the acreage declined more than one-third.

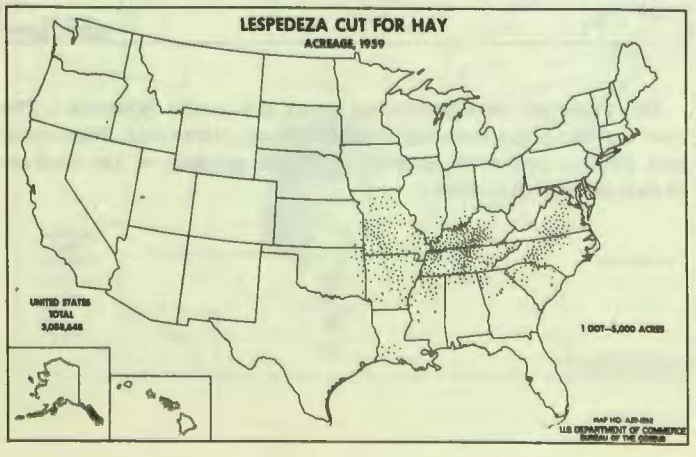
Wild hay was the fourteenth most important field crop and the third most important hay crop in 1959. The value of the wild hay produced was 0.9 percent of the value of all field crops, but its acreage represented 3.4 percent of the acreage of cropland harvested. Wild hay is important as a field crop in North Dakota, South Dakota, and Nebraska. More than 90 percent of the crop was fed on the farms on which it was produced.



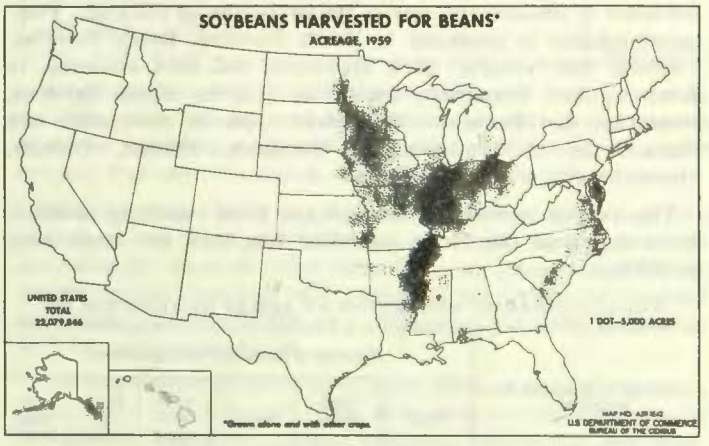
The number of farms reporting, acreage, and production of wild hay have been declining. Less than half as many farms reported wild hay in 1959 as in 1944. The acreage and production for 1959 were approximately 68 percent and 60 percent, respectively, of those for 1944.

Other hay comprised the eighteenth most important field crop and the fourth most important hay crop. Other hay includes such hay grasses as Bermuda, orchard, bent, bluegrass, millet, and Sudan. The acreage of other hay represented 1.6 percent of the acreage of cropland harvested. Other hay crops were distributed throughout the United States with no significant area of concentration. Of the nine geographic divisions, the West South Central States had the largest number of farms reporting and the highest acreage of other hay crops harvested in 1959.

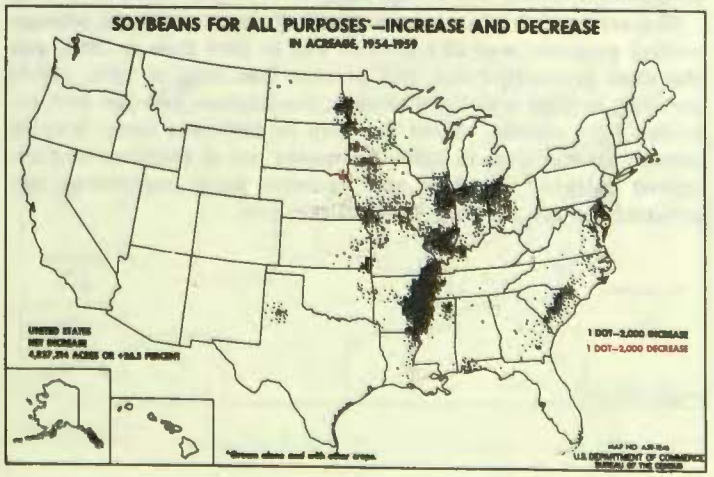
On the basis of the value of production, lespedeza hay was the nineteenth most important field crop in 1959. Lespedeza was limited to the northern part of the South and to the Northern States bordering on the South. Approximately 94 percent of the lespedeza hay was used on the farms on which it was produced. In 1959, the number of farms reporting and the acres of lespedeza for hay were less than half those for 1949.



Soybeans.—The fifth leading crop in 1959 on the basis of value of production was soybeans. The acreage in soybeans for all purposes accounted for 7.4 percent of the cropland harvested in 1959. Of the harvested acres of soybeans for all purposes, 95.7 percent was harvested for beans, approximately 1.4 percent was cut for hay, 1.8 percent was used for forage (silage or grazing), and 1.1 percent was plowed under for green manure. The principal areas of production were Illinois, Iowa, Indiana, Ohio, Minnesota, and the Upper Mississippi River Delta. In 1959 the value of sales was approximately 96 percent of the crop harvested for beans.

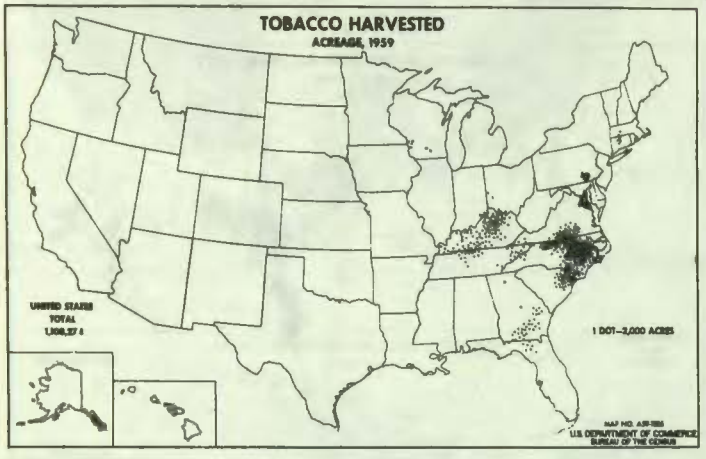


Soybeans is a relatively new crop. In 1909, the census showed less than 2,000 acres harvested. The 23 million acres grown for all purposes in 1959 were more than seven times the acreage 30 years earlier, and was almost twice the acreage in 1949. The acreage for all purposes in 1959 was 26 percent greater than the acreage in 1954. Significant increases in acreage occurred



between 1954 and 1959 in the principal soybean producing areas and in the southeastern States. A large area of increase has been in the Mississippi Delta area although there have been other important areas of increase in the Corn Belt and along the South Atlantic Coastal Plains.

Tobacco.—Tobacco was the sixth leading field crop harvested in 1959. Although the acreage in tobacco was less than one-half of 1 percent of the acreage of all field crops harvested, it accounted for 5.9 percent of the value of all field crops harvested.



Tobacco production is highly localized due primarily to the influence of climate and soil on the properties of the leaf. Flue-cured tobacco is produced in North Carolina, South Carolina, Virginia, and Georgia; dark fired-cured and dark air-cured, in Kentucky and Tennessee; burley, in Virginia, North Carolina, Kentucky, and Tennessee; Maryland type, in Maryland; and cigar type, in Pennsylvania, Wisconsin, Florida, Georgia, Massachusetts, and Connecticut.

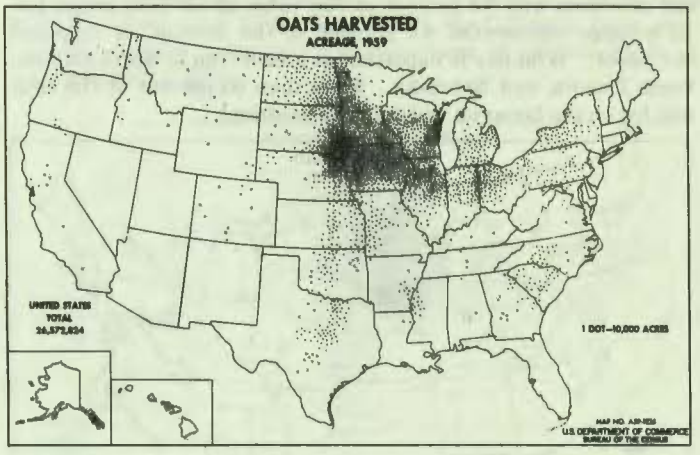
The average acreage of tobacco per farm reporting is small. More than half the farms harvested less than two acres each in 1959.

TOBACCO—FARMS REPORTING BY ACRES HARVESTED: 1959

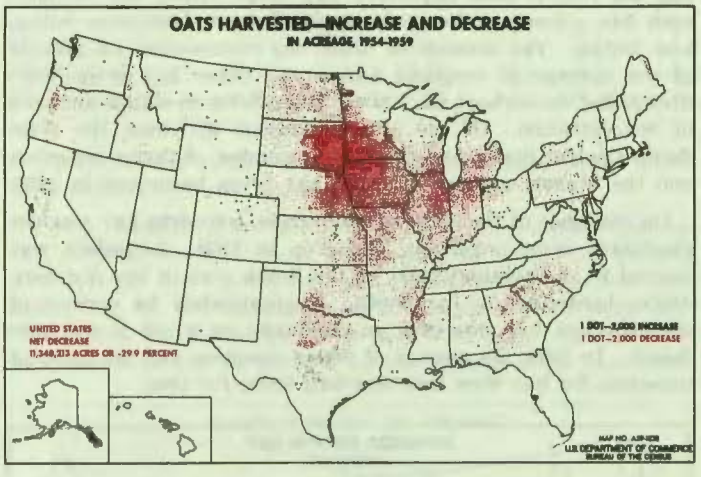
Farms with acres harvested of—	Number of farms harvesting tobacco					
	Total	Flue-cured	Burley	Dark fire-cured	Dark air-cured	All other types
Total	416,634	159,491	197,368	10,559	14,157	35,059
Under 0.5 acre	34,187	2,251	24,676	465	4,567	2,228
0.5 to 0.9 acre	102,406	5,811	82,169	1,155	4,682	8,589
1.0 to 2.4 acres	123,794	41,584	64,067	4,861	4,033	9,249
2.5 to 4.9 acres	93,021	63,302	19,624	3,105	762	6,228
5.0 to 9.9 acres	51,558	39,144	5,796	867	107	5,644
10.0 or more acres	11,668	7,399	1,036	106	6	3,121

The acreage of tobacco, as a result of the government acreage control program, was 28.8 percent less in 1959 than in 1954, and the total production was 16.7 percent less than in 1954. Yield per acre in 1959 was 1,486 pounds, the highest average ever recorded by a census. Yield per acre in 1959 was more than 62 percent greater than in 1939. Increased use of fertilizer and improved cultural practices and varieties have contributed significantly to the increase in yield per acre.

Oats.—Oats for grain was the seventh most important field crop harvested in 1959 from the standpoint of value of production. Oats accounted for 4 percent of the value of all field crops harvested, but its acreage was equivalent to 8.5 percent of the acreage of land from which crops were harvested. A large proportion of the oats is fed on the farms on which produced. In 1959, only 28 percent of oats harvested was sold.

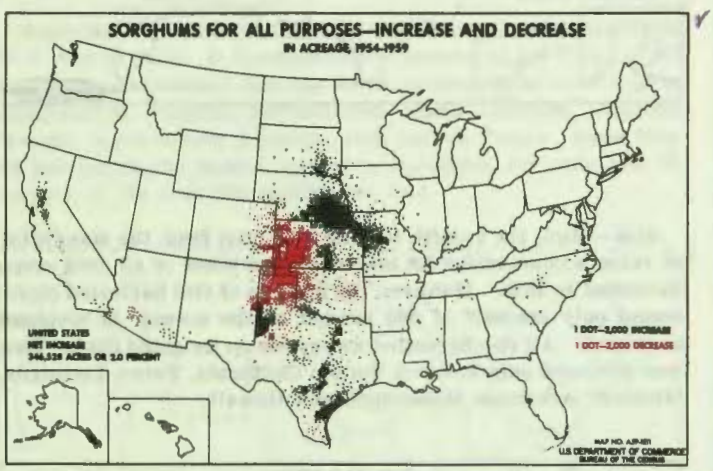


Twenty-seven percent fewer farms produced oats for grain in 1959 than in 1954, and the 26.6 million acres of oats harvested for grain was the smallest acreage reported by any census since 1934. The reduction of 42.7 percent in acreage since 1954 resulted from unfavorable weather conditions in many areas and the replacing of oats with corn, especially in the Corn Belt States, as a result of the removal of corn acreage allotments. The yield per acre, however, was three bushels higher than in 1954 and was the highest yield recorded by any census.

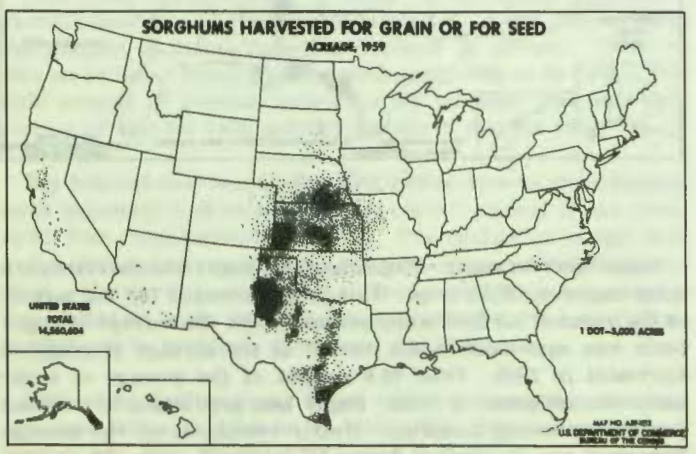


The principal oats producing areas are in the Midwest. The four leading oats producing States of Iowa, Minnesota, Wisconsin, and Illinois produced approximately 55 percent of the bushels of oats harvested in 1959.

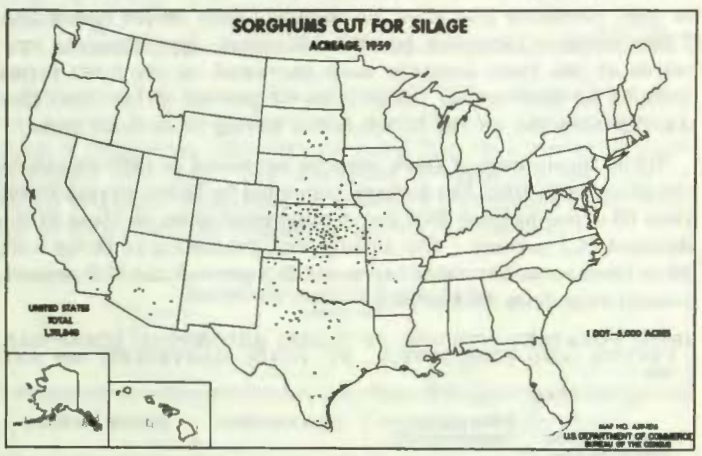
Sorghums.—The 17.9 million acres of sorghums harvested for all purposes in 1959 was the largest acreage ever reported for any census and represents a 2 percent increase over that for 1954. The 1959 acreage of sorghums for all purposes was slightly more than twice that of 1919 and more than 78 percent greater than the 1949 acreage.



The acreage of sorghums for grain or seed in 1959, 14.6 million acres, was the highest reported for any census year. Texas was the leading sorghum producing State with nearly half (46.2 percent) of the total acreage of sorghums harvested for grain. The 1959 production of 508 million bushels of sorghum grain in the United States was more than double the previous census record set in 1954, and nearly 10 times the number of bushels harvested in 1939. The record yield of 34.9 bushels of sorghums for grain per acre was due not only to favorable weather conditions during the growing and harvesting seasons in the Great Plains area where the bulk of the sorghum crop is produced, but also to the increased use of hybrid seed and the increased acreage of sorghums grown under irrigation. While there were large increases in acreage in southern Texas and Nebraska in particular, there were large decreases in acreage in western Kansas, and the panhandles of Oklahoma and Texas.



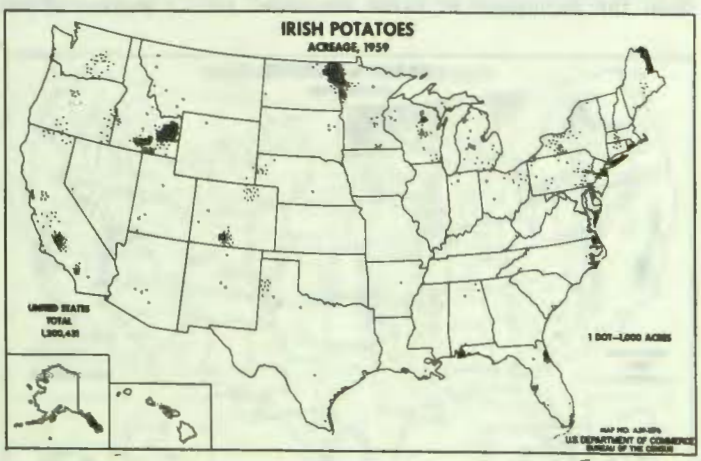
In 1959, more than 81.2 percent of the sorghum crop was harvested for grain. Sorghums for silage, forage, hay and grazing comprised 18.7 percent and sorghums for sirup accounted for 0.1 percent of the total acres. More than 75 percent of the sorghums harvested for grain and seed were sold. The sorghums for hay, silage, and for grazing were, for the most part, fed on the farms on which they were grown.



Sorghums harvested for sirup were harvested on 15,750 farms in 1959. This number was less than 7 percent of the number of farms reporting sorghums for sirup in 1934, while the 1959 acreage was only one-eighth that of 1934.

Irish potatoes.—Irish potatoes, the ninth most important field crop from the standpoint of value, accounted for 3 percent of the value of all field crops harvested, but the acreage represented less than one-half of 1 percent of the acreage of cropland harvested. Approximately 86.5 percent of the 1959 production of Irish potatoes was sold.

The commercial production of Irish potatoes was highly localized. More than a third of the production was concentrated in 11 counties, Aroostook, Maine; Bingham, Booneville, and Minidoka counties, Idaho; Suffolk County, New York; Kern County, California; Grand Forks, Walsh, and Pembina counties, North Dakota; Polk County, Minnesota; and Rio Grande County, Colorado.



The commercial production of Irish potatoes was concentrated in a relatively small proportion of the farms harvesting Irish potatoes.

The three most significant changes in Irish potato production have been: the large reduction in the number of farms growing small quantities of Irish potatoes mainly for home-farm consumption, the concentration of commercial potato production on specialized potato producing farms, and the increase in yield per acre.

In 1959, Irish potatoes were produced on 685 thousand farms. This was less than half the number of farms reporting Irish potatoes in 1954 and less than one-fourth the number of farms reporting Irish potatoes in 1929.

About 70 percent of the farms with Irish potatoes harvested in 1959 produced less than 20 bushels. Only 49,470 farms had 1 acre or more harvested in 1959. However, approximately two-thirds of the Irish potatoes were harvested on the 6,492 farms with 50 or more acres. More than 94 percent of the total production occurred on the 19,988 farms having 10 or more acres.

While the acreage of Irish potatoes harvested in 1959 was about the same as in 1954, the acreage harvested by farms having fewer than 50 acres declined 30.0 percent and production on these farms declined 21.1 percent. The acreage and production of farms with 50 or more acres harvested increased 29.5 percent and 37.3 percent, respectively, from 1954 to 1959.

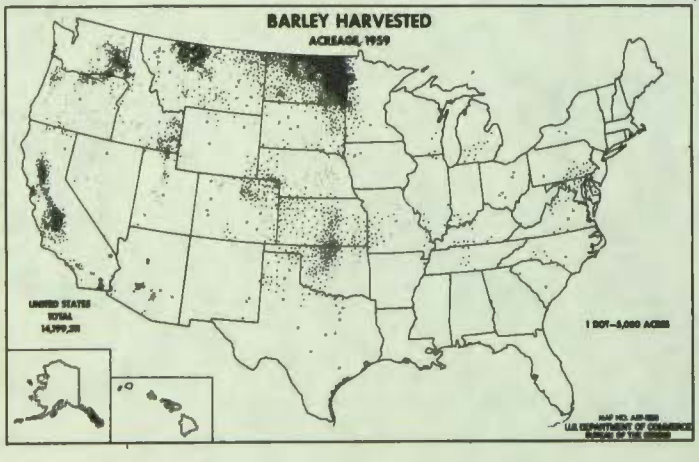
IRISH POTATOES—NUMBER OF FARMS REPORTING, ACRES HARVESTED, AND PRODUCTION, BY ACRES HARVESTED: 1959 AND 1954

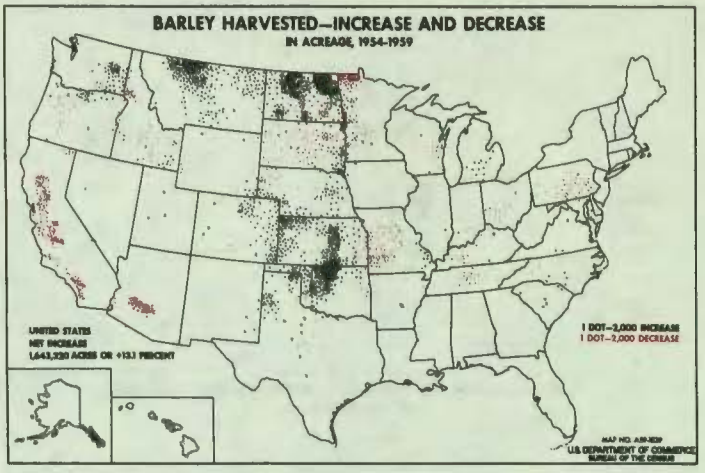
Farms with acres harvested of—	Total number of farms reporting		Acres harvested		Bushels harvested	
	1959	1954	1959	1954	1959	1954
All farms	684,853	1,432,466	1,200,431	1,210,872	373,567,119	340,187,662
Farms with less than 20 bushels harvested	483,806	1,137,507	NA	NA	4,129,803	9,875,982
0.1 to 0.9 acre	151,577	210,387	38,232	64,514	5,244,625	7,648,012
1.0 to 2.9 acres	21,538	44,743	26,870	55,728	3,087,420	5,559,350
3.0 to 9.9 acres	7,944	15,155	41,121	79,069	9,624,487	16,837,326
10.0 to 24.9 acres	7,668	12,359	120,746	188,801	37,394,559	53,255,406
25.0 to 49.9 acres	5,828	6,805	205,765	229,877	66,929,913	67,040,695
50.0 acres or more	6,492	5,510	767,697	592,883	247,156,312	179,970,891

Yield of Irish potatoes was more than 311 bushels per acre in 1959. This was 9 percent higher than in 1954 and more than 2½ times the yield per acre in 1939. Increased use of fertilizer, improved seed and cultural practices, and the concentration of potato production on specialized farms in areas with the most favorable climate and soils for potato production contributed greatly to the increase in yield per acre.

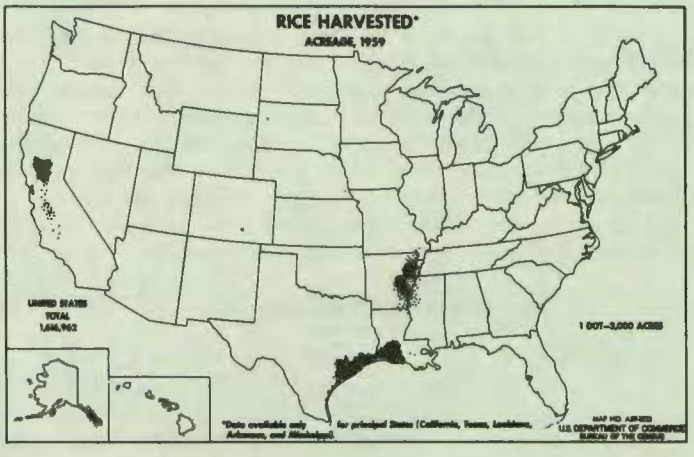
Barley.—In 1959, barley, the eleventh most important field crop from the standpoint of value, accounted for 2.1 percent of the value of all field crops harvested. Approximately 60 percent of the barley crop was harvested in the five States of Montana, North Dakota, Minnesota, Washington, and California. Only 69 percent of the 1959 barley crop was sold.

The acreage of barley harvested in 1959 exceeded that of 1954 by 13 percent and was the largest acreage reported for any census. In 1959, the acreage harvested was 55 percent greater and the quantity harvested was 80 percent greater than for 1949.

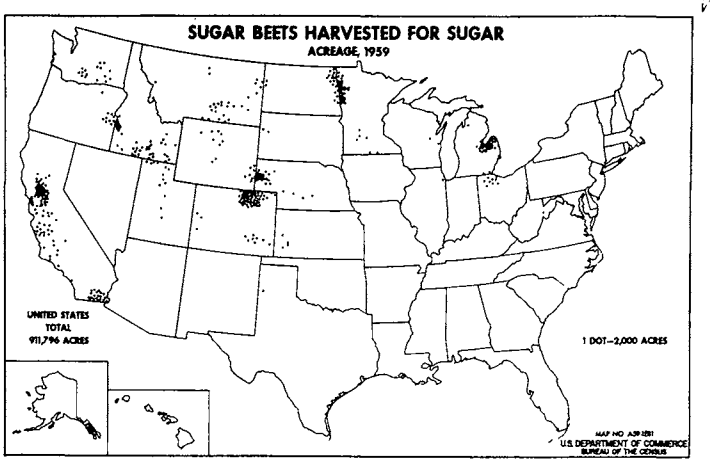




Rice.—Rice, the twelfth leading field crop from the standpoint of value accounted for 1.6 percent of the value of all field crops harvested in 1959. However, the acreage of rice harvested represented only one-half of one percent of the acreage of cropland harvested. All rice harvested was grown on irrigated land. Rice was produced only in seven States: California, Texas, Louisiana, Missouri, Arkansas, Mississippi, and Hawaii.

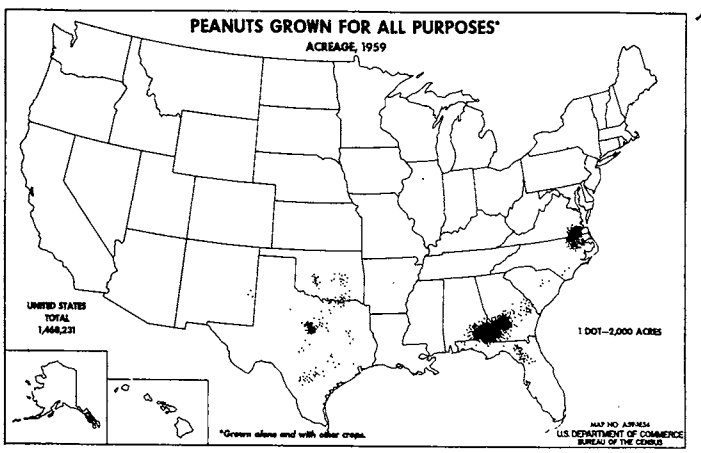


Sugar beets for sugar.—Sugar beets for sugar was the thirteenth most important field crop. This crop accounted for 1.2 percent of the value of all field crops harvested and the acreage of sugar beets was equivalent to 0.3 percent of the acreage of cropland harvested in 1959. Over 76.8 percent of the acreage of sugar beets was irrigated in 1959. Sugar beet production is localized around processing factories. Nearly two-thirds of the acreage harvested was in the five States of California, Colorado, Idaho, Minnesota, and Michigan.



For the last four censuses, the number of farms reporting sugar beets has varied from 23,000 to 31,000. 1959 acreage was 5.5 percent greater than that of 1954, and 37.8 percent greater than that of 1949.

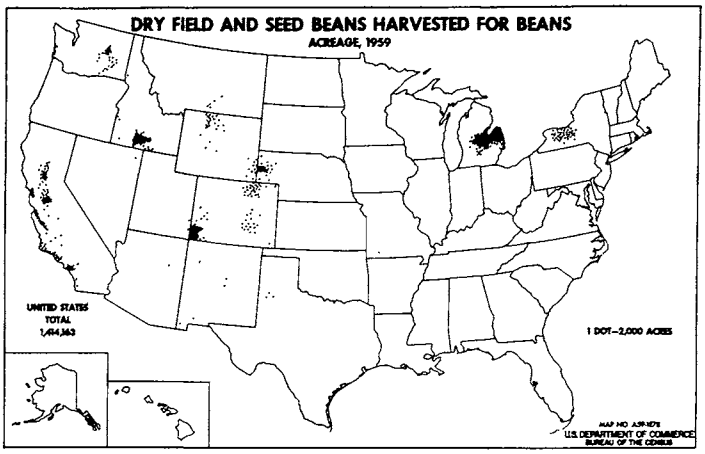
Peanuts.—The peanut crop was the fifteenth most important field crop in 1959. It represented 0.9 percent of the value of all field crops harvested. Peanuts were an important cash crop in southeastern Virginia, northeastern North Carolina, southern Georgia, southeastern Alabama, and eastern Texas. More than 90 percent of the peanut crop was harvested for nuts and 97 percent of the nuts harvested were sold.



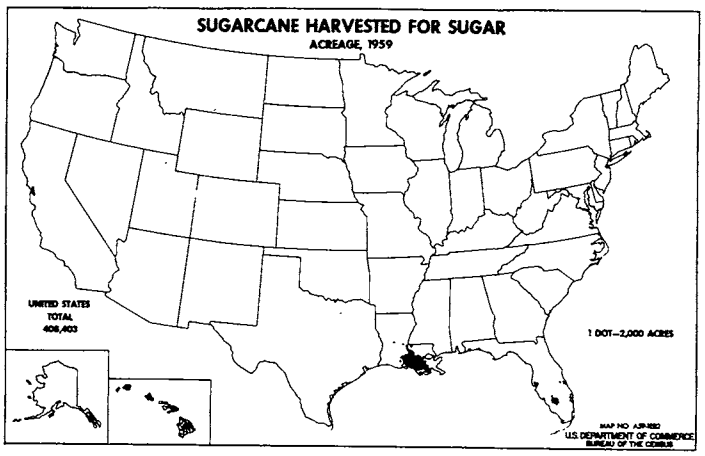
Significant changes have occurred in the number of farms growing peanuts and the acreage harvested. From 1954 to 1959, the number of farms reporting declined 31 percent. Only 46 percent as many farms reported peanuts in 1959 as in 1949. The 1959 acreage of peanuts grown for all purposes was only 86.5 percent of that for 1954, and 53.9 percent of that for 1949.

Dry field and seed beans.—Dry field and seed beans, the sixteenth most important field crop, accounted for 0.9 percent of the value of all field crops harvested in 1959. The production of dry field and seed beans was confined largely to the irrigated valleys of the West. Nearly 47 percent of the acreage in 1959 was harvested from irrigated land. Approximately two-thirds of the production in 1959 was in Michigan, California, and Idaho.

Only about half as many farms reported harvesting dry field and seed beans in 1959 as in 1949. The 1959 acreage was 3 percent less than that for 1954, and 21 percent less than that for 1949.

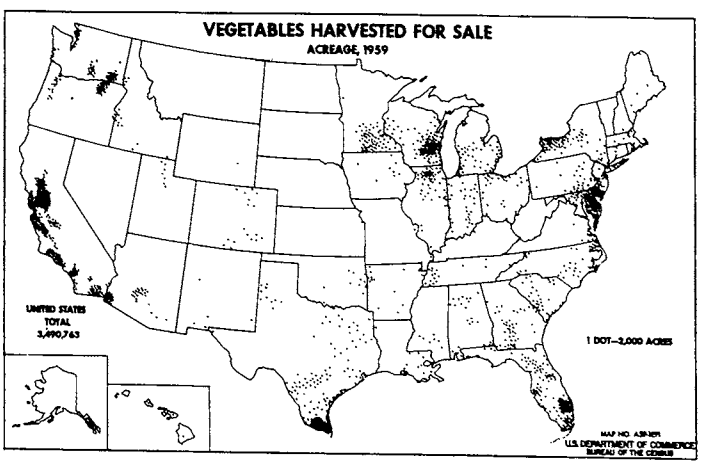


Sugarcane for sugar.—The production of sugarcane for sugar was limited to Hawaii, Louisiana, and Florida. On the basis of value of production, sugarcane for sugar was the seventeenth most important field crop. The production of sugarcane for sugar is highly localized. Sugarcane is grown by a relatively small number of farms and the number of growers is declining.



VEGETABLES

Vegetables harvested for sale.—The value of vegetables harvested for sale totaled $740 million in 1959, represented 5.5 percent of all crops sold, and 2.4 percent of all farm products sold. The 3.5 million acres of vegetables harvested for sale represented 1.1 percent of the acreage of land from which crops were harvested in 1959. On the basis of acreage, the ten leading vegetable crops



in 1959 were sweet corn, tomatoes, green peas, snap beans, watermelons, lettuce and romaine, asparagus, cantaloups and muskmelons, cabbage, and blackeyes and other green cowpeas.

Vegetables for sale are largely grown in specialized areas and on specialized farms. The number of farms growing vegetables has been declining. The number of farms growing vegetables in 1959 was only a third of the number in 1944, and 35 percent less than the number in 1954. The acreage of vegetables harvested for sale grown on irrigated land in the 17 Western States and Louisiana, comprised 32 percent of the acreage of vegetables harvested for sale in 1959 in the United States.

BERRIES AND OTHER SMALL FRUITS

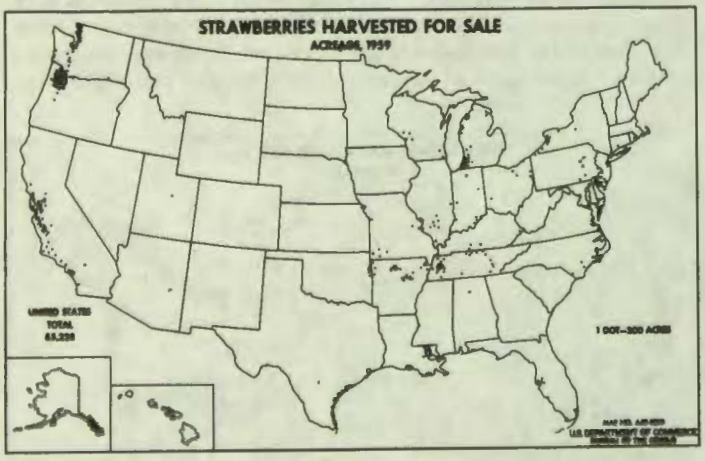
Berries and other small fruits.—Berries and small fruits accounted for less than one-tenth of 1 percent of the value of all crops and of all farm products sold in 1959.

The acreage of berries and small fruits in 1959 was about the same as in 1954, 12 percent less than in 1949, and 40 percent less than in 1939.

The average yields per acre for all berry and small fruit crops with 10,000 or more acres harvested were considerably greater in 1959 than for prior censuses. The yield per acre for 1959 exceeded that for 1954 by 28 percent for strawberries, 35 percent for blackberries and dewberries, 9 percent for raspberries, 6 percent for blueberries, and 30 percent for cranberries.

The value of berries and small fruits in 1959 was 12 percent greater than in 1954, 41 percent greater than in 1949, and more than 136 percent greater than the value in 1939. The increase in value of sales was the result of increased yield per acre as the value per unit of sales varied from 7 to 28 percent lower in 1959 than in the 1954 for strawberries, blackberries, raspberries, and cranberries. The three Western States of California, Oregon, and Washington produced approximately one-half of the value of the berries and small fruits harvested in the United States.

Strawberries were the most important berry and small fruit crop. They accounted for 44 percent of the acreage harvested and 67 percent of the value of all berry and small fruit crops in 1959. The number of farms reporting and the acreage harvested were 16 percent and 6 percent, respectively, greater in 1959 than in 1954. The quantity of strawberries sold in 1959 was 35 percent larger than in 1954 and 66 percent greater than in 1949. More than half of the strawberry crop is produced in California and Oregon. Four States—California, Oregon, Washington, and Michigan—produced 71 percent of the crop in 1959.

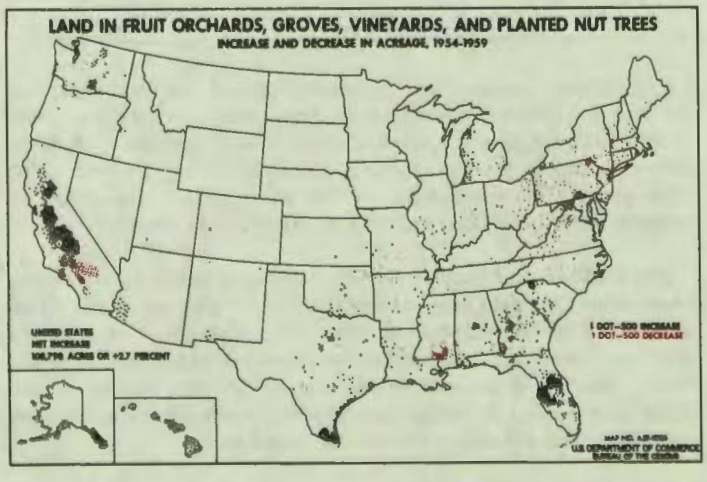


Blueberries were the second most important berry and small fruit crop, accounting for 10 percent of the value of all berries and small fruits sold in 1959. Four States—Maine, New Jersey, Michigan, and North Carolina—accounted for more than 88 percent of the 1959 production.

Cranberries were the third most important berry and small fruit crop in 1959, accounting for slightly less than 10 percent of the value of all berry and small fruit crops sold. The 1959 acreage harvested was only 5 percent greater than that of 1899. Cranberry production has been increasing because of the increase in yield per acre. The yield per acre in 1959 exceeded 1954 by 30 percent and 1949 by 75 percent. The 1959 yield per acre was 250 percent higher than in 1899. The production of cranberries is highly localized. Five counties—Plymouth, Barnstable, and Bristol counties, Massachusetts; Burlington County, New Jersey; and Coos County, Oregon—produced more than 50 percent of the cranberries harvested in 1959.

TREE FRUITS, NUTS, GRAPES, AND COFFEE

Tree fruits, nuts, grapes, and coffee.—Tree fruits, nuts, grapes, and coffee were reported for 319,461, or 8.6 percent, of all farms in 1959. The total acreage reported in bearing and nonbearing fruit orchards, groves, vineyards, and planted nut trees in 1959 for the conterminous United States was 4.1 million acres compared with 4.0 million acres reported in 1954 for a net increase of 3.0 percent. Farms reporting land in fruit trees, nut trees, grapes, and coffee were 25 percent less in 1959 than in 1954.



Largely as a result of the significant increases in the citrus acreages in California, Florida, and Texas, the total acreage of land in orchards, vineyards, and planted nut trees increased approximately 100,000 from 1954 to 1959. Of the States with 20,000 acres or more of land in orchards, vineyards, and planted nut trees in 1954, a decrease of 20 percent or more occurred in seven States. There was a reduction of 27 percent in the number of farms reporting fewer than 20 acres in orchards, vineyards, and planted nut trees and an increase of 5 percent in the number of farms having orchards, etc., of 20 or more acres. Farms with 100 or more acres in orchards increased 19.7 percent from 1954 to 1959.

FARMS REPORTING LAND IN FRUIT ORCHARDS, VINEYARDS, AND PLANTED NUT TREES, BY NUMBER OF ACRES; FOR THE CONTERMINOUS UNITED STATES: 1959 AND 1954

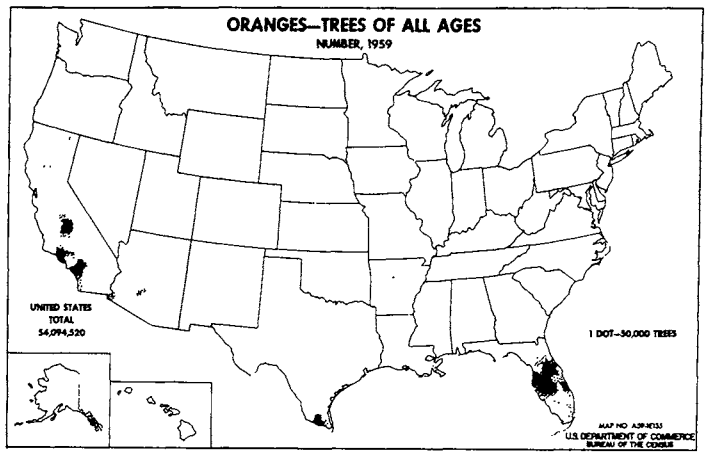
Acres in fruit orchards, vineyards, and planted nut trees	Farms reporting	
	1959	1954
Total farms reporting	332,382	439,104
Under 0.5 acre	35,971	43,447
0.5 to 0.9 acre	41,903	64,604
1.0 to 2.4 acres	112,388	165,690
2.5 to 4.9 acres	33,552	44,653
5.0 to 9.9 acres	33,510	41,855
10.0 to 19.9 acres	29,803	35,684
20.0 to 29.9 acres	13,708	14,320
30.0 to 49.9 acres	14,097	13,688
50.0 to 99.9 acres	10,677	9,504
100.0 or more acres	6,773	5,659
Total acres of land in fruit orchards, vineyards, and planted nut trees	4,185,407	4,062,041

California is the leading fruit-growing State, from the standpoint of both total acreage and variety of fruit produced. More than one-third of the total acreage in fruit orchards, groves, vineyards, and planted nut trees is in California. Other major concentrations are found in central Florida; in the Yakima, Wenatchee, and Okanogan Valleys of Washington; in the Willamette and Hood River Valleys of Oregon; the Lower Rio Grande Valley of Texas; southwestern Mississippi; the eastern shore of Lake Michigan; the southern shores of Lake Erie and Lake Ontario; and the ridge and valley section of the Appalachians in West Virginia, Virginia, Maryland, and south-central Pennsylvania. Many lesser concentrations are also indicated on the accompanying map.

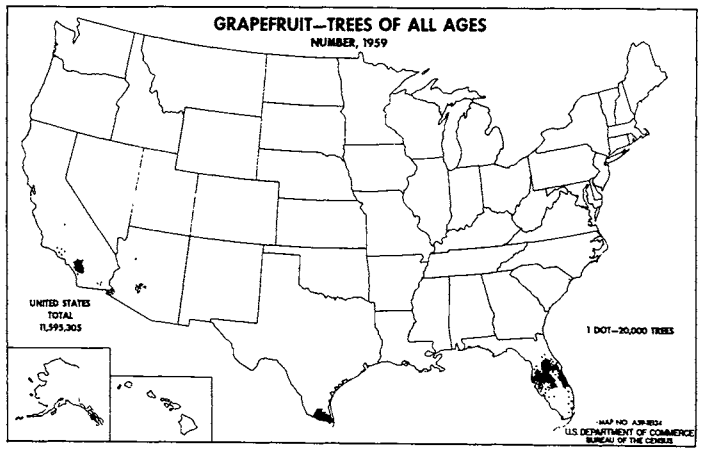
Of the $1,286 million for fruits and nuts, excluding berries and other small fruits, sold in 1959, fruits comprised $1,200 million and nuts $87 million. Citrus fruits accounted for $494 million, or 38.4 percent, of the value of all fruits and nuts sold.

California and Florida led all other States in value of fruits and nuts, excluding berries and other small fruits, sold in 1959 with $551 million and $324 million, respectively. Most of Florida's income from fruits and nuts came from citrus fruits which represented 98.3 percent of the income from fruits and nuts in Florida and 64.5 percent of the value of all citrus fruits sold in the United States.

The leading citrus fruit from the standpoint of value in the United States in 1959 was oranges. Oranges accounted for $396 million, or 79.9 percent, of the value of all citrus fruit production. Grapefruit was second with $55 million, or 11.1 percent, and lemons were third with $42 million, or 8.4 percent, of the value of citrus production in 1959.



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.



The value of tree fruits, nuts, grapes, and coffee produced in 1959 was $1.3 billion and was equivalent to 6.8 percent of the value of all crops produced or equal to $7.22 per capita. There has been a significant increase in the value of tree fruits, nuts, grapes, and coffee produced per capita since 1939.

VALUE OF TREE FRUITS, NUTS, GRAPES, AND COFFEE PRODUCED PER CAPITA, FOR THE UNITED STATES: 1929 to 1959

Year	Value of production at—			
	Current price		1959 price level [1]	
	Total (dollars)	Per capita [2] (dollars)	Total (dollars)	Per capita (dollars)
1959	1,294,892,657	7.22	1,294,892,657	7.22
1949	897,846,514	5.93	861,656,923	5.69
1939	353,859,970	2.68	893,585,782	6.76
1929	591,895,669	5.58	959,312,267	9.05

[1] Computed on basis of index numbers of prices received by farmers for tree fruits, nuts, and grapes as published by the Agricultural Marketing Service, U.S. Department of Agriculture.
[2] Based on population for 1960, 1950, 1940, and 1930.

There are 13 tree fruit, nut, and grape crops, each accounting for 1 percent or more of the total value of tree fruit, nut, grape, and coffee crops harvested in 1959. The value of these 13 crops comprised 96.5 percent of the value of all tree fruit, nut, grape. and coffee crops harvested.

TREE FRUITS, NUTS, GRAPES, AND COFFEE—VALUE OF PRODUCTION FOR THE UNITED STATES: 1959

Crop	Value of production	
	1,000 dollars	Percent distribution
Total all tree fruits, nuts, grapes, and coffee	1,294,893	100.0
Oranges	396,123	30.6
Apples	206,734	16.0
Grapes	164,767	12.7
Peaches	130,452	10.1
Plums and prunes	70,391	5.4
Grapefruit	55,064	4.3
Pears	47,049	3.6
Lemons	41,869	3.2
Cherries	39,004	3.0
Almonds	33,844	2.6
Walnuts (English)	27,135	2.1
Apricots	22,282	1.7
Pecans	14,894	1.2
All other	45,285	3.5

FOREST PRODUCTS

In 1959, woodland or forests occupied 164 million acres or one-seventh of the total land in farms. However, woodland in farms comprised only about one-fifth of the 774 million acres (as reported by U.S. Department of Agriculture) of all woodland and forests in the United States. About three-fourths of the farm woodland is located in the eastern States comprising the Northern and Southern Regions 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 1.9 million farms reporting woodland were, typically, small tracts on poor, rough, or steep land, or they consisted of farm woodlots reserved to meet farm needs. Farmers received $187 million from the sale of forest products from farm forests and woodlots in 1959. This amount excluded the annual values of timber and wood used for farm purposes, the pasturage for livestock, the protection afforded farmlands and farmsteads, and the employment provided by forest-product industries. 487 thousand farms reported approximately 6 million cords of fire or fuel wood cut in 1959. In the States of Vermont, New York, Pennsylvania, Ohio, Wisconsin, and Michigan, the production of 958,449 gallons of maple sirup was reported for 9,059 farms.

LIVESTOCK AND LIVESTOCK PRODUCTS

All livestock and livestock products.—The value of all livestock and livestock products sold in 1959 increased 38.8 percent from 1954 and represented 55.9 percent of the value of all farm products sold. Of the $17.0 billion of livestock and livestock products sold in 1959, dairy products accounted for $4.0 billion, poultry and poultry products accounted for $2.3 billion, and livestock and livestock products (other than dairy and poultry) accounted for $10.8 billion. Cattle and calves represented the highest value of the individual classes of livestock sold with sales of $7.8 billion.

The number of large producers of livestock and livestock products and of poultry and poultry products is increasing rapidly and a substantial part of livestock and poultry production is produced by these large-scale specialized producers. The following data relate only to the 48 States in the conterminous United States.

Item and size of producing farm	Number of farms reporting			
	Total		Percent of farms reporting for item	
	1959	1954	1959	1954
Cattle and calves:				
Farms with 100 head or more on hand	156,684	137,855	5.8	3.8
Farms with 100 or more cattle sold	47,677	32,517	3.1	1.7
Farms with 100 or more calves sold	21,721	15,922	1.3	0.8
Farms with 50 head or more of milk cows	34,491	23,748	1.9	0.8
Hogs and pigs:				
Farms with 100 or more sold	254,523	154,690	10.0	10.8
Sows and gilts:				
Farms with 10 or more farrowing	403,605	368,597	15.4	28.7
Sheep and lambs:				
Farms with 5,000 or more on hand	536	NA	0.2	NA
Chickens 4 months old and over:				
Farms with 3,200 or more on hand	14,604	6,480	0.7	0.2
Eggs:				
Farms with 5,000 or more dozens sold	104,776	81,878	9.8	4.9

NA Not available.

The disappearance of small herds and flocks accounted for most of the decrease in the number of farms reporting livestock and poultry from 1954 to 1959. About 72 percent of the decline in the number of farms reporting cattle and calves was accounted for by the decline in the number of farms with fewer than 10 cattle and calves. Likewise, the decline in the number of farms with fewer than 10 milk cows accounted for 88 percent of the decrease in farms reporting milk cows from 1954 to 1959.

Cattle and calves.—Of the 51 million head of cattle and calves sold in 1959, 29 million were cattle and 22 million were calves. The more concentrated areas of production were in the West North Central Division—especially the States of Iowa, Illinois, Kansas, and Nebraska.

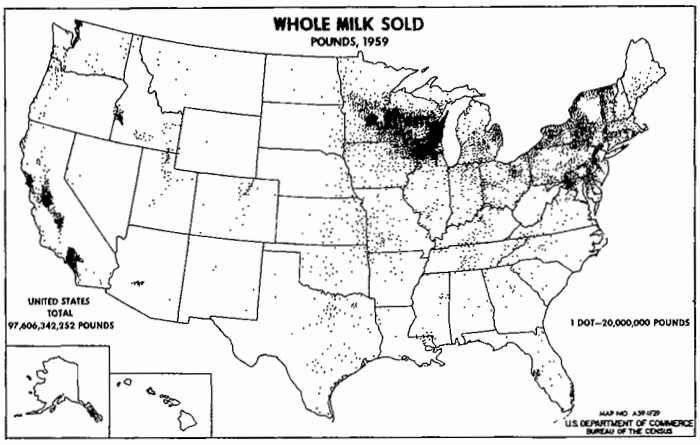
Dairy products.—The quantity of milk sold and the number of cattle and calves sold have increased significantly during the last 20 years. However, the number of farms reporting the sale of whole milk declined 18 percent from 1954 to 1959. The number of farms reporting whole milk sold in 1959 was only 66 percent of the number in 1944.

FARMS REPORTING, NUMBER OF MILK COWS, WHOLE MILK SOLD, AND CREAM SOLD, FOR FARMS CLASSIFIED BY NUMBER OF MILK COWS FOR THE CONTERMINOUS UNITED STATES: 1929 TO 1959

Size of herd (number of milk cows)	Farms reporting				Number of milk cows		Whole milk sold (pounds)		Cream sold as butterfat (pounds)	
	1959	1954	1939	1929	1959	1939 [1]	1959	1939	1959	1939
Under 30 milk cows	1,712,315	2,862,204	4,622,823	4,583,802	10,581,928	20,017,012	50,012,315,331	35,883,820,615	246,587,889	1,053,388,999
30 to 49 milk cows	89,315	70,948	30,520	24,307	3,245,774	1,080,887	24,281,658,316	5,442,058,345	5,613,717	21,271,239
50 to 74 milk cows	22,336	15,034	6,363	4,935	1,299,276	367,055	9,729,130,531	2,006,722,719	387,479	7,163,361
75 to 99 milk cows	5,604	3,992	1,728	1,276	483,192	144,264	3,571,699,278	840,489,954	238,314	3,140,744
100 or more milk cows	6,551	4,722	1,997	1,209	1,197,522	327,338	9,888,822,132	2,055,416,314	851,382	5,297,143

[1] Number of cows milked.

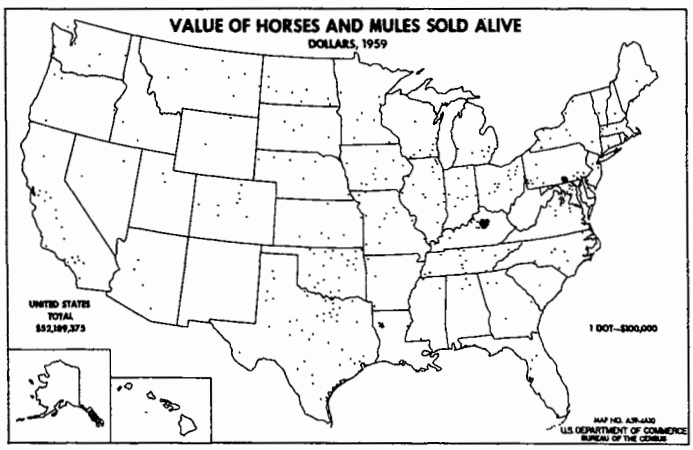
In 1939, farms with 30 or more milk cows accounted for approximately one-seventh of all the whole milk and cream sold while in 1959 they accounted for almost half. The number of farms with 50 or more milk cows increased 45 percent from 1954 to 1959 and the proportion of all whole milk sold by such farms increased from about 16 percent in 1954 to 24 percent in 1959.



Hogs.—There has been a trend to fewer farms producing more hogs and pigs per farm and more total hogs in recent years. Hogs and pigs sold in 1959 had a value of $2,432 million which represented 14.3 percent of the value of all livestock and livestock products sold. Since 1954 the number of farms reporting sales of hogs and pigs alive has dropped 16 thousand, or 11.5 percent, while the number of hogs sold has increased 23 million, or 40.8 percent.

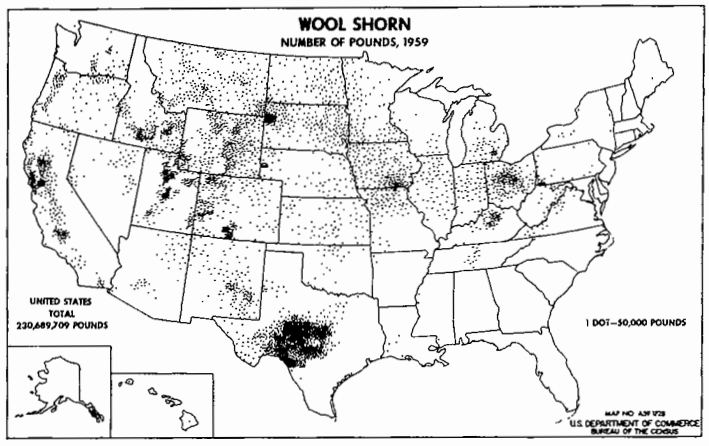
Hogs sales are concentrated in the Corn Belt States. Iowa led all other States in number of hogs sold with approximately 19 million, or 23 percent, of all hogs sold in the United States in 1959.

Horses and mules.—There were about 1.1 million farms reporting 3.0 million horses and mules on hand in the United States in 1959. However, fewer farms than this sold horses and mules. In 1959, for the conterminous United States, 92,996 farms reported sales of 248,122 horses and mules with a total value of $52.1 million. This is compared to 115,477 farms selling 251,585 horses and mules for a total value of $25.0 million in 1954.



Sheep and lambs.—Sheep and lambs were sold chiefly from the western States of Texas, Colorado, California, Montana, and Wyoming. Many of the lambs were shipped to feeding districts in irrigated areas of the West and to the Corn Belt for further growth and fattening. The six leading States on the basis of the number sold were Texas, Colorado, Wyoming, California, South Dakota, and Iowa.

Wool.—Over 230 million pounds of wool was shorn in the conterminous United States in 1959. This is up 9.4 percent from 211 million pounds in 1954.



Texas led all other States in wool shorn with 18.4 percent of the production or over 42 million pounds in 1959. The rest of the wool production was distributed among several States.

By geographic divisions the Mountain Division led all others with over 81 million pounds of production. Other important geographic divisions were the West North Central with 49 million pounds and the West South Central with 45 million pounds (most of which was from Texas).

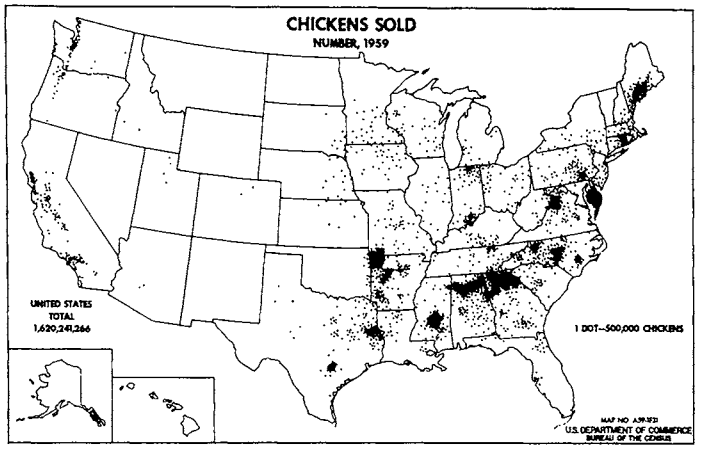
Poultry.—The production of poultry and poultry products has become highly commercialized and there has been a striking increase in specialization in poultry production during the last 5 years. From 1954 to 1959, the number of turkeys raised increased 31 percent and the number of eggs and broilers sold increased 25 percent and 78 percent, respectively. In 5 years, the number of farms reporting turkeys raised declined 49 percent and the number of farms reporting sales of eggs and broilers decreased 37 percent and 15 percent, respectively.

The production of most poultry products is now concentrated on a relatively small number of commercial poultry farms. The 103,046 commercial poultry farms obtaining a half or more of the value of all farm products sold from the sale of poultry and poultry products accounted for 97 percent of the broilers sold, 56 percent of the eggs sold, and 93 percent of the turkeys raised in 1959. The 4,949 commercial poultry farms, with 6,400 or more chickens 4 months old and over accounted for over one-fifth of all the eggs sold in 1959. The 15,370 commercial poultry farms with sales of 30,000 or more broilers each accounted for 74 percent of all broilers sold in 1959. The 4,746 commercial poultry farms reporting the raising of 3,200 or more turkeys each in 1959, accounted for 88 percent of all turkeys raised in 1959.

From 1949 to 1959, the number of farms reporting chickens sold declined more than half.

For the United States, 56 percent of the farms reporting chickens had flocks of fewer than 50 chickens 4 months old and over in 1959. However, these farms account for less than 8 percent of the chickens on hand, and the average number of chickens 4 months old and over on these farms was only 23 in 1959.

Of the 1.2 million farms having fewer than 50 chickens on hand, almost 1 million reported no eggs sold in 1959. Less than 3 percent of the farms reporting chickens had 800 or more chickens on hand in 1959, but these farms had 51 percent of the chickens and produced 61 percent of the eggs sold in 1959. Commercial poultry farms having 6,400 or more chickens 4 months old or over on hand, marketed 39 percent of the eggs sold from commercial poultry farms in 1959. The number of farms having flocks of 3,200 or more chickens 4 months old and over doubled from 1954 to 1959. These farms had 35 percent of all chickens 4 months old and over on all commercial farms in 1959. Farms having flocks of 3,200 or more sold 38.6 percent of the eggs in 1959 as compared with only 17.6 percent in 1954.



FARMS REPORTING CHICKENS ON HAND AND DOZENS OF EGGS SOLD, AND NUMBER FOR ALL COMMERCIAL FARMS BY SIZE OF FLOCK: 1959 AND 1954

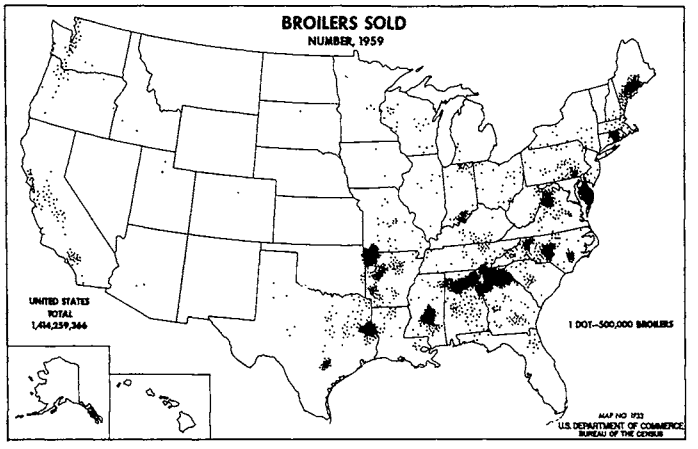
Item		All farms, total	Size of flock (number of chickens 4 months old and over on hand)			
			Under 100	100 to 799	800 to 3,199	3,200 or more
Chickens 4 months old and over on hand:						
Farms reporting	1959	1,452,053	912,971	476,471	46,795	15,816
	1954	2,406,338	1,506,434	850,472	42,276	7,156
Percent distribution	1959	100.0	62.9	32.8	3.2	1.1
	1954	100.0	62.6	35.3	1.7	0.3
Number on hand (000)	1959	329,156	29,950	115,232	70,540	113,434
	1954	340,498	52,306	186,904	60,031	41,257
Percent distribution	1959	100.0	9.1	35.0	21.4	34.5
	1954	100.0	15.4	54.9	17.7	12.1
Eggs sold:						
Farms reporting	1959	840,626	303,153	475,141	46,667	15,665
	1954	1,391,734	525,782	817,009	41,848	7,095
Percent distribution	1959	100.0	36.1	56.5	5.5	1.9
	1954	100.0	37.8	58.7	3.0	0.5
Dozens sold (000)	1959	3,416,338	125,967	1,116,273	823,084	1,351,014
	1954	2,663,454	162,014	1,405,910	628,045	467,485
Percent distribution	1959	100.0	3.7	32.7	24.1	39.5
	1954	100.0	6.0	52.9	23.6	17.6

Broilers.—Farms reporting broilers sold decreased from 50,094 in 1954 to 42,045 in 1959; however, the number of broilers sold increased from 796 million to 1,419 million during the same period. The number of farms reporting fewer than 16,000 broilers sold decreased by over 53 percent from 1954 to 1959. Farms with 60,000 or more broilers sold increased from 1,687 in 1954 to 6,100 in 1959. These 6,100 farms, each with 60,000 or more broilers sold, accounted for almost half of all broilers sold in 1959.

FARMS REPORTING AND NUMBER OF BROILERS SOLD BY NUMBER OF BROILERS SOLD PER FARM: 1959 AND 1954

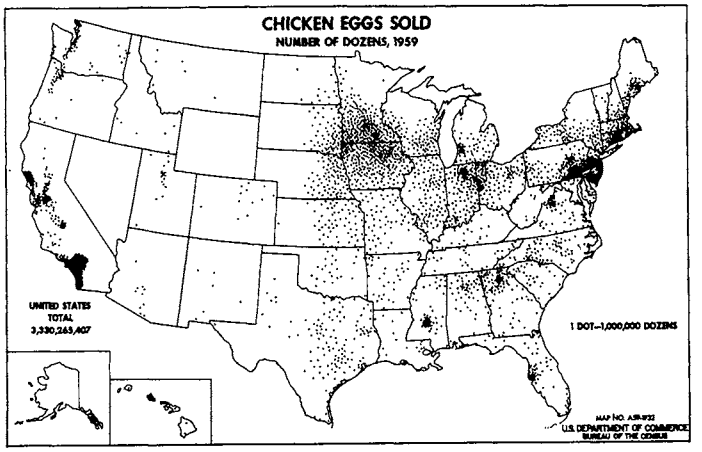
Farms reporting number of broilers sold as—	Farms reporting				Number of broilers sold	
	Total		Percent distribution		1959 (1,000)	1954 (1,000)
	1959	1954	1959	1954		
All farms, total	42,045	50,094	100.0	100.0	1,418,877	796,207
Under 2,000	869	5,541	2.1	11.1	1,126	NA
2,000 to 3,999	2,371	7,062	5.6	14.1	6,448	NA
4,000 to 7,999	4,459	9,400	10.6	18.8	25,213	NA
8,000 to 15,999	8,336	12,483	19.8	24.9	96,649	NA
16,000 to 59,999	19,910	13,921	47.4	27.8	606,903	NA
16,000 to 29,999	10,332	NA	24.6	NA	222,851	NA
30,000 to 59,999	9,578	NA	22.8	NA	384,052	NA
60,000 or more	6,100	1,687	14.5	3.4	682,538	NA
60,000 to 99,999	3,846	NA	9.1	NA	277,389	NA
100,000 or more	2,254	NA	5.4	NA	405,149	NA

NA Not available.



A large proportion of the broilers sold are produced on a relatively few specialized poultry farms. Only 42,045 farms reported broilers sold in 1959. Of these, 37,298, or 89 percent, were commercial poultry farms and 97 percent of all broilers sold in 1959 were from these farms. Over 28 percent of the broilers were sold from 2,222 commercial poultry farms, each selling 100,000 or more broilers in 1959.

Eggs.—Approximately one-half of the farms with chickens did not report any eggs sold in 1959. Of the 1.1 million farms selling eggs, 598,317, or 54 percent, sold less than 800 dozens and accounted for less than 4 percent of all eggs sold. The 31,285 farms, each selling 20,000 or more dozens of eggs, comprised less than 3 percent of the farms selling eggs, but reported 52 percent of all eggs sold. The 11,782 farms, each selling 50,000 or more dozens, reported 36 percent of all eggs sold.



Turkeys.—Only half as many farms reported turkeys raised in 1959 as in 1954. The number of turkeys raised in 1959 was 80.4 million compared with 62.8 million in 1954, and 36.4 million in 1949. Of the 88,273 farms raising turkeys, 72,791 raised less than 50 turkeys each in 1959. The average number of turkeys raised per farm for these farms was 9.4. The 6,595 farms raising 1,600 or more turkeys in 1959 accounted for 96 percent of all the turkeys raised. The 2,144 farms with 10,000 or more turkeys raised in 1959 accounted for 70 percent of all turkeys raised and the average number of turkeys raised per farm for these farms was 26,252.

FARMS REPORTING AND NUMBER OF TURKEYS RAISED FOR ALL FARMS CLASSIFIED BY NUMBER RAISED: 1959 AND 1949

Farms reporting number of turkeys raised as—	Farms reporting				Number raised	
	Total		Percent distribution		1959 (1,000)	1949 (1,000)
	1959	1949	1959	1949		
All farms, total	88,273	162,244	100.0	100.0	80,392	36,438
Under 50	72,791	121,036	82.5	74.6	684	NA
50 to 399	6,662	27,367	7.5	16.9	792	NA
400 to 799	1,034	4,132	1.2	2.5	550	NA
800 to 1,599	1,191	3,566	1.3	2.2	1,370	NA
1,600 or more	6,595	6,143	7.5	3.8	76,996	NA
1,600 to 3,199	1,475	NA	1.7	NA	3,563	NA
3,200 to 9,999	2,976	NA	3.4	NA	17,148	NA
10,000 or more	2,144	NA	2.4	NA	56,285	NA

NA Not available.